AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

S. HRG. 119–36

IMPROVING THE FEDERAL ENVIRONMENT REVIEW AND PERMITTING PROCESS

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

ONE HUNDRED NINETEENTH CONGRESS

FIRST SESSION

FEBRUARY 19, 2025

Printed for the use of the Committee on Environment and Public Works



Available via the World Wide Web: http://www.govinfo.gov

IMPROVING THE FEDERAL ENVIRONMENT REVIEW AND PERMITTING PROCESS

S. HRG. 119–36

IMPROVING THE FEDERAL ENVIRONMENT REVIEW AND PERMITTING PROCESS

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

ONE HUNDRED NINETEENTH CONGRESS

FIRST SESSION

FEBRUARY 19, 2025

Printed for the use of the Committee on Environment and Public Works



Available via the World Wide Web: http://www.govinfo.gov

U.S. GOVERNMENT PUBLISHING OFFICE

59–857 PDF WASHINGTON : 2025

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED NINETEENTH CONGRESS
FIRST SESSION

SHELLEY MOORE CAPITO, WEST Virginia, *Chairman*

KEVIN CRAMER, North Dakota
CYNTHIA M. LUMMIS, Wyoming
JOHN R. CURTIS, Utah
LINDSEY O. GRAHAM, South Carolina
DAN SULLIVAN, Alaska
PETE RICKETTS, Nebraska
ROGER WICKER, Mississippi
JOHN BOOZMAN, Arkansas
JON HUSTED MORGAN, Ohio

SHELDON WHITEHOUSE, Rhode Island,
Ranking Member
BERNARD SANDERS, Vermont
JEFF MERKLEY, Oregon
EDWARD J. MARKEY, Massachusetts
MARK KELLY, Arizona
ALEX PADILLA, California
ADAM B. SCHIFF, California
LISA BLUNT ROCHESTER, Delware
ANGELA ALSOBROOKS, Maryland

ADAM TOMLINSON, *Republican Staff Director*
DAN DUDIS, *Democratic Staff Director*

C O N T E N T S

Page

FEBRARY 19, 2025

OPENING STATEMENTS

Capito, Hon. Shelley Moore, U.S. Senator from the State of West Virginia 1
Whitehouse, Hon. Sheldon, U.S. Senator from the State of Rhode Island 3

WITNESSES

Harrell, Jeremy, CEO, Clearpath 5
Prepared statement 8
Responses to additional questions from Senator Wicker 16
Responses to additional questions from Senator Whitehouse 18
Responses to additional questions from Senator Markey 19
Pilconis, Leah, General Counsel, The Associated General Contractors of America 21
Prepared statement 23
Responses to additional questions from Senator Wicker 38
Responses to additional questions from Senator Whitehouse 38
Responses to additional questions from Senator Markey 39
Harris, Carl, Chairman of the Board, National Association of Home Builders . 40
Prepared statement 42
Responses to additional questions from Senator Wicker 56
Responses to additional questions from Senator Whitehouse 57
Booker, Brent, General President, Liuna Action Network 60
Prepared statement 63
Responses to additional questions from Senator Whitehouse 69
Responses to additional questions from Senator Wicker 70
Pavia, Nicole, Director, Clean Energy Infrastructure Deployment, Clean Air Task Force 71
Prepared statement 73
Responses to additional questions from Senator Whitehouse 88
Responses to additional questions from Senator Markey 99

ADDITIONAL MATERIAL

Associated Builders and Contractors 243
National Mining Association 246
Waters Advocacy 250
Western Governors Association 254
Family Farm Alliance 258
Merced Irrigation District 266
Portland Cement Association 270
Border Trade Alliance 274
Pacific Northwest National Laboratory, Planning and Development Pathways to Interregional Transmission 279
Pacific Northwest National Laboratory 331
Association of American Railroads 336
NESARC, National Endangered Species Act Reform Coalition 338
PPI Radically Pragmatic, Building the World's Most Advanced Energy Economy: A More Ambitious Approach to American Energy Permitting Reform .. 340
AGC, The Construction Association 469
Hunton Andrews Kurth 475

Page

Paul Noe, The American Forest & Paper Association and American Wood Council 495
American Forest & Paper Association 498
Texas Department of Transportation 525
CASA, California Association of Sanitation Agencies 556
National Governors Association 560
The National Hydropower Association, Inc. 563
Advocates for Climate Innovation 573
GDOT, Georgia Department of Transportation 579
INGAA, Interstate National Gas Association of America 590
NRECA, America's Electric Cooperatives 595
AASHTO, American Association of State Highway and Transportation Officials 598
American Chemistry Council 608
ACI, Airports Council International 610
AGA, American Gas Association 614
API, American Petroleum Institute 648
APTA, American Public Transportation Association 651
Bipartisan Policy Center 660
Wall Street Journal, James L. Connaughton; A Simply Way to Cut NEPA's Red Tape 748
Energy Environment Program 750
Statement of James L. Connaughton 761
Power Delayed: Economic Effects of Electricity Transmission and Generation Development Delays 783
Environmental Policy Innovation Center 792
Resource Development Council 802
The Nature Conservancy, Improving the Environmental Permitting Process for Clean Energy Infrastructure 808
ACC, American Coalition Action 894
ACEC, American Council of Engineering Companies 896
American Clean Power Association 898
David E. Adelman, Dispelling the Myths of Permitting Reform and Identifying Effective Pathways Forward 907
Department of Transportation United States of America, Modernizing NEPA Challenge 925
American Lung Association 961
American Rivers 964
Carnegie Mellon University 1013
Center for Biological Diversity 1014
CBrain the Process Company 1023
Carbon Capture Coalition 1027
Climate Justice Alliance 1032
Climateworks 1039
Carbon Management Alliance 1041
Carbon Removal Alliance 1049
Citizens for Responsible Energy Solutions 1052
Data Center Coalition 1076
Environmental Defense Fund 1101
EEI, Edison Electric Institute 1112
FCHEA, Fuel Cell & Hydrogen Energy Association 1117
Geothermal Rising Policy 1123
Humane World for Animals & Humane World Action Fund 1132
IFAW, International Fund for Animal Welfare 1135
Institute for Policy Studies 1137
NABTU, North America's Building Trades Unions 1141
NACO, National Association of Counties 1142
National Association of Flood and Stormwater Management Agencies 1146
NEPAcess, University of Arizona 1152
Newmont 1161
NGSA, Natural Gas Supply Association 1164
National Wild Turkey Federation 1176
Mary O'Brien, Permitting Reform Experiences 1182
Oceantic Network 1184
PacifiCorp 1187
Pattern 1200
Dena Horton, Deputy Director, Pacific Northwest Waterways Association 1205

Page
Southern California Edison 1208
SEIA, Solar Energy Industries Association 1212
SELC, Southern Environmental Law Center 1216
Nature Sustainability, Environmental Impact Assessments not the Main Barrier to Timely Forest Management in the United States 1219
Nature Portfolio 1224
The Wilderness Society 1227
U.S. Chamber of Commerce 1235
USET, Sovereignty Protection Fund 1238
Vaulted Deep 1242
WEACT For Environmental Justice 1244
Building Transmission to Securea Clean & Equitable Electricity Grid 1254
Community Engagement Brief 1260
Testimony of Susan M. Brown, Western Environmental Law Center 1273
T. Lane Wilson, Senior Vice President and General Counsel, Wiliams 1281
Zeta, Zero Emission Transprotation Association 1284
Acore, American Council of Renewable Energy 1286
Setting the Record Straight on Florida's 404 Program 1299
Letter of Support for Restoring America's Everglades 1302
NEI, Nuclear Energy Institute 1305

IMPROVING THE FEDERAL ENVIRONMENTAL REVIEW AND PERMITTING PROCESS

WEDNESDAY, FEBRUARY 19, 2025

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

U.S. Senate Committee on Environment and Public Works Washington, DC.

The committee met, pursuant to notice, at 10:18 a.m. in room 406, Dirksen Senate Office Building, Hon. Shelley Moore Capito (chairman of the committee) presiding.

Present: Senators Capito, Whitehouse, Cramer, Lummis, Curtis, Ricketts, Wicker, Husted, Merkley, Kelly, Padilla, Schiff, Blunt Rochester, Alsobrooks.

OPENING STATEMENT OF HON. SHELLEY MOORE CAPITO, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator CAPITO. Good morning. Welcome. Sorry I didn't get to shake your hands. I will do that as we move through. I apologize for being a few minutes late.

I want to start with my opening statement, then I will go to the Ranking Member, then we will have our witnesses. Good morning again, and thank you all for being here. It is very nice for you to come on such a critical issue to our Nation's future, the need to modernize our Federal environmental review and permitting processes, something we have talked about endlessly, both to grow our economy and also to improve our environmental stewardship. I am really excited about this hearing.

Our witnesses will share their valuable perspectives and set the stage for the EPW committee's work on this important topic. To ensure we take a holistic view of these issues, we will keep this morning's hearing record open until March 21st to give all stakeholders the opportunity to share their experiences with the existing environmental review and permitting processes, identify challenges, and then, hopefully, to suggest potential solutions.

For too long, critical projects such as energy and infrastructure projects, along with industrial projects as well, have been trapped in a cycle of redundant reviews, shifting goalposts, and regulatory uncertainty. In my home State of West Virginia, I have seen firsthand how these drive up costs, these delays, not just for the projects, but for the American families who are paying for more energy, housing, and food as a result.

Meanwhile, businesses lack the certainty necessary to make long-term investments, which can mean lost jobs, missed economic opportunities for communities, scarcity, and higher prices across the Nation. It can also mean that the projects needed to deploy renewable energy technologies, or to restore the environment, are also stilted.

The framework for our environmental review and permitting processes is grounded in landmark laws under this committee's jurisdiction. NEPA requires Federal agencies to consider environmental impacts on federally funded projects or before implementing their project.

Other environmental and resource laws like the Clean Water Act, the Clean Air Act, and the Endangered Species Act rely on permits and operational requirements to ensure that critical projects are able to come to fruition in environmentally responsible ways. However, years of changes in guidance and regulations from administration to administration and a complex web of judicial rulings have resulted in an ever-expanding hodge-podge of often duplicative and contradictory requirements.

While this confusing and complex body of administrative and common law has grown over the past half century, Congress has not stepped in to provide the holistic clarifications and modernizations. In the absence of congressional action, certain parties have found creative ways to use the judicial process to delay, remand, or strike down projects and raise costs to discourage project sponsors from moving forward.

As a result, environmental review and permitting processes have increased costs and delayed or stopped projects, including projects that would help achieve the goals in our environmental laws.

Last week, the House Transportation and Infrastructure Committee heard testimony from Nucor about how the need to obtain a Clean Water Act permit triggered significant delays based on required reviews under the Endangered Species Act and the National Historic Preservation Act. These permitting delays nearly thwarted what will be among the most environmentally friendly steel production facilities in the world, and that will employ over 1,000 people in Mason County, West Virginia.

It literally took an act of Congress to permit the Mountain Valley Pipeline to move clean natural gas from West Virginia to our southern neighbors, and I am sure they are loving it today, as the temperatures are dipping. I heard it is 2 degrees in Austin and it is snowing to beat the band in West Virginia right now. So it is cold everywhere.

What is it in North Dakota?

Senator CRAMER. It is 47 below.

Senator CAPITO. Forty-seven below, OK.

[Laughter.]

Senator CAPITO. Sorry, Austin, you just got tripped.

Corridor H and Coalfields Expressway, two top highway priorities for the State of West Virginia that would improve safety and mobility, have both encountered multiple permitting delays under various environmental statutes. West Virginia water line extensions, broadband projects, bridge replacements, have all faced Fed-

eral permitting delays, and I am sure my State is not unique. The problems we will explore today have been brewing for decades.

However, this Congress, we have an opportunity, I think, to deliver meaningful, bipartisan legislation that addresses these problems. I am committed to working with Ranking Member Whitehouse, our colleagues on the Energy and Natural Resources Committee, and those House committee counterparts to produce a bill with meaningful reforms.

Durable and implementable environmental review and permitting process reform must be bipartisan to be successful. My guiding principles for this effort are straightforward: the legislation that we develop must help all types of projects, not just politically favored projects or projects that will support the infrastructure needs of some Americans but not others. We must provide clarity and transparency in the processes.

Finally, our legislation needs to look at every stage of these processes to find efficiencies while balancing public health, the environment, and the needs of our economy. Let me be clear: modernizing these processes does not mean cutting corners or weakening environmental and public health protections. It means making the processes more efficient, more predictable, and more transparent so that the processes are not stuck in bureaucratic purgatory or endless litigation.

Hardworking Americans, small businesses, and entrepreneurs want a government that works for them, not one that keeps them waiting for the benefits that many of the projects promise to bring in their communities and household budgets.

So I look forward to the discussion today, and learning about our witnesses' experience. I am hopeful that we can hear some consensus on the issues that this committee must focus our attention, so we can develop our legislation.

With that, I look forward to hearing from our witnesses today and beginning the effort together to deliver real solutions for the American people.

And I now yield to the Ranking Member, Senator Whitehouse.

OPENING STATEMENT OF HON. SHELDON WHITEHOUSE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator WHITEHOUSE. Thank you, Chairman. Off we go again, on this bipartisan journey to catch the elusive white whale, permitting reform.

[Laughter.]

Senator WHITEHOUSE. This hearing's witnesses will highlight the challenges people face building a variety of projects. But as Chair Capito said, we want more. We will keep our record open for that month to hear from all other interested stakeholders about their experiences and their recommendations. Help us find where you have encountered barriers and what solutions have worked well.

We also know that permitting reform is not exclusive to our committee, so the Chair and I are already engaged with our colleagues in the Energy and Natural Resources Committee and in the House.

A word of warning, however: Democrats cannot agree to any permitting reform unless and until the Trump administration ends its lawless disregard for congressional authority and judicial orders.

Billions in obligated funds remain frozen behind a fog bank of silent executive contumacy in blatant disregard of constitutional separation of powers, direct court orders, and basic principles of law.

I have to note, as a former U.S. Attorney, I am particularly disgusted with DOJ, where things are so bad that deeply conservative career prosecutors have resigned rather than carry out corrupt orders from Trump cronies. But it is everywhere, and it is hurting people and projects.

Until the administration shows that it will honor its oath to faithfully and impartially execute the laws, we can have zero confidence that any legislative compromise on permitting reform will be executed lawfully. It falls to my Republican friends to bring this lawless unconstitutional madness to an end. And I wish them good luck on that.

On energy, we have particular reason to doubt the Trump administration will faithfully execute any permitting law we pass. The President has declared a fake energy emergency, despite record production in America; and defined energy to exclude renewables, the fastest growing energy sector, all after receiving, minimum, $100 million from fossil fuel donors.

We are deep into a political quid pro quo, bought by the world's biggest polluters, and China is chortling at the spectacle.

I don't see a path to getting a bill until this lawlessness stops, and I don't see a path for a bill that excludes offshore wind, an industry with great jobs, huge growth potential, and a supply chain that already extends into 40 States. The men and women building these projects do not want them stopped, as General President Booker can attest. Coastal States don't want them stopped. Leasing has occurred in Federal waters off nearly every coastal State. Nor do the industries that support offshore wind, the Louisiana shipyards, the Midwest factories, the ports like Quonset, generating economic growth across our Country. Neither do consumers, who overwhelmingly want cheaper, cleaner, and more reliable energy.

Why would we want to pull America out of the clean energy race when investment last year topped $2 trillion, far exceeding investment in fossil fuels? What fools we would be. If you want a future driven by Chinese innovation, Chinese industry, and Chinese power, keep it up. But you can't change the fact that the future of energy is clean, and that if we are not part of it, we will be left behind.

The North American Electric Reliability Corporation, NERC, projects that peak demand will grow by 15 percent for summer peaks and 18 percent for winter peaks over the next 10 years, raising concerns about energy shortfalls, as our Chair has pointed out in prior hearings. What would reduce the risk of those shortfalls? Better permitting.

We need to build out a grid to meet current and future demand. Seventy percent of transmission lines are more than 25 years old, and showing their age. We know what we need to do. We need to build, and fast.

Right now, thousands of electricity generation projects are awaiting approval to connect to the grid. As of last April, 2.6 terawatts, millions of engineering, construction and manufacturing jobs,

stalled in part, because of our inability to build transmission lines. This must change.

As I said last week, we have entered the era of climate consequences. The stuff the scientists warned us would happen is happening. Snicker all you want about Green New Deals, ignore all you want collapsing coastlines glaciers and coral reefs and fisheries.

Pope Francis said, "Slap Mother Nature and she will slap you back." The economic slap-back is here now, in skyrocketing home insurance prices and failing home insurance markets. I will say it again: when climate havoc hits property insurance markets, it then hits mortgage markets, which then tanks property values, so hard it can take down the whole economy.

You may have missed it, but last week the Fed Chairman in Senate testimony predicted that in the next 10 to 15 years there will be regions of the Country where you can't get a mortgage any more. When that all hits the fan, Americans will be very interested in who helped and who obstructed.

Pretending solar and wind energy aren't even energy will look awfully dumb. And not permitting and building a clean, modern grid will look grossly negligent. So let's stop the law-breaking and start the grid-building together.

Senator CAPITO. I like that last word, that is good.

Our first witness is Jeremy Harrell. Mr. Harrell is the CEO of ClearPath, a non-profit which advocates for polices that reduce global energy emissions. Mr. Harrell has served in a multitude of energy and environmental advisory positions on Capitol Hill, and he is the Chair Emeritus of the U.S. Nuclear Industry Council's board of directors.

Mr. Harrell, I will recognize you for 5 minutes. Thank you for coming.

STATEMENT OF JEREMY HARRELL, CHIEF EXECUTIVE OFFICER, CLEARPATH, INC.

Mr. HARRELL. Thank you, Chairman Capito, for the kind introduction, and thank you, Ranking Member Whitehouse and members of the committee, for the opportunity to testify today.

My name is Jeremy Harrell, and I am the Chief Executive Officer of ClearPath.

America is at the dawn of a new era of unprecedented energy demand, fueled by robust economic growth, a revival of American manufacturing and advances in AI and quantum computing. These developments present new challenges yet offer immense opportunities for our Country to build big.

The regulatory process is not only unpredictable, but it is also one of the largest barriers to meeting energy, climate and economic development goals at the Federal, State and local level.

In the face of skyrocketing demand growth, building more energy resources has become more urgent. We need to let America build.

NERC reported that annual demand growth rates are nearly double those of the last decade, when roughly three projects were added to the grid per day. But to meet that demand, we may need to build around six projects a day, or 16,000 facilities by 2035. And we will need a broad suite of technologies to do it.

These challenge are present in nearly every sector of the economy, from energy to housing to transportation projects. To be clear, the solution is not a development free-for-all. The regulatory environment must balance speed and safety. But the solution requires step-change reform, not tweaks around the edges.

Reforms that demand accountability and promote good outcomes as fast as possible should start with three key objectives. One, leverage innovative American technologies; two, expedite reviews; and three, streamline judicial review of administrative actions.

First, Congress could require more accountability, provide more transparency and direct the use of modern technology. There is a clear need for more reliable information from Federal agencies, ranging from the number of permits under review to how long they have been stuck in limbo.

In many cases, Federal agencies are not even using the same systems or terminology. More transparent data will help with accountability and provide the public with information to participate.

Congress should also consider the role of AI, machine learning, and other state-of-the-art technologies to reduce the burden of project reviews.

Our system is still stuck in the 1990's. Technology reforms are the lowest-hanging fruit for bipartisan action.

Second, we must expedite the review process. Faster approvals for projects that bring net benefits and comply with existing environmental laws are essential to meeting our Nation's needs.

Congress could expand categorical exclusions to permit projects. Categorical exclusions are a one-time determination under NEPA that certain activities to not warrant the substantial data collection and review that comes with site-specific EAs, NEISs. However, they still require agency decisions for each site.

There is bipartisan support in Congress to accelerate low-impact energy projects like geothermal exploration to eliminate redundant reviews. A permit by rule approach could also offer significant benefits, balancing administrative speed with safeguarding public health, safety and the environment. To do this, the criteria must be well-defined, periodically reviewed, and aligned with the overall regulatory framework.

Encouraging development in certain pre-qualified geographic areas could also accelerate projects. Previously disturbed lands or well characterized areas like brownfields present opportunities to leverage electrical and mechanical infrastructure. The impacts of this development are minimal in most cases and are in or near the communities that need the economic growth the most.

Last, the judicial review of agency actions must be reformed. The current system is tilted toward those who seek to delay or block projects. For example, a recent analysis found litigation delayed fossil energy and clean energy projects by an average of 4 years. Agencies won 71 percent of those challenges.

Separately, an analysis on transmission projects found 24 percent of projects that completed environmental review faced litigation, and the agency won 88 percent of those cases.

If major infrastructure projects are regularly delayed by legal challenges that are ultimately overturned, it is time to reassess whether our current system is protecting consumers or protecting

project opponents. Congress could consider limiting legal challenges to plain errors related to natural resources laws, narrowing the scope, and setting strict review timelines.

Without changes, our Nation is needlessly undermining our own economic development and climate goals.

In conclusion, the U.S. is in a global competition for energy leadership. China and Russia are deploying billions of dollars around the world to advance their geostrategic interests, to control the sector and connected supply chains.

We must overcome our regulatory challenges to counter these efforts and meet domestic energy, economic and environmental needs. It is time to let America build.

Thank you.

[The prepared statement of Mr. Harrell follows:]

Testimony of Jeremy Harrell
ClearPath, Inc.
Chief Executive Officer
U.S. Senate Committee on Environment and Public Works

Improving the Federal Environmental Review and Permitting Processes

February 19, 2025

Good morning, Chairman Capito, Ranking Member Whitehouse, and members of the committee. Thank you for the opportunity to testify and for holding this important hearing.

My name is Jeremy Harrell. I am the Chief Executive Officer of ClearPath, a 501(c)(3) organization that works to accelerate American innovation to reduce global energy emissions. Industry-informed but philanthropically funded, ClearPath runs like a business — we seek out the top private sector innovators, determine the barriers to their success, and help cultivate the environment that allows them to scale up.

The United States faces intense global competition, especially in the energy sector. Adversaries like China and Russia are deploying hundreds of billions of dollars around the world to advance their geostrategic interests, with the goal of controlling the sector and connected supply chains. There is real uncertainty as to whether the U.S. will be able to effectively counter these efforts, and our current permitting regime is often cited as a major factor. Regulatory unpredictability is the single largest barrier to meeting energy, climate and economic development goals at the federal, state, and local levels.

Unmovable bureaucratic obstacles cause delays at every stage of project development. Whether it is federal permitting, lawsuits, or local opposition, there are numerous challenges to moving projects forward. These challenges are present in every infrastructure sector of the economy, from energy to housing to transportation projects.

This challenge must be overcome for the U.S. to meet its domestic energy needs and beat the competition for resources and technology. America is at the dawn of a new age of unprecedented energy demand fueled by robust economic growth, a revival of American manufacturing, strong advances in artificial intelligence (AI), and quantum computing. These developments have presented new challenges for the future yet offer immense opportunities for America to build big things as we once did.

For example, over $200 billion has been invested in clean manufacturing since 2022, creating over 200,000 jobs, primarily in Republican districts.[1] Meanwhile, the Chips and Science Act combined with regulatory reforms have supported an expected tripling of semiconductor manufacturing by 2032.[2] Recent projects show the AI race may more than triple data center

[1] https://cleaneconomytracker.org/
[2]https://www.semiconductors.org/wp-content/uploads/2024/05/Report_Emerging-Resilience-in-the-Semiconductor-Supply-Chain.pdf

capacity this decade.[3] Major technology companies have redoubled their efforts to deploy clean 24/7 energy to meet their needs, with the likes of Alphabet, Amazon, and Microsoft all announcing orders for advanced nuclear reactors. Large energy users from a wide variety of sectors have similarly made commitments to support innovative energy resources. These also include large manufacturing companies like Cummings, Dow and Nucor, which have each committed to develop first-of-a-kind projects for emerging technologies – like advanced nuclear, next-generation geothermal, clean hydrogen, and long-duration energy storage (LDES).[4] These types of corporate commitments are essential to "build the order book" to commercialize new technologies. Realizing these tremendous opportunities for economic growth, decarbonization, and strategic geopolitical advantage all hinge on America's ability to build infrastructure at a rate that is significantly faster than today.

The need for new sources of reliable and affordable energy is urgent. The technologies are ready, but they will not be built if they cannot secure permits on a predictable, expeditious timeline.

In the final days of the 118th Congress, members of this Committee worked closely with members in the House and Senate in an effort to find a compromise on the Energy Permitting Reform Act (EPRA) led by former Senator Joe Manchin (I-WV) and Senator John Barrasso (R-WY). While that bill did not make it across the finish line, I remain hopeful that this Committee will be able to build on those recent bipartisan discussions in the months ahead. Today's hearing sends a strong signal that permit reform remains a bipartisan priority, and it is my hope that this hearing is the first step to passing bipartisan legislation this Congress.

My testimony will address several of the underlying issues that necessitate "step-change" reforms to America's permitting system.

The nation's permitting system should demand accountability and promote good outcomes – balancing speed and safety by:

- leveraging innovative American technology,
- expediting reviews, and
- streamlining litigation over approved projects.

The Infrastructure Challenge has Arrived

Building enough energy infrastructure has become more urgent in the face of skyrocketing demand growth. The North American Reliability Corporation (NERC) finds that annual demand growth rates are nearly double[5] those of the last decade, when roughly three projects[6] were added to the grid per day. Meeting this demand growth may necessitate building approximately six projects per day or 16,000 facilities by 2035. This could equate to doubling the grid's current capacity by adding as much as 1,300 gigawatts of new energy by 2035. The U.S. will need an

[3]https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/ai-power-expanding-data-center-capacity-to-meet-growing-demand
[4] https://nucor.com/newsroom/google-microsoft-and-nucor-announce-initiative
[5]https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf
[6] https://www.eia.gov/electricity/data/eia860m/

"all-of-the-above" push to meet that need with new nuclear, lower-emission natural gas and coal, geothermal, wind, solar, and hydropower generation and new grid infrastructure.[7]

The geographic spread of new manufacturing, data centers, and other electric-intensive industries may be concentrated in a few regions.[8] However, reliably serving these customers and maintaining grid reliability at the lowest cost may require broader network upgrades and deployments. And while past periods of projected demand growth from data centers did not materialize due to efficiency gains, America's national security and economic competitiveness cannot afford to have a permitting regime that flouts the significant project demand growth, especially from efficient AI.[9]

Absent a thorough overhaul of the current permitting system, meeting the expected pace of demand growth will be practically impossible. Connecting new generation assets to the grid will also require significant expansions of electric transmission, natural gas, and carbon dioxide pipeline infrastructure, which will face regulatory, permitting, and litigation challenges.

A looming transmission shortage poses a direct threat to America's energy security. Many areas of the country are already experiencing insufficient transmission capacity. This shortage has immediate ramifications, meaning that manufacturing, data centers, and the power sources they need are stuck waiting before they can begin operating. Innovative grid technologies, like advanced conductors, can unlock more capacity on existing lines, and thus, permitting new lines will be absolutely necessary. American workers, businesses, and clean energy innovators cannot delay investments to accommodate a NEPA process that takes 4.3 years on average from the Notice of Intent to a Record of Decision for an Environmental Impact Statement[10] for electrical transmission projects and litigation that is resolved in the projects favor in 88% of cases .[11]

Permitting delays are already presenting a growing reliability crisis for the power sector. The importance of natural gas infrastructure to grid reliability and affordability cannot be overstated. Natural gas provides 44% of U.S. electricity needs[12] and has simultaneously delivered significant U.S. emissions reductions since 2005.[13] Yet, opposition of some states to the development of pipelines has contributed to blackouts during winter storms in recent years and has led to states in the Northeast relying on the highest emitting sources of energy, like fuel oil, to keep the lights on when natural gas supplies are artificially constrained. A December 2022 cold-snap caused the region to "burn more oil for electricity on a single day during…than they have in four years."[14]

---

[7] https://rhg.com/research/taking-stock-2024/

[8] https://www.woodmac.com/horizons/gridlock-demand-dilemma-facing-us-power-industry/?__FormGuid=81d8a1b9-fba3-4634-bdc1-67c626a6af21&__FormLanguage=en&__FormSubmissionId=9a384c54-20db-4ae9-a372-bc1a74955e82

[9] https://eta-publications.lbl.gov/sites/default/files/2024-12/lbnl-2024-united-states-data-center-energy-usage-report.pdf

[10] https://www.catf.us/resource/contextualizing-electric-transmission-permitting/

[11] https://www.niskanencenter.org/evidence-based-recommendations-for-overcoming-barriers-to-federal-transmission-permitting/

[12] https://www.eia.gov/electricity/monthly/

[13] https://clearpath.org/our-take/the-u-s-needs-natural-gas-heres-a-playbook-to-reduce-emissions/#:~:text=Natural%20gas%20has%20already%20played,reductions%20between%202005%20and%202019.

[14] https://www.eenews.net/articles/new-england-clean-energy-goals-slam-into-oil-reality/

The reliance on fuel oil remains a policy choice due to natural gas supply constraints ingrained in the current permitting system.

Today, the U.S. has more than 5,300 miles of carbon pipelines across the nation. This is a small fraction of the Department of Energy's recent estimates that the U.S. will need 30,000 – 96,000 miles of these pipelines by 2050.[15] While that number may seem daunting, this is just a fraction of the existing 3 million miles of oil and gas pipeline infrastructure that go unnoticed every day.[16]

The U.S., along with 30 other countries and 14 major financial institutions[17], has committed to tripling global nuclear capacity. This could amount to as many as 200 additional GW in the U.S. grid by 2050 in addition to keeping our current fleet operational. This equates to upward of 1,000 new reactors, depending on size. In order to meet this scale of deployment, the pathway between the order announcements of today and power on the grid tomorrow hinges on Congressional action. In the near term, it is essential that the Nuclear Regulatory Commission (NRC) implements the act in an effective, efficient manner and updates the way that it does project reviews to ensure that the U.S. adds more nuclear energy to the grid in a timely manner.

Never has the phrase "time is money" been more appropriate. Regulatory delays, in some cases, that can last nearly a decade are making projects more expensive, and impeding our ability to deploy billions of dollars of capital that would create American jobs, enhance U.S. energy security, keep consumer costs affordable, and reduce emissions.

In the final week of the Biden Administration, the Council on Environmental Quality (CEQ) published data showing that the median EIS completion time, under the National Environmental Policy Act (NEPA), between 2021 and 2024 was 2.4 years, compared to 3.1 years from 2017 to 2020[18]. When comparing 10-year averages from 2025-2015 and 2020-2010, permitting timelines remain unchanged, underscoring the insufficiency of incremental reforms.

However, 34% of projects undergoing an EIS took more than five years to reach a Record of Decision, highlighting the continued unpredictability of this process. Many of the projects facing the longest review timelines have the greatest potential benefits to the United States in reduced energy costs, enhanced energy independence, increased economic opportunity, and lower global emissions.

The combination of permitting delays and politically charged decisions has disrupted our ability to build. As a result, it can now take more than three years to permit carbon dioxide storage wells from industrial sites in Illinois to California, 13 years to permit a critical minerals project in Minnesota, and up to 15 years for a new transmission line from Wyoming to Utah. Beyond those specific examples, the U.S. needs a system that ensures timely approvals of new LNG terminals

[15] https://liftoff.energy.gov/wp-content/uploads/2024/02/20230424-Liftoff-Carbon-Management-vPUB_update4.pdf
[16] https://www.phmsa.dot.gov/data-and-statistics/pipeline/pipeline-mileage-and-facilities
[17] https://world-nuclear.org/news-and-media/press-statements/14-major-global-banks-and-financial-institutions-express-support-to-triple-nuclear-energy-by-2050-23-september-2024
[18] https://ceq.doe.gov/nepa-practice/eis-timelines.html

as well as any necessary interstate natural gas pipelines to supply these new terminals. These are just a few of the hundreds of projects held up by the status quo of the current system.

Clarifying the Role of the National Environmental Policy Act

NEPA is often misunderstood as an environmental protection law with regulatory standards. In reality, NEPA does not impose substantive environmental requirements such as emissions limits or technology mandates. Instead, it is a procedural law that requires federal agencies to evaluate and disclose potential environmental impacts of their actions before making a decision to proceed.

NEPA mandates that agencies provide the public with a "detailed statement" outlining the environmental consequences of proposed federal actions, which may include issuing permits, distributing grants, or approving infrastructure projects.[19] NEPA is about process – not results – meaning that compliance with NEPA does not ensure specific environmental outcomes or project approval.

However, NEPA compliance is just the first step in a broader permitting process. Permitting refers to the legal approvals required for a project to proceed under multiple federal statutes – each of which addresses a specific environmental or cultural consideration. In concert with agencies completing a NEPA review, project developers must often obtain multiple permits under the:

- Endangered Species Act (ESA): Requires permits if the project may impact threatened or endangered species or their habitat.
- Clean Air Act (CAA): Mandates permits to ensure that emissions from the project do not violate air quality standards.
- Clean Water Act (CWA): Section 404 requires permits for discharging dredged or fill material into waterways, including wetlands.
- Migratory Bird Treaty Act (MBTA): May require permits if the project impacts migratory bird populations.
- Resource Conservation and Recovery Act (RCRA): Governs the management and disposal of hazardous waste produced by the project.
- National Forest Management Act (NFMA): Applies if the project is on national forest lands, requiring consistency in forest management practices.
- Solid Waste Disposal Act (SWDA): Regulates the disposal of non-hazardous solid waste.
- National Historic Preservation Act (NHPA): Requires consideration of effects of historic properties and may necessitate permits or agreements to mitigate impact.

Each statute requires its own permitting process, which can include detailed environmental assessments, public consultations, and coordination across multiple agencies. The complexity and duration of obtaining these permits can significantly extend project timelines, adding years to the approval process.

NEPA does not grant or deny these permits, it only ensures agencies evaluate and consider environmental impacts.

[19] 42 U.S. Code § 4332

Obtaining a permit is one thing, but project developers must still comply with all underlying laws and regulations. Understanding these as two distinct tools – with one focused on process and one focused on real outcomes – is necessary to properly evaluate the options ahead for permitting reform.

Bipartisan Opportunities for Congress

The following are some ways Congress could improve the permitting system that range in complexity and impact. These include setting clear deadlines and expanding categorical exclusions to certain well-understood resources, to a paradigm shift that significantly changes the system by establishing a permit-by-rule approach.

Require accountability, provide transparency, and encourage the use of modern technology, like artificial intelligence. Establishing timelines for agency action is critical to deploying energy projects at scale. Process reforms without timelines can lead to a lack of consistency when administrations change. One mechanism could be achieved through legislation that compels agencies to meet deadlines and deem projects approved if the agency falls short. The federal government should also track the number of permits in the federal agency queues at any one time in a consistent and timely manner.

There is a clear need for more reliable information from federal agencies to better understand the number of permits under review and how long they have stuck in permitting limbo. Transparent data will help Congress better address agency funding needs in these areas to approve permits and provide the public with information about how the federal permitting system works at large. Yes, Congress created the Federal Permitting Improvement Steering Council, better known as the Permitting Council, which, unfortunately, lacks the legal ability to compel timely agency action and resolve interagency disputes.

Congress could also consider the role of artificial intelligence (AI), machine learning, and other automation technologies that can help reduce the human capital burden of project reviews. While the federal government should explore how to best leverage technology in the future, a recent congressionally mandated report from CEQ to Congress illustrated that even requiring the use of spreadsheets or tracking systems would be a helpful first step in better understanding how our permitting system works today.[20] Technology reforms are perhaps the lowest-hanging fruit for bipartisan action to streamline reviews.

Expedite Approvals. Expediting the approval process for projects that bring net benefits and comply with existing environmental laws could be an effective first step toward meeting the nation's energy needs.

Congress could expand categorical exclusions to permit projects in a timely manner. Categorical exclusions are a one-time determination under NEPA that certain activities do not warrant the need for the substantial data collection and review that comes with site-specific environmental assessments (EA) or environmental impact statements (EIS). A categorical exclusion requires the agency to determine whether an activity does not individually or cumulatively negatively impact the environment. However, categorical exclusions still require agency decisions specific to each

[20] *https://ceq.doe.gov/docs/ceq-reports/CEQ-E-NEPA-Report-to-Congress_Final-(508).pdf*

site. Expanding categorical exclusions could be a useful next step to accelerate low-impact energy projects like geothermal exploration by eliminating redundant reviews.

Permit-by-Rule: Another approach to streamlining permits is for Congress to create a permit-by-rule system for obtaining federal permits. Permit-by-rule expedites reviews by the agency by Congress and/or the agency establishing predetermined criteria for a defined permit to be issued for a project at the planning and design phase. Instead of undergoing a case-by-case review, applicants would assess the criteria, take the necessary steps to comply, and submit a notice of compliance to the permitting agency – along with necessary proofs and certifications – to receive a permit. Once submitted and reviewed, that permit is automatically issued, allowing construction to begin.

This approach eliminates case-by-case government reviews and analysis. It also shifts the federal government's role from gatekeeping to compliance enforcement, ensuring substantive standards are promulgated to protect public health, safety, and the environment.

At the federal level, the Environmental Protection Agency (EPA) has already implemented permit-by-rule systems for certain activities, including ocean disposal, injection wells, and treatment works facilities.[21] The EPA's model simplifies the permitting process, providing a potential framework for other federally regulated industries, such as the energy sector, to adopt.

Permit-by-rule is not limited to federal regulations. Many states have also embraced this approach. At least 26 states have implemented permit-by-rule systems, including Alaska, Arizona, Arkansas, Nebraska, North Dakota, Ohio, South Carolina, and Utah. These state permit-by-rule systems cover a wide range of activities, from hazardous waste management to pharmaceutical take-back programs. Each state has its own criteria tailored to fit its specific needs and risk assessments, demonstrating the flexibility and effectiveness of this permitting approach.

Permit-by-rule can offer significant benefits with a balance between streamlining procedures and safeguarding public health, safety, and the environment. To do this, the criteria must be well-defined, periodically reviewed, and aligned with the overall regulatory framework.

Place-Based Streamlining: Similarly, encouraging development in certain prequalified geographic areas could go a long way toward accelerating projects with the lowest impact. Such areas could include previously disturbed lands or well-categorized sites, such as brownfield sites that present opportunities to use existing electrical or mechanical infrastructure. The environmental impacts to these locations related to energy deployment are minimal, and in many cases, these locations are in or near communities that need the redevelopment most urgently. Congress could also consider regulatory incentives to direct investment toward areas where impacts are already well understood.

Litigation Reforms: To make any of the suggested improvements in permitting more effective, Congress could seek to narrow the scope of legal challenges against approved projects and streamline judicial review of agency actions. The current system is overwhelmingly tilted in favor of those seeking to delay or block projects. Nearly every major energy and infrastructure project faces litigation that often drags on for years over minor procedural details buried within

[21] https://www.epa.gov/permits/epa-permit-programs-and-corresponding-environmental-statutes

agency reviews. This results in years of additional analysis that often changes little to nothing about the project. Meanwhile, injunctions halt progress, paralyzing the project and jeopardizing investments. Litigants exploit these delays, knowing that time is money. By repeatedly filing lawsuits, they aim to stretch the process until developers run out of funding and abandon their projects. This uncertainty affects all energy and infrastructure projects from pipelines and transmission lines to manufacturing facilities, where delays drive up development costs, and discourage investment. Congress could limit legal challenges to clear and material errors under natural resources laws, narrow the scope of review, and enforce statutory timelines for resolving disputes. Without these changes, billions in investment and years of progress will continue to be wasted, undermining the nation's ability to build the infrastructure needed for energy and economic security.

Last Congress, H.R.1, the Lower Energy Costs Act included provisions requiring legal disputes be resolved in less than one year – a critical step in the right direction. Other major House and Senate permitting proposals include injunctive relief, standing clarifications, and deadlines on the statute of limitations. However, judicial unpredictability is among the biggest wildcards in the current permitting system. Last Congress saw a variety of proposals seeking to do the same, the RESTART Act, introduced by Sen. Capito (R-WV), the REPAIR Act, introduced by Sen. Cassidy (R-LA), and the PEER Act of 2023 introduced by former Sen. Carper (D-DE) and Sen. Schatz (D-HI), all proposed reforms to reduce the years-long uncertainty tied to legal challenges.

Recent bipartisan proposals can provide a roadmap to restore balance to the system. The Fix Our Forests Act offers a strong starting point to balance the needs of local communities with a more predictable process. A more predictable process benefits all parties involved, allowing claims to move forward when real harms occur while limiting litigation that merely seeks to delay or cancel projects.

The pace and scale necessary to build energy infrastructure projects to reliably meet America's energy demand and reduce emissions is not something the authors of the 1970s environmental laws could have imagined. Merely throwing more federal money at the projects or the agencies reviewing them is not going to substantially change that problem. Further, the erosion of regulatory and legal predictability makes attracting project financing more difficult and expensive. At a time when the U.S. economy is poised for significant growth and innovation, we encourage policymakers to ensure the federal permitting process can help deliver on these opportunities, not stand in the face of them.

ClearPath looks forward to working with this Committee to advance permitting reform, and I look forward to today's discussion.

CLEARPATH

ClearPath
300 New Jersey Ave NW
Suite 800
Washington, DC 20001

March 19, 2025

Senate Committee on Environment and Public Works
Hearing Entitled "Improving the Federal Environmental Review and Permitting Processes"
Jeremy Harrell Responses to Questions for the Record

Senator Wicker:

1. **Currently, there are only six existing early site permits that have been approved by the Nuclear Regulatory Commission to build additional nuclear capacity in this country, including one in Mississippi which is set to expire in 2027. Although nothing has materially changed at the site since the permit was issued, it may cost the owners of the Grand Gulf Nuclear Station tens of millions of dollars just to renew the permit and maintain the option to consider building a reactor in the future. Furthermore, if an applicant ever decides to pursue construction at that site, they will have to undergo many of the same reviews required to renew the permit if they build at the site. Mr. Harrell, can you speak to the importance of nuclear technology to meet the growing energy demand in the United States?**

   Answer: Congress gave the NRC a clear mandate to modernize its regulatory processes for efficiency and predictability through the *Nuclear Energy Innovation and Modernization Act* (P.L.115-439) and the *Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy* (ADVANCE) *Act* (P.L.118-67). This includes improving the NRC's environmental review process[1] to minimize significant regulatory costs like those you mentioned. Building new nuclear plants will be important to meet growing electricity demand, especially given forecasts of up to 15.8% in demand growth and 128 GW[2] in new peak demand over the next five years. This potential additional peak demand would require more capacity than the entire U.S. nuclear fleet today.

   With continued innovation and a reasonable regulatory environment, nuclear energy can be scaled quickly providing clean, reliable, and affordable electricity for decades. In addition, new technologies have attributes that allow for more flexible siting, and uses beyond just electricity production. For example, some new technologies operate at

[1] https://www.nrc.gov/docs/ML2428/ML24289A052.pdf
[2] https://www.utilitydive.com/news/shocking-forecast-us-electricity-load-could-grow-128-gw-over-next-5-years-Grid-Strategies/734820/

higher temperatures and can provide process heat for industrial applications. Meeting U.S. electricity demand is critical for our economy, and exporting U.S. technology to meet rapidly growing global nuclear demand is both an enormous market opportunity and critical to our national security and foreign policy aims. The International Atomic Energy Agency (IAEA) says that nearly 30 countries[3] are looking to build nuclear power; however, over the last several years, the export market has been dominated by Russia and China. If the U.S. is not able to build new nuclear reactors here, countries will be less likely to buy U.S. technologies. Ultimately, it must be easier to build nuclear energy, and other sources of energy domestically.

2. **Mr. Harrell, can the United States keep up with domestic energy demand under the status quo environmental review and permitting processes?**

   Answer: No, the current permitting process is too slow and inefficient to meet surging energy demands, especially with growing manufacturing, AI, and data center expansion. The NERC report projects demand will nearly double, requiring the U.S. to build six energy projects per day by 2035. Under the existing NEPA and permitting framework, this pace is unrealistic, leading to grid reliability risks and delayed infrastructure deployment.

   a. Do you agree that an efficient NEPA process is important to deploying energy infrastructure in a timely and cost-effective manner while protecting our environment?

   Answer: Yes, a streamlined NEPA process is critical to balancing environmental protection with timely project approvals. Lengthy reviews, spanning on average 4.5 years, increase costs, deter investment, and slow clean energy development. Improving efficiency and predictability in the process would enable faster infrastructure buildout while ensuring strong environmental oversight.

   Another approach to streamlining permits is for the Committee to evaluate a compliance-based approach for some federal permits. This is not NEPA reform. It is permitting reform. A permit-by-rule system by Congress can expedite reviews by the agency. Each agency would evaluate what permits can be issued using predetermined criteria at the planning and design phase. Instead of undergoing a case-by-case review, applicants would assess the criteria, take the necessary steps to comply, and submit a notice of compliance to the permitting agency to receive a permit. Once submitted and reviewed, that permit is automatically issued, allowing construction to begin.
   This approach eliminates case-by-case government reviews and analysis. It also shifts the federal government's role from gatekeeping to compliance enforcement, ensuring substantive standards are promulgated to protect public health, safety, and the environment.

[3] https://www.iaea.org/bulletin/developing-nuclear-power-infrastructure-in-newcomer-countries

b. Should Congress restore efficiency in the NEPA review process by clarifying that an agency is only to consider effects that have a close causal relationship to the proposed action or alternative?
Answer: Yes, the scope of NEPA reviews should be limited to direct and foreseeable impacts, rather than expansive, indirect effects that delay approvals. Broad interpretations of cumulative effects slow project timelines and create litigation risks, discouraging investment. Clarifying that agencies should focus on direct impacts would help streamline reviews and reduce legal uncertainty, thereby accelerating infrastructure development.

Ranking Member Whitehouse:

1. **What can Congress do to turn interagency process into an efficient mechanism for coordinating agencies?**

   Answer: One of the biggest challenges in permitting is the lack of coordination between federal agencies, leading to inefficiencies and delays. Congress can improve this process by establishing clear timelines and accountability measures, ensuring that agencies complete environmental reviews within a set timeframe. Designating a lead agency to oversee multi-agency reviews would help streamline decision-making and reduce duplication. Additionally, improving data sharing and transparency through a unified or uniform permitting dashboard would allow agencies, applicants, and stakeholders to track progress and avoid bottlenecks. Allowing agencies to conduct concurrent reviews rather than sequential ones would further shorten approval times and reduce unnecessary regulatory hurdles.

2. **In what regulatory processes should there be a filing requirement for an applicant to state what it has done to identify and gather preliminary input from affected stakeholders?**

   Answer: Early, robust community engagement is a crucial component of project development, with or without a regulatory process. All stakeholders, including developers and host-communities benefit from meaningful community engagement and often take significant measures to engage with local stakeholders early in the process. The federal permitting process contains unnecessary bureaucratic hurdles that only preclude developers from delivering significant economic benefits to communities. Rather than adding more requirements that disincentivize development, the U.S. should streamline and simplify the permitting process to get projects built, address energy demand, and provide robust economic growth for communities.

Senator Markey:

1. **The permitting of energy projects has been the primary driver of recent permitting reform discussions in Congress. However, barriers to long-term, coordinated, regional and interregional transmission planning, as well as lengthy interconnection queues (which currently hold twice the installed capacity of the entire U.S. power fleet) continue to be the primary reasons why energy projects are unable to move forward. Do you agree that we should prioritize improving the main reasons for delays, i.e. interconnection queue and transmission planning processes, rather than scapegoat our bedrock environmental laws if getting critical clean energy projects off the ground is the goal?**

   Answer: Achieving our clean energy and economic growth imperatives is impossible without addressing all regulatory inefficiencies and causes of delays in energy infrastructure development. Interconnection improvements and transmission expansion are elements of achieving these goals.

   Lawrence Berkeley National Laboratory reports[4] have documented that interconnection timelines have increased from less than 2 years in 2008 to nearly 5 years in 2023. While the compliance period for the Federal Energy Regulatory Commission's Order 2023 is ongoing, additional reforms are likely needed to provide transformational results in interconnection outcomes.

   As ClearPath noted in our comments to FERC, many transmission providers have already implemented many, if not all, of the reforms in Order 2023 and continue to have significant challenges managing their queues. Notably, MISO innovated and operationalized many of these reforms over the past decade but continues to face challenges in processing the volume of requests. This is evident by the recently approved Queue Volume Cap[5], which will limit the number of projects that are processed during a study cycle, and the proposed Expedited Resource Adequacy Study (ERAS)[6] process, which would study a subset of projects within a few months so long as they are commercially operable within 3-5 years, among other criteria.

   Further reforms and innovative solutions are needed to improve interconnection queue processes and that improved coordination between transmission planning and interconnection is key to significantly advancing the speed of energy deployment. In addition, optimizing the use of existing transmission infrastructure through the deployment of innovative grid solutions can play a critical role in expanding existing

---

[4] https://emp.lbl.gov/publications/queued-2024-edition-characteristics
[5] https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20250130-3083&optimized=false
[6] https://cdn.misoenergy.org/20250122%20PAC%20Item%2006c%20Expedited%20Resource%20Addition%20Study%20(ERAS)%20Proposal%20(PAC-2023-1).pdf673403.pdf

transmission capacity in the near term to increase the utilization of existing resources and the integration of new supply-side resources to maintain reliability and enable load growth.

Of note, solving interconnection queue backlogs is not a silver bullet for resource additions. Both MISO[7] and PJM[8] have over 50 GW of projects with signed interconnection agreements that are delayed or not being constructed due to issues including supply chain bottlenecks, siting and permitting delays, and financing challenges. Observed trends[9] in siting constraints and moratoriums on private land, particularly for wind and solar, indicate that future deployments may increasingly occur[10] on federal lands, underscoring the urgent, technology-neutral need for broader permitting reform.

2. **Do you believe that shifting guidance on NEPA implementation and shifting NEPA authority from a centralized point of contact like the Council on Environmental Quality to a myriad of agencies helps or hurts project developers?**

   Answer: While CEQ plays an important role in advising the President and providing environmental policy guidance, both the D.C. Circuit Court and the North Dakota Federal District Court ruling have held or affirmed that CEQ does not have rulemaking authority under NEPA. NEPA compliance has always been the responsibility of individual agencies, meaning that shifting implementation does not fundamentally change how environmental reviews are conducted but rather reflects the existing statutory framework. For project developers, the key challenge is ensuring consistency and predictability across agencies. When agencies apply NEPA differently, it can lead to uncertainty, delays, and additional hurdles for projects. Instead of focusing on CEQ's role, the priority should be improving coordination between agencies and streamlining the process to make environmental reviews more efficient while maintaining strong protections.

3. **Does reduction in both staff and budget at agencies charged with implementing NEPA increase or decrease the predictability and speed of the permitting process, including the speed at which agencies will be able to issue guidance on implementation?**

   Answer: It's important to have the right staff at all agencies, but it's more important to ensure that agencies don't have internal roadblocks. No amount of staff or funding can implement the current permitting process in a manner that delivers the number of new projects the U.S. needs to build in the coming decade to meet demand.

---

[7] https://cdn.misoenergy.org/20241210%20System%20Planning%20Committee%20of%20the%20BOD%20Item%2004%20Generator%20Interconnection%20Queue%20Update665714.pdf
[8] https://d1dth6e84htgma.cloudfront.net/03_05_2025_ENG_Testimony_Haque_08233b47af.pdf
[9] https://www.nature.com/articles/s41560-023-01319-3
[10] https://www.nrel.gov/docs/fy25osti/91848.pdf

Senator CAPITO. Together.
Senator WHITEHOUSE. I like that.
Senator CAPITO. You like that? OK.
Senator WHITEHOUSE. You may be onto something with that.
Senator CAPITO. Our next witness is Leah Pilconis, General Counsel for the Associated General Contractors of America. Over her 25-year career with AGC, Ms. Pilconis has served in multiple leadership positions, including as Senior Environmental Counsel and Associate General Counsel for Construction and Environmental Risk Management. She is also a host of AGC's Constructor Cast podcast.
I will now recognize Ms. Pilconis for her opening statement.

STATEMENT OF LEAH PILCONIS, GENERAL COUNSEL, THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

Ms. PILCONIS. Thank you very much.
Chairman Capito, Ranking Member Whitehouse, and members of the Environment and Public Works Committee, thank you for the opportunity to speak today. I appreciate your leadership and bipartisan efforts to improve the Federal environmental review and permitting processes. These efforts are critical to ensuring that we can deliver much-needed infrastructure projects in a timely and cost-effective manner, while maintaining strong environmental protections.
As General Counsel at the Associated General Contractors of America I have learned how delays in environmental approvals don't just hold up projects, they cause work force instability, drive up costs, and jeopardize investments in critical infrastructure. These delays also impact the communities that rely on these projects for jobs, economic growth and modern safe infrastructure. We need to ensure timely project approvals, minimize litigation risks, and maintain economic growth.
Here are four ways Congress can help. One, establish a uniform judicial review period. NEPA lawsuits can stall projects for years, even after they have undergone extensive environmental review. Litigation is increasingly being used as a tool to obstruct critical projects. This undermines planning, increases costs, and deters investments.
While Congress has protected some infrastructure projects with a 150-day legal limit on challenges, most construction projects remain vulnerable to lawsuits for up to 6 years under the Administrative Procedures Act.
AGC urges Congress to standardize the 150-day limited judicial review period for all critical infrastructure projects, and eliminate unnecessary procedure hurdles that create prolonged uncertainty. Once a project receives final environmental approval, it should not remain in legal limbo for years.
Two, align environmental reviews with congressional intent. The Bipartisan Fiscal Responsibility Act was designed to streamline environmental permitting and prevent unnecessary delays. However, CEQ's latest NEPA regulations contradict these reforms.
Congress must hold agencies accountable to ensure NEPA implementation stays true to the FRA's intent and does not add new layers of bureaucracy that undermine project delivery.

Three, prevent regulatory fragmentation. Recent court rulings and executive actions have highlighted the lack of clarity on NEPA implementation. Without clear statutory direction, agencies may adopt conflicting rules, making projects even more vulnerable to court challenges and forcing courts to interpret the law in a post-Chevron environment.

Congress must act to ensure a consistent, reliable framework for environmental reviews across agencies.

Four, make permitting reform a durable, bipartisan legislative solution. Permitting rules should not shift with each administration. Congress must ensure agencies implement reforms consistently and Congress must provide oversight to prevent regulatory overreach.

The U.S. Supreme Court's Sackett decision provided much-needed clarify on Federal jurisdiction under the Clean Water Act. However, the current Conforming Waters of the U.S. regulations still fail to align with the ruling, creating uncertainty and unnecessary delays. AGC urges Congress to hold agencies accountable for properly implementing Sackett as intended.

I want to share a few other ways Congress can help reduce Clean Water Act 404 permitting delays. Protect general permits, codify key exemptions, such as for roadside ditches and stormwater features. Expedite jurisdictional determinations, ensure mitigation requirements are reasonable and backed by adequate mitigation credit availability.

AGC supports bipartisan permitting reforms and urges Congress to ensure agencies follow congressional intent. Cutting red tape and limiting unnecessary litigation will help deliver critical infrastructure projects on time and on budget.

Most importantly, Congress must provide certainty by ensuring that once environmental approvals are final agency actions, projects should not be threatened years later.

Thank you, and I look forward to your questions.

[The prepared statement of Ms. Pilconis follows:]

Written Statement of

Leah Pilconis
General Counsel
AGC of America

On behalf of

The Associated General Contractors of America

to the

United States Senate

Committee on Environment & Public Works

For a hearing on

"Improving the Federal Environmental Review and Permitting Processes"

February 19, 2025

The Associated General Contractors of America (AGC) is the leading association in the construction industry representing more than 28,000 firms, including America's leading general contractors and specialty-contracting firms. Many of the nation's service providers and suppliers are associated with AGC through a nationwide network of chapters. AGC contractors are engaged in the construction of the nation's commercial buildings, shopping centers, factories, warehouses, highways, bridges, tunnels, airports, waterworks facilities, waste treatment facilities, levees, locks, dams, water conservation projects, defense facilities, multi-family housing projects, and more.

2300 Wilson Boulevard, Suite 300 • Arlington, VA 22201 • Phone: (703) 548-3118

Table of Contents

I. Introduction
II. Continued Need for Environmental Review and Permitting Reform
III. AGC's NEPA Reform Recommendations
  a. Prevent Regulatory Fragmentation
  b. Align Environmental Reviews with Congressional Intent
  c. Establish a Uniform Judicial Review Period
    i. Further Expand FAST-41 Protections to Prevent Litigation Delays on Surface Transportation Projects
    ii. *Corner Post*: The Need for NEPA Finality
  d. The Impact of NEPA-Related Litigation Delays on Infrastructure Projects: Delays, Costs and Workforce Disruption
IV. AGC's CWA Permitting Reform Recommendations
  a. Fully Implement the *Sackett* Ruling on Definition of "Waters of the United States"
  b. Further Opportunities to Streamline the Permitting Process
Appendix Case Studies: Projects Stalled by Litigation Related to Environmental Approvals

I. Introduction

Chairman Capito, Ranking Member Whitehouse, and members of the Environment and Public Works Committee, thank you for the opportunity to testify. My name is Leah Pilconis, and I am the general counsel at the Associated General Contractors of America (AGC). AGC is the leading association in the construction industry representing more than 28,000 firms, including America's leading general contractors and specialty-contracting firms, many of which are small businesses. Many of the nation's service providers and suppliers are also associated with AGC through a nationwide network of 88 chapters. AGC contractors are both union and open shop and are engaged in the construction of the nation's commercial buildings, highways, bridges, tunnels, airports, transit systems, waterworks facilities, waste treatment facilities, levees, locks, dams, multi-family housing projects, and more.

As general counsel for AGC, I serve as a strategic advisor to the association's leadership on legal matters affecting the construction industry. I manage AGC's programs and services aimed at helping contractors mitigate business and operational risk in an evolving construction landscape – such as insurance coverage, contract administration, and safety, health, and environmental regulations. I collaborate closely with the vice president of government affairs on AGC strategy and respond to regulatory and legislative challenges affecting the construction landscape and oversee judicial advocacy efforts, including litigation in federal and state courts.

Infrastructure funding has historically been a major roadblock for infrastructure projects to break ground. Recent investments in infrastructure have largely appeased that concern, but we haven't seen an influx of major projects breaking ground, like we had hoped, in part due to environmental review and permitting delays.

Project delays caused by prolonged National Environmental Policy Act (NEPA) reviews, permitting, and litigation increase costs and harm the construction workforce by delaying job creation, disrupting hiring, and reducing economic activity.

- **Escalating Costs**: Delays increase labor and material costs, forcing contractors to reprice projects and potentially leading to cost overruns. Inflationary pressures and supply chain disruptions worsen the financial burden on both contractors and taxpayers.
- **Workforce Disruptions**: When projects stall, construction firms delay hiring or lay off workers, creating uncertainty for skilled tradespeople and harming local economies.
- **Lost Economic Benefits**: Delayed infrastructure projects slow down economic growth, particularly in regions where construction drives local economies. According to industry studies, every $1 billion spent on infrastructure supports roughly 13,000 direct and indirect jobs across various sectors.[1]
- **Litigation-Driven Delays**: Late-stage NEPA lawsuits halt projects that have already undergone years of environmental review. This results in wasted resources and discourages investment in public infrastructure.

AGC supports responsible reforms to the federal review and environmental permitting process that will reduce unnecessary delays and legal uncertainty in commercial construction and will still maintain environmental protections.

II. Continued Need for Environmental Review and Permitting Reform

NEPA[2] requires federal agencies to assess the environmental impacts of their major federal actions before making decisions. Over the last two decades, this committee demonstrated strong bipartisan leadership in modernizing and supplementing the NEPA review and corresponding permitting process, particularly for federally funded surface transportation projects, through the "Efficient Environmental Review for Project Decisionmaking and One Federal Decision"[3] provisions. Through landmark legislative efforts, including SAFETEA-LU (2005), MAP-21 (2012), the FAST Act (2015), and IIJA (2021), Congress has taken meaningful steps to improve efficiency while ensuring thorough environmental review.[4]

Additionally, through FAST-41 (Fixing America's Surface Transportation Act of 2015, Title 41),[5] this committee created a framework to enhance the coordination and transparency of the federal environmental review and authorization process for certain covered infrastructure projects across a broad range of sectors. While these reforms have been instrumental, FAST-41 remains voluntary,[6]

---

[1] *See* American Society of Civil Engineers (ASCE) study analyzing the impacts of federal infrastructure investment.

[2] 42 U.S.C. 4321 *et. seq.*

[3] 23 U.S.C. § 139 (applies to "major [surface transportation and multimodal] projects" that require approval by the U.S. Department of Transportation.

[4] *See* Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision Interim Final Guidance | FTA.

[5] 42 U.S.C. § 4370m *et seq.*

[6] 42 U.S.C. §§ 4370m-2(a)(1), (b)(2)(A)(ii). A project sponsor of a potentially "covered project" must file an "Initiation Notice" with "sufficiently detailed information" to be considered. Per OMB Guidance, the facilitating or lead agency will determine whether the project qualifies as a "covered project' only after it has sufficient information. Indeed, FAST-41 does not require the facilitating agency or the lead agency to take any action if a project sponsor does not voluntarily submit an Initiation Notice to initiate the process. *See* OMB and CEQ guidance Official Signed FAST-41 Guidance M-17-14 2017-01-13[1].pdf.

covering only about 30 covered projects at any given time,[7] while federal agencies prepare around 150 Environmental Impact Statements (EIS) annually.[8]

Building on this legacy, Congress enacted the Fiscal Responsibility Act (FRA) of 2023,[9] amending NEPA for the first time in nearly 50 years. These changes signal Congress's intent to extend provisions similar to those in IIJA (applicable only to surface modes) and FAST-41 (applicable to only certain covered infrastructure projects that opt into the voluntary program and the corresponding facilitating agencies) to all federal agencies assessing the environmental impacts of their proposed "major federal actions" (covering construction projects requiring federal approvals or funding).[10] These key reforms include the development of a unified project schedule and a single environmental document, imposing time and page limits, clarifying the scope of review and agencies' role, and narrowing key definitions.

However, gaps remain—particularly in the applicability of judicial review reforms. While Congress has taken important steps to limit litigation-driven project delays, these provisions do not apply broadly to all projects, leaving many infrastructure initiatives vulnerable to extended legal challenges. Expanding the scope of these existing reforms would provide greater certainty for project sponsors and further align the permitting process with Congressional intent.

Congress has taken meaningful steps to streamline environmental reviews and improve permitting efficiency through bipartisan reforms like the FRA and past measures under MAP-21, the FAST Act, and IIJA. However, federal agencies continue to introduce regulatory obstacles that conflict with congressional intent and delay critical infrastructure projects.

My testimony will outline <u>AGC's Call to Action</u> in which we are urging this Committee to:

- **Ensure NEPA implementation aligns with the FRA's reforms.**
- **Build on past judicial review reforms by broadening their applicability and increasing their utility.**
- **Expand the scope of permitting efficiencies, as outlined in the following pages.**

III. AGC's NEPA Reform Recommendations

For the construction industry, delays caused by NEPA reviews and environmental permitting create significant workforce challenges. Contractors rely on long-term project planning to maintain a stable workforce, but when projects stall, they must scramble to find alternative work for their employees—an especially difficult task for large projects requiring substantial labor. To safeguard jobs and keep critical infrastructure moving, AGC urges Congress to support an environmental permitting and approval process that enhances project certainty, minimizes litigation risks, and prevents unnecessary delays by:

---

[7] *See* current FAST-41 portfolio online at https://www.permitting.gov/projects/current-fast-41-portfolio.
[8] *See* Environmental Impact Statement Timelines (2010 - 2018).
[9] The Fiscal Responsibility Act of 2023 amended NEPA section 102(2)(C) and added sections 102(2)(D) through (F) and sections 106 through 111 (42 U.S.C. 4332(2)(C)-(D), 4336-4336e).
[10] NEPA only applies when a proposed action is a "major federal action." Congress has redefined this term to mean an action that the agency carrying out the project "determines is subject to substantial Federal control and responsibility."

- **Preventing Regulatory Fragmentation** – Statutory clarity is needed to prevent agencies from adopting inconsistent NEPA rules, which could delay infrastructure projects requiring approvals from multiple agencies. Courts would have to try to harmonize based on their interpretations of the statute in a post-Chevron environment.
- **Aligning Environmental Reviews with Congressional Intent** – The FRA sought to streamline NEPA review and permitting, and Congress should provide oversight to prevent future regulatory agency overreach and reinforce the FRA's intent to prevent delays.
- **Establishing a Uniform Judicial Review Period** –Time-limited legal challenges are needed to prevent lawsuits from derailing approved projects.
    - *Expand and Automatically Apply the 150-day Limit to All Critical Infrastructure Projects*
    - *Eliminate the Statute of Limitations (SOL) Notification Requirement*
    - *Further Expand FAST-41 Protections to Prevent Litigation Delays on Surface Transportation Projects*
    - *Corner Post: The Need for NEPA Finality*
- **Making Permitting Reform a Durable Bipartisan Legislative Solution** – Regulatory clarity and consistency are powerful streamlining tools. Agencies must be bound by clear statutory requirements (i.e., durable bipartisan legislative solutions) rather than executive actions and discretionary guidance that can shift with each administration. Congress can further streamline the Clean Water Act (CWA) section 404 permitting process by facilitating faster approved jurisdictional determinations, codifying key (and bipartisan) exemptions, protecting and strengthening CWA general permits, limiting excessive mitigation requests, and encouraging innovative mitigation solutions.

a. Prevent Regulatory Fragmentation

Two recent court rulings—*Marin Audubon Society v. FAA*[11] and *Iowa v. Council on Envtl. Quality*[12]—found that the White House Council on Environmental Quality (CEQ) lacks rulemaking authority, with the *Iowa* decision vacating the 2022 NEPA regulations. Additionally, President Trump's recent executive orders revoked prior authority and directed CEQ to issue new guidance instead of regulations, further complicating the process.[13]

With judicial scrutiny increasing, especially with the Supreme Court[14] set to rule on a key NEPA case and the loss of *Chevron* deference,[15] the need for Congressional action is urgent to provide clarity and maintain an efficient and reliable environmental review and permitting framework. Otherwise, infrastructure projects could face inconsistent and unpredictable environmental approval processes, increasing costs and discouraging investments in critical infrastructure projects. **AGC urges**

---

[11] No. 23-1067 (D.C. Cir. 2024) (the court ruled that CEQ lacked authority to issue regulations binding on other federal agencies). The D.C. Circuit denied the petition on Jan. 31, 2025, from the Biden Administration and various environmental groups seeking *en banc* review of the *Marin Audubon* decision.
[12] 1:24-cv-089 (D.N.D. Feb. 3, 2025) (vacating the Biden administration's Phase 2 NEPA rule, finding that NEPA does not authorize CEQ to issue binding regulations; however, the court did not rule on the legality of CEQ's rules issued prior to Phase II).
[13] Trump, D. J., *Unleashing American Energy*, Exec. Order (Jan. 20, 2025); Revocation of Exec. Order No. 11991, *Relating to the Protection and Enhancement of Environmental Quality* (May 24, 1977).
[14] *Seven County Infrastructure Coalition v. Eagle County*, No. 23-975 (argued Dec. 10, 2024).
[15] *Loper Bright Enterprises v. Raimondo*, 603 U.S. 369 (2024).

Congress to provide clarity and efficiency in environmental reviews, ensuring projects are not derailed by shifting agency rules, litigation, or unnecessary bureaucracy.

b. Align Environmental Reviews with Congressional Intent

The most recent round of CEQ's regulations implementing NEPA directly conflicted with the FRA—landmark legislation passed by Congress in 2023, and supported by many members of this committee, to streamline environmental reviews and reduce permitting delays.[16]

AGC strongly supported the FRA provisions, which include:

- Established hard deadlines, page limits on reviews for *all types of construction projects* and streamlined processes that allow agencies to use another agency's categorical exclusion.
- Narrowed litigation exposure, requiring agencies to assess only "*reasonably foreseeable* environmental effects" of a proposed project, thereby abandoning the current practice to document and consider any environmental effects, no matter how remote or speculative.
- Improved review process by ensuring federal agencies need only consider and defend a "*reasonable range* of alternatives" to a proposed project that are "*technically and economically feasible*" instead of any possible alternatives, no matter how implausible.

By codifying these reforms, Congress made clear its intent to cut red tape, improve permitting efficiency, and accelerate all critical infrastructure projects. In May 2024, CEQ finalized its "NEPA Implementing Regulations Revisions Phase 2" rule,[17] which ran counter to the FRA's intent and, conversely, introduced "innovative approaches to NEPA" that directed reviews toward the Biden administration's priorities of climate change and environmental justice. A federal district court vacated these regulations on February 3, 2025,[18] reinforcing the importance of ensuring that agency rulemaking aligns with Congressional intent.

Congress must provide oversight to ensure that NEPA implementation aligns with the FRA's intent. Congress should hold CEQ and the federal agencies accountable for adhering to the law, prevent future regulatory overreach, and consider additional legislative or oversight measures to reinforce NEPA reforms and prevent further permitting delays.

c. Establish a Uniform Judicial Review Period

Citizen suits under NEPA are increasingly used as obstruction tactics rather than tools for environmental protection.[19] Although NEPA contains no provision for judicial review, courts allow

---

[16] Fiscal Responsibility Act of 2023, P.L. 118-5; CEQ NEPA implementing regulations, 40 C.F.R. §§ 1500–1508. CEQ and agency-specific NEPA regulations are subject to change by the executive branch and are generally reviewable in the courts under the APA.

[17] 89 FR 35442 (May 1, 2024).

[18] *Iowa v. Council on Envtl. Quality,* see footnote 12.

[19] *See* The Breakthrough Institute's report, "Understanding NEPA Litigation" (July 2024), that analyzes 387 NEPA cases brought to the U.S. appellate court system over the 2013-2022 period. According to the report's Executive Summary, "NEPA litigation overwhelmingly functions as a form of delay, as most cases take years before courts ultimately rule in favor of the defending federal agency." Between 2013 and 2022, NEPA appeals court cases increased 56% over the rate from 2001 to 2015. On average, 4.2 years elapsed between publication of an environmental impact statement or environmental assessment and conclusion of the

plaintiffs to challenge agency compliance with NEPA by filing challenges under the Administrative Procedure Act (APA). Claims arising under the APA are subject to a six-year statute of limitations[20] which allows project opponents to file litigation long after the agencies' environmental reviews are complete. For construction, the uncertainty and delay caused by lengthy judicial review timelines drive up project costs, stall job creation, disrupt the construction workforce, and hinder economic growth by jeopardizing critical infrastructure investments.

AGC appreciates this committee's reforms which imposed a 150-day time limit on lawsuits challenging environmental approvals for highway or transit projects,[21] but asserts that it should apply to all critical infrastructure projects. Certain projects across other eligible infrastructure sectors may opt into a two-year time limit under FAST-41.[22] As explained in Part II above, only the handful of "covered projects" apply for and obtain FAST-41 coverage to take advantage of the enhanced legal protections. The Water Resources Reform and Development Act of 2014 established a three-year statute of limitations for judicial review of any permits, licenses, or other approvals for water resources development project studies.[23] However, most projects remain subject to a six-year statute of limitations under the APA, exposing them to prolonged legal uncertainty.

AGC urges Congress to establish a clear, consistent, and reasonable time limit for filing lawsuits after a project has received necessary environmental approvals. AGC also recommends reforms to eliminate procedural paperwork steps that are creating uncertainty and unnecessary delay.

- **Expand and Automatically Apply the 150-day Limit to All Critical Infrastructure Projects** – Instead of requiring project sponsors to opt into a shorter litigation window by filing paperwork,[24] Congress should establish a clear and automatic 150-day time limit for all projects receiving federal environmental approvals, not just highways and transit. This would ensure consistency across infrastructure sectors and prevent lawsuits that arise long after agencies have completed environmental reviews.

- **Eliminate the *SOL Notification* Requirement and Make it Automatic** – Currently, the 150-day time limit applies only if the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), or Federal Railroad Administration (FRA) publishes a "statute of limitations (SOL) notification" in the *Federal Register* announcing that a Federal agency environmental permit, license, or approval is final. This extra step is unnecessary, creates procedural uncertainty, and adds paperwork and complexity to the process. Each DOT agency has developed different processes for implementing the SOL provision. There

---

corresponding legal challenge at the appellate level. NGOs instigated 72% of the total challenges; agencies won about 80% of challenges.

[20] 28 U.S.C. § 2401.

[21] The 150-day statute of limitations under 23 U.S.C. § 139(l) was enacted as part of the Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2012. This provision applies specifically to surface transportation projects, including highway and transit projects, and was intended to streamline the environmental review process under NEPA by limiting the timeframe for legal challenges to project "approvals."

[22] 42 U.S.C. § 4370m-6 (Litigation, judicial review, and savings provision).

[23] 33 U.S. C. § 2348(k).

[24] FAST-41 is a voluntary program for qualifying infrastructure projects; project sponsors must apply for and obtain FAST-41 coverage for their projects, see footnote 6.

is evidence to suggest that agencies are already disregarding this requirement in order to mitigate risk.[25] Congress should eliminate this requirement and apply the 150-day limit automatically.

By expanding the 150-day statute of limitations and removing procedural hurdles, Congress can provide the predictability needed for infrastructure projects to move forward without years of legal uncertainty. These reforms would align with broader efforts to modernize environmental permitting, reduce litigation abuse, and support economic growth and job creation. For construction, it would ensure that once a project is approved, it is not subject to years of legal uncertainty.

i. *Further Expand FAST-41 Protections to Prevent Litigation Delays on Surface Transportation Projects*

While FAST-41 provides important safeguards against litigation delays—*i.e.*, restricts the types of claims that can be raised and factors the courts must consider when deciding whether to halt a project under judicial review—its benefits are limited to projects that voluntarily opt in and successfully obtain coverage. Notably, these limits on litigation do not apply to highway and public transportation projects under the U.S. Department of Transportation (DOT). This means that most critical infrastructure projects—including highway and public transportation capital projects—do not benefit from FAST-41's stricter limits on lawsuits.

AGC supports expanding FAST-41's litigation protections to all critical infrastructure projects to prevent unnecessary legal delays. Specifically, AGC urges Congress to:

- **Require challengers to raise concerns early** – Under FAST-41, lawsuits must be based on issues that were raised with "sufficiently detailed comments" during the environmental review process. This ensures that stakeholders engage during project planning rather than using litigation as an after-the-fact obstruction tactic. Expanding this requirement to all critical infrastructure projects would reduce surprise lawsuits that stall approved projects.
- **Ensure courts consider economic impacts** – FAST-41 directs courts to weigh economic harm, including job losses, before issuing preliminary injunctions that could stop a project. Extending this protection to all critical infrastructure sectors would help prevent unnecessary delays in delivering major projects.

Expanding these proven litigation safeguards beyond FAST-41's voluntary, limited framework would provide greater certainty for all infrastructure projects, ensuring they can move forward without unnecessary legal obstacles.

[25] The DOT's Interim Guidance for the sec. 139 Environmental Review Process cautions its components "to consider the context, scope, and level of controversy surrounding the project, among other factors, when deciding whether to publish an SOL Notice." The guidance gives each FHWA Division Officer the authority to decide whether or not to comply with the requirement. *See* Appendix C – "The FHWA Division Offices must work closely with their FHWA field legal counsel *to determine whether and when* to publish a SOL notice.... Each FHWA Division Office *determines whether publication of the SOL notice is the best* course in light of all factors affecting the project."

ii. *Corner Post: The Need for NEPA Finality*

In *Corner Post, Inc. v. Board of Governors of the Federal Reserve System*,[26] the U.S. Supreme Court ruled that the six-year statute of limitations for challenges under the APA begins not when an agency takes "final action" on the project authorization but when a plaintiff first experiences harm from that action. In fact, a plaintiff does not even need to have existed at the time a decision was made. Under this ruling, when you create a new company, non-profit, or interest group, you get six years to challenge any agency decision that impacts your goals.

Both the holding and opinion create uncertainty that "hinders the ability of businesses to plan effectively" and reinforces the need for clear finality in environmental reviews and permitting. If courts apply *Corner Post* broadly,[27] new plaintiffs could potentially challenge NEPA-related analysis or actions, like EISs or environmental assessments (EA) years after the final Record of Decision is published in the *Federal Register*.[28] This increases the legal risk for contractors, as projects could be delayed indefinitely.

Contractors rely on the finality of NEPA-related action before starting work. **AGC strongly supports Congressional action to ensure finality in environmental approvals by:**

- **Applying a firm 150-day legal challenge deadline to NEPA reviews, as outlined above.**
- **Restricting lawsuits to those who raised concerns during the environmental review process, as outlined above.**
- **Preventing last-minute injunctions that halt projects already underway.**

Allowing litigation to disrupt fully approved projects undermines regulatory certainty, wastes taxpayer dollars, and jeopardizes jobs. Worse still, granting injunctive relief for projects already under construction creates unnecessary risk and delays. Congress must act to protect the taxpayers who benefit from infrastructure projects from indefinite legal challenges.

d. The Impact of NEPA-Related Litigation Delays on Infrastructure Projects: Delays, Costs and Workforce Disruptions

Despite years of effort to streamline the process, NEPA has led to long protracted legal challenges that delay critical infrastructure projects and stifle economic development. The data and real-world project impacts highlight these challenges.

According to the Biden administration's CEQ analysis, median EIS review times improved to 2.2 years, down from 3.1 years in the first Trump administration. However, this data ignores the

[26] 603 U.S. 799 (2024) (an APA claim does not accrue for purposes of § 2401(a)'s 6-year statute of limitations until the plaintiff is injured by final agency action; NEPA uses the same statute of limitations provision).
[27] Dicta suggests the holding might be limited to ultra vires claims. In response to the government's policy concerns that the holding would expose agencies to a flood of litigation on long-standing rules, the majority noted that "the "Board's policy concerns are overstated because regulated parties may always challenge a regulation as exceeding the agency's statutory authority in enforcement proceedings against them."
[28] The *Corner Post* decision specifically applies to lawsuits brought under the Administrative Procedure Act (APA), which governs challenges to federal agency rules. The ruling does not directly impact lawsuits under the Clean Water Act (CWA), for example, because that statute has its own judicial review provisions, including specific statutes of limitations and deadlines for filing legal challenges.

growing number of NEPA lawsuits, which can add years to already-reviewed projects. Once an agency prepares an EA or EIS, interest groups and other stakeholders can initiate litigation under NEPA to challenge the adequacy of the agency's review.

A report from the Breakthrough Institute, *Understanding NEPA Litigation*,[29] found that an average of 4.2 years elapsed from when an environmental review was published to when a legal challenge of a project was resolved at the appellate level. Per a review of appeal cases contesting EAs and EISs between 2013 to 2022:

- Energy projects faced an average 1,415-day delay before appeals were resolved.
- Infrastructure projects saw an average 1,250-day delay.
- NEPA litigation added nearly four years to energy development projects—including both clean and traditional energy sources.

Court challenges to NEPA are on the rise. From 2013 to 2022, circuit courts experienced a 56 percent increase in NEPA appeals cases annually in comparison from 2001 to 2015, according to the Breakthrough Institute's report. According to CEQ's NEPA Litigation Surveys covering the 2001 to 2013 time period, an average of 115 new NEPA cases were filed annually.[30]

While NEPA aims to ensure community input, special interest groups have increasingly weaponized it to block projects. The Breakthrough Institute reports that 72.1 percent of NEPA appeal cases originate from non-governmental organizations (NGOs). Despite branding themselves as environmental litigation experts, these NGOs succeed only 26 percent of the time. According to the report's Executive Summary, "NEPA litigation overwhelmingly functions as a form of delay, as most cases take years before courts ultimately rule in favor of the defending federal agency."

See the appendix to this testimony for an AGC-prepared list of projects stalled by litigation related to environmental reviews and approvals.

AGC maintains that reforming NEPA litigation is critical to keeping infrastructure projects on track and protecting American jobs.

IV. AGC's CWA Permitting Reform Recommendations

a. Fully Implement the Sackett Ruling on the Definition of "Waters of the United States" (WOTUS)

Congress and the new administration should embrace this opportunity to resolve the endemic regulatory uncertainty over federal jurisdiction over waters. The CWA grants the U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) jurisdiction over "navigable waters," defined in the act as "Waters of the United States" (WOTUS) without further clarification. For decades, federal agencies and courts have struggled to define WOTUS, determining which waters fall under federal versus state and local control. The ability to obtain CWA section 404 permits required for construction activities in WOTUS is critical to the completion of the private and public infrastructure that forms the literal

[29] The Breakthrough Institute's report, "Understanding NEPA Litigation" (July 2024), that analyzes 387 NEPA cases brought to the U.S. appellate court system over the 2013-2022 period.
[30] *See also* National Environmental Policy Act: Judicial Review and Remedies, Congressional Research Service, (September 2021).

foundation of the nation's economy. Section 404 is a single permit, but it encompasses several other authorizations in a timeline of review: The Corps routes the permit applications to numerous other agencies for review and comment. Section 404 is second only to NEPA as a roadblock in the environmental approvals and permitting of infrastructure projects. Federal jurisdiction over a waterbody triggers all CWA programs (not just dredge and fill/wetlands permits) and imposes costly, time-consuming permitting and management requirements on construction sites—including mitigation.

The last four administrations have issued multiple, divergent definitions of WOTUS and guidance, causing significant regulatory uncertainty for projects and impacting contractors' ability to plan and execute their work efficiently. The Biden administration's initial effort greatly expanded federal reach over waters and wetlands, relying on the "significant nexus test" to assert federal jurisdiction over almost any wet area. Notably, both chambers of Congress rejected this rule. Then a U.S. Supreme Court decision (May 25, 2023, *Sackett v. EPA*) struck down the significant nexus test and stated that the CWA does not extend to all wetlands and ephemeral features. The Justices clarified that isolated water features, non-adjoining wetlands, and ordinarily dry features are not WOTUS. A few months later, the agencies released a "conforming" version of the rule. The conforming rule failed to fully implement Sackett, nor did the agencies address the initial rule's broader legal flaws. They also did not solicit public feedback on their revisions. The conforming rule continues to impose an overly broad interpretation and, in its implementation, relies on case-by-case analysis and decisions, creating widespread confusion. As a result of litigation from AGC and others, the conforming rule is on hold in 27 states.

AGC urges Congress to facilitate a CWA section 404 process that enhances project certainty, minimizes litigation risks, and prevents unnecessary delays by providing oversight and support of the following agency actions:

- **Fully align the conforming rule with the U.S. Supreme Court decision in *Sackett*.** The rule remains unlawful. Contractors must be given a seat at the table in the drafting of a truly durable definition of WOTUS, which AGC encourages the current administration to do. Congressional collaboration and support of this effort would strengthen the resulting definition and help it endure through future administrations.
- **A clear, predictable, and enduring definition of WOTUS will reduce risk of non-compliance.** Congress can impress upon the agencies the importance of issuing a rule that provides the requisite certainty for compliance with the law without fear of shifting agency interpretations. In addition to significant project delays and costs, contractors could face fines and jail time if they "guess wrong" about the need for a federal permit to cover a ditch or even an unassuming, dry patch of land on their project. The Justices recognized the imperative for regulatory certainty in the *Sackett* case and raised "serious vagueness concerns" that implicate due process requirements for penal statutes like the CWA.[31]
- **Limit the case-by-case analysis and guesswork that exposes contractors to regulatory ambiguity.** The Biden administration regulated WOTUS through guidance by elevating some project permits for extensive review and releasing field memos describing their reasoning. However, applicability remains unclear, because all the rationale was specific to

[31] *See* U.S. Supreme Court, *Sackett v. EPA* (2023). "[T]he EPA's interpretation gives rise to serious vagueness concerns in light of the CWA's criminal penalties, thus implicating the due process requirement that penal statutes be defined 'with sufficient definiteness that ordinary people can understand what conduct is prohibited.'" Available online at: https://www.supremecourt.gov/opinions/22pdf/21-454_4g15.pdf.

the project at hand. This practice leaves stakeholders wading through unclear regulations and then analyzing scenario-based memos for clues on whether their project can move forward. AGC encourages the Trump administration to withdraw these field memos. Congressional oversight is necessary to help federal agencies avoid regulating through guidance.

b. <u>Further Opportunities to Streamline the Permitting Process</u>

Unraveling the regulatory confusion related to WOTUS is only part of the solution. AGC and its members have identified opportunities to streamline the section 404 permitting process itself.

- **Facilitate the issuance of Approved Jurisdictional Determinations (AJDs).** AGC members are reporting that the Corps is not providing AJDs in a timely manner, which results in projects instead pursuing the more expensive option of a Preliminary Jurisdictional Determination (PJD) to advance the project. By moving ahead with a PJD, the project team assumes that the federal government has jurisdiction and acts accordingly. Fully implementing the *Sackett* decision will go a long way in reducing delays in obtaining AJDs and reduce the need for PJDs. Furthermore, Congress should explore and encourage innovative approaches, such as allowing approved consultants to make determinations, thereby reducing some of the administrative burden on agency staff. The Corps could vet the consultants and audit their determinations to ensure compliance.
- **Codify key exemptions.** Multiple administrations under both political parties have recognized the importance of exempting certain features from CWA jurisdiction under the section 404 program, for example, the prior converted cropland and wastewater exemptions. Most important to the construction industry are exclusions specific to: roadside ditches and other components of a municipality's storm sewers; stormwater features such as retention/detention ponds; and water filled depressions such as those caused by the use of construction equipment. The wording of the exemptions may have varied by administration, but the exemptions themselves have proved useful to retain. Congress should codify key exemptions to provide regulatory stability and ensure that these exemptions remain available for future projects.
- **Protect and strengthen general permits.** The general permit used for routine activities with minimal environmental impacts is a current streamlining tool. Nonetheless, the utility of these general permits (of all types) is limited due to ever-increasing requirements that reduce their effectiveness and do little to protect the permittee from regulatory risk. Over the years, more requirements have been added to the section 404 general permits (called Nationwide Permits or NWPs) through pre-construction notifications (PCNs) or conditions placed on the permit by a state within the CWA section 401 process. For another example, stormwater general permits under CWA section 402 are seeing increases in requirements, monitoring, and sampling. Regulators are also inserting ambiguous language into stormwater permits that introduce risk to permittees and threaten the CWA permit shield.[32] Congress should reaffirm

[32] *See* U.S. Supreme Court docket for the *City and County of San Francisco v. EPA*, available online at https://www.supremecourt.gov/docket/docketfiles/html/public/23-753.html. Arguments heard Oct. 16, 2024. AGC submitted an amicus brief challenging a lower-court decision allowing generic prohibitions in federal water discharge permits, which remove "permit shield" protections.

the need for general permits as a streamlining measure, protect the CWA permit shield, and ensure that the utility of these permits remains intact.

- **Curtail agency use of mitigation as a penalty for economic investment.** The Federal agencies are incorporating mitigation into all types of permitting. Under the Biden administration's rules, NEPA factored mitigation for climate and environmental justice, mitigation for species is now considered a "reasonable and prudent measure," stormwater permits may include mitigation for environmental justice, and CWA section 404 permits (and increasingly in the Nationwide Permits) have long included some measure of compensatory mitigation. State agencies are following suit for state waters (and climate) and adding high mitigation ratios for projects. An AGC member shared that mitigation for an acreage with dry washes that had not seen water in decades cost about $400,000 on one project in the arid West. One strategy that provides for reasonable mitigation while limiting abuse is to establish a maximum expenditure for federal reimbursement of mitigation costs. For example, Congress could limit federal funding to only cover federally required mitigation. There is precedence for mitigation constraints: U.S. DOT limits reimbursement for some environmental restoration or pollution abatement.
- **Address the mitigation credit shortage that delays projects.** AGC has been raising concern for years that mitigation banks are not sufficient to meet the demand and permittee responsible mitigation can be very costly. The extra layers of mitigation imposed by the prior administration only further strained available resources. In a recent report, U.S. DOT highlights the lack of mitigation credits as one of the challenges to their projects obtaining a timely CWA section 404 permit. Reasonable mitigation measures for projects, limiting reimbursements, as well as fully implementing the *Sackett* decision will all help control costs and alleviate shortages in the banking markets. Congress should also foster agency adoption of innovative mitigation solutions to make credits more accessible to projects.

V. Conclusion & Call to Action

Congress has taken meaningful steps to streamline environmental reviews and improve permitting efficiency through bipartisan reforms like the FRA and past measures under MAP-21, the FAST Act, and IIJA. However, federal agencies continue to introduce regulatory obstacles that conflict with Congressional intent and delay critical infrastructure projects. **I would like to reiterate AGC's Call to Action and urge this Committee to ensure NEPA implementation aligns with the FRA's reforms, build on past judicial review reforms by broadening their applicability and increasing their utility, and expand the scope of permitting efficiencies, as outlined above.**

I thank the Committee for the opportunity to testify today and appreciate its continued efforts to help improve our nation's infrastructure by enacting policies that create good-paying jobs in America. I look forward to answering any questions you may have.

Appendix

Case Studies: Projects Stalled by Litigation Related to Environmental Approvals

In August 2017, the Central Maine Power Company issued a Notice of Intent with the Maine Department of Environmental Protection to construct the **New England Clean Energy Connect** (NECEC), a new clean power electric transmission line from Quebec to Massachusetts, delivering hydropower to 1.2 million homes. After three years of environmental review, the project was set to move forward. Unfortunately, it was stopped after a lawsuit was filed by the Sierra Club, Natural Resources Council of Maine, and Appalachian Mountain Club targeting its NEPA-required environmental assessments. While the lawsuit was unsuccessful, it held the project up for five months and led to the environmental groups creating a ballot initiative and legal appeals to stop the project, which slowed it even more. After a Maine court found the ballot initiative unconstitutional, the project was finally able to move forward after 21 months of delays and over 50 percent more in costs than initially expected. The legal logjam to get this energy project off the ground shows how protracted NEPA has become and how it can be used to enact a veto on national infrastructure.

The **SunZia Energy Transmission** project in Arizona ($10 billion) fought a legal challenge from tribal and environmental groups. A U.S. district judge dismissed the challenges in 2024. The project, 15 years in the planning stage, will deliver wind energy through a network stretching from New Mexico to Arizona. The draft EIS was completed in 2012; however, the Bureau of Land Management (BLM) approved the project with a final EIS in 2023. The project will create 2,000 construction jobs.

BLM approved another green energy transmission project, **Sunrise Powerlink**, in San Diego County in 2009, which faced challenges beginning in 2010. It was still facing legal challenges even after it had been completed in 2012. Planning for that project started well before its 2005 application to the Public Utilities Commission for the State of California—some argue it began in the 1980s with multiple stalled efforts and challenges. The eventual project delivered power to over 650,000 homes and funded over 580 residential rooftop solar installations.

Delays extend beyond the renewable energy examples listed above. Some projects end up being stuck in legal reviews for decades. For example:

- The **Cape Wind project**, which would build a wind farm in the Nantucket Sound of Massachusetts, began in 2001 and suffered many permitting and legal challenges, lease rights for the site were terminated in 2017 following the difficult legal challenges.
- The **Regional Connector in Los Angeles**, an underground light rail transit loop, was first envisioned in 1984. The project's environmental reviews were completed in 2010, but construction was delayed by lawsuits. After prevailing in court, the project finally opened in the summer of 2023.
- The **Illinois Tollway Authority, I-355**, Southern Extension, 12.5 miles of four-lane toll road, was delayed for years because of lawsuits. The project ultimately opened on Veterans Day, 2007, eighteen years after the state General Assembly initially authorized studying the extension.

- The **US 99 Grand Parkway Segments** E, F, and G, 55 miles of four-lane toll road on a new location in northwest **Houston**, took 15 years to complete NEPA, which included an EIS, Supplemental EIS, FEIS Revaluation, and was litigated and blocked from construction due to a court injunction. The roadways were completed in 2016.
- The **Hudbay Rosemont Mine in southern Arizona** was delayed by about 15 years by lawsuits and suspension of permits. It's now on hold, waiting for appeal.
- Rebuilding a portion of **I-70 in Denver** was delayed for years via NEPA challenges, with construction finally starting in 2018 and completed in 2023.
- Planning began in 2012 on a **light-rail expansion in Federal Way in Seattle, WA**; citizen issues delayed the project, and construction just started in 2019. The project is nearly complete, with testing underway and the projected opening slated for 2026.
- The permitting process for a **desalination plant in San Diego** lasted almost 10 years and suffered 14 legal challenges. The project overcame the legal battles and opened in December 2015.
- **Raising the roadway of the Bayonne Bridge** took a five-year approval process due to challenges with its environmental assessment. While the project was expected to be completed by June 2017, it was not reopened until May 2019.
- In **Denver, a new water storage facility** began its process in 2003. The EIS took almost 10 years. The permit was signed in 2017, and the project is still tied up in legal review. In December 2024, environmental activists pushed for the U.S. District Court to file an injunction to halt work on the project.
- **Reconstruction of the Wisconsin Zoo Interchange** near Milwaukee began in the early 2000s but was held up for new bus routes, finally resolved in 2014. The project was completed in November 2023.
- In **Little Rock, work on I-630** was able to proceed after a challenge to its environmental review because it would not extend outside of the existing right-of-way. An injunction was denied in 2019, and the project was completed in 2020.
- Another project in **Little Rock, I-30 Crossing Project**, was also threatened by an environmental lawsuit. Planning for the project initially began in 2014, while legal reviews questioning its environmental assessments delayed the final completion until December 2024.

Senate Committee on Environment and Public Works
Hearing Entitled, *"Improving the Federal Environmental Review and Permitting Processes".*
February 19, 2025
Questions for the Record for Ms. Leah Pilconis

Senator Wicker:

1. **How should SCOTUS handle the decision in *Seven County Infrastructure Coalition v. Eagle County Colorado*?**

AGC of America submitted an *amicus* brief in this case and believes that the Supreme Court should reverse the judgment of the Court of Appeals. NEPA should not be read to confer the extraordinary power bestowed upon agencies by the DC Circuit's decision and to require the analysis of impacts beyond the control of the lead agency. Congress was clear in the Fiscal Responsibility Act (FRA) which was signed into law. The FRA specifies that NEPA reviews should only look at the technically and "economically feasible project alternatives" and environmental impacts with "reasonably close or foreseeable impacts."

Ranking Member Whitehouse:

1. **What can Congress do to turn interagency process into an efficient mechanism for coordinating agencies?**

Cooperating agencies should be brought into the process early and for a determined period. Lead agencies should not wait until they have completed an entire draft of a NEPA document before seeking the input of a cooperating agency.

The Infrastructure Investment and Jobs Act codified many of the reforms included in *One Federal Decision.* Unfortunately, the reforms in this law, including hard timelines and page limits for environmental documents have largely not been enforced.

One suggestion would be for Congress to follow the precedent that this committee set in Section 1306 of MAP-21 which not only created timeframes for agency review but also established a rescission or penalty the agency faced for missing the deadline.

2. **In what regulatory processes should there be a filing requirement for an applicant to state what it has done to identify and gather preliminary input from affected stakeholders?**

Public engagement and the gathering of interested stakeholders is the responsibility of the agency. Applicants should be encouraged to gather input as early as possible in the process to mitigate delays but requiring them to do so would be overly burdensome.

Congress should require challengers to raise concerns early, which reduces lawsuits that halt infrastructure projects. Under FAST-41, lawsuits must be based on issues that were raised with "sufficiently detailed comments" during the environmental review process. This ensures that stakeholders engage during project planning rather than using litigation as an after-the-fact obstruction tactic. Expanding this requirement to all critical infrastructure projects would reduce surprise lawsuits that stall approved projects.

Senator Markey:

3. **Is shifting NEPA implementation away from a centralized point like the Council on Environmental (CEQ) a step towards regulatory fragmentation?**

NEPA has always been implemented by the agencies with guidance from CEQ. Instead of regulating the content of environmental reviews, CEQ should ensure only that each agency's implementing regulation is consistent with the statute. And in this approach, applicants will find that agencies have adopted regulations that are consistent with one another.

Congressional action is needed to provide clarity and maintain an efficient and reliable environmental review and permitting framework. Otherwise, infrastructure projects could face inconsistent and unpredictable environmental approval processes, increasing costs and discouraging investments in critical infrastructure projects.

Senator CAPITO. Thank you very much.

Our next witness is Carl Harris. Mr. Harris is the Chairman of the Board for the National Association of Home Builders. He has been building homes for 40 years in Wichita, Kansas, at Carl Harris Company, the firm he founded in 1985 with his father and sister.

We want to thank him for spending time with us this morning before he heads to the NAHB International Builders Show later this week in Las Vegas.

I will now recognize Mr. Harris for his opening statement.

STATEMENT OF CARL HARRIS, CHAIRMAN OF THE BOARD, NATIONAL ASSOCIATION OF HOME BUILDERS

Mr. HARRIS. Chairman Capito, Ranking Member Whitehouse, and members of the committee, I appreciate the opportunity to appear before you today. As a small business owner, I understand the immense challenges that our members experience as they navigate the permitting process, because creating homes for Americans starts with successful permitting.

The U.S. has a shortfall of over 1.5 million housing units. In the easy places to build, homes have already been laid out, which means the Nation's home builders are going to increasingly run into environmental permitting regulations for undeveloped land. We want to improve this regulatory process so that home builders can accomplish two fundamental goals: safeguarding the environment and creating attainable housing for Americans.

Regrettably, American home buyers are suffering through a record low housing attainability. According to NAHB's Priced-Out study, 77 percent of buyers are unable to afford just the median price of a new home. Every small price increase has a sharp exclusionary effect. And on average, every $1,000 that gets added to a home's cost locks out 106,000 households that will be priced out of the market.

Uncertainty and delays in permitting needlessly add cost to the construction process, which increases home prices and pushes the American dream away from others entering the market.

While the Clean Water Act serves as a crucial foundation for protecting the Nation's waterways, the implementation of certain aspects of Section 404 and mitigation bank approvals are a major source of frustration for our members.

Let's consider a property owner who wants to build homes on undeveloped land. They want to know if the water features on their property fall under Federal jurisdiction. To determine this and avoid Federal penalties, they need an approved jurisdictional determination, an AJD.

Unfortunately, obtaining AJDs are not prioritized under the Army Corps and take well over a year to obtain. Rather than languish waiting for an AJD, home builders will roll the dice and try for a quicker preliminary jurisdiction determination, known as a PJD. But a PJD has several hooks. It is not appealable, it allows water features to be considered jurisdictional, even if they are not covered by the Clean Water Act, and can preclude the use of the nationwide permit.

We should be able to tell home builders if there are Federal jurisdictional features on their property without forcing them into the problematic PJD.

Congress created the streamlined nationwide permit under Section 404, which is meant to be completed within 60 days for minimal impacts on water features. But members routinely report that it is taking almost a year to obtain these, which is rivaling the time it takes to complete the more rigorous individual permit required for larger environmental impacts. This timeline is unacceptable for a permitting tool that is meant to be fast and predictable.

Digging deeper under the 404, we have the Clean Waters of the U.S. Rule, which has been subject to litigation and administration changes. This non-stop whiplash has confounded our members about which water features on their property are federally jurisdictional, with key regulatory terms like continuous surface connection and relatively permanent water that have been left undefined and open to interpretation based on which Army Corps district you are in. This lack of harmony promotes confusion and uncertainty.

As part of the 404 permitting, builders are often required to purchase mitigation credits to offset the impacts to wetlands. For example, a member in Ohio told us that the credits for his project cost about $140,000 due to the two-to-one mitigation requirement. When you break it down per home lot, this adds $10,000 to the cost of a new home.

A driving force behind these exorbitant credit prices is the shortage of mitigation banks across the Nation. It is extremely challenging for bank sponsors to come online, which disincentivizes participation. This leaves home builders competing against others over limited credits and drives up the cost.

To be able to build the millions of housing units needed across this Nation at an attainable price, the residential construction industry needs a more clear and predictable environmental permitting process. We need to prioritize the AJD process, recenter the nationwide permit, and encourage mitigation bank creation are all the ways we can do to chip away at this problem.

I thank you for the opportunity to speak.

[The prepared statement of Mr. Harris follows:]

Testimony of Carl Harris

On Behalf of the

National Association of Home Builders

Before the

Senate Environment and Public Works Committee

Hearing on

"Improving the Federal Environmental Review and Permitting Processes"

February 19, 2025

Introduction

Chairman Capito, Ranking Member Whitehouse, and members of the Committee, I am pleased to appear before you today on behalf of the National Association of Home Builders (NAHB) to share our views on how federal permitting inefficiencies are acting as a barrier to the production of quality, affordable housing. My name is Carl Harris, I am a small-volume home builder from Wichita, Kansas, and I serve as the Chairman of NAHB's Board of Directors.

NAHB represents more than 140,000 member firms involved in the home building, remodeling, multifamily construction, land development, property management, subcontracting and light commercial construction industries. Each year, NAHB members construct approximately 80% of all new housing in the United States.

As home builders, our work is deeply connected to the environment. Our members strive to create flourishing communities—we cannot achieve this goal without safeguarding the environment—where we abide by federal, state, and local environmental regulations. While these laws serve a crucial purpose, their implementation can severely undermine projects and add exorbitant costs to the final price of a home.

The residential construction industry, and others in the regulated community, continue to experience prolonged and opaque permitting processes, coupled with significantly higher mortgage interest rates which makes it more difficult for home builders to provide homes or apartments at a price point attainable for most households. Consequently, builders and developers operating under an unpredictable regulatory environment will make home building inefficient and costly, ultimately exacerbating our nation's housing crisis.

Regulatory Costs' Influence on Housing Attainability

Before examining the permitting hurdles our members face, it is essential to first illustrate the immense housing challenges across our country. Americans are facing a visceral housing attainability crisis. The root cause of this crisis is transparent—there is a profound undersupply of single-family and multifamily units, both for-rent and for-sale. NAHB's economists conservatively estimate that there is over a 1.5-million-unit housing shortage in the U.S.[1] Unfortunately, this has forced a majority of Americans to remain on the sidelines, unable to access the American Dream of homeownership and its financial advantages.

To showcase this, according to NAHB's "Priced-Out Estimates" study for 2024, **77% of households are unable to afford the median price of a new home, which sits at $495,750.**[2] Lowering costs is pivotal because prospective homebuyers are highly sensitive to price changes. The study further demonstrates that for every $1,000 increase in the median price of a new home, an additional 106,031 households are priced out of the market.

---

[1] Single-Family Starts will Rise in 2024 but Supply-Side Challenges Persist, https://www.nahb.org/news-and-economics/press-releases/2024/02/single-family-starts-will-rise-in-2024.

[2] Na Zhao, Nearly 77% of U.S. Households Cannot Afford a Median-Priced New Home, https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics-plus/special-studies/2024/special-study-households-cannot-afford-a-median-priced-new-home-april-2024.pdf?rev=cb6f4f7d507341cb9ece97b90b6709c3.

Given how elastic homebuyers are to marginal price changes, let's zoom out and look at the big picture of regulatory cost. According to a 2021 NAHB study, regulatory costs at the federal, state, and local levels account for **24% of the final price of a new single-family home built for sale**.

Regulatory reforms that chip away at this block help reduce the overall cost of construction which will help increase housing supply. With more housing supply, home prices are pushed lower, and more prospective homebuyers can get off the sidelines and into the market. Unfortunately, our members often struggle with predictability and certainty under federal permitting regimes, namely, the Clean Water Act ("CWA") and the Endangered Species Act ("ESA"), which are critical because housing production is linked to successful permitting.

Almost all land developers have been forced to step away from a parcel of land due to the uncertainty in getting the necessary permits to move forward with a different project. On this issue, the CWA is well-known among the regulated community because it is unclear which parts of the land parcel are considered a "waters of the United States" ("WOTUS") and therefore requires a federal wetland permit under the CWA. To discover this answer, it can take over a year for the landowner to receive a response from the government.

To build more attainable housing nationwide, we must be able to develop the parcels near municipal centers that have been avoided due to regulatory uncertainty. When considering these implications, it's clear why we need to make the unwieldy permitting process more straightforward for home builders.

The CWA 404 Nationwide Permit: Streamlining Gone Awry

Nearly 60,000 Nationwide Permits ("NWP") are issued annually. Developers and builders pull some of the highest numbers and report major issues with this once "streamlined" permitting pathway. To better understand this tool, let's begin at its inception and revisit what Congress intended when it enacted the NWP (CWA 404(e)), and how Congress' activities fit in with the context of the Corps' regulatory program during the 1977 CWA amendments which created the NWPs.

The first NWP program was adopted in 1977 as a mechanism to offset the court ordered expansion of the Section 404 permit program in response to *NRDC v. Callaway*[3]. This ruling broadened jurisdiction from traditionally navigable waters to "all waters of the United States." Recognizing that the Corps did not have the resources to regulate activities in *all* these waters, it crafted a permit through rulemaking that would authorize certain limited Section 404 discharges into WOTUS features.

Soon after the Corps regulations were adopted, the NWP program was soundly endorsed by Congress in the 1977 CWA Amendments to provide administrative efficiency in regulating activities causing minimal

[3] *Natural Resources Defense Council, Inc. v. Callaway*, 392 F. Supp. 685 (D.D.C. 1975).

adverse environmental effects. The Report on S. 1592, the Senate's version of the 1977 Amendments declared, **"The amendment also provides for the use of general permits as a mechanism for eliminating the delays and administrative burdens associated with this program."**[4]

Later, during debates on the conference report, Representative Ray Roberts, specifically acknowledged the Corps' recently promulgated NWPs in his discussion of the general permit authority granted in conference: "On July 19, 1977, the Corps of Engineers promulgated revised regulations implementing Section 404. These regulations were designed to simplify and clarify the program. Among others, these regulations permitted, on a nationwide basis, the discharge of dredged or fill material into nontidal rivers and streams above the headwaters and lakes that are less than 10 acres in surface area, provided that certain specified management practices are followed."

In that same tenner, Senator Ed Muskie, in a colloquy with Senator Sam Nunn noted, "the bill does… grant the authority for nationwide permits as contemplated in the Corps regulations."[5] The legislative history demonstrates Congress' endorsement of the program in effect at the time, as both chambers overwhelmingly approved the CWA Amendments, including giving the Corps the authority to issue general permits on a state, regional, or nationwide basis.

The NWP of 1977 did not require advanced notice to the Corps and had very few restrictions. In 1978, President Carter issued Executive Order 12044 which directed the regulatory agencies to review their regulations to simplify and make them less burdensome. This directive led to the adoption of changes to the regulations in 1982, which eliminated the non-applicability of the NWP 26 to natural lakes larger than 10 acres. The National Wildlife Federation immediately filed a lawsuit against the Secretary of the Army to nullify the amended regulation. *National Wildlife Federation v. Marsh*[6] was settled through a consent agreement that required the Corps to promulgate new regulations. The revisions placed significant restrictions on the NWP to ensure minimal environmental effects, to limit discharges under NWP 26 to a maximum of 10 acres, and to involve all resource agencies in the decision-making process.

The regulatory and legislative history that has shaped the Corps' general permit authority and program contains **two important points**:

- First, the general permit program was a necessary response to the expansion of the wetlands jurisdiction resulting from *NRDC v. Calloway*.
- Second, and more importantly, Congress ratified the general permit program as a function to provide regulatory relief for activities resulting in minimal environmental effects, and eliminate the administrative burdens and delays associated with the individual permit process.

With this underscored, it's important to recall that Congress approved the earlier versions of NWPs 12 (utility lines), 14 (minor road crossing), and 26 (discharges into isolated or headwaters wetlands and waters of less than 10 acres). Further, Congress agreed that these types of general permits were envisioned for Section 404(e); it was also expected the Corps to develop additional general permits, if necessary, to ensure a streamlined permit process.

---

[4] S. Comm. on Env't and Pub. Works, S. Rep. No. 95-370, to accompany S. 1952, at 75 (July 28, 1977).
[5] 1977 CWA Legislative History, at 1053-54 (Aug. 4, 1977).
[6] *National Wildlife Federation v. Marsh*, 568 F. Supp. 985 (D.D.C. 1983).

Congress' endorsement for a streamlined process under CWA 404(e) should serve as a guidepost as the overall efficiency of the program today is reexamined. NAHB has shared several examples of how the program has added procedural requirements, reduced the allowable acreage thresholds, and imposed expensive mandatory mitigation requirements for even minimal impacts to any jurisdictional feature regardless of ecological function.

Regrettably, the CWA 404 NWP no longer resembles the original intent of a streamlined, efficient permitting program to authorize those routine activities with only a minimal environmental impact. It is critical for Congress to revisit its intent when establishing the CWA 404 NWP and compare it to the permitting program as it exists today. NAHB is hopeful that Congress will restore the program's efficiency and utility for the homebuilding industry.

Current CWA 404 Permitting Challenges

Earthmoving is a fundamental part of the home building process, often requiring CWA Section 404 permits due to the historically broad jurisdiction asserted by the Corps and the EPA (hereafter "the Agencies") over what constitutes a WOTUS. However, the Corps has consistently found that most homebuilding activities qualifying for a CWA 404 permit have minimal adverse environmental impacts and thus fall under one or more NWPs. Given this importance, developers and homebuilders must navigate and interpret how the Agencies define and enforce WOTUS regulations in the field and throughout the CWA 404 permitting process.

Following the Supreme Court's *Sackett*[7] ruling, the Agencies had an opportunity to break the familiar cycle of disregarding the Court's repeated attempts to articulate clear limits on the scope of federal jurisdiction under the CWA 404 permitting program. In *Sackett*, the Court made clear that the *Rapanos*[8] plurality opinion, articulated by Justice Scalia, sets forth the correct test for what is a WOTUS under the CWA:

- Waters of the United States encompassing only (i) "relatively permanent" bodies of water connect to traditional interstate navigable waters; and (ii) wetlands that have a "continuous surface connection" with relatively permanent waters, "so that they are 'indistinguishable' from those waters". For a wetland to be CWA jurisdictional, it must be "difficult to determine where the 'water' ends, and the 'wetland' begins."

Unfortunately, nearly two years have passed since *Sackett*, and the Agencies continue to ignore the Court's clear endorsement of the *Rapanos* plurality test. The Agencies instead chose to issue a revised WOTUS regulatory definition that intentionally avoided defining key terms like "continuous surface connection" or "relatively permanent" flow. These two terms are fundamental terms to allowing the Agencies to assert CWA jurisdiction over otherwise isolated wetlands and intermittent or ephemeral roadside ditches.

[7] *Sackett v. Environmental Protection Agency*, 598 U.S. ___ (2023).
[8] *Rapanos v. United States*, 547 U.S. 715 (2006).

As Ms. Susan Parker Bodine explained in her testimony before this Committee, the Agencies' revised WOTUS rule not only fails to comply with the Supreme Court's directives but also expands jurisdiction in ways that directly contradict the Court's key holdings under the *Sackett* opinion.[9] To highlight one area—the Supreme Court ruled that an "adjacent wetland" must be connected (i.e., indistinguishable) to another CWA jurisdictional features through a "continuous surface connection," resulting in difficulty discerning where jurisdictional features ends and the wetland begins.

However, the Agencies' preamble asserts that a wetland can be clearly distinguishable from a WOTUS and still be regulated—only a physical connection is required between a wetland and a WOTUS. That connection does not need to be WOTUS itself, it can be a non-jurisdictional feature like a man-made ditch, or even a grass swale. Also, the preamble contradicts the evidence of "relatively permanent" flow does not need to be connected to naturally occurring bodies of water like streams, creeks, rivers, lakes, etc.

Instead, a water feature can be a jurisdictional tributary if the federal regulator can trace evidence of a flow path downstream. That flow path does not need to be a WOTUS, it can be ephemeral flow, or even only possesses flow in response to "a concentrated period of back-to-fact precipitation events" e.g., following a thunderstorm deluge.[10] Based on this expansive interpretation of CWA jurisdiction contained within the final rule's preamble, it is clear the Trump Administration must repeal the final rule's preamble when it addressed the deficiencies of the revised WOTUS rule.

Over the year and a half since the Sackett ruling, the Agencies have steadfastly refused to provide any regulatory guidance explaining how the agencies intend apply the key findings from the Sackett ruling in the field. Instead, the Agencies announced an internal coordination process by which the Agencies would review certain requested jurisdictional determinations involving two jurisdictional categories under the revised WOTUS rule; adjacent wetlands and interstate lakes and ponds.[11] During an oversight hearing before the House of Representatives Transportation and Infrastructure Committee's Subcommittee on Water Resources and Environment, NAHB member Vince Messerly a wetlands mitigation banker from Ohio provided some examples from these "Field Memos."[12]

Mr. Messerly's testimony explained how these "Field Memos", rather than providing clarity to regulatory community, has instead shown how they Agencies intend to take expansive interpretations of "relatively permanent" and "continuous surface connection" concepts the directly contradict the Supreme Court's holdings under the Sackett ruling, including:

- Even "if a wetland is divided by a road," the wetlands on either side of the road are jurisdictional so long as "a culvert [] maintain[s] a hydrologic connection" between the two and *either* wetland

[9] Hearing on Supreme Court's Ruling in *Sackett v. U.S. Environmental Protection Agency:* Hearing before the Senate Committee on Environment and Public Works, 117th Cong. (2023).
[10] 88 Fed. Reg. 3887-88 (January 18, 2023).
[11] Michael L. Conner, Assistant Secretary of the Army, Radhika Fox, Assistant Administrator U.S. Environmental Protection Agency, JOINT COORDINATION MEMORANDUM TO THE FIELD BETWEEN THE U.S. DEPARTMENT OF THE AMY, U.S. ARMY CORPS OF ENGINEERS (CORPS) AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)(Sept. 27, 2023).
[12] Waters of the United States Implementation Post-Sackett Decision: Hearing before the U.S. House of Representatives Transportation and Infrastructure Committee Subcommittee on Water Resources and Environment, 118th Cong. (2024)

has a continuous surface connection to a relatively permanent water. The agencies further claim they can "consider if a subsurface hydrologic is maintained" between the two wetlands as part of assessing whether they can assert jurisdiction over both. (Field Memo LRB-2021-01386)

- A "pipe directly connecting [a wetland and a relatively permanent tributary] under a road serves as a physical connection that meets the continuous surface connection requirement for the wetland." (Field Memo NAP-2023-01223)

- A wetland "exhibits a continuous surface connection" to a relatively permanent impoundment of a jurisdictional water via "an ephemeral drainage swale" that "conveys water from the surrounding uplands and [the wetland] at a low frequency and low volume" such as after a "rain event." (Field Memo NAP-2023-01223)

- "Depending on the factual context, including length of the connection and physical indicators of flow, more than one feature such as a non-relatively permanent ditch, other non-relatively permanent channel, or culvert can serve as part of a continuous surface connection where together they provide an unimpaired, continuous physical connection to a jurisdictional water." (Field Memo POH-2023-00187)

These "Field Memos" have made an already difficult CWA 404 permitting process even worse, NAHB members report that obtaining a NWP can take almost a year or longer, while the Corps claims obtaining NWP takes on average four months. NAHB has urged this Administration to rescind these memorandums, initiate a new WOTUS rulemaking that is consistent with Sackett and removes problematic interpretations of "relatively permanent" and "continuous surface connection."

Obtaining Jurisdictional Determinations

Before issuing a CWA section 404 permit, the Corps must comply with two sets of regulations—the EPA's 404(b)(1) Guidelines (the Guidelines) and the Corps' own regulations. The Guidelines are regulations outlining measures to i) avoid, ii) minimize and iii) compensate for impacts to aquatic areas.[13] The regulations provide that the first way a landowner can avoid an impact to an aquatic resource is to not discharge fill material into a WOTUS. If a landowner has an alternative to adding fill to a WOTUS, the landowner must utilize that alternative. Therefore, under the EPA's regulations, it is imperative that a landowner that plans to develop property knows what areas of their property are (and are not) a WOTUS. To determine these areas, landowner must conduct a jurisdictional determination ("JD")

Unfortunately, the CWA is silent on this procedure. JDs are discretionary and a products of the Corps' regulations and regulatory guidance.[14] An approved jurisdictional determination ("AJD") is the only type of jurisdictional determination where you can receive a "definitive, official determination that there are,

[13] 40 C.F.R § 230.10.
[14] *See* 33 C.F.R. § 320.1(a)(6) (implementing regulations authorize district engineers "to issue formal determinations of the applicability of the [CWA] to . . . tracts of land"); *see also* Corps Regulatory Guidance Letter 16-01: Jurisdictional Determinations 2 (Oct. 2016) ("RGL 16-01").

or that there are not, jurisdictional aquatic resources on a parcel."[15] During the *Sackett* oral argument, the attorney representing the Administration told the court that the government "make[s] available free of charge jurisdictional determinations as to any property."[16]

This is somewhat misleading. It's true the Corps doesn't charge landowners seeking AJDs. However, the Corps itself doesn't prepare the necessary documentation, nor conduct site specific property investigations necessary to prepare a wetland delineation report. These are services paid for and performed by qualified wetlands scientists, environmental engineers, biologists, environmental consultants, and attorneys—all hired by the landowner.

After the *Sackett* decision, numerous Corps district stated they would not conduct AJDs unless accompanied by a permit, and the Corps made clear that no one "has a right to a JD."[17] In other words, landowners don't have the right to know if the CWA regulates their property; and to make matters worse, the Corps puts AJDs as a low priority on their workload stack. Due to this reality, NAHB's members report that it can take **more than a year to receive an AJD** in some areas of the country.

Delays AJDs can also impact state regulatory programs. For instance, Virginia was forced to react to the Corps' AJD delay, becuase it was an obstacle to landowners complying with the Commonwealth of Virginia State wetlands permitting program. Commonwealth officials did not want tie permittees while the Agencies tried to determine how to respond to the *Sackett* decision. Therefore, Virginia agreed to attempt to process state jurisdictional determinations within 30 days, if submitted by a Virginia-certified professional wetland delineator. [18]

Rather than languish while waiting for an AJD, landowners can also seek a "preliminary jurisdictional determination ("PJD") in order to expeditiously obtain a permit authorization."[19] Unlike an AJD, the more expeditious PJD comes with **several caveats**:

- *First*, it is neither "legally binding,"[20] nor final and appealable.[21]
- *Second*, it may be issued "even where initial indications are that the aquatic resources on a parcel may not be jurisdictional."[22] (In other words, the government will assert control over aquatic areas whether the CWA provides it with authority or not).
- *Finally*, for purposes of mitigation requirements and computation of impacts, a "permit decision made on the basis of a PJD will treat all aquatic resources that would be affected in any way by the permitted activity on the parcel as jurisdictional."[23]

While the PJD process is an optional, fast tracking for certainty has more drawbacks. First, accepting a PJD might subject a landowner to unnecessary costs for mitigating impacts to non-jurisdictional features

---

[15] *See* RGL 16-01 at 2; *see also* 33 C.F.R. § 331.2.
[16] Transcript of Oral Argument at 86, *Sackett v. Env't Prot. Agency*, 598 U.S. ___ (2023).
[17] RGL 16-01 at 2.
[18] Memorandum from Mike Rolband to Stakeholders of Virginia (June 29, 2023) (*Recent Supreme Court Decision Sackett v. Environmental Protection Agency (EPA) - Effect in Virginia and How to Move Forward Without Economic Dislocation*).
[19] RGL 16-01 at 3.
[20] *Id.*
[21] *See* 33 C.F.R. § 331.2.
[22] RGL 16-01 at 3.
[23] *Id*.

on the basis of a document that is not legally binding or appealable. Second, because PJDs treat all aquatic features as jurisdictional, the landowner may not be able to utilize an applicable NWP because the project would be seen to exceed the NWP's acreage limit—even if all the aquatic features are not actually jurisdictional.

By offering PJDs, the Corps effectively positions itself to expand its regulatory authority over non-jurisdictional aquatic resources by consent of the landowner— all because obtaining AJDs takes too long. Such an expansion likely exceeds the Corps' statutory authority because it allows the agency to assert jurisdiction *by presumption,* without making any demonstration to support that jurisdiction.

Complying with Endangered Species Act During the NWP Process

NAHB's members, and other industries, undergo the ESA's Section 7 Consultation process to obtain the necessary "incidental take" authorizations for activities that have a federal nexus (e.g., requiring a federal permit, or receiving federal funds), and potentially impact either an endangered species or a species' designated critical habitat. Under the Corps' general condition #18, activities that "may effect" a federally protected species (e.g., threatened or endangered) or a species designated critical habitat are prohibited, unless a Section 7 Consultation has been completed addressing those potential impacts.[24]

ESA Section 7(a)(2) requires federal agencies to ensure "any authorized, funded, or carried out by such agency. . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction of adverse modification of [critical] habitat of such species.[25] This means, federal agencies cannot proceed with a proposed activity if doing so would either," jeopardize *the existence of a species"* or *"destroy or adversely modify"* a species' critical habitat.

However, over the years the Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS), and even the federal courts have become increasingly aggressive in utilizing the ESA's authorities under the Section 7 to control—or even restrict—land use activities requiring any type of federal authorization in areas with listed species or designated critical habitat. At the same time the federal courts have issued several rulings finding the implementation of important federal programs such as the National Flood Insurance Program (NFIP), or even EPA's decision to delegate the administration of the CWA 404 federal wetlands permitting program to the State of Florida under CWA 404(g), violated the ESA's Section 7 Consultation requirements.[26],[27]

EPA's action revoking the State of Florida's assumption of the CWA 404 permitting program had immediate and significant impacts upon NAHB members. According to the State of Florida's Department of Environmental Protection (FDEP) over 1,700 projects, including a significant number of residential land development and homebuilding projects were undergoing FDEP's CWA 404 permitting process when the Court revoked Florida's assumption of the CWA 404 permitting program. The Corps

[24] U.S. Army Corps of Engineers, Nationwide Permit General Condition 18 Endangered Species.
[25] 16 U.S.C. 1536(a)(2)
[26] *Florida Key Deer v. Paulison*, 522 F.3d 1133 (11th Cir. 2008).
[27] *Ctr. for Biological Diversity v. Regan*, 734 F. Supp. 3d 1 (D.D.C.), judgment entered, 729 F. Supp. 3d 37 (D.D.C. 2024).

Jacksonville District announced on their website residential developers and homebuilders who had been awaiting FDEP CWA 404 permits must restart the CWA 404 permitting process again with Corps.[28]

To avoid violating the ESA's "j*eopardy*" and "*adverse modification*" standards when issuing CWA 404 permits (individual and the NWP), the Corps must comply with the ESA's Section 7 Interagency Consultation Regulations.[29] Between 2008 and 2015, the FWS reported completing nearly 90,000 Section 7 Consultations (formal, informal, and programmatic). The Corps' CWA 404 wetlands permit was the most common federal permit triggering the ESA's Section 7 Consultation and land development activities seeking a NWP were the most frequent activity triggering the ESA's Section 7 Consultation requirements.[30] According to the Corps' permitting database (ORM2), between 2017 and 2020, the Corps District conducted 8,700 Section 7 Consultations (formal, informal, and programmatic) each year for activities seeking NWPs.[31]

The Corps general condition #18 requires all non-federal permittees to submit pre-construction notification (PCN) to the Corps (district engineer) if any ESA listed species or designated critical habitat might be affected or is in the vicinity of proposed activity seeking a permit. During this 45 day PCN period, the Corps will confer with the FWS or NMFS on whether the proposed activities "may effect" a listed species or designated critical habitat this triggering the ESA's Section 7 Consultation requirements.

Importantly, the 45-day delay under the PCN does not include the timeframe necessary to complete an ESA Section 7 Consultation. While the ESA's regulations were amended in 2019 to establish a 60-day deadline to complete an informal consultation.[32] Formal consultation has no deadlines for completion, and only a recommended timeframe of 150 days (five months).[33] However, in practice NAHB members report formal consultations taking **a year and half or longer to complete.** It's key to point out, general condition 18 prohibits permittees from beginning any work until their notified that the Corps has completed the (informal or formal) Section 7 Consultation process.

Let me provide an example on how the ESA's Section 7 Consultation process works during a typical residential land development project. Assume a residential developer applies for a NWP 29 (residential development) to fill a portion of wetland or another CWA 404 jurisdictional feature when grading a parcel of land necessary to build streets, utility lines crossing, and other required infrastructure. The immediate impacts caused by the land grading activities as well as the construction of streets, utility lines, etc., would constitute "direct effects" of the Corps CWA 404 permit. The future impacts caused by subsequent home construction upon the building lots created are "reasonably certain to occur" (such as excavation of building's foundations, or stormwater runoff during the active phrase of land development) would constitute "indirect effects" of the CWA 404 permit. In this action, the "action area" associated with the Corps' permit would not only include the parcel of land seeking the CWA 404 permit, but also any areas upstream or downstream, that maybe reasonably certain to impacted in the future,

---

[28] U.S. Army Corps of Engineers Jacksonville District (2025) Retrieved February 17, 2025, from https://www.saj.usace.army.mil/Missions/Regulatory/

[29] 50 C.F.R. 402.02-402.16

[30] Malcom, Jacob & Li, Ya-Wei, (2015) Data contradict common perceptions about a controversial provision of the Endangered Species Act. Proceedings of National Academy of Sciences (PNAS) Washington, D.C.

[31] U.S. Army Corps of Engineers (2021) Biological Assessment for the Proposed Issuance and Reissuance of the 2021 Nationwide Permits. Corps' Regulatory Community of Practice. Washington D.C. Page 14.

[32] 50 C.F.R. 402.13(c)(2)

[33] 50 C.F.R. 402.14(e)

because of activity seeking the CWA 404 permit. What's important in this example is the scope of the ESA Section 7 Consultation is much larger than (i.e., the entire project) as compared to the specific areas within the Corps jurisdiction. This broad scope of the Section 7 Consultation analysis effectively "federalizes" the entire project seeking the CWA 404 permit impacting all subsequent aspects of the land development or homebuilding activities on the site.

There are numerous examples of how the Consultation process (informal, formal, and programmatic) impacts residential land development and homebuilding activities seeking CWA 404 permits. Typical, requirements imposed on residential developers and homebuilders during the ESA Section 7 Consultation process include:

- Time of year restrictions on land clearing or construction activities to avoid potentially disturbing an endangered or threatened species or modifying presumed habitat,
- Restrictions on the percentage of available land for development e.g., restricting development to 30% or less of area,
- Restrictions on impervious surface (e.g., paved areas or covered roofed structures) to reduce future stormwater runoff,
- Restrictions on outdoor activities, exterior lighting, access to outdoor recreation areas, pesticide use, or even restrictions on pet ownership, and
- Recently adopted regulatory changes allow FWS or NMFS to impose mandatory habitat compensatory mitigation requirements.

These examples of "conservation measures" are imposed as terms and conditions in an "incidental take statement" (ITS) and represents necessary actions deemed "reasonable and prudent measures" (RPMs) in the view of FWS or NMFS to minimize "take", "jeopardy", or "adverse modification" of areas designated as "critical habitat". In the context of the CWA 404 permitting process, these RPMs are necessary to avoid "jeopardy" or "adverse modification" and are included by the Corps as binding conditions of the CWA permit. If a developer or homebuilder objects to these conditions or is unable to comply—they risk not only forfeiting their needed CWA 404 permit, but also risk third-party lawsuits, as well as civil and criminal penalties. As a result, the developer or homebuilder either accepts these conditions and passes costs onto the future homebuyer or abandons the project.

The Compensatory Mitigation Process: More Credits, More Cost Savings

Home builders are required to purchase compensatory mitigation to offset the impacts of authorized discharges of dredged or fill material that results in unavoidable impacts to federally regulated water bodies. For example, the Corps' general conditions for the (2021) NWP require compensatory mitigation whenever an authorized activity impacts more than 300 feet of streambeds or 0.1 acre of a wetlands.[34] In 2008, the Agencies issued a final rule, titled "Compensatory Mitigation for Losses of Aquatic Resources,"[35] which describes four acceptable methods for conducting required wetlands mitigation (i.e., restoration, enhancement, establishment, and preservation), and a three-tiered hierarchy for the performance of required mitigation (in order of preference):

1. Approved wetlands mitigation banks,

[34] U.S. Army Corps of Engineers (Corps) 2021 Nationwide Permits General Conditions #23. Mitigation.
[35] 33 C.F.R. §332 & 40 C.F.R. §230(j).

2. In Leu Fee (ILF) programs, and
3. Permittee-responsible compensatory mitigation.

Developing land for the creation of residential lots, and the home construction process all require a substantial amount of earth-moving activities, which prompt builders and developers to obtain CWA 404(a) wetlands permits (individual and NWP). Although the CWA 404(b)(1) guidelines require developers and builders seeking CWA 404 permits to demonstrate they have taken all feasible steps to avoid and then minimize impacts to WOTUS features, some impacts are unavoidable which can trigger compensatory wetland mitigation requirements.

In 2017, builders and developers were the second largest users of compensatory mitigation in the United States right after the transportation infrastructure sector.[36] Furthermore, the Corps reported that between 2014 and 2018, approximately 40 percent of the individual and NWPs triggered compensatory mitigation. During this same four-year span, the Corps reported projects triggering compensatory mitigation fulfilled their mitigation obligations by utilizing credits from approved mitigation **banks 55% percent of time, followed by 30% for permittee-responsible mitigation, and 16% reported paying for in-leu fee (ILF) mitigation.[37]**

At face value, the Corps' data on the percentages of wetlands compensatory mitigation being performed is seemingly positive. A significant amount of compensatory mitigation performed by CWA 404 permittees are fulfilled by purchasing credits from approved wetlands mitigation banks. Furthermore, when developers and builders have more than one option to purchase these credits, mitigation banks must compete against each other and offer price competitive mitigation options to developers, home builders, as well as prospective homebuyers all of whom benefit from the new affordable housing units produced.

However, after nearly 20 years, NAHB's members operating under the Corps' Mitigation Rule, as well as wetlands mitigation bankers all see opportunities for needed improvement. While some developers and builders report having access to mitigation credits, many do not. The lack of available credits, or even cost-effective mitigation options presents a significant barrier for NAHB members seeking to deliver affordable housing units.

To illustrate this problem, below is a sample of states represented on this Committee. NAHB has compared projected housing starts over just the next two years, compared to approved mitigation banks with greater than 1 acre of reported credits available according to the Corps RIBITS database as of February 17, 2025. The results show the following:

- Arizona is projected to build 78,800 single-family homes and has no approved mitigation banks.
- Delaware is projected to build 9,500 single-family homes and has no approved mitigation banks.
- California is projected to build 129,200 single family homes and has 21 mitigation banks.
- Maryland is projected to build 27,000 single family homes and has 3 mitigation banks.

[36] Ecosystem Marketplace (2017) State of Biodiversity Mitigation in 2017: Market and Compensation for Global Infrastructure Development. Washington, DC.
[37] U.S. Army Corps of Engineers (Corps) Operations and Maintenance Business Information Link (OMBIL), Washington D.C.

- Oregon is projected to build 23,600 single family homes and has 9 mitigation banks.

These findings raise several concerns even within those states with approved mitigation banks, NAHB members frequently are unable to purchase available credits because mitigation banks are limited to selling credits for impacts occurring only within the watershed where the bank is located. The Corps' final mitigation rule also requires mitigation ratios of at least 1:1, **typically the Corps requires 2:1 mitigation ratio or higher.**[38]

The scenario is not much better for NAHB members seeking to use ILF programs when credits from approved banks are unavailable. Most states do not have approved ILF programs, and for those that do, NAHB members report rapid increases in the rates charged resulting in unsustainable fees that far outpace inflation or even the market value of the residential projects. For example, between 2009-2018 in twelve northern Kentucky counties around the greater Cincinnati area, an ILF for impacts to wetlands increased 65% ($30,000 to $49,500 per credit), while ILF for impacts to streambeds increased 126% from ($170 to $385 per foot), as compared to an overall 17% inflation over that same period.

Unfortunately, certain aspects of the current Mitigation Rule—whether due to administrative burdens or inefficient implementation—have hindered federal regulators, mitigation providers, and permittees from accessing the most cost-effective and efficient compensatory mitigation options. NAHB recognizes several key steps that the Corps, other federal and state agencies, and mitigation bankers must take to enhance this critical tool.

One way to improve availability of wetlands mitigation credits is to reform the Interagency Review Team (IRT) process under the Corps' (2008) Mitigation Rule.[39] Under the Corps' rule, members of the IRT consists of federal agencies (Corps, EPA, & FWS), state and local agencies, tribal representatives, along with the public, are all afforded time to review and comment on a mitigation bank's or ILF's prospectus, proposed mitigation bank's service area, and the schedule release of approved mitigation credits.

While the Corps' 2008 Mitigation Rule includes a timeframe of 225 days for the Corps along with fellow IRT members to complete its review of a pending mitigation bank's or ILF's programs prospectus, actual approval times often exceed this limit. According to the Corps' own permitting data analyzed by wetlands mitigation bankers the average time it took the Corps along with fellow members of the IRT to review and approve a proposed mitigation bank **was 495 days or 1.5 times longer than the Mitigation Rule's timeline**.[40] The same study also found approval of new ILF programs, despite being far fewer in number than proposed mitigation banks, also took well over year (467 days).[41] Importantly, during both the Trump and Biden administrations the Corps proposed reforming the IRT approval process for new mitigation banks.

[38] 73 Fed. Reg. 19,613 (April 10, 2008)
[39] 33 C.F.R. 332.8
[40] Martin, Steve and Madsen, Becca, (2023) "The Time it Takes for Restoration an Analysis of Mitigation Banking Instruments Timeline." Environmental Policy Innovation Center and Ecological Restoration Business Association, Washington D.C. Page 29.
[41] Ibid. Page 39

NAHB urges Congress to integrate the Corps' regulatory guidance allowing the full release of mitigation credits once a bank's financial assurances requirements are met.[42] Currently, mitigation banks receive permission from the IRT to release credits for sale at three different intervals (initial credit release, interim credit release, and final credit release). However, the Corps' own guidance explains how the interim credit release could potentially include all available credits once the mitigation bank sponsor can demonstrate proof of sufficient financial assurances. Allowing banks to release more credits earlier in the process helps developers and builders whose activities are located within a bank's approved service area, and also helps capitalize the bank's sponsors to ensure they can demonstrate sufficient financial resources to support the bank's current and future operations.

NAHB also urges Congress to promote the use of so called "out-of-kind mitigation" when compensatory mitigation credits or ILF program are unavailable. Currently, the Corps' 2008 Mitigation Rule out-of-kind mitigation is the least preferable option under the mitigation hierarchy.[43] However, identifying scenarios where out-of-kind mitigation could be feasible would help developers, homebuilders, states, and local governments implement required mitigation in a cost-effective and efficient way.

Municipalities are increasingly undertaking stream and wetlands restoration projects on a regional scale to comply with CWA Section 402 National Pollutant Discharge Elimination System (NPDES) municipal sanity sewer systems (MS4) permits and EPA-mandated enforcement consent decrees aimed at addressing issues with combined sanitary sewer systems. These ongoing projects provide many of the same water quality, ecological, and watershed benefits as wetlands and stream mitigation efforts conducted by private bank sponsors or ILF programs.

Because these municipal projects are typically included in capital budgets, they come with detailed cost estimates and projected completion schedules. Additionally, since they are often conducted on publicly owned land, easements, or rights-of-way, their overall costs can be significantly lower than those of private wetlands banks or ILF programs, which must account for land acquisition or securing access to private property for restoration or mitigation work.

Finally, since these projects are generally funded through sewer ratepayer fees or tax revenues, allowing CWA 404 permittees to contribute to their funding could create economies of scale—lowering per-unit costs for both permittees and municipalities while enhancing overall watershed improvements.

Conclusion

Thank you, Chairman Capito and Ranking Member Whitehouse, for convening this important hearing and allowing NAHB to share our views on how permitting challenges are impacting our industry's ability to increase the production of quality, affordable housing. NAHB stands ready to work with you and members of the Committee to achieve thoughtful, effective policies to address these concerns and expand the availability of attainable, affordable housing for all Americans.

---

[42] U.S. Army Corps of Engineers (2019) Mitigation Bank Credit Release Schedules and Equivalency in Mitigation Bank and In-Lieu Fee Program Service Areas. (RGL-19-01). Washington D.C..
[43] 33 C.F.R. 333.2(b)(2)

National Association of Home Builders

1201 15th Street NW
Washington, DC 20005

T 800 368 5242
F 202 266 8400

www.nahb.org

March 19, 2025

Ms. Karly McQuitty
Operations Director
U.S. Senate Committee on Environment and Public Works
456 Dirksen Senate Office Building
Washington, DC, 20510 - 6175

Re: February 19, 2025 Hearing; Questions for the Record for Mr. Carl Harris

Dear Ms. McQuitty:

The National Association of Home Builders (NAHB) appreciates the opportunity to answer Questions for the Record for the hearing entitled "Improving the Federal Environmental Review and Permitting Processes," held on February 19, 2025. As Carl Harris, former Chairman of NAHB's Board of Directors, noted in his testimony, Congress and the U.S. Army Corps of Engineers (i.e., "Corps") and Environmental Protection Agency (EPA) (i.e., "the Agencies") have several opportunities to address the prolonged and opaque permitting processes that add costs and permitting delays to land development and construction processes, which result in fewer new housing units being built and higher prices of homes for sale to families. These opportunities include

1. Revising the current federal definition of "Waters of the United States" (WOTUS) to reflect the *Rapanos*[1] plurality test, as required by the Supreme Court's *Sackett*[2] ruling;
2. Rescinding the "Field Memos" that take expansive definitions to interpret current WOTUS concepts, which are inconsistent with the *Sackett* ruling;
3. Reducing the time associated with issuing Approved Jurisdictions Determinations (AJDs) that provide several benefits compared to Preliminary Jurisdictional Determinations (PJDs); and
4. Revising the 2008 "Compensatory Mitigation for Losses of Aquatic Resources" rule to provide additional compliance options for builders and developers that require mitigation, and improve the existing bank- and in lieu fee (ILF) approval process to increase mitigation supply options.

Each of these recommendations is relevant to the Questions for the Record posed by Senator Wicker and Ranking Member Whitehouse. NAHB's responses provide further recommendations on ways to make Federal environmental review and permitting processes more efficient.

Questions from Senator Wicker

- Mr. Harris, how can the Permitting Council best use its existing and new authorities to prioritize timely permitting actions for energy, transmission, and related infrastructure projects?

[1] Sackett v. Environmental Protection Agency, 598 U.S. ___ (2023)
[2] Rapanos v. United States, 547 U.S. 715 (2006).

- What are the key resource gaps that need to be addressed to improve efficiency?

Questions from Ranking Member Whitehouse

- What can Congress do to turn interagency process into an efficient mechanism for coordinating agencies?

NAHB appreciates the opportunity to provide recommendations to improve interagency processes. Indeed, there are many examples of interagency coordination causing delays in federal environmental review and permitting processes. Often builders and developers face time delays due simply to agencies' failure to honor the expected review timelines of environmental statutes and regulations.

Some examples involve the Nationwide Permits (NWPs) and their General Conditions (GCs). For example, NWP 29 authorizes discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of a single residence, a multiple unit residential development, or a residential subdivision. Under General Condition 18, a prospective permittee must complete and submit a Pre-Construction Notification (PCN) if their activity may affect a federally-listed species or critical habitat. GC 18 allows the Corps' district engineer to notify representatives from the U.S. Fish and Wildlife Service (FWS) or National Marine Fisheries Service (NMFS) (i.e., "the Service") that a prospective activity is occurring within an area containing a federally-protected species or designated critical habitat. During the 45 day review, the Corps' district engineer and staff from the Service are supposed to notify the applicant whether the proposed activity "may effect" or conversely has "no effect" to a listed species, or designated critical habitat.

Unfortunately, NAHB members report Corps' districts routinely fail to notify representatives from the Service that a prospective permittee seeks an NWP that could affect species or habitat. Failure to notify results in permitting delays, despite the fact that the Service has, for several years, had an online project screening tool called the "Information for Planning and Consultation" that allows either the permit applicant or the Corps to screen projects for potential impacts to species or designated critical habitat.

In addition, even if the Corps informs a prospective permittee that their activity could affect a federally-listed species or critical habitat, no project work can begin even after the 45-day time period is complete. The prospective permittee must wait until the Corps has been notified by the Service that the Endangered Species Act's (ESA) Section 7 Consultation process has resulted in either an "informal" or "formal" consultation. During the Section 7 Consultation process, the Service must identify specific conservation measures called "reasonable and prudent measures" (RPMs) that, if adopted by the Corps and included within the prospective permittee's NWP permit, enables the Service to make a "no-jeopardy determination" under ESA and issue the ESA required biological opinion to the Corps. While the ESA's regulations gives the Service as up to 60 days (two months) to complete an informal consultation, and 135 days (4.5 months) to complete a formal consultation, in practice formal consultants can take well over a year for the Service and the Corps to complete.

Importantly, the Service can also prepare so-called programmatic consultations under the ESA's Section 7 Consultation process that significantly improve the overall efficiency and predictability of the NWP permitting process. Under an ESA programmatic consultation, the Service can authorize a wide range of activities across the entire habitat range of a species. Rather than the more typical project-by-project ESA

Section 7 Consultation process, under a programmatic consultation approach, the Service identifies species-specific conservation measures that could greatly expediate the ESA's Section 7 Consultation process. For example, under the Service's programmatic consultation for a species of federally-protected bat (i.e., Northern Longed Eared Bat (NLEB)), the Service identifies a specific number of approved NLEB conservation measures that Corps districts can include within a prospective NWP. Under this NLEB programmatic consultation, the Corps must wait 30 days before issuing the amended NWPs for Service staff to review the draft permit. However, if the Service does not respond to the Corps district within the 30-day timeframe, the Corps district can assume that the Service's concurrence with the Section 7 Consultation process is complete and the amended NWP permit can be issued. NAHB members have reported instances where the Service has even completed a formal Section 7 Consultation for projects seeking an NWP in timeframes shorter than 30 days, and in some instances within two weeks. Expanded use of the ESA's Section 7 programmatic consultation approach by the Service and the Corps has the potential to significantly increase the overall permitting efficiency of the NWP program.

Fortunately, there is a role for Congress in addressing this and similar issues. As discussed previously the Corps has established required delays during the NWP permitting process (e.g., general condition #18) to ensure the Corps and Service has adequately considered potential impacts to endangered species, among other factors. Unfortunately, these permitting timeframes are non-binding upon either the Corps or the Service. By comparison the State of Ohio's wetlands permitting statute provides the state agency 15 days to review a pending wetland permit application for completeness, and an addition 30 to 180 days pending on size and the complexity of the proposed project, to make a determination (e.g., approve or deny) the requested state wetlands permit. Congress should consider establishing a similar approach as the State of Ohio's wetland permitting program under the Corps NWP permitting program.

To be clear, NAHB is not seeking to create a procedural loophole under the NWP permitting program to automatically authorize projects. Quite the opposite, NAHB is not aware of a single instance where an applicant seeking a state wetland permit in Ohio received a state wetland permit because the state agency failed to meet their permitting deadlines. Rather Ohio's wetlands permitting program provides an important example of why permitting timeframes once established, must be binding upon the regulatory agencies and applicants alike. CWA section 401 provides another example. Section 401 forbids a federal agency from permitting projects that could affect a water of the United States unless a delegated state or Tribe 1) certifies that the activity will comply with applicable water quality requirements, or 2) waives its certification authority.

In 2023, EPA finalized the CWA Section 401 Water Quality Certification Improvement Rule, which set a default period of six months for federal and state or tribal authorities to coordinate their reviews.[3] The rule also allowed authorities to jointly extend that period to one-year or use one-year as the default period. Although CWA section 401 timelines are still subject to delays in the form of "withdrawal agreements" and other delay tactics, the deadlines established through the CWA Section 401 Water Quality Certification Improvement Rule signify a useful and productive step forward. Similarly, Congress could amend the CWA and the ESA to clarify that failure by agencies to meet timelines would automatically render an impact as insignificant.

- In what regulatory processes should there be a filing requirement for an applicant to state what it has done to identify and gather preliminary input from affected stakeholders?

[3] 88 Fed. Reg. 66593 (Sep. 27, 2023).

NAHB appreciates this question, which may be intended to compile a body of evidence to discourage unanticipated permit challenges, litigation, or other delay tactics used by groups that oppose certain projects. Such intervention can cause delays in the permitting of energy, transmission, transportation, and other projects.

Regarding residential construction, most opportunity for public comment occurs at the local level where land use decisions are made. For example, a new subdivision or mixed-use commercial/residential building may be subject to public hearings, zoning variances, and local permitting processes, each of which typically includes multiple opportunities for public comment. At the federal level, several examples apply as well, such as CWA Section 404 individual permits requires the Corps to provide public notice and comment before an individual permit's issuance. NAHB does not believe that an additional filing requirement would be necessary for residential construction and related projects, and could cause greater burdens and time delays associated with preparing, submitting, and approving federal permits.

Sincerely,

Senator CAPITO. Thank you very much.

Our next witness is Brent Booker. Mr. Booker is the General President of the Laborers' International Union of North America. He is a third generation member of Laborers' Local 795 in North Albany, Indiana, and started his career in LIUNA's mail room.

Mr. Booker also served as director of the Union's construction department and in various positions with North American Building Trades unions. I welcome you, and now recognize you for your opening statement.

Thank you.

STATEMENT OF BRENT BOOKER, GENERAL PRESIDENT, LABORERS' INTERNATIONAL UNION OF NORTH AMERICA

Mr. BOOKER. Good morning, Chairman Capito, Ranking Member Whitehouse and members of the committee. My name is Brent Booker, General President of the Laborers' International Union of North America.

LIUNA was founded over 120 years ago by immigrant workers fleeing their countries to seek not only better life, but the American dream. Today, we are a strong, proud, diverse union representing over 530,000 workers across the United States and Canada.

LIUNA members go to work every day, building and maintaining our Nation's infrastructure. From our endless highways, bridges, and tunnels, city skyscrapers, water treatment centers, to our Nation's vast energy sector, our members' jobs touch every American's day-to-day life.

Our Nation's boom in energy production has provided an abundance of jobs for our membership. Our Union has always promoted an all-of-the-above approach to energy production: renewables, oil and natural gas, hydropower, nuclear, because we build it all.

As union laborers, we take pride in our work. We are the safest, most productive and well-trained work force in the world. We get jobs done right, on time the first time, safely, and on budget.

LIUNA was inherently involved in both Federal and State permitting. When we know a project will be built by hardworking laborers, we embed ourselves within the project's regulatory process to ensure it is approved in a timely manner. We are the folks in orange shirts you see at public utility hearings and community hearings. That is because in our business, predictability of projects is crucial.

Our members move from job to job, stringing together the projects that over many years build their career. While we believe in a responsible approach to permitting infrastructure projects, it is clear that our current permitting process is broken.

Whether it is purposely stalling the NEPA process of filing what feels like countless, frivolous lawsuits, leaving project in limbo and our members wondering when they will get paid next. A project can be fully funded and ready to go, then out of nowhere get hit with a deluge of lawsuits and get shut down.

Unpredictability equals unemployment for our members. These projects are not political to them. They are pathways to a middle class way of life that includes family supporting wages, good health care benefits, and the ability to 1 day retire with dignity. If our members don't go to work, they don't get paid. So when a project

is delayed months or even years, well, you try to deliver that message to someone who has a mortgage payment due or has to buy school supplies for their kids. Adequate judicial review timelines must be included in any permitting reform package.

Over the last decade, the pipeline industry predominantly within natural gas has provided thousands of laborers tens of millions of work hours. As we continue to expand into more advanced energy sources such as hydrogen and carbon capture and utilization, it is clear our training and skill sets will be vital to a cleaner energy future.

Now, we are seeing these same issues within the renewable sector. Since the passing of the Inflation Reduction Act, offshore wind has been a tremendous contributor of jobs for LIUNA members. Between the harbor and port buildouts, the turbine construction, to the installation of turbines themselves, all along our Nation's coastlines, LIUNA members are building offshore wind projects at a rate like never before, including America's first offshore wind project in Rhode Island's Block Island.

Unfortunately, the administration's halt on offshore lease sales has upended the wind production market and has led to projects completely withdrawing their construction plans, costing laborers their jobs. One project is the Starboard Wind Project, 11,084 megawatt project by Orsted about 30 miles south of Martha's Vineyard, which was expected to power upwards of 600,000 homes. This one hits home for me. I was proud to have helped negotiate and implement the National Offshore Wind Agreement back in 2022 on behalf of the building trades. This agreement was going to bring back thousands of good union jobs to workers across the Country.

Now, many of these projects are at risk of being terminated, causing us to lose significantly more jobs than we did on the Keystone XL Pipeline, once again leaving our members high and dry. We must put an end to projects for being used as pawns on a political chess board. Because it is American workers that pay the price.

With a simple swipe of the pen, or lack thereof in this case, these decisions impact the lives of the members we proudly represent in their communities.

If you take away one thing from my testimony today, please let it be this: it is LIUNA members who go to work every day building the American we all use. Whether it is turning the lights on in the morning or commuting to work on a highway, it is likely a laborer had a hand in it.

This isn't about politics. It is about ensuring we continue our energy independence and dominate in a market that when we don't compete allows us to fall to our adversaries.

For LIUNA, above all it is about ensuring our members are able to go to a job that afford them the opportunity to be firmly entrenched in the middle class. To be clear, these aren't just jobs. They are careers that give our members and their families a chance to thrive. They are paychecks that ensure American workers are contributing to their community and aren't forced to rely on the government to make ends meet. They are lifelines that allow construction workers to retire with dignity after they have built the America we all enjoy.

For LIUNA members, these projects are delivering on the promise of the American dream, which is why I thank you for granting me the opportunity to speak with you today. I look forward to your questions.

Thank you.

[The prepared statement of Mr. Booker follows:]

TESTIMONY—SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

Good Morning Chairman Capito, Ranking Member Whitehouse, and members of the Committee. I would like to thank you for allowing me to testify today. My name is Brent Booker—General President of the Laborers' International Union of North America (LIUNA). LIUNA was founded over 120 years ago by immigrant construction workers who sought for a better life. To this day, we are a strong, proud, diverse, and a united union representing over 530,000 workers across the United States and Canada.

LIUNA members go to work, every day, building and maintaining our nation's infrastructure. From our nation's endless highways, bridges, and tunnels, city skyscrapers and state water treatment centers, to our nation's vast energy sector—our members' jobs touch every American's day-to-day life, one way or another. In fact, it is our nation's boom in energy production that has provided significant work hours and jobs for our membership as we march towards complete energy independence and global competitiveness, with the determination to be unmatchable by any other world nation. Our Union has always promoted and stood by an all-the-above approach to energy production: renewables, oil and natural gas, hydropower, nuclear—you name it. Because we build it all. As union laborers, we take pride in our work. We have a skilled and well-trained workforce that is second to none and we have the success rate to prove it. That is, we get jobs done right, on time—the first time—on budget, and in the safest way possible.

Because we represent our nation's builders, LIUNA is inherently involved in both federal and state permitting. When we know a project will be built by hardworking laborers, we embed ourselves within a project's regulatory process to help ensure it successfully gets approved in a timely manner. The construction sector plays a unique role within the permitting process given the very nature and definition of our work. That is, every construction job is a temporary job. Every day a construction worker goes to a jobsite, they are actively working themselves out of that job. Because once that bridge is built or that tunnel is dug, he or she is now unemployed. Our members must move from jobsite to jobsite, stringing together projects that allow them to create a career within the construction industry. Therefore, predictability of projects is crucial.

We understand this process takes time. Trust me, no one recognizes the scale of some of these projects better than those who are building it. But unpredictability equivalates to unemployment for our members because it is these projects that are a pathway to a middle-class way of life; a pathway that includes family-supporting wages, good healthcare and welfare benefits, and the ability to one day retire with dignity.

It has become more evident that projects both big and small are taking longer and longer to get approved. And while this dilemma spans across all areas of infrastructure, nowhere is this more prevalent than within the energy sector. Particularly within the agency permitting approval process and with judicial litigation challenges. These unnecessary and costly delays wreak havoc on the construction industry. A project could be permitted, fully funded, and ready to go one day. Then on the next day, out of now where, it gets hit with a lawsuit.

What many outside the construction sector fail to realize is that our members are paid hourly. If they cannot go to work, they cannot get paid. So, when a member asks when they will be able to go back on that job, and we are forced to tell them that we don't know; that it could be months or even years… well, you try delivering that message to someone who has a mortgage payment due next week, or has to buy books for their kids starting school next month. Quite frankly, we are sick and tired of frivolous litigation tactics brought on by special interest groups whose only objective is to delay a project—costing developers millions and taking food off the table of our members' families. Sufficient litigation guidelines and limited judicial review timelines must be included in any and all permitting reform packages.

These tactics are also true for various NEPA permit approvals and agency deadlines that, more often than not, get used as political footballs in order to delay projects. Allowing federal or state agencies the ability to withhold a decision on a necessary permit leaves projects in limbo and, once again, kicks our members to the curb who are simply trying to make a living. Wrongfully manipulating the regulatory review process that gives agencies the ability to miss critical deadlines without any ramifications needs to end now. Our members' work within our nation's pipeline sector bear the brunt of these targeted campaigns. Over the last decade the pipeline industry, predominantly within natural gas, has put thousands of laborers to work amounting to tens of millions of work hours. And as we continue to expand into more advanced energy sources, such as hydrogen and carbon capture and utilization, it is clear those members' jobs and valuable skillsets will be vital to a cleaner energy future.

We have seen, first hand, project uncertainty brought on by agency regulatory delays extend across all sectors of energy production. Most recently, we have seen issues within the renewable sector. Specifically, with respect to offshore wind production—a sector that has, since the passing of the Inflation Reduction Act, been a tremendous contributor of jobs for LIUNA members. Between the harbor and port buildouts, to turbine construction, to the installation of the turbines themselves, LIUNA members are building offshore wind projects at a rate like never before. In New London, Connecticut LIUNA members are building Revolution Wind which will deliver 304 MW of clean, affordable offshore wind power to Connecticut and another 400 MW to Rhode Island, powering more than 350,000 New England homes. We are also building the long-awaited Vineyard Wind project in Massachusetts and LIUNA members helped construct Rhode Island's Block Island Wind Farm—the first offshore wind project in our nation's history.

Yet, the new administration's halt on offshore lease sales has upended the wind production market and has led to projects completely withdrawing their construction plans, costing LIUNA members their jobs. The Prysmian Group—a cable company—announced it will be abandoning its plans to build a factory in Somerset, Massachusetts that would have supplied undersea cables to American offshore wind farms. With the simple swipe of the pen, or lack thereof in this case, these decisions impact real communities, real job markets, and most importantly, the lives of the members we proudly represent. Like Carl Ferreira, a 30-year member who has spent his entire career building energy projects across our nation. Or Dennis Santos, a 27-year member who also has worked on countless energy projects, keeping the lights on for countless Americans. This isn't a political game for our members. It's real-life consequences.

Once more, in California, there are two offshore wind projects still in the regulatory process which are set to employ laborers that are also at risk of shutting down. Lastly, Starboard Wind project, a 1,184-megawatt project proposed by Orsted about 30 miles south of Martha's Vineyard, which was expected to power upwards of 600,000 homes, is likely to face significant hurdles as it is still in the survey phase. This especially hits home for me, as I was proud to have helped negotiate and implement the National Offshore Wind Agreement back in 2022 while serving in my previous position of Secretary Treasurer of the North America's Building Trades Unions. This was a historic and monumental agreement that was going to bring thousands of good union jobs to workers across the country. Many of projects that were negotiated under this agreement are now at risk of being terminated.

These are just a few of many examples, highlighting the need for permitting reform that addresses the real issues and stops projects from being used as pawns on a political chess board. Because it is our members that pay the ultimate cost.

There is no question organized labor has a large role to play in helping to define permitting reform policy. The trade union movement is the closest thing our country has to a middle-class lobby with respect to jobs and how this policy can shape employment opportunities within construction. We have come so close, many times, on comprehensive permitting reform that tackles the real issues that our nation faces, and more importantly the issues that are members face. If you take away one thing from my testimony today please let it be this: It is LIUNA members who go to work every day building the America we ***all*** use, every day. Whether it's

turning the lights on every morning or commuting to work on a highway, it's likely a laborer had a hand in it.

This isn't about politics. It's about global competitiveness. It's about energy independence and making sure we position ourselves in the best way possible in order to dominate the future of energy production. And most of all, it's about putting our members to work allowing them access to a middle-class way of life and the ability to retire with proper benefits. Because even to this day, that is still the American dream. Thank you again for this opportunity and I look forward to your questions.

BRENT BOOKER
General President

MICHAEL F. SABITONI
General Secretary-Treasurer

Vice Presidents:

TERRENCE M. HEALY
Special Assistant to the General President

JOSEPH S. MANCINELLI
Canadian Director

DENNIS L. MARTIRE

ROBERT E. RICHARDSON

OSCAR De La TORRE

SERGIO RASCON

ROBERT F. ABBOTT

SAMUEL STATEN, JR.

MICHAEL E. HELLSTROM

DAVID A. FRYE

ERNESTO J. ORDONEZ

DONATO A. BIANCO, JR.

STEPHEN E. FARNER

PAUL V. HOGROGIAN

HEADQUARTERS:
905 16th Street, NW
Washington, DC
20006-1765
202-737-8320
Fax: 202-737-2754
www.liuna.org

LiUNA!

March 25, 2025

Senate Environment and Public Works Committee
410 Dirksen Senate Office Building
Washington, DC 20510

It was an honor to testify on behalf of the Laborers' International Union of North America (LIUNA) before the Senate Environment and Public Works Committee. Below are my responses to the follow-up questions from Ranking Member Sheldon Whitehouse and Senator Roger Wicker.

Ranking Member Whitehouse

What can Congress do to turn interagency process into an efficient mechanism for coordinating agencies?

Thank you again, for the opportunity to testify, Senator Whitehouse.

As I mentioned in my testimony, for us it's about project certainty and knowing when to have our workforce ready for that specific project. Two things come to mind regarding this matter: allowing more projects to use the FAST-41/Permitting Council process and incentivizing its use by project owners. Additionally, all involved agencies should be required to make a decision on a pending permit, rather than leaving projects in limbo. These proposals would help streamline the process on a federal level.

In what regulatory processes should there be a filing requirement for an applicant to state what it has done to identify and gather preliminary input from affected stakeholders?

LIUNA has always supported engagement from affected stakeholders concerning proposed projects. This is because our members, who typically employed by the developers, often live in the same area of that proposed project. They are integral members of these communities. They are neighbors, parents of children on the town's little-league team, and active participants in the area. Therefore, we often attend town halls and hearings on these matters.

We have found that in today's world of TikTok, Instagram, and other platforms, there is already significant input from stakeholders regardless of the kind of project. But to answer your question, perhaps something similar to the Federal Energy Regulatory Commission's (FERC) Office of Public Participation, tailored for the National Environmental Policy Act (NEPA) process. However, we strongly oppose third-party advocacy groups' involvement with the regulatory process without reference to a project, as this leads to delays, impacting our members' jobs.

Feel the Power

Senator Wicker

Currently, there are only six existing early site permits that have been approved by the Nuclear Regulatory Commission to build additional nuclear capacity in this country, including one in Mississippi which is set to expire in 2027. Although nothing has materially changed at the site since the permit was issued, it may cost the owners of the Grand Gulf Nuclear Station tens of millions of dollars just to renew the permit and maintain the option to consider building a reactor in the future. Furthermore, if an applicant ever decides to pursue construction at that site, they will have to undergo many of the same reviews required to renew the permit if they build at the site. Mr. Booker, can you speak to the importance of a well-planned energy system from a workforce perspective?

Thank you for the follow up question, for the record, Senator Wicker.

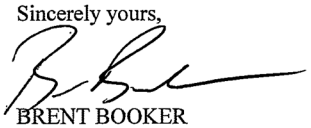
We have thousands of workers within the nuclear industry, both from the maintenance and operations, and the construction standpoint. We are constantly in contact with our employers (developers, owners, etc.) to make sure we can plan accordingly for future work. As a construction union, we provide the necessary training to our members so they can create careers within the construction industry. So, having a workforce ready to fulfill the jobs at hand is crucial-both from a safety and business standpoint. It is advantageous for everyone to get these projects permitted and built on time and on budget, with the best-trained workforce. As you mentioned, permitting delays and refilings can cost developers tens of millions of dollars, which then puts that project in jeopardy, ultimately costing our members' their jobs.

Moreover, LIUNA pays for our members' training. We, therefore, do not want to waste our own training funds or our members' time training them for jobs that may not exist. Permitting plays a significant part of this process for LIUNA because our members go from project to project, and it is up to us to ensure they are ready for each one.

I extend my sincere gratitude for the opportunity to testify before the Committee, and I am eager to collaborate with you to enact meaningful permitting reform this Congress.

With kind regards, I am

Sincerely yours,



BRENT BOOKER
General President

bks

Senator CAPITO. Thank you, Mr. Booker. I appreciate it.

Finally, our last witness is Nicole Pavia, the Director of Clean Energy Infrastructure Deployment at the Clean Air Task Force. She is responsible for leading the organization's infrastructure team and previously worked in consulting, concentrating on energy and sustainability projects. She is a fellow Duke University alumni, a Blue Devil.

STATEMENT OF NICOLE PAVIA, DIRECTOR, CLEAN ENERGY INFRASTRUCTURE DEPLOYMENT, CLEAN AIR TASK FORCE

Ms. PAVIA. That is right. Chairman Capito, Ranking Member Whitehouse and members of the committee, thank you very much for the opportunity to testify today.

My name is Nicole Pavia, and I am the Program Director for Clean Energy Infrastructure Deployment at the Clean Air Task Force, or CATF. CATF is a non-profit, non-ideological advocacy group with nearly 30 years of experience in advancing policy and technology change needed to achieve a zero emissions high energy economy at affordable cost.

In my role, I lead CATF's work to identify and address barriers, be they regulatory, permitting, financing, or social, holding back deployment of clean energy technologies at the pace and scale we need to decarbonize.

One of our priority technologies is electricity transmission. Long range interState and inter-regional transmission lines are critical pieces of our energy system, and we are not building enough of these lines to meet reliability, security, affordability, load growth, and clean generation needs.

Today, significant wholesale electricity price differences between and within regions exist due to transmission system congestion. Regions afflicted by severe weather are unable to access enough electricity from neighboring regions, leading to economic damage and tragically, loss of life.

Approximately 2,600 gigawatts or 2.6 terawatts of energy capacity, 95 percent of which is zero-emitting or storage capacity, sits in interconnection queues today waiting for an opportunity to plug into the grid. The cumulative effect of our inability to modernize and update our transmission system is reflected well in North American Electric Reliability Corporation's latest long-term reliability assessment. Most of the North American bulk power system faces increasing resource and energy adequacy challenges, just as projections show increasing demand growth.

Given these urgent circumstances, why have long-range transmission investment and deployment rates decreased and not increased over the past decade? Some have pointed to Federal transmission processes and environmental review processes under the National Environmental Policy Act, or NEPA, as key culprits. But little evidence and data existed to understand the truth of these claims.

Therefore, CATF partnered with the Niskanen Center to start to build the evidentiary record around the drivers of delay in the Federal transmission permitting process. We consolidated and analyzed publicly available data and interviewed developers, permitting officials, and other expert stakeholders.

As explained further in my written testimony, environmental reviews under NEPA can certainly be improved. But fundamentally we found that the provisions of NEPA are not to blame for the most significant delays and inefficiencies in transmission deployment.

The most frequently cited slowdowns were largely process and resource oriented. Most stemmed from gaps in leadership and Federal agency coordination, lack of steady appropriations for permitting related tasks, insufficient permitting expertise at agencies, data inaccessibility, and local opposition to and lack of State support for nationally beneficial projects.

These are not all permitting specific blockers, but they often flare up throughout the course of the permitting process.

Another issue is the regulatory differences between jurisdictions through which long distance transmission lines may pass. Lines crossing State or tribal borders are not subject only to Federal permitting requirements, but also to the requirements of all State and tribal governments traversed. These requirements can be uncoordinated or duplicative, and State and tribal resource constraints for permitting are evident.

Overall, prioritization of a modernized, secure, and resilient transmission network will require a departure from the status quo. This includes reforms to the Federal review process, but it also requires addressing the key drivers of transmission delay as identified in our report.

In addition to speeding permitting timelines, we should be increasing specialized agency capacity to efficiently execute permitting. And we should consolidate siting and permitting authorities for interState transmission projects in the national interest under the Federal Energy Regulatory Commission, just as they are for interState natural gas pipeline projects.

Thank you, and I look forward to your questions.

[The prepared statement of Ms. Pavia follows:]

Testimony Before the United States Senate Committee on Environment and Public Works

Improving the Federal Review and Permitting Processes

Testimony of Nicole Pavia, Director of Clean Energy Infrastructure Deployment

Clean Air Task Force

February 19, 2025



CLEAN AIR TASK FORCE

Madam Chair, Ranking Member, and Distinguished Members of the Committee:

My name is Nicole Pavia, and I am the Program Director for Clean Energy Infrastructure Deployment at Clean Air Task Force (CATF). In my role, I lead CATF's work to identify and address barriers – regulatory, permitting, financing, and social – holding back deployment of clean energy technologies at the necessary pace and scale to decarbonize our economy. Thank you for the opportunity to testify.

Clean Air Task Force is a nonprofit organization dedicated to advancing the policy and technology changes necessary to achieve a zero-emissions, high-energy economy at an affordable cost. We work to advance a full suite of low-carbon energy and other climate- and public health-protecting technologies, including nuclear energy, carbon capture and storage, and next-generation geothermal. CATF is a pragmatic, non-ideological advocacy group with a broad range of scientific, technical, legal, and policy expertise, nearly 30 years of experience on climate and energy policy, and a commitment to exploring all potential solutions.

Testimony Summary

The United States urgently needs to build more long-distance interstate transmission to maintain grid reliability, to improve energy affordability and security, to deploy clean energy technologies, and to enable growth of new economic sectors. Simultaneously, investment and deployment have fallen short, and action is needed to speed deployment while safeguarding community and environmental protections. Through our research, CATF and our partners have compiled an evidence-based record around key transmission lines and uncovered several high-priority problem areas and clear opportunities for process improvement. We synthesized this information into a report published last year, which will be detailed later in this testimony.[1]

There are certainly more efficiencies to be found in how environmental reviews are done under the National Environmental Policy Act (NEPA) process itself – further consideration of regulatory categorical exclusions, "tiering" reviews, and expanded use of programmatic environmental impact statements (PEISs) would reduce redundancies. And duplicative environmental reviews, particularly in National Interest Electric Transmission Corridors (NIETCs), must be eliminated to facilitate the timely development of nationally important transmission lines. Fundamentally, though, our work found that the provisions of NEPA are not to blame for the most significant delays and inefficiencies in transmission deployment. NEPA also provides important opportunities for public and stakeholder engagement and transparency in the environmental review process.

Slowdowns most cited by interviewees and in conversations throughout the course of this work were largely process- and resource-oriented, stemming from leadership gaps, lack of steady

[1] Clean Air Task Force & Niskanen Center, Evidence-Based Recommendations for Overcoming Barriers to Federal Transmission Permitting (Apr. 2024), https://www.catf.us/wp-content/uploads/2024/04/evidence-based-recommendations-overcoming-barriers-federal-transmission-permitting.pdf.

funding, a dearth of permitting expertise at agencies both in Washington, D.C., and at field offices, insufficient federal coordination and tools to enable such coordination, and local opposition to and lack of state support for nationally-beneficial projects. These are not all permitting-specific blockers but often flare up throughout the course of the permitting process.

Regulatory differences between jurisdictions also add time and cost to environmental review, permitting, and project timelines. Developers building long-distance lines crossing state or Tribal borders are subject not only to the permitting requirements of the federal government, but also the requirements of all state and Tribal governments traversed by the lines. Federal and state requirements, including the requirements of bordering states, can be uncoordinated or duplicative. Staff shortages are not only evident at the federal level – state and Tribal staffing and resource constraints also contribute to lengthier timelines. And consultations with Tribal Nations and communities have historically not been prioritized. Though not all these findings fall specifically under the jurisdiction of the federal government, federally-supported technical assistance, conversations between states and regions, and local community and Tribal Nation engagement can pay dividends.

Overall, prioritization of a modernized, secure, well-connected, resilient transmission network as a worthwhile national goal will require a departure from the status quo. Siting and permitting authorities for projects in the national interest should be consolidated under FERC, accompanied by constructive dialogue with all stakeholders, including states, local communities, and private entities on project details and throughout project lifecycles.

Transmission is beneficial and needed, but not enough is being built

One area that is indicative of the need for improving the federal review and permitting process is transmission. The United States electrical grid infrastructure is at a critical moment. There are a myriad of reasons to build out and invest in a high-capacity, modernized transmission system. Transmission is an enabling technology for all generation resources, carrying reliable and affordable power to homes and businesses as well as to data and industrial centers. Approximately 2,600 gigawatts of generation and storage capacity – of which 95 percent are zero-carbon, low or zero air polluting resources – are waiting to connect to the grid today.[2] A revitalized and connected transmission grid will boost resilience to extreme weather events, security threats, and other challenges. Transmission system expansion will alleviate constraints on the grid, which could benefit consumers by allowing lower-priced energy to flow to congested areas with high electricity prices. And considering projections for increasing electricity demand, even more wires may be required to connect generation resources to pockets of greater demand.

[2] Lawrence Berkeley National Laboratory, Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection (April 2024), https://emp.lbl.gov/queues.

CLEAN AIR TASK FORCE

Despite the clear benefits of transmission deployment for security, resiliency, economic development, affordability, and decarbonization, the United States has not kept up with the infrastructure investments required to capitalize on these benefits. Multiple studies estimate that a three- to four-fold increase of transmission capacity will be required to meet burgeoning demand within the next 30 years.[3] Some estimates indicate that transmission investment requirements will reach more than $40 billion annually by 2031.[4] However, between 2010 and 2020, the U.S. saw overall *decreases* in annual transmission investment for large powerlines.[5]

So why are we not building more transmission, especially the long-distance lines that bring power from where it is most efficiently and affordably generated to where it is needed most? There are several overlapping challenges – to name a few, we are seeing uncoordinated planning across regions, cost allocation debates, financial incentives of the utility business model to build shorter, incremental lines over larger projects, and the need for permits from several different jurisdictions with varied regulatory environments.

Over the past several years, a growing consensus has emerged that federal permitting and environmental review processes must be improved. However, to date, very limited research, evidence, and data have been available to pinpoint the most impactful drivers of delay in these processes. Understanding common pain points and high leverage opportunities for time savings are critical to crafting the most effective and targeted transmission permitting reform proposals. Many of these conversations involve NEPA, a tool to enable transparency and informed decision-making and ensure that all federal agencies consider reasonably foreseeable environmental impacts of proposed federal actions before making final decisions, including whether to fund, permit, or authorize a project.

CATF and Niskanen Center aimed to fill research gaps on drivers of transmission delays

CATF partnered with the Niskanen Center and engaged with ClearPath and other collaborators to build an evidentiary record of the drivers of delays in the federal environmental review process for transmission lines. We aimed to better understand what prevents transmission buildout, including the approvals required from multiple jurisdictions (federal, Tribal, state, local) and social factors (such as developer-community relations). We theorized that many elements of the current process present hurdles to transmission permitting. And we found that

[3] Niskanen Center & Clean Air Task Force, How are we going to build all that clean energy infrastructure? (August 2021), https://www.niskanencenter.org/wp-content/uploads/2021/08/CATF_Niskanen_CleanEnergyInfrastructure_Report.pdf.
[4] Jürgen Weiss, et al., The Coming Electrification of the North American Economy: Why We Need a Robust Transmission Grid, BRATTLE GRP. (March 2019), https://wiresgroup.com/wp-content/uploads/2020/05/2019-03-06-Brattle-Group-The-ComingElectrification-of-the-NA-Economy.pdf.
[5] Department of Energy, National Transmission Needs Study (October 2023), https://www.energy.gov/sites/default/files/2023-12/National%20Transmission%20Needs%20Study%20-%20Final_2023.12.1.pdf.

there are concrete opportunities to streamline transmission permitting efforts, while focusing attention on permitting for major federal projects.

Our research effort consisted of three main parts:

1) The research team compiled a database of 37 new high-capacity transmission lines that required federal permits and conducted a quantitative analysis on permitting timelines. These lines met the following criteria:
    a) The line was a new build (not a rebuild or upgrade);
    b) The project had an environmental impact statement (EIS) in progress or completed between 2010 and 2020 (the project published a Notice of Intent [NOI], Final EIS [FEIS], Record of Decision [ROD], or was in the process of having an EIS prepared at some point in the time period);
    c) The line voltage was at least 115 kilovolts (kV);
    d) The line was at least 5 miles in length; and
    e) The line had at least one domestic endpoint.
2) The research team conducted in-depth case studies on each of the lines identified, gathering information from public dockets and news articles on the lines.
3) The research team conducted background interviews with transmission developers, federal stakeholders, and Tribal representatives to understand transmission development challenges from their informed perspectives.

Key findings from quantitative research

Several key findings emerged from our quantitative analysis on the 37 transmission lines meeting the above criteria. Of the 37 lines, 4 were canceled, so analysis was conducted on the remaining 33 lines.

- Lines requiring an EIS between 2010 and 2020 made up only a small fraction (3.5 percent) of newly built transmission lines but comprised a proportionally large share (26 percent) of new line miles. Projects requiring federal permitting were more than 7 times longer in length than the average transmission project.
- The two most common major federal actions triggering a NEPA review were projects crossing federal land or projects that had federal involvement in project funding.
- 64 percent of the projects analyzed were built within the California Independent System Operator (CAISO) region or in the non-RTO West (see Figure 1).
- EIS review length (calculated from the date of NOI through the issuance of an ROD) across all the electric transmission projects we catalogued was on average 4.3 years, with a median of 3.7 years and a range of 1 to 11 years.
- For the largest lines in our dataset (longer than 100 miles and above 345 kV), the average timeline is slightly longer – 4.7 years – but about in line with White House Council on Environmental Quality (CEQ) findings for all federal environmental reviews (4.5 years)

from 2010 to 2018.[6] The median timeline in our data set was 3.5 years, which was also similar to the median of 3.8 years for federal environmental reviews from the same time period in CEQ's most recent analysis.[7]

Figure 1. Map of the 33 Completed Lines in the EIS Lines Dataset, by Voltage Class



As more of the long-distance transmission we need is planned, a greater proportion of projects could be subject to the federal permitting process. This further underscores the need for more comprehensive review and a better understanding of permitting processes today to enable more deployment.

Key drivers of slow transmission permitting today

Through our qualitative and quantitative research, interviews with transmission and community stakeholders, and case studies on specific transmission lines, we gathered insights into the most pressing drivers of delay in the transmission permitting process. These drivers can be grouped into three buckets – (1) insufficient leadership, coordination, and capacity at the federal level, (2) misalignment in requirements between different jurisdictions with permitting authority, and (3) inefficiencies in the overall permitting process.

Insufficient leadership, coordination, and capacity at the federal level

The transmission environmental permitting process can involve a wide range of stakeholders, including multiple federal agencies, Tribal nations, state agencies, communities, and regional grid operators. The NEPA process offers avenues for interagency coordination and collaboration,

[6] White House Council on Environmental Quality, *Environmental Impact Statement Timelines (2010-2018)* (June 12, 2020), https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Report_2020-6-12.pdf.
[7] White House Council on Environmental Quality, *Environmental Impact Statement Timelines (2010-2024)* (Jan. 13, 2024), https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Report_2025-1-13.pdf.

but there are few models for how exactly agencies should coordinate. In short, there has been a failure to create and support an iterative, agile review process with continuous and consistent communication among agencies, stakeholders, and developers to identify and address concerns early and often. Lack of communication and accountability by all agencies at the start of the permitting process can lead to relevant agencies engaging relatively late in the game or slow-to-resolve conflicts between agencies, adding months if not years to permitting timelines.

Communication and coordination challenges within and among agencies, and between agencies and developers, are further complicated by a lack of centralized information on transmission projects undergoing environmental review. Through the process of conducting this research, the project team also came face-to-face with lack of data availability and compilation. Project EIS information is strewn across several agency websites, and data is not presented or catalogued in a standardized format. The project team also pored over federal and state dockets to uncover more details on project decisions and timelines – an extremely time-intensive task. We also procured data from a private consultant to gather additional information on the lines we identified, including on leading drivers for the construction of each line (for example, to improve reliability, to manage load growth, to interconnect new generation, for storm or fire hardening). Transmission project stakeholders and researchers alike would benefit from greater data availability and standardization.

The Permitting Dashboard,[8] managed by the interagency Federal Permitting Improvement Steering Council (Permitting Council) established under FAST-41, is an existing database not fully utilized today to widely track the permitting process for transmission lines. Though the Dashboard was established to track FAST-41 "covered" projects meeting specific criteria, the Executive Director of the Permitting Council has authority to post projects other than FAST-41 covered projects to the Dashboard in the interest of transparency.[9] Smaller transmission projects that do not meet the $200 million threshold may therefore be listed on the Dashboard at the discretion of the Permitting Council. If leveraged to a fuller extent, the Dashboard could be used to track all nationally and regionally significant transmission projects undergoing an EIS.

Supporting a more agile process, improving coordination and communication between agencies, and managing useful databases also requires skilled and specialized agency staff time. But another key barrier that developers and federal stakeholders identified through our research is very limited existing agency capacity for permitting processes. Legislation like the Inflation Reduction Act provided more than $1 billion to support the environmental review process and hire and train personnel,[10] but inconsistent annual funding levels make it difficult for agencies to

[8] Permitting Dashboard, Federal Infrastructure Projects, https://www.permits.performance.gov/projects.
[9] A covered project is one that: (1) is subject to NEPA; (2) is likely to require a total investment of more than $200,000,000; and (3) does not qualify for abbreviated authorization or environmental review processes under any applicable law. *See* 42 U.S.C. § 4370m(6); https://www.energy.gov/oe/fast-41.
[10] White House, Building a Clean Energy Economy: A Guidebook to the Inflation Reduction Act's Investments in Clean Energy and Climate Action (January 2023), https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf.

recruit and retain qualified permitting staff over time. Several important senior-level managerial positions with long-term, national-level views of transmission projects, such as National Project Managers at the Department of the Interior's Bureau of Land Management, have been phased out as knowledgeable staff retired, leaving gaps in subject matter expertise and connective tissue between and within agencies. And recent and ongoing agency staff capacity reductions in Washington and at field offices will worsen the capacity challenges that developers and other stakeholders specifically identified more than a year ago in our research.

Although the past several presidential administrations, Republican and Democratic alike,[11] have identified the urgent need to deploy interstate and interregional transmission, there remains a fundamental lack of federal prioritization of transmission buildout that trickles down from agency leadership through to frontline managers and permitting officials. Prioritizing interstate transmission buildout and providing adequate staffing and funding for coordination efforts could ameliorate all the identified challenges at the federal level. This leadership is also vital in addressing regional and interregional issues that require regular coordination between federal agencies, Tribal Nations, state and local governments, and regional grid operators.

The barriers we have identified are important to consider when weighing effective permitting reform strategies. New deadlines for permitting and environmental review decisions can help – the Fiscal Responsibility Act of 2023 imposes a two-year deadline to complete EISs,[12] and the Department of Energy's (DOE) Coordinated Interagency Transmission Authorizations and Permits Program (CITAP) is a valuable step forward in agency coordination and action that also sets a two-year deadline to issue permits and authorizations for eligible projects.[13] But more will be needed to address agency coordination and staffing to get the permitting outcomes that the country needs.

Misalignment in requirements between different jurisdictions with permitting authority

Federal agencies are not the only entities engaged in permitting – these processes also require coordination with and among state and Tribal governments and even local communities. We observed key barriers where these jurisdictions and relationships overlapped and connected.

The benefits from interstate transmission lines may vary for each state or Tribe they traverse, and the federal government has not sufficiently led in communicating or demonstrating the importance of developing transmission to support national and regional policy goals. Local opposition can overlook or underestimate the collective value of transmission. And state

[11] National Electricity Policy: Federal Government Perspectives: Hearing Before the Subcommittee on Energy and Air Quality of the Comm. on Energy and Com. H.R., 107th Cong. 34-35 (2001) (statement of Francis Blake, Deputy Sec. of Energy).
[12] See 42 U.S.C. § 4336a(g).
[13] Department of Energy, Coordinated Interagency Transmission Authorizations and Permits Program, https://www.energy.gov/gdo/coordinated-interagency-transmission-authorizations-and-permits-program.

opposition to nationally important interstate transmission lines can create major barriers that are separate and apart from the permitting process.

Today, developers building long-distance lines crossing state or Tribal borders are subject not only to the permitting requirements of the federal government, but also the requirements of all state and Tribal governments traversed by the lines. Federal and state requirements can be out of sync or duplicative, as can requirements between neighboring states, adding time and costs for developers. State and Tribal staffing and resource constraints can also contribute to lengthier timelines. And consultations with Tribal Nations have historically not been prioritized, contributing to delays throughout the transmission line permitting and development processes.

Inefficiencies in the permitting process

Our research uncovered inefficiencies in the extensive "pre-filing" process for transmission projects where agencies and applicants have detailed interactions to understand application requirements and allow vetting of projects to jointly identify potential problems with the project. Historically, these processes have been one-off, uncoordinated, or unclear, with agencies having their own methods for engaging with developers pre-filing. DOE recently standardized its pre-filing process via the CITAP program[14] for projects where DOE is the lead agency, but other agencies have not yet formalized these processes.

While the NEPA process supports informed decision-making and the surfacing of important environmental information about projects, there is also the potential for duplicative NEPA analyses and permitting review processes in National Interest Electric Transmission Corridors (NIETC). NIETCs are corridors established by DOE pursuant to Section 216(a) of the Federal Power Act (FPA) as amended by the Infrastructure Investment and Jobs Act to support the development of nationally-beneficial transmission lines. The corridors, informed by the findings of the triennial DOE National Transmission Needs Study, should be located where consumers are harmed by transmission gaps and where new transmission would provide additional benefits like improved reliability and affordability.[15] A NIETC designation also unlocks key financing mechanisms available under the Transmission Facility Program (TFP) and the Transmission Facility Financing (TFF) loan programs.

Additionally, projects in these corridors may also be eligible for federal siting by the Federal Energy Regulatory Commission (FERC) when the following criteria are met:[16]

---

[14] Department of Energy, Coordinated Interagency Transmission Authorizations and Permits Program, https://www.energy.gov/gdo/coordinated-interagency-transmission-authorizations-and-permits-program.
[15] Department of Energy, Grid Deployment Office Guidance on Implementing Section 216(a) of the Federal Power Act to Designate National Interest Electric Transmission Corridors (Dec. 19, 2023), https://www.energy.gov/sites/default/files/2023-12/2023-12-15%20GDO%20NIETC%20Final%20Guidance%20Document.pdf.
[16] Federal Energy Regulatory Commission, Electric Transmission Facilities Permit Process, https://www.ferc.gov/electric-transmission-facilities-permit-process.

- A state does not have the authority to approve the siting of facilities or to consider interstate or interregional benefits of the facilities;
- An electric transmitting utility does not qualify for siting approval in a state;
- A state has not made a determination on an application within one year;
- A state has conditioned its approval such that the project will not significantly reduce transmission capacity constraints or congestion, or is not economically feasible; or
- A state denies an application.

The NIETC identification and selection process is currently underway at DOE. Therefore, no federal environmental review processes are yet active in proposed corridors, and project applicants cannot yet appeal to FERC for use of its limited siting authorities as mentioned above. However, the potential for duplicative reviews in the process of finalizing and building in these corridors has been identified. Once corridors are selected, DOE must conduct a NEPA analysis for each corridor. Siting by FERC could then trigger another round of environmental review. FERC noted in Order 1977 that it will coordinate with DOE "to the maximum extent practicable to minimize redundancy and promote efficiency in the Federal environmental review process," but also that "the framework for the [FERC's] coordination with DOE in exercising DOE's separate authority to designate National Corridors under section 216(a) of the FPA is beyond the scope of this final rule."[17]

Several proposals have been put forward to proactively reduce the potential for duplicative environmental review for interstate transmission lines and better structure the relevant responsibilities of FERC and DOE. The Energy Permitting Reform Act of 2024 proposed to eliminate DOE's requirement to designate NIETCs and instead establish new criteria for projects "in the national interest" qualifying for federal siting under FERC and designate FERC as the lead agency on NEPA analysis for the projects it sites.[18,19] The Streamlining Interstate Transmission of Electricity Act (SITE Act) proposed giving FERC exclusive siting authority for transmission lines at least 1000 megawatts in capacity crossing two or more states,[20] and the Clean Electricity and Transmission Acceleration Act (CETA) used the same definition for covered lines while also directing FERC to incorporate DOE's environmental review findings into its own environmental review process.[21] To date, this issue remains unresolved for transmission.

---

[17] See Order No. 1977, Applications for Permits to Site Interstate Electric Transmission Facilities, 187 FERC ¶ 61,069, P 291 (2024), https://www.ferc.gov/media/e-2-rm22-7-000.
[18] Energy Permitting Reform Act of 2024, S.4753, 118th Cong. (2nd Sess. 2024), https://www.congress.gov/bill/118th-congress/senate-bill/4753.
[19] Grid Strategies, "Energy Permitting Reform Act of 2024 – How the Transmission Process Would Work", https://gridstrategiesllc.com/wp-content/uploads/EPRA-Transmission-Explainer-Grid-Strategies.pdf.
[20] Streamlining Interstate Transmission of Electricity or "SITE Act", S. 946, 118th Cong. (1st Sess. 2023), https://www.congress.gov/ bill/118th-congress/senate-bill/946..
[21] Clean Electricity and Transmission Acceleration Act of 2023, H.R.6747, 118th Cong. (1st Sess. 2023), https://www.congress.gov/ bill/118th-congress/house-bill/6747.



However, FERC already has authority over other kinds of interstate linear infrastructure that streamlines the environmental review and permitting processes. For example, the Natural Gas Act gives FERC siting authority over interstate gas pipelines and designates FERC as the lead agency on NEPA and for coordinating all applicable federal authorizations.[22] The Natural Gas Act gives FERC much more robust authority over interstate natural gas pipelines today than the FPA gives any specific agency over interstate transmission.

Recommendations to overcome barriers to federal transmission permitting and improve permitting timelines

CATF's position is that any federal permitting and environmental review reforms must be conscientiously designed to safeguard and empower impacted communities, particularly communities historically disadvantaged or disproportionately impacted by existing energy infrastructure.

Based on the evidentiary record we reviewed and our research findings, we compiled some recommendations for actions. These would holistically address major pain points in the permitting process, and reduce permitting timelines, while remaining true to the core tenets of community and environmental protection.

Our recommendations are grouped into three buckets that mirror the three kinds of challenges – (1) improving federal agency coordination, cooperation, and capacity, (2) streamlining interactions among sovereign authorities, and (3) improving the environmental review and permitting process.

Improving federal agency coordination

- ***Congress and agencies should enhance transparency in project review and project timelines.*** All actors should work toward an iterative process with consistent and transparent communication and timelines. This should include interagency coordination in the pre-application part of the permitting process.
- ***Congress should invest in interagency coordination, interagency cooperation, and agency capacity.*** More permitting staff trained on the nuances of transmission infrastructure are required to shorten permitting timelines. Staff should also be available for joint agency cooperation. Congress should provide regular appropriations for transmission permitting staff at agencies. Congress and agencies should also continue to work on modernizing permitting review processes and invest in relevant digital tools.
- ***DOE, the Permitting Council, or other agencies should require transparency and accountability through use of the Permitting Dashboard.*** DOE can recommend nationally and regionally significant projects undergoing EIS review be added to the

[22] *See* 42 U.S.C. § 717f.

Permitting Dashboard. Ideally, projects would be added before the NOI to prepare an EIS.

- ***The executive branch should continuously recognize transmission infrastructure permitting as a national priority.*** Setting the transmission prioritization agenda and promoting a whole-of-government approach starts with the Executive Office of the President. This prioritization should be enforced by regular cabinet-level alignment and coordination, full leverage of Permitting Council authority, and appointment of a transmission director. Senior-level personnel reporting directly to agency decision-makers should be assigned to each major project under environmental review. Adequate staff should be available to support each step of agency-specific and coordinated, multi-agency permitting processes.

Streamlining interactions among sovereign authorities

- ***Federal agencies, with congressional support, should support enhanced state and Tribal capacity to conduct and participate in permitting processes.*** Federal agencies can dedicate grant programs, provide technical support (such as through DOE Grid Deployment Office's Offshore Wind Transmission Technical Assistance program[23]), and share best practices. Agencies should proactively engage with Tribes, on par with federal engagement with developers and states.
- ***Congress should consolidate permitting and siting authority for multi-state transmission projects that are in the national public interest.*** Congress should grant FERC comprehensive and plenary permitting and siting powers for key transmission projects (see the proposed SITE and CETA Acts).[24,25]
- ***States should harmonize their permitting processes to create regulatory efficiency and allow concurrent processes.*** Though our research was federal in nature, many stakeholders emphasized optimization of project timelines through more aligned state permitting processes and more aligned federal-state processes. Joint state and federal environmental reviews, incorporation by reference of state or federal environmental reviews by other jurisdictions, and project-specific memoranda of understanding provide opportunities for better alignment.
- ***The Permitting Council should instruct Chief Environmental Review and Permitting Officers (CERPOs) to advance projects and coordinate with and support local agencies.*** Under FAST-41, each agency is required to designate CERPOs, who report to the agency deputy secretary on environmental review processes and authorizations.

[23] National Renewable Energy Laboratory, Tribal Nation Offshore Wind Transmission Technical Assistance Program: Introduction to Technology and Tribal Nation Support Technical Assistance Program Webinar (April 10, 2024), https://www.nrel.gov/docs/fy24osti/89524.pdf.
[24] Streamlining Interstate Transmission of Electricity or "SITE Act", S. 946, 118th Cong. (1st Sess. 2023), https://www.congress.gov/ bill/118th-congress/senate-bill/946.
[25] Clean Electricity and Transmission Acceleration Act of 2023, H.R.6747, 118th Cong. (1st Sess. 2023), https://www.congress.gov/ bill/118th-congress/house-bill/6747.

CERPOs can liaise with the Permitting Council and provide agency-specific updates on key projects. CERPOs can also execute a core NEPA function of providing information to states, Tribes, and other decisionmakers and support local authorities in making timely permitting decisions.

Improving the environmental review and permitting process for transmission

- ***Agencies and developers should conduct early, sustained, and meaningful stakeholder outreach.*** A common thread running through all stakeholder interviews for this project was the importance of early, timely, and meaningful stakeholder outreach to positive project outcomes. Government-to-government consultations with Tribes also is critical for respecting sovereign authority and pre-empting issues that can cause project delays.
- ***Agencies should implement robust pre-filing processes.*** Agency-specific pre-filing processes should be implemented, and agencies should encourage applicants to opt in to pre-filing.
- ***Developers and agencies should engage in early and collaborative identification of alternatives to be analyzed in an EIS.*** Project alternatives should be identified early on, in a collaborative process that involves relevant agencies, the developer, state and local officials, Tribes, communities, and other stakeholders. Identification of project alternatives is core to the NEPA process and can improve project outcomes by finding better routes, minimizing conflicts, and consequently reducing timelines.
- ***Agencies should carefully expand categorical exclusions for transmission development.*** A categorical exclusion is a class of actions determined by an agency that do not individually or cumulatively have a significant effect on the human environment. Strategic and appropriate use of categorical exclusions, with adequate environmental and community safeguards, can help agencies accelerate the deployment of transmission infrastructure. Available categorical exclusions should be expanded for more categories of projects within existing project rights-of-way. Agencies should look to their existing categorical exclusions and, based on their expertise, consider how these categorical exclusions can be thoughtfully expanded to responsibly increase environmental review efficiency.
- ***Agencies should expand the use of programmatic EIS (PEIS) reviews for transmission infrastructure projects, and Congress should ensure that agencies have sufficient capacity to do so.*** PEIS reviews consider the impacts of programmatic federal actions (such as actions occurring in the same geography or actions with relevant similarities). "Tiering" reviews, or relying on earlier NEPA review documents to expedite project-specific environmental review, can also increase efficiency of environmental review.
- ***DOE and FERC should minimize environmental review redundancy for the NIETC process.*** DOE, FERC, and relevant environmental agencies must collaborate closely to streamline NIETC environmental review processes and remove duplicative review requirements. However, it would take congressional action to move to a single

environmental review process. CATF supported language in the Energy Permitting Reform Act of 2024 to address this issue, and we have encouraged DOE and FERC to align what information they gather and evaluate under their regulations at each step of the process.

Conclusion

More long-distance, interstate transmission is needed in the United States for grid reliability, affordability, security, and resiliency, as well as to support the development of new economic sectors. However, transmission investment has not sufficiently kept up to unlock these benefits. There is broad consensus that transmission permitting and environmental review processes must be improved, but there has been little evidence provided for when, where, and how slowdowns in these processes occur. CATF and our project partners ventured to uncover problem areas and opportunities through comprehensive analysis of transmission projects subject to federal environmental review.

The most significant delays and inefficiencies uncovered in our research were not tied directly to the provisions of NEPA, but rather related to gaps in process and in resources. Interagency coordination issues, limited staff with permitting expertise at agencies, underutilized tools and databases, and misaligned permitting and regulatory requirements between federal, state, and Tribal jurisdictions all added significant time to transmission development timelines.

Prioritizing interstate transmission buildout at the highest levels of government and ensuring adequate staffing and funding for coordination efforts between federal agencies and between federal, state, and Tribal entities could ameliorate all identified challenges. Consolidating siting and permitting authorities and eliminating duplicative environmental reviews for high-priority, nationally-beneficial transmission lines, while providing for constructive dialogue with stakeholders, would also speed time to deployment. Reductions of agency capacity in Washington D.C. and at field offices, failure to set up the staff and management infrastructure at agencies to support interagency coordination, and underinvestment in permitting dashboards and other data management tools will increase the time it takes to get projects requiring federal permits and environmental reviews built.

Response to Questions for the Record

United States Senate Committee on Environment and Public Works

Improving the Federal Review and Permitting Processes

Nicole Pavia, Director of Clean Energy Infrastructure Deployment

Clean Air Task Force

March 19, 2025





Responses to Questions from Ranking Member Whitehouse

CLEAN AIR TASK FORCE

1) Would you provide a list of discrepancies between the treatment of pipelines under the Natural Gas Act and the treatment of transmission lines under the Federal Power Act? Where should those discrepancies be harmonized?

At a high level, section 7 of the Natural Gas Act gives the Federal Energy Regulatory Commission (FERC) full siting and permitting authority over interstate pipelines and designates FERC as the lead agency on National Environmental Policy Act (NEPA) reviews. By contrast, section 216(a) of the Federal Power Act allows the Department of Energy (DOE) to establish National Interest Electric Transmission Corridors (NIETCs), and section 216(b) allows FERC to use limited siting authority in those corridors under specific conditions.[1] Otherwise, transmission siting and permitting are handled by the states.

The current regulatory structure results in significantly fragmented siting and permitting jurisdictions for electric transmission lines. The multijurisdictional nature of siting transmission means that lines not only need to go through the federal review process, but also state and other jurisdictional processes. This creates incentives to build incremental, shorter lines, and does not produce the longer lines we need to achieve security, resiliency, and reliability goals.

Specific discrepancies between authorities under the Natural Gas Act and the Federal Power Act include:

Lead siting authority

Transmission: States retain primary authority over transmission siting. FERC may approve siting of transmission lines only in DOE-designated NIETCs,[2] and only if the state fails to approve the transmission line as detailed below.

Natural gas pipelines: The Natural Gas Act gives FERC exclusive authority over permits for siting and operating interstate natural gas pipelines.[3] States are preempted from exercising authority over the siting and operations of interstate pipelines and can only exercise authority over intrastate pipelines. Once FERC approves a project, developers receive federal eminent domain authority.[4]

Project need determination

Transmission: States vary in their standards and procedures for transmission project siting approvals. Typically, a state public utility commission or equivalent body must find there is a

---

[1] *See* Order No. 1977, Applications for Permits to Site Interstate Electric Transmission Facilities, 187 FERC ¶61,069, (2024), https://www.ferc.gov/media/e-2-rm22-7-000.
[2] Since the Energy Policy Act of 2005 added section 216 to the Federal Power Act, DOE has not successfully designated a NIETC.
[3] *See* 15 U.S.C. § 717(b); *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 300 (1988) ("The NGA confers upon FERC exclusive jurisdiction over the transportation and sale of natural gas in interstate commerce for resale.").
[4] 15 U.S.C. § 717f(h).

public need for the project, and review its environmental impacts;[5] states may also participate in regional planning processes.

If exercising its authority to site transmission lines within a corridor, FERC must find that:

1) a state does not have the authority to either approve the siting of the facilities or to consider the interstate or interregional benefits;
2) the applicant is a transmitting utility that does not qualify to apply in a state because the applicant does not serve end-use customers in the state;
3) a state has not made a determination on an application within one year of the application filing or the designation of the relevant NIETC, whichever is later;
4) a state has conditioned its approval such that the proposed project will not significantly reduce capacity constraints or is not economically feasible; or
5) a state has denied an application.[6]

Essentially, these provisions give states a year to make a determination for lines in NIETCs, after which FERC can act.

Natural Gas Pipelines: The Natural Gas Act instructs FERC to grant certificates to construct and/or operate interstate pipelines if doing so "is or will be required by the present or future public convenience and necessity."[7] In determining whether to grant a certificate, FERC examines (1) whether there is a market need for the project (such that the project will not create additional costs for existing customers) and (2) whether adverse impacts of the project are outweighed by public benefits.[8]

Federal review process

Transmission: Section 216(h) of the Federal Power Act designates DOE as "the lead agency for purposes of coordinating all applicable Federal authorizations and related environmental reviews of the facility."[9] DOE must also coordinate with federal land management and natural resource agencies, including the Department of Energy, the Department of the Interior (including the Bureau of Land Management), the Department of Agriculture (including the U.S. Forest Service), and the Environmental Protection Agency.

DOE recently issued a final rule to amend these regulations to establish the Coordinated Interagency Authorizations and Permits (CITAP) program, following a May 2023 Memorandum of Understanding among nine federal agencies "committing to expedite the siting, permitting,

---

[5] *See, e.g.*, R.I. Gen. Laws. Tit. 42 Ch. 98 (requiring high-voltage transmission lines in Rhode Island to obtain a license from the Energy Facility Siting Board based on a demonstration that the facility is necessary, is cost-justified, will not cause unacceptable harm to the environment, and will enhance the socio-economic fabric of the state).

[6] *See* FERC Order *See* Order No. 1977, Applications for Permits to Site Interstate Electric Transmission Facilities, 187 FERC ¶61,069, (2024), https://www.ferc.gov/media/e-2-rm22-7-000; *see also* Federal Energy Regulatory Commission Explainer on Siting Interstate Electric Transmission Facilities (February 13, 2025), https://www.ferc.gov/explainer-siting-interstate-electric-transmission-facilities#_keydecisions.

[7] 15 U.S.C. § 717f(e).

[8] Certification of New Interstate Natural Gas Pipeline Facilities, 88 FERC ¶ 61,227, 61,745–47 (Sept. 15, 1999).

[9] 16 U.S.C. § 824p(h).

and construction of electricity transmission infrastructure through more effective implementation of section 216(h)."[10] The CITAP program standardizes pre-filing processes and aims to limit the federal environmental review process to two years for qualifying transmission lines.[11] Though section 216(h) of the Federal Power Act was enacted in 2005, CITAP regulations implementing it were not issued until 2024.

The CITAP program is distinct from the NIETC program. While the CITAP program clarifies DOE's role in coordinating pre-filing and environmental review and permitting processes for general high-voltage lines serving interstate interests, section 216(a) of the Federal Power Act allows DOE to designate specific corridors as NIETCs based on findings from the National Transmission Needs Study. DOE will initiate the NEPA process for these corridors once they are determined.[12] If FERC issues a permit for a transmission project within the NIETC, another round of environmental review could be triggered. In that case, FERC would serve as the lead NEPA agency on that second round.

Natural gas pipelines: The Natural Gas Act streamlines decision-making for interstate pipelines through a single federal agency. FERC ("the Commission") "shall act as the lead agency for the purposes of coordinating all applicable Federal authorizations and for the purposes of complying with the National Environmental Policy Act of 1969."[13] "Each Federal and State agency considering an aspect of an application for Federal authorization shall cooperate with the Commission and comply with the deadlines established by the Commission."[14]

Schedule setting and enforcement

Transmission: States vary in their procedures and timelines for transmission project approvals.[15] For federal approvals, per section 216(h) of the Federal Power Act, the Energy Secretary "in consultation with agencies responsible for Federal authorizations and, as appropriate, with Indian

---

[10] Final Rule, Coordination of Federal Authorizations for Electric Transmission Facilities, 89 FR 35312 (May 1, 2024), https://www.energy.gov/sites/default/files/2024-04/CITAPFinalRuleDOE.pdf.

[11] Defined as high-voltage lines 230 kV or above, or other regionally or nationally significant electric transmission lines, with attendant facilities that (1) are used in interstate or international commerce; and (2) are expected to require an environmental impact statement; or an electricity transmission facility that is approved by the Director of DOE's Grid Deployment Office. Qualifying projects *exclude* projects located wholly within ERCOT or those seeking construction permits from FERC under section 216(b) of the Federal Power Act (i.e., projects requesting FERC leverage its backstop siting authority in NIETCs). See https://www.energy.gov/gdo/coordinated-interagency-transmission-authorizations-and-permits-program#:~:text=of%20the%20project.-,How%20does%20the%20CITAP%20Program%20work%3F,decisions%20on%20permits%20and%20authorizations.

[12] Notice of Early Public and Governmental Engagement for Potential Designation of Tribal Energy Access, Southwestern Grid Connector, and Lake Erie-Canada National Interest Electric Transmission Corridors, 89 FR 101597 (December 16, 2024), https://www.federalregister.gov/documents/2024/12/16/2024-29419/notice-of-early-public-and-governmental-engagement-for-potential-designation-of-tribal-energy-access.

[13] 15 U.S.C. § 717n.

[14] *Id.*

[15] For example, after a 10-year federal permitting process, the Boardman to Hemingway transmission line faced an additional 4-year state review. Clean Air Task Force & Niskanen Center, *Evidence-Based Recommendations for Overcoming Barriers to Federal Transmission Permitting* at 45–46 (April 2024) (Transmission Case Study 3: Boardman to Hemingway Transmission Line), https://www.catf.us/wp-content/uploads/2024/04/evidence-based-recommendations-overcoming-barriers-federal-transmission-permitting.pdf.

tribes, multistate entities, and State agencies that are willing to coordinate their own separate permitting and environmental reviews with the Federal authorization and environmental reviews, shall establish prompt and binding intermediate milestones and ultimate deadlines for the review of, and Federal authorization decisions relating to, the proposed facility."[16] Schedule setting and enforcement relies upon the willingness of Tribal and state governments.

Natural gas pipelines: The Natural Gas Act endows FERC with the authority to set the schedule for all federal authorizations. "If a Federal or State administrative agency does not complete a proceeding for an approval that is required for a Federal authorization in accordance with the schedule established by the Commission, the applicant may pursue remedies under section 717r(d) of this title."[17] Applicants are granted recourse in the case of state failure to complete a proceeding required for federal authorizations.

Harmonization options

Congress can take steps to harmonize FERC's authorities over interstate transmission and natural gas pipeline siting and permitting. Any reforms and legislation should focus on high-impact and evidence-based pathways to improve processes and outcomes.

At minimum, Congress should eliminate the duplicative environmental reviews currently required in the NIETCs (as stated above, one DOE-led environmental review in the process of corridor designation, and one FERC-led environmental review if and when FERC issues a permit for a transmission project within a NIETC). Congress could consider building upon the Energy Permitting Reform Act of 2024, which proposed to eliminate DOE's requirement to designate NIETCs and instead establish new criteria under which FERC would identify projects "in the national interest" qualifying for federal siting and designate FERC as the lead agency on NEPA analysis for the projects it sites.[18,19] That legislation proposed criteria for these "national interest" projects, including a minimum voltage of 100 kilovolts and a finding that the line would significantly reduce transmission congestion in interstate commerce, protect or benefit consumers, and provide improved reliability.[20]

Another harmonization option would more directly align interstate transmission siting with how interstate natural gas pipelines are sited. Congress could give FERC full siting and permitting authority over interstate lines meeting particular criteria, akin to FERC's authorities over pipelines as described earlier in this response. Several legislative models already exist to build upon. For example, the Streamlining Interstate Transmission of Electricity Act (SITE Act) proposed giving FERC exclusive siting authority for transmission lines at least 1000 megawatts

---

[16] 16 U.S.C. § 824p(h)(4)(A).
[17] 15 U.S. Code § 717n(c).
[18] Energy Permitting Reform Act of 2024, S.4753, 118th Cong. (2nd Sess. 2024), https://www.congress.gov/bill/118th-congress/senate-bill/4753.
[19] Grid Strategies, "Energy Permitting Reform Act of 2024 – How the Transmission Process Would Work", https://gridstrategiesllc.com/wp-content/uploads/EPRA-Transmission-Explainer-Grid-Strategies.pdf.
[20] Energy Permitting Reform Act of 2024, S.4753, 118th Cong. (2nd Sess. 2024), https://www.congress.gov/bill/118th-congress/senate-bill/4753.

in capacity crossing two or more states,[21] and the Clean Electricity and Transmission Acceleration Act (CETA) used the same definition for covered lines while also directing FERC to incorporate DOE's environmental review findings into its own environmental review process.[22] Congress could also designate FERC as the lead agency on NEPA reviews for these lines, and give FERC similar authorities to set and enforce environmental review timelines. This would give FERC greater authority to site and permit lines critical to national needs.

[21] Streamlining Interstate Transmission of Electricity or "SITE Act", S. 946, 118th Cong. (1st Sess. 2023), https://www.congress.gov/bill/118th-congress/senate-bill/946.
[22] Clean Electricity and Transmission Acceleration Act of 2023, H.R.6747, 118th Cong. (1st Sess. 2023), https://www.congress.gov/bill/118th-congress/house-bill/6747.

The Natural Gas Act and the Federal Power Act

Comparison between authorities for interstate natural gas pipelines and interstate transmission lines

CLEAN AIR TASK FORCE

	Natural Gas Act (Interstate Natural Gas Pipelines)	Federal Power Act (Interstate Transmission Lines)
Lead siting authority	• FERC has exclusive authority over siting and operating interstate pipelines • Developers receive federal eminent domain authority once FERC approves a project • States preempted from exercising authority	• FERC may approve transmission lines only in NIETCs, and *only if* the state fails to or cannot do so under specific conditions[23] • Primary authority over transmission siting lies with the states
Project need determination	• FERC authorized to grant certificates to construct and/or operate interstate pipelines if: ○ FERC determines a market need for the project, such that the project will not create additional costs for existing customers, and ○ FERC determines public benefit outweighs adverse project impacts	• Typically, state public utility commission must find a public need for a project, or states participate in regional planning processes. • If exercising its authority to site transmission lines within NIETCs, FERC must first find that states failed to meet criteria (see footnote) • These criteria allow states with authority to approve transmission facility siting one year to make a determination for lines in NIETCs before FERC can intervene
Federal review process	• FERC authorized to act as lead agency for purposes of coordinating all applicable Federal authorizations, including NEPA • Federal and state agencies taking part in the federal review process must coordinate with FERC and comply with FERC-determined deadlines	• Per section 216(h), DOE designated as "the lead agency for purposes of coordinating all applicable Federal authorizations and related environmental reviews" for interstate transmission facilities (institutionalized as the CITAP program) • Per section 216(a), DOE can designate NIETCs based on National Transmission Needs Study findings. Projects in NIETCs seeking permits from FERC are not eligible for CITAP. • DOE leads NEPA reviews during NIETC designation process. If FERC issues a permit for a transmission project in a NIETC, this could trigger another NEPA review with FERC as lead agency.
Schedule setting and enforcement	• FERC sets the schedule for all federal authorizations • Applicant may pursue remedies if federal or state agencies do not comply with FERC's timeline	• Secretary of the Department of Energy must consult with agencies responsible for federal authorizations and, as appropriate, with Tribes, multistate entities, and state agencies willing to coordinate their own separate permitting and environmental reviews with federal authorizations and reviews • States, Tribes, and other jurisdictions vary in their procedures and timelines for transmission project approvals

[23] Conditions are as follows: (1) a state does not have the authority to either approve the siting of the facilities or to consider the interstate or interregional benefits; (2) the applicant is a transmitting utility that does not qualify to apply in a state because the applicant does not serve end-use customers in the state; (3) a state has not made a determination on an application within one year of the application filing or the designation of the relevant NIETC, whichever is later; (4) a state has conditioned its approval such that the proposed project will not significantly reduce capacity constraints or is not economically feasible; or (5) a state has denied an application.

CLEAN AIR TASK FORCE

2) What can Congress do to turn interagency process into an efficient mechanism for coordinating agencies?

For projects subject to environmental review and/or permitting processes that engage multiple agencies, streamlined and efficient interagency processes are critical to limiting redundancies and minimizing project timelines. Conversely, CATF and Niskanen Center research on barriers in federal environmental review and permitting processes found that lack of coordination between agencies directly contributes to project delays.[24]

In our report, we explored several interagency processes that exist today and how they might be improved. First, lead agencies can standardize and establish clear guidelines for both "pre-filing" processes, or the pre-work required prior to filing a Notice of Intent, as well as for agency coordination throughout the entire review process. One such recent example is the DOE Coordinated Interagency Transmission Authorizations and Permits (CITAP) program.[25] In the Energy Policy Act of 2005, Congress added Section 216(h) to the Federal Power Act giving DOE authority to serve as lead agency for coordinating federal authorizations and related environmental reviews needed to site and permit electricity transmission infrastructure. Among other things, DOE's CITAP program both (1) formalizes and organizes pre-filing processes between coordinating agencies and (2) sets a two-year deadline to issue federal permits and authorizations.

Another existing coordinating function is the Federal Permitting Improvement Steering Council ("Permitting Council"). This Council was established through Title 41 of the FAST Act (FAST-41) with the express purpose of gathering agency Deputy Secretaries to maintain project timelines and resolve interagency disputes for large infrastructure projects. FAST-41 also requires each agency designate a Chief Environmental Review and Permitting Officer (CERPO) to report to their agency's Deputy Secretary on environmental review processes and the status of authorizations. FAST-41 also created the Permitting Dashboard, a database that allows agency staff, developers, and the public to track the status of federal environmental reviews and authorizations for FAST-41 "covered" projects.[26]

FAST-41 was subject to a sunset clause, but the Infrastructure Investment and Jobs Act (IIJA) made FAST-41 permanent and amended it to include (1) more rigorous requirements for covered projects, including requiring federal environmental review timelines not exceed two years, (2) preparation of a joint interagency EIS and subsequent ROD, (3) issuance of a public final document with outcomes of the NEPA process within 90 days of issuance of the final EIS, (4)

---

[24] *See* Clean Air Task Force & Niskanen Center, Evidence-Based Recommendations for Overcoming Barriers to Federal Transmission Permitting (April 2024), https://www.catf.us/wp-content/uploads/2024/04/evidence-based-recommendations-overcoming-barriers-federal-transmission-permitting.pdf, *including* Appendix, Transmission Case Studies: 2. TransWest Express Transmission Project and 21. SunZia Southwest Transmission Project

[25] Department of Energy, Coordinated Interagency Transmission Authorizations and Permits Program, https://www.energy.gov/gdo/coordinated-interagency-transmission-authorizations-and-permits-program.

[26] A covered project is one that: (1) is subject to NEPA; (2) is likely to require a total investment of more than $200,000,000; and (3) does not qualify for abbreviated authorization or environmental review processes under any applicable law. *See* 42 U.S.C. § 4370m(6); https://www.energy.gov/oe/fast-41.

shortened timelines to identify all agencies with decisionmaking authority, and (5) consultation with the Permitting Council's Executive Director to make changes to permitting schedules, among other things. Our research found that FAST-41 processes, transparency via the Permitting Dashboard, and Permitting Council coordination were credited for a 2.5-year turnaround on an EIS for the interstate Ten West Link transmission line.[27]

The Permitting Council and Dashboard are existing resources that could be leveraged to a much greater extent. For example, the IIJA also gave the Executive Director of the Council authority to post projects other than FAST-41 covered projects to the Dashboard to further transparency and take advantage of coordination facilitated by the Council. In our research, we found significant data gaps and a lack of data standardization around pre- and post-filing environmental review processes – adding more projects to the FAST-41 dashboard could make that database a go-to and comprehensive resource for tracking a wide variety of projects undergoing federal review.

But currently, better and more effective use of existing authorities relies heavily on sufficient agency capacity and leadership from the Executive Office of the President. At the time of our report's publication, staff capacity for both intra- and interagency environmental review and permitting-related tasks was already limited, and that capacity is even more constrained now. Timelines required by IIJA amendments become mere suggestions if there is insufficient staff to execute on tasks required to adhere to those timelines. The President also appoints the Executive Director of the Permitting Council, who is responsible for interagency coordination, driving processes forward, and promoting transparency via opting to incorporate more projects into the Dashboard. Beyond providing regular funding for skilled agency staff, Congress could investigate further opportunities to enact constructive reforms to FAST-41 and build upon amendments made via the IIJA.

As mentioned in the answer to the previous question, Congress could make changes to transmission siting and permitting authorities that would streamline interagency cooperation. For example, Congress can increase FERC's role in siting and permitting, whether through legislative changes that would make FERC the lead agency for NEPA reviews for "nationally important" lines meeting particular criteria (as proposed in the Energy Permitting Reform Act of 2024), or through more significant legislative changes like giving FERC siting and permitting authority over interstate transmission lines (analogous to FERC's authority over siting and permitting of natural gas pipelines as detailed above). The Natural Gas Act Section 7 makes FERC the lead NEPA agency, allows FERC to set schedules and compliance deadlines for cooperating state and federal agencies, and lets applicants pursue remedies if deadlines are not

---

[27] Permitting Dashboard, "Ten West Link Transmission Line Project Breaks Ground" (January 20, 2023), https://www.permits.performance.gov/fpisc-content/ten-west-link-transmission-line-project-breaks-ground; *and see* Appendix, Transmission Case Studies: 28. Ten West Transmission Line Project *at* Clean Air Task Force & Niskanen Center, Evidence-Based Recommendations for Overcoming Barriers to Federal Transmission Permitting (April 2024), https://www.catf.us/wp-content/uploads/2024/04/evidence-based-recommendations-overcoming-barriers-federal-transmission-permitting.pdf.

respected. [28,29] Consolidation of the currently disparate and disorganized agency-specific siting and permitting processes under FERC would impart better structure to interagency coordination.

[28] Energy Permitting Reform Act of 2024, S.4753, 118th Cong. (2nd Sess. 2024), https://www.congress.gov/bill/118th-congress/senate-bill/4753.
[29] 15 U.S.C. § 717n.

CLEAN AIR TASK FORCE

3) In what regulatory processes should there be a filing requirement for an applicant to state what it has done to identify and gather preliminary input from affected stakeholders?

The NEPA process allows for public participation and community engagement opportunities and requires public involvement during the development of Environmental Assessments and Environmental Impact Statements. One requirement of the NEPA process is the identification of proposed alternatives. Our research shows that collaboration with communities and impacted stakeholders in shaping and narrowing down potential project locations can help improve project outcomes and make stakeholder needs and values clearer. This is a valuable opportunity for applicants to share preliminary input from impacted stakeholders to facilitate more collaborative route selection processes.

Our report and other research on community engagement emphasizes the importance to positive project outcomes of early and meaningful outreach. Given the criticality of proactive engagement, applicants should ideally provide information on their early community engagement efforts as part of the NEPA "pre-filing" process, or coordination processes that occur before the Notice of Intent is filed. The pre-filing process is also referred to as early scoping.

However, our research found that agencies have differing NEPA pre-filing processes, and many lack formal processes altogether, leading to uncertainty for applicants and communities. Project proponents must also comply with other environmental requirements in addition to NEPA (e.g., Clean Water Act permits) that are commonly integrated with the NEPA process and have their own public scoping, public involvement, and public notice requirements and practices. A best practice is to align these requirements to limit duplicative efforts and improve transparency. Agencies can use the NEPA process to integrate compliance with other requirements, including combining notice and involvement opportunities where practical, to give the public a more complete understanding of compliance processes and requirements associated with infrastructure projects. Ideally, one filing through the NEPA process to meet all environmental review requirements would be more streamlined than the current practice of multiple and separate processes for these requirements.

Some agencies have developed more rigorous pre-filing processes that require more clarity in public engagement – for example, through its CITAP process, the Department of Energy currently requires transmission developers to create a comprehensive public participation plan before applying for federal authorizations.[30] We recommend that all agencies develop and maintain transparent pre-filing processes and, as a part of that, incorporate opportunities for applicants to share their actions or proposed stakeholder engagement efforts. Agencies could also consider a more streamlined process for applicants across all environmental review requirements.

---

[30] Department of Energy, Coordinated Interagency Transmission Authorizations and Permits Program, https://www.energy.gov/gdo/coordinated-interagency-transmission-authorizations-and-permits-program.



Responses to Questions from Senator Markey

CLEAN AIR TASK FORCE

1) On a federal level, staffing shortages at federal agencies are a leading cause of project delays. The Inflation Reduction Act invested billions into agencies for more efficient and effective environmental reviews. As a result, compared to the first Trump Administration, the Department of Transportation under the Biden Administration cut review times by a third and the Department of Energy cut review times by half. That success will be hard to sustain since thousands of experienced agency staff have been part of the recent mass firings—including staff brought on specifically to improve our permitting timelines. Do you believe that firing the staff and cutting the budgets of agencies who work on permitting will increase or decrease the predictability and speed of the permitting process?

Our report on transmission permitting barriers was prepared over the course of 2023 and 2024 and published in April 2024. Through interviews with former and active government officials involved in permitting and environmental review processes in Washington D.C. and at field offices, onshore and offshore transmission developers, and other key transmission stakeholders, we identified lack of staff specialized in permitting (and specifically the permitting of linear infrastructure), even at that time, as a key challenge to speeding deployment timelines and streamlining permitting processes. While our research elevated these staffing challenges, it certainly did not discover them – staffing shortages and fluctuations in funding for hiring, training, and retaining key staff were not new or emergent issues but were omnipresent, well-understood, and nearly universally referenced in our interviews.

To make permitting processes involving multiple federal agencies more efficient and effective, our research found that each agency involved in these processes must (1) have sufficient specialized internal capacity to conduct their required environmental and permitting-related analyses in a timely manner, and (2) have the internal organization and capacity to collaborate effectively with other agencies. Additionally, our report recommended better macro-level interagency coordination to organize and streamline inputs and responsibilities of all participating agencies. The Federal Permitting Improvement Steering Council ("Permitting Council"), created by FAST-41, is an existing body meant to serve an interagency coordination function for covered infrastructure projects.[31] A well-functioning coordinating mechanism requires its own staff who would liaise with dedicated agency staff to eliminate roadblocks. Individual agencies leading on environmental reviews have also proposed improved interagency coordination and facilitation processes (see the Department of Energy's Coordinated Interagency Transmission Authorizations and Permitting program[32]) with the stated goal of slicing years off the average permitting timeline. At the time of our report's publication, agencies did not have sufficient interagency capacity and permitting capacity at agencies was strained.

---

[31] A covered project is one that: (1) is subject to NEPA; (2) is likely to require a total investment of more than $200,000,000; and (3) does not qualify for abbreviated authorization or environmental review processes under any applicable law. *See* 42 U.S.C. § 4370m(6); https://www.energy.gov/oe/fast-41.

[32] Department of Energy, Coordinated Interagency Transmission Authorizations and Permits Program, https://www.energy.gov/gdo/coordinated-interagency-transmission-authorizations-and-permits-program.

Staffing at federal agency field offices also emerged as a critical determinant of permitting timelines in conversations with developers. Staff at Bureau of Land Management, U.S. Forest Service, U.S. Fish and Wildlife, and other agencies engage on transmission permitting as one sliver of a much wider remit. At the time of our report's publication, linear energy infrastructure expertise was already extremely limited, and developers reported anecdotally that their projects' assignment to select field office staff with transmission or energy infrastructure permitting experience could alone cut months from project timelines.

As noted in the question, the Inflation Reduction Act provided more than $1 billion to support the environmental review process—including $350 million to the Permitting Council,[33] $30 million to the Council on Environmental Quality (CEQ), and $625 million to federal agencies, including the Department of Energy, the Department of the Interior, the Forest Service, and the U.S. Department of Agriculture, to hire and train personnel, support public engagement, and develop helpful tools to improve transparency.[34] The $350 million to the Permitting Council included support for its Environmental Review Improvement Fund to modernize and improve permitting by investing in IT to support cross-agency coordination on transmission.[35] Interviewees were optimistic that Inflation Reduction Act funding would bring on more and needed specialized capacity, but were simultaneously concerned about staff retention given the inconsistent and sporadic nature of funding.

Our research found that more specialized staff capacity is needed to address key barriers to transmission deployment mentioned above. Sufficient staff will provide better and more informed partnership to developers at field offices, allow for sufficient communication between agencies and development of improved coordination processes over time, and make existing coordinating functions like the Permitting Council more effective. Cutting already limited staff capacity will not only slow down permitting processes and infrastructure deployment but will also overburden specialized staff who remain and make retention of valuable experience and expertise more difficult. It will also result in less efficient processes between agencies, building up silos when breaking down these barriers and enabling open and frequent communication and transparency is critical to reducing project timelines.

---

[33] Permitting Council, "Permitting Council Recognizes Transformative Accomplishments in the Federal Permitting Process in Celebration of IRA Anniversary" (August 16, 2023), https://www.permitting.gov/newsroom/press-releases/celebration-ira-anniversary.

[34] White House, Building a Clean Energy Economy: A Guidebook to the Inflation Reduction Act's Investments in Clean Energy and Climate Action (January 2023). Previously available at https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf, accessed in March 2025 at https://case.house.gov/uploadedfiles/inflation-reduction-act-guidebook.pdf.

[35] Permitting Council, "ERIF Assistance Program" (last updated December 11, 2024), https://www.permitting.gov/our-impact/erif-assistance-program.

CLEAN AIR TASK FORCE

2) Do you agree that building consensus with communities is one way to speed up project timelines, including transmission and clean energy projects?

CATF engagement with developers as part of our transmission barriers report research and on other clean energy deployment research efforts shows that developers view proactive, meaningful community engagement as key to reducing project timelines and lowering litigation risk at various stages of project development.

An industry survey led by Lawerence Berkeley National Laboratory found community opposition to be one of the top three leading causes of project cancellations and delays for wind and solar projects.[36] Likewise, a 2022 study from the Massachusetts Institute of Technology found that 30% of opposition to renewable energy projects in the United States stemmed from a lack of procedural equity, meaning the process of community engagement, such as the community's ability to influence project outcomes, was perceived as inadequate.[37] While consensus building is a great end goal, communities may be more accepting of a project even if they do not fully support it, so long as they feel their concerns were heard and fairly addressed.

Improved community engagement processes that happen early and occur often throughout the project development process can lead to mutually beneficial outcomes for both communities and developers. For example, collaboration between communities and developers in jointly identifying viable project alternatives, a core part of the NEPA process, can lead communities to feel involved in the project process and provide coordinating agencies information on community perspectives to incorporate into line route evaluations, contributing to improved project outcomes.[38]

Developers are increasingly leveraging community benefits programs, or developer agreements with communities to provide services or other kinds of compensation, as means to build community support for projects. Community benefits programs can mitigate project impacts, enhance project benefits, and help communities achieve their long term social and economic goals. Negotiated agreements can include a provision where the community agrees to support a project, or agrees not to litigate a project. Such agreements can increase certainty for developers by reducing opposition and risk of litigation. These frameworks must be carefully designed to ensure community needs are meaningfully sought out and incorporated into the final program; otherwise, these benefits risk being seen as a "box-checking" exercise toward gathering community support.

---

[36] Lawrence Berkeley National Laboratory. (January 24, 2024). *Large-scale wind and solar developers concerned about social factors affecting deployment*. https://emp.lbl.gov/news/larg-e-scale-wind-and-solar.

[37] Susskind, L., Chun, J., Gant, A., Hodgkins, C., Cohen, J., & Lohmar, S. (2022*). Sources of opposition to renewable energy projects in the United States*. Energy Policy, 165, 112922. https://doi.org/10.1016/j.enpol.2022.112922.

[38] *See* Appendix, Transmission Case Studies: 1. Southline Transmission Line Project *at* Clean Air Task Force & Niskanen Center, Evidence-Based Recommendations for Overcoming Barriers to Federal Transmission Permitting (April 2024), https://www.catf.us/wp-content/uploads/2024/04/evidence-based-recommendations-overcoming-barriers-federal-transmission-permitting.pdf.

CLEAN AIR TASK FORCE

3) How do you envision communities without resources—especially time and access to legal assistance—to learn of, understand, and respond to projects given the shortened judicial review timelines within a few months or less of an agency's action on a project that would affect them?

There have been calls to reduce judicial review deadlines for permitting processes and environmental review. We recognize the importance of certainty to project developers and that shorter judicial review timelines can in some cases create greater certainty. However, our research has shown that NEPA litigation has not proven to be a significant barrier to, or cause of delay in, the construction of transmission lines, in part because such litigation rarely results in preliminary injunctions delaying project development.[39] In addition, any change to judicial review timelines must be paired with clarity and transparency, and ensure that impacted communities have a chance for their voices to be heard.

It is important to note that the NEPA process bakes in many more public engagement avenues and opportunities than litigation. As discussed briefly in the response to question 2, making the most of opportunities to hear and incorporate public opinion, needs, and concerns throughout the environmental review can help reduce litigation risk. NEPA requires public involvement in the Environmental Assessment (EA) and the more stringent Environmental Impact Statement (EIS) processes. For EAs, agency must engage the public "to the extent practicable" and can consider participation in informal and formal scoping, public review periods, and comment periods. For EISs, a Notice of Intent must be published in the Federal Register to inform the public, formal scoping activities must commence, public review and comment is required on Draft EISs, and the public must be notified of the Final EIS and Record of Decision. NEPA also requires evaluation of alternatives where, for transmission lines, the public can be consulted on identification and down selection of line routes, and stakeholder opinions and concerns can be incorporated into agency decisionmaking.

While public notices and other public exercises listed above are critical, they do not guarantee that community members and other interested stakeholders will hear about engagement opportunities, nor do they guarantee that those stakeholders can participate in activities. Shortened timelines on any of these activities can further limit opportunities to engage. Therefore, it is critical that the federal government be proactive, work with state and Tribal partners, and provide resources to maximize opportunities for engagement.

Dedicated technical assistance from the Department of Energy, Department of Interior, and other agencies frequently engaged in environmental reviews and permitting, whether directly to impacted communities or to states and Tribes with impacted communities, could help provide lesser-resourced communities additional capacity to engage with environmental review processes and meet shortened timelines. Congress could dedicate more funding to agencies to provide this

---

[39] Clean Air Task Force & Niskanen Center, Evidence-Based Recommendations for Overcoming Barriers to Federal Transmission Permitting (April 2024), https://www.catf.us/wp-content/uploads/2024/04/evidence-based-recommendations-overcoming-barriers-federal-transmission-permitting.pdf; *see also* Sturges, F., & Goho, S., (2024). *Informed agency decision-making is at risk if Supreme Court restricts scope of environmental reviews*. Yale Journal on Regulation. https://www.yalejreg.com/nc/informed-agency-decision-making-is-at-risk-if-supreme-court-restricts-scope-of-environmental-reviews-by-frank-sturges-shaun-goho/.

technical assistance. Federal funds for infrastructure projects should also incorporate specific funding to promote and facilitate engagement. It is important to note that effective community outreach, evaluation of communities interested in receiving or eligible to receive technical assistance, management of those resources, and tracking project successes require sufficient staff, ideally with expertise on these topics.



Additional Materials for the Record

CLEAN AIR TASK FORCE

Clean Air Task Force would like to submit the following additional materials to the record:

1) Clean Air Task Force & Niskanen Center, "Contextualizing Electric Transmission Permitting: Data from 2010 to 2020," (March 18, 2024), https://www.catf.us/resource/contextualizing-electric-transmission-permitting/. We will also submit as this as a PDF attachment in correspondence to the Committee.
2) Clean Air Task Force & Niskanen Center, "Evidence-based Recommendations for Overcoming Barriers to Federal Transmission Permitting," (April 2024), https://www.catf.us/resource/evidence-based-recommendations-overcoming-barriers-federal-transmission-permitting/. We will also submit as a PDF attachment in correspondence to the Committee.
3) Natalie Manitius, Casey Kelly, and Johan Cavert, "From decades to years: DOE's CITAP Program and progress towards faster transmission projects," (July 23, 2024), https://www.catf.us/2024/07/from-decades-years-does-citap-program-progress-towards-faster-transmission-projects/.
4) Johan Cavert, Federico Holm, and Nicole Pavia, "Beyond NEPA: Understanding the complexities of slow infrastructure buildout," (August 1, 2024), https://www.niskanencenter.org/beyond-nepa-understanding-the-complexities-of-slow-transmission-buildout/.
5) Clean Air Task Force, "The National Environmental Policy Act: A Stakeholder Engagement Factsheet," (December 2024), https://www.catf.us/resource/national-environmental-policy-act/. We will also submit this as a PDF attachment in correspondence to the Committee.



The National Environmental Policy Act (NEPA) provides opportunities for communities, members of the public, and other interested stakeholders to stay informed, participate, and influence federal actions such as federally funded projects. **This factsheet provides information to help stakeholders engage in the NEPA process.**

What is the NEPA process?

The National Environmental Policy Act (NEPA) process is a mandatory decision-making process that helps a federal agency consider the potential impacts of proposed "major federal actions" (actions within an agency's control and responsibility, within an agency's discretion) before committing resources. The public can participate in the NEPA process to engage with and stay informed about proposed federal actions.

NEPA is referred to as an "umbrella" statute because the process encourages federal agencies to incorporate other environmental, safety, and historic preservation requirements into one analysis. These include analyses required by the Clean Air Act, Clean Water Act, Safe Drinking Water Act, National Historic Preservation Act, Endangered Species Act, Executive Orders on Floodplain Management, and many more federal laws. Public notice requirements may be aligned with the NEPA process, such as for Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands), Clean Water Act Section 404 permits, and Section 106 of the National Historic Preservation Act.

NEPA Facts

NEPA doesn't approve or deny projects – **it's a framework that helps to inform federal decision making.** It is not a permitting process, and whether environmental impacts are found will not determine whether a project will move forward. The NEPA process is also not intended to finalize a "baked" project plan; it's an opportunity for stakeholders to shape a better designed project.

When can stakeholders engage in the NEPA process?

Impacted stakeholders and the public can participate in the NEPA process by identifying issues for the agency to consider in the NEPA analysis, suggesting alternatives to proposed actions, and providing information (studies, reports, similar analyses, etc.) that are relevant to proposed actions and/or overall analysis. There are public engagement opportunities throughout the NEPA process, including:

- **Before a NEPA analysis is prepared.** Early project meetings and community engagement meetings are opportunities to engage with federal decision makers and project developers to help shape siting and project design decisions.
- **When a draft environmental assessment (EA) or environmental impact statement (EIS) is published.** The public can learn about potential impacts by reading the EA or EIS, and inform the NEPA analysis by submitting comments within the public comment period for draft EISs and EAs (note public comment periods are not required for EAs). There may be additional public meetings within the public comment period to learn more about the project and provide comments.
- **After the agency finalizes the EA or EIS and issues a finding of no significant impact (FONSI) or record of decision (ROD).** Decision documents provide valuable information about findings of potential impacts, including any commitments to minimize impacts that stakeholders may wish to track.

How can stakeholders best participate in the NEPA process?

The following opportunities are ways that stakeholders can engage during the NEPA process, which begins before any construction starts and can continue after the FONSI or ROD is issued. Local communities, the public, and other stakeholders can provide valuable information to help federal agencies make better decisions.

Get informed and share information	Review and comment	Monitor and follow-up
■ Stay updated via agency websites and Federal Register notices ■ Attend webinars and public meetings in person or virtually, particularly during public scoping and comment periods ■ Provide information that could shape project decision making	■ Review the NEPA document and submit timely comments ■ Consider working with organizations or local experts for a deeper review and comment ■ Provide detailed, solution-oriented feedback on proposed actions, alternatives, and impacts	■ Track monitoring of mitigation measures post-FONSI or ROD ■ Request agency updates or join local groups for continued engagement

Get Informed and Share Information

By providing local knowledge, stakeholders can inform federal agencies about local conditions, resources, community concerns, and priorities. Stakeholders often have information about local conditions and priorities that is not readily available to federal decision-makers. The public input federal agencies gather during the NEPA process can improve project design in a way that better aligns with the needs and characteristics of local communities.

Review and Comment

The public comment process is an opportunity for stakeholders to inform agency decision-making by identifying potential positive and negative impacts, elevating concerns, and proposing solutions that align with local interests and values. Questions to consider when commenting: Did the analysis adequately analyze potential impacts? Are there local studies or information sources that were not included in the analysis that you could share? Would a specific change to the project design, or an alternative (like a site change) address local concerns? Here are some ways to strengthen public comments:

- Refer to a specific part/chapter/section of the NEPA analysis in your comment;
- Be specific about any issues or concerns and how they relate to resource areas (water quality, plants and wildlife, social and economic impacts);
- When possible, cite studies, data, reports and/or resources regarding the issue, challenge, and suggestion that you want the agency to be aware of and consider when drafting or finalizing the NEPA analysis; and
- Tailor form letters with information specific to your concerns and local information.

When submitting public comments, it's important to remember that these aren't "yes" or "no" votes on a project. The federal decision-makers will review the comments looking for specific information that can be added to or otherwise inform the NEPA analysis. Public comments will be more impactful if they provide new information and are specific about the issue or concern raised.

Monitor and Follow-Up

Stakeholders can stay engaged with projects after the NEPA process is complete. Project developers and federal decision makers may continue to offer engagement opportunities during project development and operations. These are opportunities to learn about and inform developing projects and track how commitments to minimize project impacts in the NEPA process are carried out.

Learn More: The NEPA process can be a powerful tool for ensuring local and community voices are part of the federal decision-making process. To learn more about how to engage in the NEPA process, see the Council on Environmental Quality's, "A Citizen's Guide to the National Environmental Policy Act; Having Your Voice Heard."

Figure 1. The NEPA Process

Source: A Citizen's Guide to NEPA, White House Council on Environmental Quality

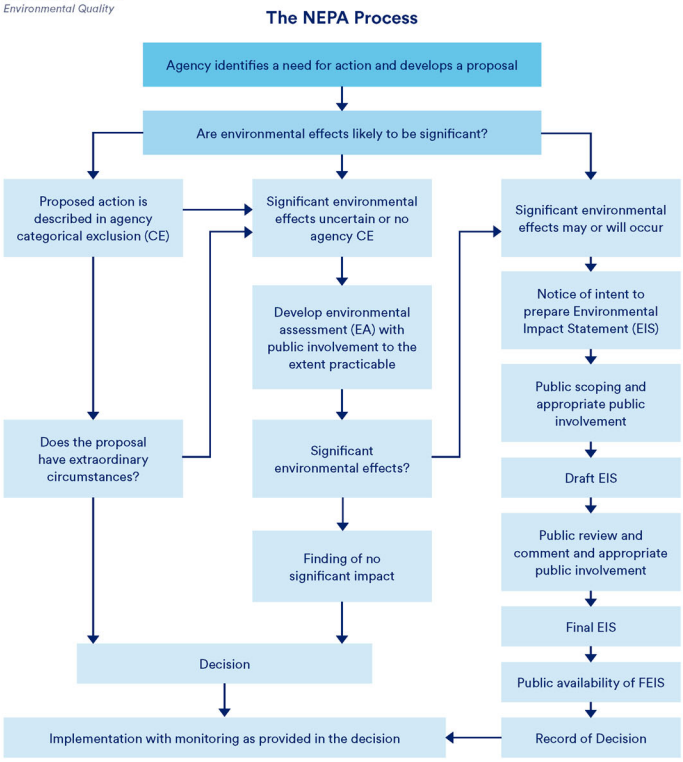
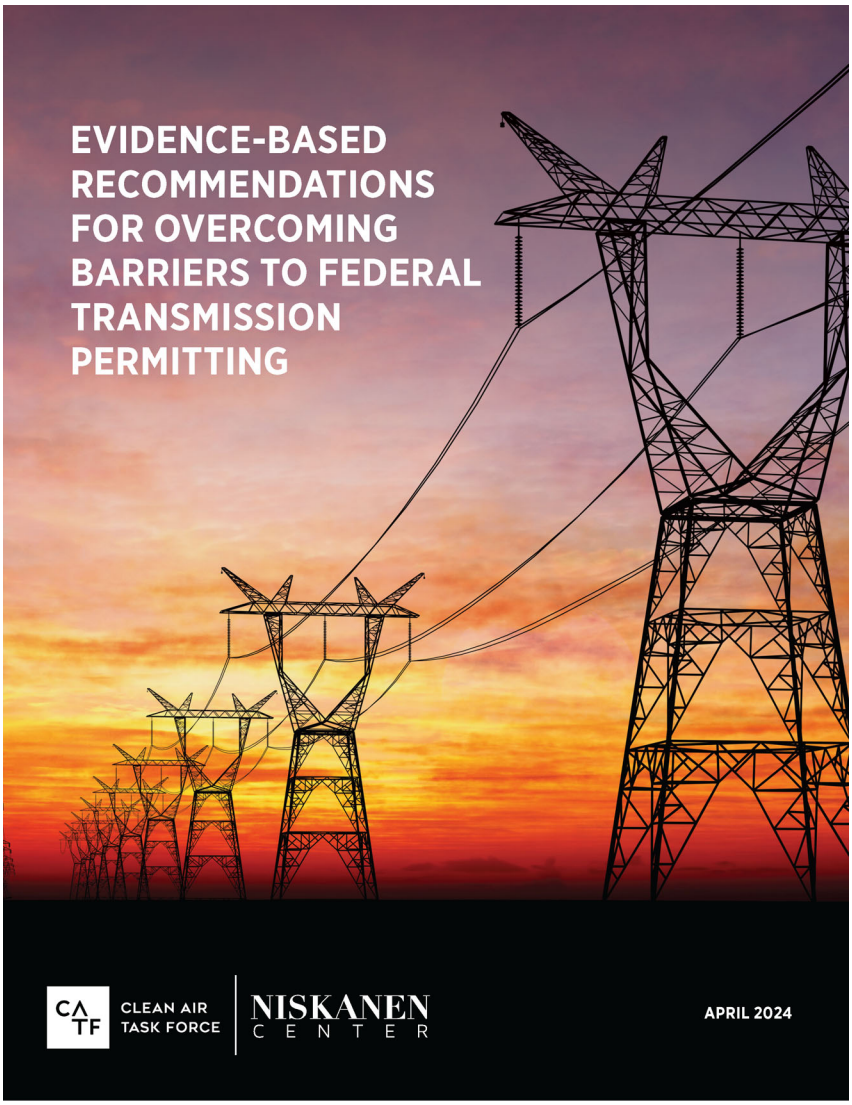


Figure 1 is a visual depiction of the three types of NEPA analyses: categorical exclusions (CE), environmental assessments (EA), and environmental impact statements (EIS). The figure also shows the public scoping and engagement steps within the NEPA process. Public engagement opportunities during the NEPA process vary by the type of analysis required and by federal agency. For example, federal agencies have discretion on the level of public involvement when preparing an EA. Federal agencies also have their own NEPA Implementing Procedures that dictate their agency-specific NEPA process requirements.


EVIDENCE-BASED RECOMMENDATIONS FOR OVERCOMING BARRIERS TO FEDERAL TRANSMISSION PERMITTING
CA TF
CLEAN AIR TASK FORCE
NISKANEN CENTER
APRIL 2024

About this Report

This report is the culmination of a year-long investigation conducted by the Niskanen Center and Clean Air Task Force. Our goal was to establish a comprehensive evidentiary record of permitting challenges faced by electric transmission projects and offer fact-based insights into:

- What prevents the transmission buildout needed to achieve federal and state policy goals;
- The levels (federal, state, local) and/or nexuses (e.g., developer-community relations) at which transmission permitting faces critical hurdles; and
- Concrete opportunities to improve transmission permitting while preserving and bolstering protections of vulnerable communities and the environment.

We compiled a database and conducted in-depth case studies of permitting for identified transmission projects.

We convened an advisory group to help guide and shape our work. Advisory group members were chosen for their expertise and perspective on federal transmission permitting; their participation in no way implies that the individuals or the organizations they represent support or endorse this report's findings or recommendations.

In addition to in-depth case studies and data analysis, the Niskanen Center and Clean Air Task Force conducted numerous interviews with transmission line developers, industry consultants, and government officials to inform this report. These interviews were conducted anonymously; all findings and recommendations in this report should not be attributed directly to anyone interviewed on background during our research. This endeavor yielded critical insights, culminating in a set of recommendations that would address the identified challenges, discussed below.

This nonpartisan, independent research was conducted with support from Breakthrough Energy. The results presented in this report reflect the views of the authors and not necessarily those of the supporting organization.

We would like to express deep appreciation and thanks to everyone who contributed or reviewed this report and played a part in its inspiration and completion.

PRIMARY AUTHORS

Ted Boling - Perkins Coie LLP

Kerensa Gimre - Perkins Coie LLP

PROJECT TEAM

Alex Breckel - Clean Air Task Force

Johan Cavert - Niskanen Center

Megan Gibson - Niskanen Center

Nicole Pavia - Clean Air Task Force

Kenneth Sercy - Niskanen Center

ADVISORY GROUP

Rich Allen - West Monroe Partners

Lauren Azar - Azar Law LLC

Jim Connaughton - Nautilus Data Technologies

Maranda Compton - Lepwe

Rob Gramlich - Grid Strategies LLC

Scott Lundin - Equinor

Jennifer McIvor - Berkshire Hathaway

Christine Powell - EarthJustice

Sarah Salati - National Grid

Alison Silverstein - Alison Silverstein Consulting

Landon Stevens - ClearPath

PROJECT CONTRIBUTORS

Charlie Adams - Niskanen Center

Noa Banayan - Clean Air Task Force

Olga Baranoff - Niskanen Independent Consultant

Elisabeth Blaug - Niskanen Independent Consultant

Elvin Choi - Niskanen Center

Gabriel Kaplan - Niskanen Center

Kevin Knobloch - Knobloch Energy

Natalie Manitius - Clean Air Task Force

Nils Nichols - Niskanen Independent Consultant

Zachary Norris - Niskanen Center

Grace Olson - Niskanen Center

Kathryn Schroeder - Niskanen Center

Frank Sturges - Clean Air Task Force



EXECUTIVE SUMMARY

The United States (U.S.) stands at a critical juncture in modernizing its energy infrastructure. Multiple studies estimate that a three- to four-fold increase of transmission capacity will be required to meet burgeoning demand within the next thirty years.[1] So far, the U.S. has not kept pace with the challenge; in fact, there was an overall decrease in annual transmission investment for large powerlines (100 kilovolts [kV] and above) from 2010 to 2020,[2] and the nation's transmission investment requirements will reach more than $40 billion annually by 2031.[3] As discussed in this report, developing sufficient transmission to meet emerging needs will require significant changes in how transmission is planned, permitted, and financed.

The rationale for bolstering high-capacity, modernized transmission lines is multifold. First, it will provide an urgently needed boost to the grid's resilience against disruption from extreme weather, climate change, security threats, and other challenges. Second, it will accelerate the deployment of renewable and clean energy generation, enabling decarbonization. Third, transmission plays a pivotal role in alleviating grid congestion and constraints, potentially benefiting consumers by allowing lower-priced energy to flow to areas with high wholesale electricity prices.[4] Finally, it supports economic development by facilitating load growth that accompanies new manufacturing and industrial facilities and the proliferation of data centers.[5] Investment in transmission is a cornerstone for achieving grid reliability, economic development, energy affordability, security, resiliency, and climate objectives. On the other hand, if the U.S. does not build more transmission, new power generation resources will remain stranded in interconnection queues, aging infrastructure will become increasingly vulnerable to failure, and growth in burgeoning economic sectors will be stifled.

There are many reasons why transmission deployment has faltered in the U.S.: planning is shortsighted and uncoordinated across regions, cost allocation is contentious, and financial realities favor incremental transmission expansion at the expense of building grid-beneficial large projects, just to name a few. Federal permitting of these long, complex engineering projects is just one of multiple challenges, and for many transmission projects may be a secondary or tertiary concern relative to other barriers. Yet, according to our research, for the

1. *See* Niskanen Center, *How are we going to build all that clean energy infrastructure?* (Aug. 2021), https://www.niskanencenter.org/wp-content/uploads/2021/08/CATF_Niskanen_CleanEnergyInfrastructure_Report.pdf.

2. Dep't of Energy, *National Transmission Needs Study* (Oct. 2023), https://www.energy.gov/sites/default/files/2023-12/National%20Transmission%20Needs%20Study%20-%20Final_2023.12.1.pdf.

3. Jürgen Weiss, et al., *The Coming Electrification of the North American Economy: Why We Need a Robust Transmission Grid*, BRATTLE GRP. (Mar. 2019), https://wiresgroup.com/wp-content/uploads/2020/05/2019-03-06-Brattle-Group-The-Coming-Electrification-of-the-NA-Economy.pdf.

4. *See above* note 2.

5. John D. Wilson & Zach Zimmerman, *The Era of Flat Power Demand is Over*, GRID STRATEGIES (Dec. 2023), https://gridstrategiesllc.com/wp-content/uploads/2023/12/National-Load-Growth-Report-2023.pdf.

3.5% of all transmission projects that underwent the most rigorous federal environmental review in the 2010s—constituting 26% of the total miles of new powerlines—federal permitting mattered.[6] And for many of the hundreds of new projects that must be built across the country in the coming years, barriers to effective and expeditious federal permitting could pose significant impacts. Therefore, refinement of the federal environmental review and authorization process could play a critical role in facilitating deployment of major transmission projects—the focus of this report.

The National Environmental Policy Act (NEPA) process establishes a framework whereby environmental review forms a substantial part of the record for an agency's decision and supports greater public awareness of and participation in influencing federal actions and their potential environmental consequences. In doing so, it creates foundational community and environmental protections. NEPA implementation has evolved since the law was established in 1970, driven by updated regulations, caselaw, legislation, and government norms. The most recent changes include NEPA amendments in the Fiscal Responsibility Act of 2023 (FRA) and recent and pending updates to NEPA implementing regulations. As of the date of this report's publication, the Department of Energy is finalizing its Coordinated Interagency Transmission Authorizations and Permits (CITAP) Program, providing a framework for interagency coordination for transmission project environmental reviews, at the developer's request. The full report discusses how our recommendations align with these ongoing changes to the federal environmental review process.

As it currently stands, the permitting process is frequently protracted and complex even without accounting for preparatory work required before a formal application filing. There is growing consensus across the political spectrum that processes need to be improved and strengthened, as recent and ongoing reforms make evident. However, there is currently little evidence and consolidated information to ensure these reforms are as impactful as possible for transmission permitting.

In response to this gap, the Niskanen Center (Niskanen) and Clean Air Task Force (CATF) embarked on a comprehensive study, developing an extensive evidentiary record through the compilation of a database, interviews with developers and federal officials, and in-depth case studies of identified transmission projects. This endeavor yielded critical insights, culminating in a set of recommendations addressing the identified challenges.

The results of Niskanen and CATF's analysis underscore the importance of a reasoned approach to improving transmission permitting, while protecting the core functions of NEPA—the cornerstone of the federal permitting and environmental review process—including its coordination and information-sharing provisions which support early identification and resolution of potential conflicts during environmental review.

It is imperative that any reforms to the federal environmental review and permitting processes for transmission be conscientiously designed to safeguard and empower impacted communities, particularly those communities historically marginalized or disproportionately affected by legacy energy infrastructure. Our recommendations are predicated on the principle that enhancing federal permitting processes need not degrade community protections or environmental integrity. On the contrary, neglecting community engagement or diminishing protections fuels uncertainty, prolongs timelines, and undermines the long-term feasibility of proposed transmission projects. The path forward is one of balance, ensuring a sustainable and inclusive energy transition.

6. It is essential to acknowledge that not all transmission projects require federal permits. Many can proceed under state or local regulations without any federal intervention. However, federal permits are often imperative to larger scale and inter-regional projects, as they are more likely to cross federally managed land or state borders, or require other federal action. See Natalie Manitius, Johan Cavert, Casey Kelly, *Contextualizing Electric Transmission Permitting: Data from 2010 to 2020* (Mar. 2024), Clear Air Task Force and The Niskanen Center, https://www.catf.us/resource/contextualizing-electric-transmission-permitting.

Our **recommendations**, listed below, coalesce around three principal themes.

1. IMPROVING FEDERAL AGENCY COORDINATION, COOPERATION, AND CAPACITY

1.1: The President should continuously recognize transmission infrastructure permitting as a national priority. The Administration should establish clear transmission deployment goals and priorities to galvanize a shared vision across the Executive Branch. This approach should be reinforced by regular Cabinet-level alignment and coordination, use of Permitting Council authorities, and assignment of a transmission director to oversee transmission efforts.

1.2: Congress and agencies should enhance transparency in project review and project timelines. An iterative, agile process with consistent communication among agencies, developers, and stakeholders is needed to identify and address concerns early and often. The permitting process should include interagency coordination during the pre-application phase.

1.3: Congress should invest in interagency coordination, interagency cooperation, and agency capacity. Senior agency personnel who report directly to agency decision-makers should be assigned to each major project under environmental review. Agency staff should be trained on the nuances of transmission infrastructure and interagency staffing should be dedicated to joint-agency projects. Solutions to interagency coordination shortfalls that only expand agency function or authority without providing appropriate investment to support agency coordination, cooperation, and capacity will be insufficient. Finally, Congress and agencies should continue to modernize permitting review processes, including by investing in digital tools and data platforms.

1.4: The Department of Energy (DOE), the Federal Permitting Improvement Steering Council ("Permitting Council"), and other agencies should require transparency and accountability through use of the Permitting Dashboard. DOE can recommend nationally and regionally significant projects, including all transmission projects requiring Environmental Impact Statement (EIS) review, be added to the Dashboard. Projects should be on the Dashboard before the Notice of Intent to prepare an EIS is filed.

2. STREAMLINING INTERACTIONS AMONG SOVEREIGN AUTHORITIES

2.1: Federal agencies, with Congressional support, should enhance state and Tribal capacity to conduct and participate in permitting processes. Federal agencies should take a leading role in boosting state and Tribal capacity, through dedicated grant programs, technical support, and best practices sharing. Federal agencies should conduct earlier and more comprehensive engagement with Tribes, on par with federal engagement with states and developers.

2.2: Congress should consolidate permitting and siting authority for multi-state projects that are in the national public interest. Congress should grant FERC comprehensive and plenary permitting and siting powers for key transmission projects. The Streamlining Interstate Transmission of Electricity (SITE) and Clean Electricity and Transmission Acceleration (CETA) Acts serve as possible legislative models.

2.3: States should harmonize their permitting processes to create regulatory efficiency and allow more concurrent processes. Though this report centers on federal initiatives, our research unearthed opportunities for optimizing project timelines through more harmonized state permitting processes with those mandated federally. Joint state and federal environmental reviews, incorporation by reference of state or federal environmental reviews by the other jurisdictions, and project-specific memoranda of understanding (MOU) are opportunities to improve regulatory alignment. States may also participate in federal FAST-41

reviews under an MOU. To avoid unnecessary inefficiencies inherent in sequential review processes, states should revise their need and environmental review processes to be concurrent with federal reviews.

2.4: The Permitting Council should work with Chief Environmental Review and Permitting Officers (CERPOs) to advance projects and coordinate with and support local authorities. The essential NEPA function of providing information to states, Tribes, and other decision-makers provides an opportunity for CERPOs to support local authorities in making timely permitting decisions.

3. IMPROVING THE ENVIRONMENTAL REVIEW AND PERMITTING PROCESS

3.1: Agencies and developers should conduct early, sustained, and meaningful stakeholder outreach. Timely, meaningful engagement with impacted communities must be conducted as a part of project planning, approval, and post-implementation monitoring. Government-to-government interactions with Tribes, distinct from other stakeholder consultations, are essential for respecting sovereign authorities and ensuring projects avoid unnecessary opposition and delays, highlighting the need for federal agencies to facilitate these interactions effectively from the project's inception.

3.2: Agencies should implement robust pre-filing processes. The pre-filing process provides an opportunity to constructively debate, raise environmental and community issues, and consider alternative routes, and can streamline reviews once applications are filed. Agencies should implement agency-specific pre-filing processes and encourage applicants to opt in to pre-filing.

3.3: Developers and agencies should engage in early and collaborative identification of alternatives to be analyzed in an EIS. Project alternatives should be identified as early as possible in a collaborative process that includes relevant federal agencies, the project developer, state and local officials, Tribes, other stakeholders, and the public. Project developers and agencies can initiate and lead alternative route identification and evaluation efforts, and Council on Environmental Quality guidance can support these efforts.

3.4: Agencies should carefully expand categorical exclusions for transmission development. Appropriate use of categorical exclusions with adequate environmental and community safeguards for much-needed transmission projects with no significant impacts can accelerate deployment of transmission. Available categorical exclusions should be expanded for projects within existing project rights-of-way that are known to have no significant impacts.

3.5: Agencies should expand the use of programmatic EIS (PEIS) reviews for transmission infrastructure projects, and Congress should ensure that agencies have sufficient capacity to do so. PEISs can be used to identify environmental impacts common to transmission lines, and can be applied where these impacts are "well understood" given the location or nature of particular projects. PEISs could be prepared alongside Independent System Operator/Regional Transmission Organization transmission development plans. Congress should provide sufficient funding to ensure data, staff, and other resources are available to prepare useful and sufficiently detailed PEISs.

3.6: DOE and FERC should minimize environmental review redundancy for the National Interest Electricity Transmission Corridor (NIETC) process. DOE, FERC, and relevant environmental agencies must collaborate closely to streamline environmental review processes in NIETCs, ensuring that environmental protections are upheld without unnecessary duplication of efforts.

CONTENTS

A. INTRODUCTION AND MOTIVATION. 7

1. The U.S. must rapidly expand transmission infrastructure. 7

2. The U.S. has failed to build critical transmission infrastructure at the pace it needs, despite continued acknowledgement of the challenge. 8

3. Successful deployment of transmission faces significant challenges, including federal permitting. 10

B. OVERVIEW OF AND LEGAL BACKGROUND ON THE PERMITTING PROCESS FOR TRANSMISSION DEVELOPMENT. 11

1. Transmission projects face numerous permitting requirements, carried out in conjunction with NEPA and its framework for interagency coordination. 11

2. Recent efforts to facilitate coordination among permitting authorities have focused on improving transparency and reducing timelines. 14

a. Title 41 of the FAST Act. 14

b. Interagency Memorandum of Understanding on Federal Power Act section 216(h). 15

C. RESEARCH FINDINGS: DATA AND LITIGATION ANALYSIS. 17

1. Contextualizing federal permitting of electricity transmission through data analysis. 17

2. Understanding the impact of litigation and opposition on projects undergoing federal permitting. 19

D. RESEARCH-BASED RECOMMENDATIONS TO IMPROVE FEDERAL TRANSMISSION PERMITTING. 21

1. Improving Federal Agency Coordination, Cooperation, and Capacity. 21

a. Recommendation 1.1: The President should continuously recognize transmission infrastructure permitting as a national priority. 23

b. Recommendation 1.2: Congress and agencies should enhance transparency in project review and project timelines. 24

c. Recommendation 1.3: Congress should invest in interagency coordination, interagency cooperation, and agency capacity. 24

d. Recommendation 1.4: The Department of Energy (DOE), the Federal Permitting Improvement Steering Council ("Permitting Council"), and other agencies should require transparency and accountability through use of the Permitting Dashboard. 26

2. Streamlining Interactions Among Sovereign Authorities. 26

a. Recommendation 2.1: Federal agencies, with Congressional support, should enhance state and Tribal capacity to conduct and participate in permitting processes. 27

b. Recommendation 2.2: Congress should consolidate permitting and siting authority for multi-state projects that are in the national public interest. 29

c. Recommendation 2.3: States should harmonize their permitting processes to create regulatory efficiency and allow more concurrent processes. 29

d. Recommendation 2.4: The Permitting Council should work with Chief Environmental Review and Permitting Officers (CERPOs) to advance projects and coordinate with and support local authorities. 31

3. Improving the Environmental Review and Permitting Process. 31

a. Recommendation 3.1: Agencies and developers should conduct early, sustained, and meaningful stakeholder outreach. 32

b. Recommendation 3.2: Agencies should implement robust pre-filing processes. 33

c. Recommendation 3.3: Developers and agencies should engage in early and collaborative identification of alternatives to be analyzed in an environmental impact statement (EIS). 34

d. Recommendation 3.4: Agencies should carefully expand categorical exclusions for transmission development. 35

e. Recommendation 3.5: Agencies should expand the use of programmatic EIS (PEIS) reviews for transmission infrastructure projects, and Congress should ensure that agencies have sufficient capacity to do so. 36

f. Recommendation 3.6: DOE and FERC should minimize environmental review redundancy for the National Interest Electricity Transmission Corridor (NIETC) process. 37

E. CONCLUSION. 38

F. APPENDIX: TRANSMISSION CASE STUDIES. 40



A. Introduction and Motivation

1. The U.S. must rapidly expand transmission infrastructure

The United States' electric grid is aging and needs to be updated and rapidly expanded in order to meet emerging challenges. Most of the country's transmission system was built in the 1950s and 1960s, with an expected lifespan of 50 years. Now, nearly 70 percent of transmission lines are more than 25 years old.[7] The U.S. transmission system was also not designed to accommodate the integration of new, cleaner generation from a wider variety of sources. As the system ages, it also becomes increasingly vulnerable to the impacts of climate change, including more frequent severe weather. Outages may become more common, with disproportionate impacts on the most vulnerable populations.[8]

Investing in modernized, resilient transmission infrastructure supports grid reliability, lowers energy costs, facilitates economic development, and reduces the proportion of household income spent on energy needs.[9] Updating and expanding the grid also enhances grid resilience by allowing for integration of new, geographically- and resource-diverse renewable generation. As diverse and dispersed resources are brought online, they can protect the grid and compensate for losses in other regions, including those due to extreme weather, if there is sufficient inter-regional transmission capacity.[10] This, in turn, reduces congestion and curtailment, reducing costs associated with both. Updating the grid also presents opportunities to modernize grid security, as cyber threats can increasingly wreak havoc on transmission grids, shutting down critical infrastructure.[11] Finally, grid upgrades support

7. EBP & Am. Soc'y Civil Eng'rs, *Failure to Act: Electric Infrastructure Investment Gaps in a Rapidly Changing Environment* (2020), https://infrastructurereportcard.org/wp-content/uploads/2021/03/Failure-to-Act-Energy-2020-Final.pdf.

8. *See, e.g.*, U.S. Gov't Accountability Off., GAO-21-346, ELECTRICITY GRID RESILIENCE: CLIMATE CHANGE IS EXPECTED TO HAVE FAR-REACHING EFFECTS AND DOE AND FERC SHOULD TAKE ACTIONS 20 (Mar. 2021).

9. *See* Notice of Intent and Request for Information: Designation of National Interest Electric Transmission Corridors, 88 Fed. Reg. 30956 (May 15, 2023).

10. *See* Liza Reed & Andrew Xu, FERC *is coalescing around the idea of minimum transfer capacity but needs data and definitions*, NISKANEN CTR. (Sept. 8, 2022), https://www.niskanencenter.org/ferc-is-coalescing-around-the-idea-of-minimum-transfer-capacity-but-needs-data-and-definitions/.

11. Dep't of Energy, *DOE Announces $45 Million for Next-Generation Cyber Tools to Protect the Power Grid* (Aug. 17, 2022), https://www.energy.gov/articles/doe-announces-45-million-next-generation-cyber-tools-protect-power-grid.

economic development by facilitating load growth that accompanies new manufacturing and industrial facilities and the proliferation of data centers.[12]

Transmission investment also supports the achievement of U.S. decarbonization targets.[13] These targets are coupled with aggressive electrification goals, including plans to electrify significant amounts of transportation, homes, businesses, and industry by 2050.[14] Achieving these ambitious goals will require replacing aging fossil-fuel generation with modern clean energy generation and expanding energy storage.[15] But transmission is a crucial limiting factor for adding new generation and storage to the grid, so these projects may be delayed or face additional costs when there is inadequate supporting transmission to bring new resources online.[16] Therefore, transmission and generation capacity will need to be expanded in tandem.[17]

12. *See above* note 5.

13. See Exec. Order No. 14008, 86 Fed. Reg. 7619 (Feb. 1, 2021); White House Briefing Room, *Fact Sheet: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies* (Apr. 22, 2021), https://www.whitehouse.gov (search in search bar for "Greenhouse Gas Pollution Reduction").

14. Press Release, White House, Fact Sheet: New Innovation Agenda Will Electrify Homes, Businesses, and Transportation to Lower Energy Bills and Achieve Climate Goals (Dec. 14, 2022), https://www.whitehouse.gov/ostp/news-updates/2022/12/14/fact-sheet-new-innovation-agenda-will-electrify-homes-businesses-and-transportation-to-lower-energy-bills-and-achieve-climate-goals/.

15. The Princeton ZERO Lab estimated that generation capacity will need to quadruple in order to meet forecasted future electricity demand and production needs, and transmission capacity will need to be expanded to integrate clean energy resources—such as offshore wind, onshore wind, and solar—located far from existing transmission infrastructure. *REPEAT (Rapid Energy Policy Evaluation and Analysis Toolkit)*, PRINCETON UNIV., https://repeatproject.org/, (last visited Mar. 11, 2024); see also above note 1.

16. *See above* note 1.

17. *See* Jesse D. Jenkins, et al., , *Electricity Transmission is Key to Unlock the Full Potential of the Inflation Reduction Act*, PRINCETON UNIV. ZERO LAB (Sept. 2022), https://repeatproject.org/docs/REPEAT_IRA_Transmission_2022-09-22.pdf (finding that that transmission expansion is needed to maximize the benefits of investments under the newly enacted Infrastructure Investment and Jobs Act and Inflation Reduction Act. The benefit of those investments will not be realized fully unless the United States can quickly expand enabling electric transmission infrastructure); see also above note 9.

2. The U.S. has failed to build critical transmission infrastructure at the pace it needs, despite continued acknowledgement of the challenge

In the face of the immense scale of needed transmission upgrades and modernization, the United States has not kept up with required infrastructure investments. The DOE, in its 2023 National Transmission Needs Study, found that there was an overall decrease in annual investment for transmission projects larger than 100 kV from 2010 to 2020.[18] Similarly, a study of planned interstate, bulk power transmission projects from 2010 to 2020 in the western United States found that few projects were built compared to expectations in a 2010 projection of planned projects.[19] Although spending has increased slightly in recent years, the U.S. is still experiencing chronic public and private under-investment in transmission, and the nation's transmission investment requirements will reach more than $40 billion annually by 2031.[20]

Meanwhile, there has been a record amount of new generation and storage capacity added to interconnection queues and unable to connect to the grid.[21] A 2023 study from Lawrence Berkeley National Laboratory found that there are more than 1,000 gigawatts of clean energy stuck in interconnection queues due to transmission constraints and poor interconnection processes, and that the average time projects spend in interconnection queues has grown substantially to five years, compared to three years in 2015 and less than two years in 2008.[22] Long waits and lack of transmission capacity contributed to the fact that only about 20 percent of projects requesting

18. *See above* note 2.

19. W. Elec. Coordinating Council, *10-Year Regional Transmission Plan: 2020 Study Report* (Sept. 2011), https://doc.westconnect.com/Documents.aspx?NID=20390&dl=1.

20. *See above* note 3.

21. *See above* note 2.

22. Defined as the span from the time of submission of the interconnection request to commercial operation. Joseph Rand, et al., *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection As of the End of 2022*, LAWRENCE BERKELEY NAT'L LAB'Y (Apr. 2023), https://emp.lbl.gov/sites/default/files/emp-files/queued_up_2022_04-06-2023.pdf.

interconnection over the period from 2000-2017 actually reached commercial operation by the end of 2022.[23]

Several presidential administrations have acknowledged this critical need for more transmission, with some proposing solutions at the federal level to address the problem. For example, in 2001, then-Deputy Secretary of Energy Francis Blake testified to Congress that "investment in new transmission capacity has failed to keep pace with growth in demand and with changes in the industry's structure…Since the transmission system is both Interstate and International, regulation of the grid is a federal responsibility."[24] He noted that legislation "should provide for federal siting of transmission facilities that are in the national interest."[25]

In the Energy Policy Act of 2005 (EPAct), signed into law by President George W. Bush, Congress created section 216 of the Federal Power Act (FPA) with the goal of increasing the buildout of important electric transmission infrastructure. This statute granted the Federal Energy Regulatory Commission (FERC) authority to approve transmission lines (i.e., "backstop authority") if states withheld approval for more than one year or lacked authority to consider interstate benefits, or if the utility proposing the transmission line did not qualify to apply for a permit because there were no end-use in-state customers.[26] The Infrastructure Investment and Jobs Act (IIJA), signed into law in November 2021 by President Biden, expanded and clarified FERC's backstop authority under section 216 and gave DOE more authority to help incentivize projects, including on public-private partnerships and loans.[27] The Inflation Reduction Act (IRA), which became law in August 2022, also made available direct loan programs for transmission project development.[28]

Section 216 of the FPA also gave DOE power to coordinate all applicable federal authorizations, Tribal consultations, and state agency reviews required to designate National Interest Electric Transmission Corridors (NIETC) and construct needed transmission lines in those corridors. DOE intends for transmission lines constructed in NIETCs to be eligible for public-private partnerships and loan programs under the IRA and IIJA,[29] as well as FERC backstop siting authority if the necessary conditions are met.

Despite recognition from several administrations of the need for more transmission and significant policy levers available, the federal government has not yet successfully leveraged its authorities to deploy transmission at the necessary pace and scale. For example, the potential benefits to transmission projects from NIETC designations, including FERC's backstop authority, have yet to be fully realized after FERC's interpretation of its backstop authority was partially struck down and its transmission-related regulations implementing the National Environmental Policy Act (NEPA) vacated,[30] and DOE's initial designation of corridors was vacated for failing to comply with NEPA.[31] DOE and FERC are currently developing regulations pursuant to DOE's updated NIETC authorities from IIJA. The crux of the challenge does not lie entirely within the bounds of statutory authority, but also in the practical application and implementation of these policies.

23. *Id.* Note that there is more than one reason for this statistic – some argue that this reflects the fact that to address lack of information about system congestion prior to joining the queue, developers will submit multiple interconnection requests for every project they actually intend to build.

24. *National Electricity Policy: Federal Government Perspectives: Hearing Before the Subcomm. on Energy and Air Quality of the Comm. on Energy and Com. H.R.*, 107th Cong. 34-35 (2001) (statement of Francis Blake, Deputy Sec. of Energy).

25. *Id.* at 35.

26. 16 U.S.C. § 824p(b)(1) (2018) (section 216(a) to Federal Power Act).

27. Infrastructure Investment and Jobs Act, Pub. L. No 117-58, 135 Stat. 429, 933 (2021) (codified as amended at 16 U.S.C. § 824p).

28. 42 U.S.C. § 18715.*et seq (2022).*

29. Dep't of Energy, *Grid Deployment Office Guidance on Implementing Section 216(a) of the Federal Power Act to Designate National Interest Electric Transmission Corridors* (Dec. 19, 2023), https://www.energy.gov/sites/default/files/2023-12/2023-12-15%20GDO%20NIETC%20Final%20Guidance%20Document.pdf.

30. *Piedmont Env'l Council v. FERC*, 558 F.3d 304 (4th Cir. 2009), cert. denied, 558 U.S. 1147 (2010).

31. *See Cal. Wilderness Coal. v. DOE,* 631 F.3d 1072 (9th Cir. 2011).

While the federal government can provide powerful tools and funds to foment change, it must work with states, Tribes, and local authorities to deploy transmission successfully. But providing funds without technical assistance will not address the most fundamental challenges to transmission permitting. Strong federal leadership and guidance can help build state capacity and knowledge on the intricacies of high-voltage, long-distance transmission permitting and ensure effective coordination with the right entities on the complexities of the permitting process.

3. Successful deployment of transmission faces significant challenges, including federal permitting

Contributing to the lack of recent investment is the fact that deployment of planned and financed transmission faces significant challenges, including effective implementation of federal environmental review and permitting processes. Given the diversity of jurisdictional permit and decision-making authorities, the process of obtaining permits to develop new interstate transmission lines or to upgrade existing interstate lines is inherently lengthy, complicated, and costly. Transmission projects that are located entirely on federal lands, that cross federal lands, or that involve federal funding or authorizations are subject to environmental review under NEPA and other federal authorities.[32] Federal permitting must also be coordinated with state, Tribal, and local governments with the authority to permit and site transmission projects. While interagency environmental review coordinated through NEPA can help foster decisions that reduce adverse project impacts, existing barriers to efficient and effective decision-making often prevent timely permitting decisions. While there is a plethora of proposed federal permitting reforms, there is too little evidence about which specific solutions are most likely to meaningfully expedite transmission expansion. That is the gap Niskanen and CATF have sought to begin filling with this study. Transmission faces many challenges beyond federal permitting, including difficulties with the planning process, cost allocation, disjointed and overlapping siting authorities, and opposition. Although these challenges are interrelated, this report's underlying analysis and findings focus on federal environmental review and permitting processes.

This paper begins by presenting an overview of and legal background on the permitting status quo and barriers to transmission development. Then, we present our findings and propose informed solutions that would meaningfully expedite transmission expansion.

32. The Fiscal Responsibility Act of 2023 clarified which federal actions are not required to undergo NEPA review, including those "with no or minimal federal involvement where a federal agency cannot control the outcome of the project," loans or loan guarantees where the agency "does not exercise sufficient control and responsibility over the subsequent use of such financial assistance or the effect of the action." 42 U.S.C. § 4336e(10)(B)(2023). Future rulemaking and judicial review will elucidate what levels and types of funding are excluded from NEPA review.



B. Overview of and Legal Background on the Permitting Process for Transmission Development

The permitting process for the construction of transmission facilities is convoluted, multi-layered, and project-specific. Most transmission projects require environmental review and a multitude of permits or authorizations. The number of approvals from different authorities (federal, state, Tribal, and local) generally expands as the size and jurisdictional reach of the transmission project increases. This section begins by summarizing the NEPA process, then notes frameworks for coordination among decision-making authorities, and finishes with a discussion of recent federal efforts to facilitate coordination of environmental review and permitting.

1. Transmission projects face numerous permitting requirements, carried out in conjunction with NEPA and its framework for interagency coordination

NEPA was established in 1970 as a tool to enable transparency and informed decision-making and ensure that all federal agencies consider the reasonably foreseeable environmental effects of proposed federal actions before making final decisions, including whether to fund, permit, or authorize a project.[33] This was, in part, a response to past failings by government and industry to take into account the impact and externalities of human impacts on the environment.[34] The NEPA process establishes a framework whereby consideration of environmental impacts forms a substantial part of the record for an agency's decision and supports greater public awareness of and participation in influencing federal actions and their potential environmental consequences. Effective environmental review is a key component of responsible development as it, ideally, enlightens the decision-maker and the public as to whether a proposed activity will significantly affect the human environment, and whether mitigation measures would avoid, minimize, or compensate for those effects.

The Council on Environmental Quality (CEQ), established by NEPA, advises on NEPA implementation, is responsible for government-wide NEPA implementing regulations, and plays a coordinating role

33. 42 U.S.C. § 4332(2)(C) (2022). The term "authorization" is defined as "any license, permit, approval, finding, determination, or other administrative decision issued by an agency that is required or authorized under Federal law in order to implement a proposed action." 40 C.F.R. § 1508.1(c) (2024).

34. *See* Congressional Research Service, *The National Environmental Policy Act (NEPA): Background and Implementation,* (Jan. 2011), https://crsreports.congress.gov/product/pdf/RL/RL33152 at 1.

across agencies.[35] Agencies have also prescribed their own regulations for integrating the NEPA process of environmental review into their decision-making.[36] For actions not expected to have significant adverse effects on the environment, agencies may conduct a less-detailed environmental assessment (EA) to document impacts and mitigation measures which may result in a Finding of No Significant Impact (FONSI) for the proposed action.[37] Other actions are "categorically excluded" from environmental analysis if an agency has found that the category of action is not expected to have significant adverse effects absent extraordinary circumstances.[38] Agency NEPA procedures can identify these categories of actions that, under normal circumstances, will not have a significant environmental impact, and require action-specific review for extraordinary circumstances that warrant additional scrutiny.[39]

For those projects expected to have significant adverse effects on the quality of the human environment or where an EA determines significant effects are likely, an environmental impact statement (EIS) must be prepared that considers the proposed action, action alternatives, and required mitigation measures, among many other topics.[40] The vast majority of transmission lines do not undergo an EIS, typically because their development does not involve a major federal action that would require a NEPA review, but those that do are more likely to be longer interstate lines and make up a significantly larger proportion of new line miles built. The 33 lines in our dataset compiled for this effort with an EIS in progress or completed between 2010 and 2020 make up 3.5 percent of all new transmission lines built in that period, but 26 percent of all new line miles built in the decade.[41]

Importantly, NEPA review for infrastructure projects can serve as a means for coordinating permitting with numerous federal, state, and Tribal agencies and provides a basis for decisions by cooperating agencies. How federal agencies approach the permitting process for transmission projects varies tremendously. Environmental review and approvals for transmission projects must be coordinated among the federal agencies and state, Tribal, and local authorities with jurisdiction. The specific authorizations required for a project depend on the jurisdictional nexus and on land use, ownership, financing, and geography. Each state follows different procedures for approving transmission infrastructure, and interstate lines must comply with the legal requirements of each state. This leads to a complex permitting pathway for a transmission line crossing state or Tribal boundaries and different types of federal land. Each step of approvals may result in "critical adjustments to planning, cost allocation, and siting processes," and prompt re-evaluation of whether the project is worth advancing.[42]

The NEPA process provides a procedure for structuring interagency coordination and consultation, requiring concurrent and integrated environmental impact analyses and related surveys and studies mandated by all other federal environmental review laws and Executive Orders applicable to the proposed action, including the Fish and Wildlife Coordination Act,[43] the National Historic Preservation Act (NHPA),[44] and the Endangered Species Act.[45] NHPA procedures for coordination with NEPA encourage agencies to coordinate compliance with NHPA Section 106 consultation as early as possible in the NEPA process, even to the point of NEPA process substitution for Section 106 consultation.[46]

35. *See* 42 U.S.C. §§ 4342 (2022) (establishing CEQ), 4344 (CEQ duties and function).

36. *See, e.g.*, DOE's NEPA Implementing Procedures, 10 C.F.R. pt. 1021, *et seq.*

37. 40 C.F.R. §§ 1501.5-6 (2024).

38. 40 C.F.R. § 1501.4 (2024).

39. *See, e.g.*, 10 C.F.R. pt. 1021, Subpart D (2024).

40. 42 U.S.C. § 4332(2)(C) (2022).

41. *See above* note 6 at 4.

42. Nat'l Elec. Mfrs. Ass'n, *Siting Transmission Corridors - A Real Life Game of Chutes and Ladders*, (2024), https://www.nema.org/docs/default-source/advocacy-document-library/nema_chutesandladder_2024_revised-4web.pdf?sfvrsn=5159d2ca_11.

43. 16 U.S.C. § 661 *et seq.*

44. 54 U.S.C. § 300101 *et seq.*

45. 16 U.S.C. § 1531 *et seq.*

46. 36 C.F.R. § 800.8 (2024); CEQ & Advisory Council Hist. Pres., *NEPA and NHPA A Handbook for Integrating NEPA and Section 106, (Mar. 2013)*, https://ceq.doe.gov/docs/ceq-publications/NEPA_NHPA_Section_106_Handbook_Mar2013.pdf.

Any federal agency that has jurisdiction or special expertise with respect to the environmental impact involved must be consulted, and their comments on the EIS must be made publicly available.[47] An essential purpose of NEPA is to make information available to decision-makers and potentially impacted communities and to coordinate that information-sharing. In this capacity, NEPA acts as a valuable public resource; such information would not necessarily be publicly available or accessible otherwise. Where there is more than one agency involved, one or more federal agencies may act as the "lead agency" or "joint lead agencies" and coordinate the NEPA effort. Because linear infrastructure often overlaps jurisdictions, state, Tribal, or local agencies may also serve as joint lead agencies, and these or other federal agencies may also participate as cooperating agencies.[48]

The purpose of the lead, co-lead, and cooperating agency framework in CEQ's NEPA regulations is to ensure efficient and consistent environmental reviews.[49] CEQ also encourages active involvement by non-federal cooperating agencies, and proposed revisions to CEQ's NEPA regulations would expand provisions for interagency coordination to involve state, Tribal, and local agencies early in the scoping and development of EISs.[50] In a recent proposed rulemaking, discussed later in this report, CEQ noted that early conversations and coordination, in advance of receipt of a complete application, "can improve efficiencies in the NEPA process and ultimately lead to better environmental outcomes."[51]

In recent and pending updates to NEPA's implementing regulations,[52] and amendments to NEPA in the Fiscal Responsibility Act of 2023 (FRA),[53] these core functions of NEPA have been preserved. The FRA amendments, which represent the most substantive amendments to NEPA since its enactment in 1970, codified many aspects of existing NEPA practice. One potentially impactful change from the FRA is a new definition of a "major Federal action" as "an action that the agency carrying out such action determines is subject to substantial Federal control and responsibility."[54] The statute also includes a significant codification of some of the case law that has developed under NEPA. The amendments narrow the scope of NEPA applicability and explicitly exclude projects "with no or minimal Federal involvement where a Federal agency cannot control the outcome of the project," loans or loan guarantees where the agency "does not exercise sufficient control and responsibility over the subsequent use of such financial assistance or the effect of the action," and Small Business Administration loan guarantees and other financial instruments.[55] The FRA amendments also codified time limits from the 2020 CEQ regulations,[56] including that an agency must complete an EIS no later than two years after determining that an EIS is required and an EA no later than one year after determining that an EA is required, unless an agency determines that without additional time it cannot meet such deadlines and consults with project applicants on the deadline extension.[57] The amendments further provide a project sponsor with rights for judicial intervention if an agency allegedly fails to meet applicable deadlines.[58] The practical effect of these amendments remains to be seen and potentially could be counterproductive.

47. 42 U.S.C. § 4332(2)(C) (2022).

48. *See* 42 U.S.C. § 4336a (2023).

49. 40 C.F.R. §§ 1500.4, 1500.5 (2024).

50. National Environmental Policy Act Implementing Regulations Revisions Phase 2, 88 Fed. Reg. 49924 (July 31, 2023).

51. *Id.* at 49946.

52. National Environmental Policy Act Implementing Regulations Revisions, 87 Fed. Reg. 23453 (Apr. 20, 2022).

53. Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, 137 Stat. 10 (2023).

54. 42 U.S.C. § 4336e(10) (2023).

55. *Id.*

56. Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43304 (July 16, 2020).

57. *See* 42 U.S.C. § 4336a(g) (2023).

58. 42 U.S.C. § 4336a(g)(3) (2023).

2. Recent efforts to facilitate coordination among permitting authorities have focused on improving transparency and reducing timelines

While NEPA provides a broad framework for intergovernmental coordination, additional statutory and agency measures aim to streamline permitting further. This section briefly describes some of these measures.

a. Title 41 of the FAST Act

Title 41 of the FAST Act[59] (FAST-41), passed in 2015, established the Federal Permitting Improvement Steering Council ("Permitting Council"), an interagency council of Deputy Secretaries whose Presidentially-appointed Executive Director is charged with maintaining project timelines and resolving interagency disputes. Under FAST-41, each agency is also required to designate Chief Environmental Review and Permitting Officers (CERPOs), who report to that agency's Deputy Secretary on environmental reviews and authorizations.[60] FAST-41 also established the Permitting Dashboard, an online database to track the status of federal environmental reviews and authorizations for covered projects.[61]

FAST-41 also reduces the statute of limitations for lawsuits on covered projects from six to two years. It also narrows legal standing on NEPA claims to not only parties who submitted comments during the project's environmental review but also provided sufficiently detailed comments to alert the lead agency to specific issues that might be pursued in court.[62] This aims to limit uncertainty arising from potential litigation in opposition to a project.

Under FAST-41, all federal and state entities, Tribes, and localities "likely to have financing, environmental review, authorization, or other responsibilities with respect to the proposed project" will be invited to become participating or cooperating agencies.[63] A cooperating agency has authority over or special expertise relevant to a covered project, and is commensurate with the same designation as a "cooperating agency" under NEPA.[64] FAST-41 also allows federal and state entities, Tribes, and localities that do not have jurisdiction or authority over a project, but may have other interests or responsibilities, to elect to participate in the permitting process. If, for example, a state elects to participate in the FAST-41 process, a memorandum of understanding (MOU) would be developed that includes a coordination plan, setting a permitting timetable, and subjecting all relevant state agencies to FAST-41 requirements consistent with state law.

According to the Permitting Council, FAST-41 has saved project sponsors over $1 billion through improvements in permitting efficiency, enhanced coordination, and avoidance of communication

59. Fixing America's Surface Transportation Act, Pub. Law. No. 114-94, § 41001-14, 129 Stat. 1312, 1741-62 (2015).

60. 42 U.S.C. §§ 4370m(2), 4370m-1(b)(2)(A)(iii)(I) (2022). CERPOs were created under FAST-41, but they have a broader role, including to: advise the respective agency member of the Permitting Council on matters related to environmental reviews and authorizations; act on behalf of their agency or between their agency and other federal agencies to support timely identification and resolution of potential disputes; make recommendations to their agency's Permitting Council member for ways to improve their agency's environmental review and decision-making process; and review and develop training programs for agency staff that support and conduct environmental reviews or authorizations.

61. A FAST-41 "covered" project is any infrastructure project involving a total investment of over $200 million that is subject to NEPA analysis, authorization by more than one agency, and is one of several infrastructure categories that include transmission infrastructure. To become a "covered" project, the sponsor of a qualified project must submit a FAST-41 Initiation Notice. Several transmission projects currently under federal permitting jurisdiction have initiated FAST-41 procedures as "covered" projects, and future projects should continue to qualify, assuming they exceed the $200 million threshold. According to data from Niskanen and CATF's analysis on recently proposed and completed transmission projects in the United States, the majority of the 37 transmission projects we researched would have qualified for FAST-41 coverage. Further, under an amendment from the Infrastructure Investment and Jobs Act, the Executive Director of the Permitting Council can post projects other than FAST-41 covered projects to the Dashboard in the interest of transparency. Smaller transmission projects that do not meet the $200 million threshold may therefore be listed on the Dashboard at the discretion of the Permitting Council.

62. 42 U.S.C. § 4370m-6(a)(1) (2022).

63. 42 U.S.C.A. § 4370m-2(a)(3) (2022).

64. Permitting Council, *FAST-41* and Permitting Council, at 14 (Feb. 2022), https://www.nga.org/wp-content/uploads/2022/03/Permitting-Council-and-FAST-41-Overview_2022.pdf.

failures.[65] FAST-41 was cited as one of the reasons why an EIS for the ***Ten West Link*** transmission line in Arizona and California was completed in a relatively quick 2.5 years.[66]

When Congress passed FAST-41, it was subject to a seven-year sunset clause. The IIJA made FAST-41 permanent law and amended FAST-41 to incorporate more aggressive timelines, including schedules that do not exceed two years "to the maximum extent practicable, and consistent with applicable federal law."[67] Federal agencies must also issue a record of decision (ROD), a public final document stating the outcome of the NEPA process, within 90 days of issuance of a final EIS. To encourage efficiency, the IIJA also required preparation of a single, joint, interagency EIS and subsequent joint ROD.

The IIJA shortened the timeline to identify all federal and non-federal agencies with decision-making authority with respect to proposed projects from 45 to 21 days. The law also made it more difficult to amend permitting schedules, requiring consultation with the Executive Director of the Permitting Council before any consultation among parties as to the permitting timetable. However, as highlighted elsewhere in this report (*see below* Recommendation 1.2), mandated or shortened timelines do not resolve key factors that determine the success of federal permitting—leadership, coordination, capacity, and effective implementation.

b. Interagency Memorandum of Understanding on Federal Power Act section 216(h)

Under the FPA section 216(h), created by EPAct, DOE has the authority to act as lead agency for federal authorizations and environmental reviews conducted for electric transmission lines.[68] Under this authority and following a 2009 interagency MOU, DOE established a process in 2016 that allows developers to convene with federal agencies before submitting a formal permitting application.[69] The Integrated Interagency Pre-Application (IIP) process also identifies an agency to take the lead on NEPA review and allows developers to prepare an early environmental assessment that can inform the federal effort.[70] Developers can invoke the optional IIP process for interstate high-voltage projects that cross jurisdictions administered by more than one federal agency, or projects that cross at least one federal jurisdiction and where federal financial assistance will be provided.[71]

In May 2023, nine federal agencies signed an updated MOU to implement FPA section 216(h), coordinate federal review of transmission projects, and to expedite siting, permitting, and construction.[72] In signing the MOU, the "signatory agencies recognized that insufficient budgetary resources, lack of agency staff, and limited mechanisms for coordination across federal agencies have contributed to delays in permitting timelines for transmission facilities."[73]

65. Permitting Council, *FAST-41: Tangible Permitting Process Improvements on a Project-Specific Basis*, https://aapa.files.cms-plus.com/PDFs/8%20FAST41%20Amber.pdf (last visited Mar. 12, 2024).

66. At groundbreaking for the Ten West Link transmission line, Christine Harada, then-executive director of the Permitting Council, stated that the relatively quick approval of Ten West demonstrated "the fruits of the coordination, collaboration, and transparency of the FAST-41 interagency coordination process" and "what is possible when infrastructure projects are covered by FAST-41." Permitting Dashboard, *Ten West Link Transmission Line Project Breaks Ground* (updated Jan. 20, 2023), https://www.permits.performance.gov/fpisc-content/ten-west-link-transmission-line-project-breaks-ground.

67. 42 U.S.C. § 4370m-l(c)(1)(C)(ii)(II)(aa) (2022).

68. 16 U.S.C. § 824p(h) (2022).

69. Dep't of Agric., Dep't of Def., Dep't of Energy, Env't Prot. Agency, Council on Env't Quality, Fed. Permitting Improvement Steering Council, Dep't of Interior, & Off. of Mgmt. & Budget, *Memorandum of Understanding Regarding Facilitating Federal Authorizations for Electric Transmission Lines* (May 4, 2023), https://www.whitehouse.gov/wp-content/uploads/2023/05/Final-Transmission-MOU-with-signatures-5-04-2023.pdf.

70. The program was created under section 216(h)(4)(C) of the Federal Power Act.

71. 10 C.F.R. § 900.3 (2024).

72. *See above* note 69.

73. Coordination of Federal Authorizations for Electric Transmission Facilities, 88 Fed. Reg. 55826, 55828 (Aug. 16, 2023); *see also above* note 69.

The 2023 MOU aims to further improve coordination between federal agencies as well as between agencies, states, and Tribes. The MOU allows DOE to designate the agency that has the "most significant interest" in the lands or waters traversed by a transmission line as co-lead agency for NEPA review. The terms of the MOU also require the Secretary of Energy to update the DOE regulations implementing 216(h) to: (1) make participation in the IIP a precondition for participation in the coordinated 216(h) process; (2) require submission of resource reports and public engagement plans for affected communities; (3) require public engagement with Tribes and communities affected by the project; and (4) harmonize the IIP process, 216(h) implementing regulations, and the FAST-41 process. In early August 2023, DOE announced a proposed rule to update its regulations accordingly.[74]

The new MOU is not limited to projects sited on federal lands but would include, for example, projects for which federal financial assistance would be provided (similar to qualifying projects under the IIP process). For all projects, DOE will establish prompt and binding intermediate milestones and ultimate deadlines for decisions on federal authorizations and related environmental reviews, including a final decision on all federal authorizations within two years of publishing a Notice of Intent (NOI) to prepare an EIS. Any disagreements among agencies will be elevated to the chair of CEQ and director of Office of Management and Budget (OMB) for prompt resolution.

74. *See above* note 73, 88 Fed. Reg. 55826.



C. Research Findings: Data and Litigation Analysis

Political actors on both sides of the aisle recognize that large-scale transmission projects take too long to site, permit, and construct.[75] In an effort to provide ambitious, evidence-based, politically durable solutions, Niskanen and CATF engaged in months-long information-gathering and analysis efforts, including quantitative and legal assessments of recent transmission project permitting processes. These efforts intended to establish insights to inform ongoing dialogues around transmission permitting and set a fact-based context for our recommendations.

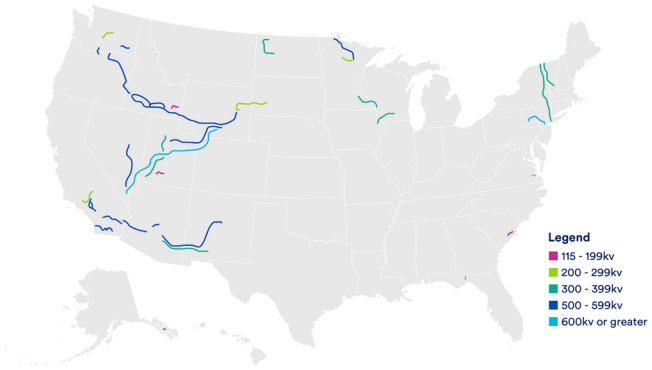
75. *See, e.g.*, efforts from opposing sides of the aisle to speed project review, including the Fiscal Responsibility Act, the SITE Act, BIG WIRES, and the Biden Administration's Permitting Action Plan.

1. Contextualizing federal permitting of electricity transmission through data analysis

To better inform the ongoing dialogue regarding transmission permitting, we gathered and analyzed a dataset of major new high-capacity transmission lines.[76] Our dataset contains 37 electric transmission lines that had an EIS environmental review in progress or completed between 2010 and 2020. These data were derived from various sources, including academic papers, federal agencies, and inventories accessible to the public. Because there is no central database for transmission projects, this dataset cannot be assumed to definitively represent all electric transmission projects that meet the criteria; some eligible lines may have been unintentionally overlooked.

76. *See above* note 6 at 3.

Figure 1: Map of the 33 Completed Lines in the EIS Lines Dataset, by Voltage Class.
(4 of the original 37 lines were canceled and therefore not included)



The following criteria determined the inclusion of the 37 lines included in our analysis:

- New transmission lines only (excludes rebuilds and upgrades)
- Federal Review Status: Projects that had an EIS in progress or completed between 2010 and 2020 (meaning the project published an NOI, FEIS, ROD, or was in the process of having an EIS prepared at some point during the decade)
- Voltage of at least 115 kV
- Line length of at least 5 miles
- At least one domestic endpoint

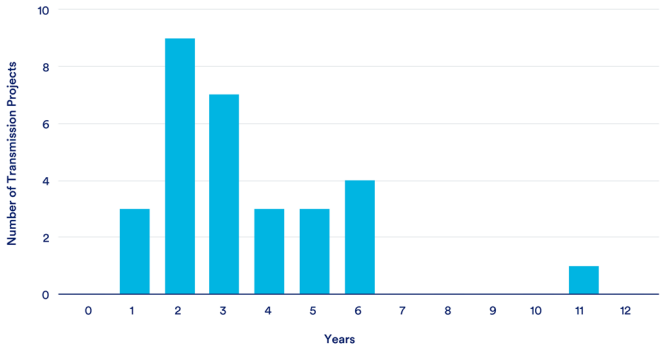
Of the 37 lines, four lines were canceled, two projects have yet to release an ROD, and one never published an NOI. Evaluating the timeline for the remaining 30 projects, Niskanen and CATF found that:

- EIS reviews took on average 4.3 years between publication of an initial NOI and the release of a ROD, with a median review time of 3.7 years.
- Of the 17 large transmission lines (longer than 100 miles and above 345 kV) that were not canceled, the average NOI to ROD timeline was 4.7 years — roughly comparable with the timelines CEQ found for all federal environmental reviews.

In 2020, CEQ examined 1,276 EISs for which a Notice of Availability of a final EIS was published between January 1, 2010 and December 31, 2018, and for which a ROD was issued by June 18, 2019. CEQ found that "across all Federal agencies, the average (i.e., mean) EIS completion time (from NOI to ROD) was 4.5 years . . . and the median was 3.5 years."[77] These timelines exclude any pre-application processes, for which data are typically not publicly available.

77. CEQ, *Environmental Impact Statement Timelines* (2010-2018) (June 12, 2020), https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Report_2020-6-12.pdf.

Figure 2: Time to Complete NEPA EIS Review (NOI to ROD)



In addition, our review found:

- 17 of the 30 lines completed federal environmental permitting review under NEPA within four years.
- EIS reviews ranged from 1.2 to 11 years.
- Transmission projects that had an EIS prepared between 2010 and 2020 made up 3.5% of projects, but 26% of total domestic transmission line miles.

2. Understanding the impact of litigation and opposition on projects undergoing federal permitting

Legal challenges are commonly cited as a major factor contributing to delays or cancellations of transmission line projects.[78] However, research on the true impact of litigation on project delay or cancellation is limited.[79] Our in-depth analysis of 37 high-capacity transmission line projects considered whether litigation and significant non-litigation opposition is correlated with project delay. We found that the majority of projects in our analysis (54%) did not face litigation or substantial non-litigation opposition. Of the projects analyzed, around a quarter (27%) faced litigation or significant non-litigation opposition and were either delayed or canceled.

In addition, our review found that:

- The majority of projects proceeded to completion or are in progress, despite litigation and opposition. Notably, of the 37 lines investigated, only four were canceled.
- Most lawsuits filed by project opponents were decided in favor of the project. We identified 18 lawsuits opposing the projects, and only two were resolved in favor of opponents to a project (both of those lawsuits involved a

78. James W. Coleman, *Pipelines & Power-Lines: Building the Energy Transport Future*, 80 Ohio St. L.J. 264, 292 (2019) ("...while oil pipelines grab the national headlines, power-lines across the country are being held up using the same legal arguments."), https://scholar.smu.edu/cgi/viewcontent.cgi?article=1037&context=law_faculty.

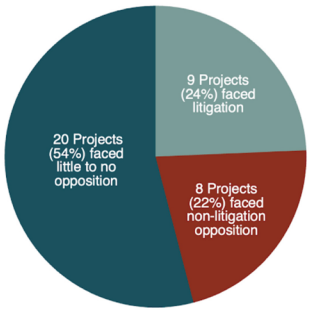
79. For a discussion of impacts of NEPA litigation on transport and energy infrastructure projects broadly, see Michael Bennon & Devon Wilson, *NEPA Litigation Over Large Energy and Transport Infrastructure Projects*, STANFORD UNIV. (Oct. 2, 2023) ("our goal was to directly link data on infrastructure projects to NEPA studies to lawsuits to outcomes, which has not been done before"), https://cddrl.fsi.stanford.edu/publication/nepa-litigation-over-large-energy-and-transport-infrastructure-projects.

single project, which has been constructed). One lawsuit remains pending as of the time of this analysis.[80]

- The analysis also considered the impact of preliminary injunctions,[81] finding that courts almost always denied motions for preliminary injunctions filed by project opponents. Of the seven preliminary injunction motions identified, five were denied, and one was granted but never went into effect. One motion remains pending at the time of this analysis.[82]

These findings are consistent with the conclusion that, although litigation and opposition can influence delays and cancellations, factors that cause delays likely compound and it is difficult to draw a throughline from litigation to the extended timelines common for transmission line projects. Addressing these challenges requires a multifaceted approach to ensure greater efficiency and effectiveness in the permitting process. The evidence-based recommendations in this report are tailored to address concurrent challenges in the permitting process and ensure greater efficiency in federal environmental review.[83]

Figure 3: Percentage of evaluated transmission projects by litigation and opposition status.



80. Susan Montoya Bryan & Ken Ritter, *Tribes, environmental groups ask US court to block $10B energy transmission project in Arizona*, AP NEWS (Jan. 23, 2024 12:43 PM PDT), https://apnews.com/article/wind-energy-sunzia-transmission-lawsuit-f414b9c3e4d7fc0ae2aee4a0777be92f.

81. A preliminary injunction is a court order that can delay or stop a project's construction or regulatory progress.

82. *See above* note 80.

83. For further analysis, *see* Olga Baranoff & Zachary Norris, *A closer look at the role of litigation and opposition in transmission projects undergoing federal permitting*, NISKANEN CENTER (Mar. 4, 2024), https://www.niskanencenter.org/a-closer-look-at-the-role-of-litigation-and-opposition-in-transmission-projects-undergoing-federal-permitting/.



D. Research-Based Recommendations to Improve Federal Transmission Permitting

In addition to our litigation and quantitative analyses, Niskanen and CATF evaluated case studies of transmission projects undergoing federal permitting and conducted extensive stakeholder interviews.[84] The sum total of these efforts intended to establish an evidentiary record of permitting challenges faced by electric transmission projects and fact-based insights into: (1) what prevents the pace and scale of transmission buildout needed to achieve a reliable, resilient, clean grid; (2) the levels (federal, state, Tribal and local) and/or nexuses (e.g., developer-agency coordination) at which transmission permitting faces critical hurdles; and (3) concrete opportunities to improve transmission permitting, focusing on federal environmental permitting.

Niskanen and CATF's research identified three key themes, into which we categorize our summary recommendations. These themes are: (1) the importance of improving federal agency coordination, cooperation, and capacity; (2) the need for clarifying interactions between federal, state, local, and Tribal authorities; and (3) the need for improvements in the environmental review process.

1. Improving Federal Agency Coordination, Cooperation, and Capacity

From in-depth review of 37 transmission projects,[85] supporting data analysis of the federal environmental transmission permitting process, and conversations with transmission stakeholders,[86] Niskanen and CATF found that a lack of federal agency leadership and prioritization of transmission, coupled with insufficient support for agency coordination, cooperation, and capacity, contributes to longer permitting timelines.

Although the NEPA process offers avenues for interagency coordination and collaboration (*see above* Section B.1), a lack of sustained engagement and focus on project timelines by an agency until "its turn" in the regulatory review process results in conflicts,

84. *See* Appendix, List of Transmission Line Case Studies, for in-depth project reviews.

85. *See* Appendix, List of Transmission Line Case Studies, for in-depth project reviews.

86. "Transmission stakeholders" refers to transmission permitting experts, transmission developers, federal officials with knowledge of and experience in transmission siting and permitting, and representatives from Tribal entities and utilities.

duplicated efforts, and delay. This issue stems from the linear, or "waterfall," approach to regulatory review where one agency's activities begin upon the completion of the actions of an agency upstream in the process.[87] If potential conflicts are wrestled with earlier in the process, i.e., before an agency waits for "its turn" on a project approval, issues could be resolved or avoided altogether. Further, insufficient and inconsistent staffing levels and a lack of comprehensive transmission infrastructure expertise can create bottlenecks in the NEPA process.[88]

For example, the ***TransWest Express*** and ***SunZia Southwest*** transmission projects both suffered from a lack of consistent federal agency coordination, cooperation, and capacity that contributed to longer permitting timelines. In the case of ***TransWest Express***, although routine coordination calls were held weekly and monthly for more than five years, "major issues remained unresolved as decisions were only finalized if there was a 'consensus.'"[89]

In testimony before the Senate Energy and Natural Resources Committee, Roxane Perruso of The Anschutz Corporation stated the lack of timely issue resolution "substantially increased permitting time and costs" and could have been avoided with more senior-level agency involvement.[90]

Similarly, in development of the ***SunZia Southwest Transmission Project***, the Department of Defense raised concerns regarding impacts of the line on the White Sands Missile Range. The project was controversial and the mitigation measures included in the 2015 ROD issued by Bureau of Land Management (BLM) did not settle the Department of Defense's concerns. After the 2016 presidential election, the Department of Defense stated that national security interests and operations would be hampered by the transmission line and that the developer should pursue potential alternative routes farther from the missile range. Due in part to these concerns, in 2019, the developer performed a siting study to evaluate other routes, and in 2020, submitted an application to amend the right-of-way. Beginning July 29, 2021, SunZia was covered under FAST-41[91] and the project was closely monitored by federal agencies and the Permitting Council. BLM (the lead agency) hosted weekly meetings with the federal cooperating agencies in 2021, leading up to the preparation of the Draft EIS for the amended application, and hosted quarterly meetings with all cooperating agencies, including the non-federal agencies.[92] The increased collaboration under the auspices of the Permitting Council ultimately led to permits being granted in 2023, and a ROD issued in May 2023, less than two years after coverage under FAST-41.[93]

87. As aptly put by Jennifer Pahlka in her book Recoding America, "Whether fed by one source or many, waterfalls determine how information, insights, agency, and power flow. The flow goes only one way: down." JENNIFER PAHLKA, RECODING AMERICA: WHY GOVERNMENT IS FAILING IN THE DIGITAL AGE AND HOW WE CAN DO BETTER (2023). This problem was also noted by legal scholar and former Deputy Secretary of the Department of Interior David J. Hayes: "The linear approach to federal permitting causes problems because when agencies are on the sidelines until late in the process, the project that they are finally presented with is likely to have well-defined and studies features that have been through an EIS process and have been validated by the lead agency. If these late-reviewing agencies identify a serious flaw in the project that was overlooked by, or was not in the jurisdictional purview of the lead agency, it may be too late to reorient the project to avoid that result. What might have been a relatively easy adjustment for a project proponent to make early in the permitting process, before the EIS was prepared and the lead agency completed its work, now becomes difficult or impossible." David J. Hayes, *Leaning on NEPA to Improve the Federal Permitting Process*, 45 ENV'T L. REP. 10018, 10019 (2015), https://law.stanford.edu/wp-content/uploads/sites/default/files/publication/824999/doc/slspublic/Hayes%2025%20ELR%2010018%20Leaning%20on%20NEPA.pdf.

88. Delays in the NEPA process are often due to "inadequate agency budgets, staff turnover, delays receiving information from permit applicants, and compliance with other laws." John C. Ruple, et al., Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation, 47 Columbia J. ENV'T L. S (2022), https://journals.library.columbia.edu/index.php/cjel/article/view/9479.

89. *Permitting Processes at the Department of the Interior and the Federal Energy Regulatory Commission for Energy and Resource Infrastructure Projects*, 115th Cong. 46-47 (2017) (testimony by Roxane Perruso, Vice President & Associate General Counsel of The Anschutz Corporation), https://www.congress.gov/115/chrg/CHRG-115shrg28096/CHRG-115shrg28096.pdf.

90. *Id.*

91. Permitting Council, *Permitting Dashboard*, https://www.permits.performance.gov/projects (last visited Mar. 12, 2024).

92. BLM, *Record of Decision SunZia Southwest Transmission Project Right-of-Way Amendment*, at 16 (May 16, 2023), https://eplanning.blm.gov/public_projects/2011785/200481766/20078613/250084795/20230517%20SunZia%20ROD_508.pdf.

93. On January 30, 2024, the Tohono O'odham Nation, San Carlos Apache Tribe, Center for Biological Diversity, and Archaeology Southwest filed a motion for preliminary injunction, seeking to halt construction of the SunZia transmission line and alleging that BLM inadequately considered Traditional Cultural Property under the NHPA. As of the date of publication of this report, the litigation is

Improving federal agency coordination and capacity is fundamental to a more streamlined and effective transmission permitting process. Given the importance of high-voltage, long-distance transmission lines to the security, resilience, and decarbonization of the electric grid, the executive branch should continue to push transmission development as a high-visibility priority for federal agencies. Congress can provide funding for more dedicated agency staff, and DOE, the Permitting Council, and other entities can push for transparency, conflict resolution, and coordination around permitting within their purviews.

a. Recommendation 1.1: The President should continuously recognize transmission infrastructure permitting as a national priority

Executive leadership, spearheaded by the President, plays a pivotal role in establishing and championing strategic national priorities. By actively prioritizing transmission infrastructure, the President can significantly influence the entire executive branch and ensure that every Cabinet secretary, political appointee, frontline manager, and permitting official in the country understands that transmission permitting is a daily priority and interagency conflicts should be avoided or effectively resolved.

The President should establish clear transmission deployment goals and priorities to galvanize a shared vision and concerted effort across the executive branch. This effort should be reinforced by regular coordination at the Cabinet level, facilitation of departmental coordination, and mobilization of support for delivering on federal goals.

Through regular Cabinet-level alignment, and fully leveraging the authorities of the Permitting Council, the President should drive whole-of-government follow-through on the planning, establishment, and construction of long-distance lines of national importance[94] undergoing federal environmental reviews. Doing so requires clarifying roles and responsibilities, providing the institutional knowledge and support to act on existing authorities, and ensuring that transmission budget requests and appropriated funds are strategically deployed to deliver outcome-driven success. This encompasses essential elements such as the staffing and training needed to implement federal priorities effectively. Executive leadership is also vital for addressing regional and interregional issues, necessitating regular coordination between and among federal agencies, Tribal Nations, state and local governments, and regional grid planning organizations.[95]

To actualize a coordinated transmission effort, the White House should appoint a transmission director with specific authority to oversee these efforts. This director will not only ensure alignment across agencies but will also play a critical role in educating existing agency staff on how to build transmission equitably and expeditiously.

Transmission projects are ripe for conflict—between landowners and developers, among agencies, and among federal, state, Tribal, and local authorities. Often, delays in permitting arise due to interagency conflicts that are not identified or resolved in a timely manner. A senior official in the Executive Office of the President should have the authority to assist in resolving interagency disputes, and the tools and gravitas to successfully advance projects.

A noteworthy example of executive leadership is the Biden administration's clear setting of goals, provision of support, and whole-of-government approach to offshore wind development. This approach has yielded significant milestones, including the approval of six offshore wind farms, four offshore

ongoing. Pls.' Mot. for TRO and Prelim. Inj., Request for Expedited Hr'g, and Mem. of P. & A., *Tohono O'odham Nation et al. v. U.S. Dep't of Interior et al.*, No. 4:24-CV-00034 (D. Ariz. Jan. 30, 2024) (ECF No. 16).

94. E.g., lines that enhance national energy security and reliability, lines that facilitate efficient and sustainable energy interstate transmission from production to consumption sites, and lines that promote interregional cooperation and economic growth.

95. One example, which has had some success in the transmission planning space, is the Joint Federal-State Task Force on Electric Transmission, in which FERC and NARUC participate. https://www.ferc.gov/TFSOET (last updated Mar. 5, 2024).

wind lease auctions,[96] power reaching the grid from the first and second utility-scale offshore wind farms in the United States,[97] and proposed regulatory reforms to modernize offshore wind development.[98] The President should similarly elevate transmission infrastructure modernization as a national priority. And, as administrations change, outgoing officials should emphasize communication and cooperation with their corollaries to align current practice and ensure a shared commitment to the prioritization of transmission as necessary infrastructure.

b. Recommendation 1.2: Congress and agencies should enhance transparency in project review and project timelines

Congress and federal agencies should work to enhance transparency in project timelines and in each step of review. Improving project review timelines and permitting review outcomes does not merely take more mandates and deadlines, which have been the focus of recent reforms. Mandating general timelines without addressing underlying substantive issues (including a lack of proper staffing and resources, *see below* Recommendation 1.3) can have unintended consequences; for example, the two-year EIS deadline imposed in the FRA[99] does not address the substance of the underlying issues that cause delays at the start of the formal siting and permitting processes. Requiring that agencies complete a process in less time does not help agencies do so. Tight timelines can also reduce the quality of work, which can in turn expose projects to greater litigation risk.

The larger issue is the failure to create and support an iterative, agile process with continuous and consistent communication among federal agencies, project developers, and stakeholders to identify and address concerns early and often. Instead of relying on mandating timelines alone to address delays resulting from inadequate interagency coordination, the permitting process should include interagency coordination during the pre-application phase—as outlined in DOE's IIP process—and at specific points in the environmental review process. This, coupled with—where appropriate and logistically feasible—use of a public docket throughout the permitting process could take significant strides toward ensuring real-time, effective communication among relevant governmental and non-governmental entities.[100] An informative example of smart use of a public docket is FERC's pre-filing docket and public dockets generally.[101] All this combined would support transparent processes, transparent timelines, and ultimately, commitments to timelines. Use of the Permitting Dashboard should also be encouraged to enhance transparency and commitment to timelines. *See below* Recommendation 1.4.

c. Recommendation 1.3: Congress should invest in interagency coordination, interagency cooperation, and agency capacity [102]

Insights from conversations with developers and federal government officials underscore a significant barrier to advancing transmission development: limitations on agency capacity.[103] Signatory agencies to DOE's MOU under FPA section 216(h)

96. Press Release, Dep't of Interior, *Biden-Harris Administration Approves Sixth Offshore Wind Project* (Nov. 21, 2023), https://www.doi.gov/pressreleases/biden-harris-administration-approves-sixth-offshore-wind-project.

97. Brad Plumer, *Massachusetts Switches On Its First Large Offshore Wind Farm*, N.Y. TIMES (Jan. 4, 2024), https://www.nytimes.com/2024/01/04/climate/vineyard-wind-massachusetts.html.

98. *See* Renewable Energy Modernization Rule, 88 Fed. Reg. 5968 (Jan. 30, 2023).

99. 42 U.S.C.A. § 4336a(g)(1)(A) (2023).

100. *See* Letter from Niskanen Center to U.S. Dep't of Energy (Oct. 2, 2023), https://www.niskanencenter.org/wp-content/uploads/2023/10/Niskanen-DOE-NOPR-CITAP-Comments.pdf.

101. *See* https://www.ferc.gov/media/pre-filing-environmental-review-process (includes pre-filing process flowchart) (last visited Mar. 13, 2024); see generally FERC's eLibrary, linking to pre-filing and other dockets, https://elibrary.ferc.gov/eLibrary/search.

102. *See* Appendix, case studies: 2. TransWest Express Transmission Project; 6. Hampton-Rochester-La Crosse Transmission System Improvement Project; 21. SunZia Southwest Transmission Project; 23. Surry-Skiffes Creek-Whealton Project; 28. Ten West Transmission Line Project.

103. *See also*, Jamie Pleune, *Choosing between Environmental Standards and a Rapid Transition to Renewable Energy is a False Dilemma*, ROOSEVELT INST. 15 (May 2023), https://rooseveltinstitute.org/publications/choosing-between-environmental-standards-and-a-rapid-transition-to-renewable-energy-is-a-false-dilemma/.

also recognized that insufficient budgets and agency staff, along with limited mechanisms for interagency coordination, contribute to delays in permitting timelines for transmission.[104]

Addressing these coordination shortfalls requires a holistic approach. Simply focusing on expanding agency functions or authorities, without appropriate investment in supporting agency coordination, cooperation, and capacity, will likely fail. Agencies need appropriate resources and expertise to contribute to transmission modernization as a national priority. More funding or more staff does not necessarily mean increased efficiency or effectiveness, however, and there needs to be additional support for retaining, supervising, empowering, and training agency staff, particularly on the nuances of transmission and linear infrastructure. To this end, Congress should also increase funding for interagency coordination and staff dedicated to joint-agency projects. This need extends beyond federal entities to include state and Tribal agencies, which have similar needs for such support. *See below* Recommendation 2.1.

Congress should provide the funding necessary through annual appropriations to ensure that federal agencies have sufficient resources to conduct expeditious, coordinated reviews and permit decisions. The IRA provided more than $1 billion to support the environmental review process—including $350 million to the Permitting Council, $30 million to CEQ, and $625 million to federal agencies, including DOE, the Department of the Interior, the Forest Service, and the U.S. Department of Agriculture (USDA), to hire and train personnel, support public engagement, and develop helpful tools to improve transparency[105]—which represents a significant step forward. However, while the episodic nature of large appropriation packages such as the IRA can boost funding for permitting for a number of years, relying on individual, unpredictable bills for funding makes it difficult for agencies to recruit and retain qualified permitting staff. Regular appropriations for permitting activities, rather than intermittent financial injections, will provide a more reliable foundation for attracting and retaining the skilled personnel necessary for this vital government function.

Senior agency personnel should be assigned to each major project under environmental review and should report directly to appointed decision-making officials at agency headquarters. One option could be to resume the use of National Project Managers, which existed within BLM. These positions were formerly filled by experienced career staff dedicated to shepherding transmission projects through the permitting process. Their upstream oversight of field offices was combined with a long-term, national view of projects and the experience necessary to make key decisions. After a gradual phase out due to staff retirements and turnover, reestablishing such a role across federal agencies through executive order or personnel action should be prioritized.

Finally, investments in digital tools and data platforms, potentially leveraging new developments in artificial intelligence and DOE's computing capabilities, could pay dividends of more targeted, effective, and expeditious reviews.[106] The Permitting Council's commitment of $25 million from the IRA to modernize and develop technology solutions for federal environmental review is a commendable step. Sustained investments will help ensure new software and computing developments are harnessed to serve the public interest in efficient and effective federal permitting processes.

104. 88 Fed. Reg. at 55828; *see also above* note 69.

105. White House, *Building a Clean Energy Economy: A Guidebook to the Inflation Reduction Act's Investments in Clean Energy and Climate Action* (Jan. 2023), https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf.

106. *See, e.g.*, U.S. Dep't Transp. Fed. Highway Admin., *Improving Collaboration and Quality Environmental Documentation* (eNEPA and IQED), https://www.fhwa.dot.gov/innovation/pdfs/factsheets/edc/edc-3_factsheet_e-nepa.pdf (last visited Mar. 13, 2024).

d. Recommendation 1.4: DOE, the Permitting Council, and other agencies should require transparency and accountability through use of the Permitting Dashboard" [107]

The Permitting Dashboard should be used to enhance transparency and accountability for transmission projects. Agencies should establish clear timeline goals and track key project information, including for projects not eligible for FAST-41 coverage. *See above* Recommendation 1.2. To further increase the Dashboard's utility, DOE can work with lead and cooperating agencies to recommend nationally and regionally significant transmission projects, including all transmission projects requiring EIS review, be added to the Permitting Dashboard for their environmental review and authorization processes. Federal agencies can be project proponents under the FAST-41 definition, so federal leadership on transmission does not need to be constrained by the limitations of project applicants.

To support transparency efforts, the Permitting Council should increase the scope and detail of the Permitting Dashboard. Projects should be on the Dashboard before the NOI to prepare an EIS is filed. Where there are coordinated project plans with detailed timelines before the NOI, the Dashboard should track those timelines and project plans with the same level of detail; any points of implementation that can hold up a decision should be tracked on the Dashboard. This allows the Dashboard to function as a spotlight on developer-agency interactions, keeping the agency on track and moving efficiently, even before an NOI is filed.

2. Streamlining Interactions Among Sovereign Authorities

From our in-depth review of 37 transmission projects,[108] supporting data analysis of the federal environmental transmission permitting process, and conversations with transmission stakeholders,[109] Niskanen and CATF found that slow and/or sequential state and federal regulatory processes can add significant time to the total duration of project permitting. For example, on the ***Boardman to Hemingway Transmission Line***, the Oregon and Idaho processes have substantially lagged the federal process.[110] Interviews with permitting experts singled out Oregon's Facility Siting Council as a noteworthy example of state and federal misalignment, particularly as Oregon law requires that a Site Certificate application cannot be found to be complete until all federal permit applications are submitted and each federal agency has identified when they will issue a permit decision.[111] This regulatory discordance can add years to a project's total permitting timeline.

Moreover, state and local political opposition can create formidable barriers completely independent of the federal permitting process. In the case of the ***SunZia Southwest Transmission Project***, BLM originally approved a right-of-way that crossed the Rio Grande near Socorro, New Mexico, a ranching and farming community.[112] Some individuals impacted by the route successfully lobbied the New Mexico Public Regulation Commission to reject SunZia's application, causing additional project delays.[113] The ***Plains and Eastern Clean Line***, which would have traversed Oklahoma, Arkansas,

107. *See* Appendix, case study: 18. Tehachapi Renewable Transmission Project.

108. *See* Appendix, List of Transmission Line Case Studies, for in-depth project reviews.

109. "Transmission stakeholders" refers to transmission permitting experts, transmission developers, federal officials with knowledge of and experience in transmission siting and permitting, and representatives from Tribal entities and utilities.

110. *See* Appendix, case study: 3. Boardman to Hemingway Transmission Line.

111. "The Department may not find the site certificate application to be complete before receiving copies of all federally-delegated permit applications and a letter or other indication from each agency responsible for issuing a federally-delegated permit stating that the agency has received the permit application, identifying any additional information the agency is likely to need from the applicant and estimating the date when the agency will complete its review and issue a permit decision." OR. ADMIN R. 345-021-0000(6) (2024).

112. *See* Appendix, case study: 21. SunZia Southwest Transmission Project.

113. Rio Grande Agric. Land Tr., *Protect Our Migratory Birds: Demand SunZia Energy Bury Rio Grande Transmission Lines* (Mar. 8, 2019), https://rgalt.org/protect-our-migratory-birds/.

and Tennessee, has failed to come to fruition after considerable political opposition.[114] In its proposal to DOE, the project developer stated the project would "make possible some $12 billion of renewable energy projects that otherwise cannot be built due to limitations of the existing grid."[115] Arkansas rejected Clean Line's application to operate as a public utility "based on [ ] information about its current business plan and present lack of plans to serve customers in Arkansas."[116] Members of the Arkansas congressional delegation proposed legislation to impede and stop the project. Even in Tennessee, where it enjoyed some support,[117] the project sustained vocal opposition from a Tennessee senator and other Tennessee congressional members for years.[118] The Tennessee Valley Authority ultimately decided not to buy power from the project, even though analyses appeared to show the project would have resulted in competitive pricing. The original developer sold a portion of the project in 2017.[119]

Finally, insufficient state and Tribal resources to participate in federal permitting processes and a lack of comprehensive federal leadership cause additional hurdles. As interstate transmission lines do not always directly benefit each state or Tribe they traverse, the federal government must lead in demonstrating the importance of transmission development for national and regional policy goals.

To address these challenges and promote a more efficient permitting process, several strategic initiatives are recommended to facilitate and support more streamlined interactions between and among states, Tribes, and federal authorities. Federal agencies should use Congressional funding to enhance state and Tribal capacity to fully partake in the permitting process. The Permitting Council can serve an important coordinator role among permitting officials at federal agencies to ensure cross-agency and cross-jurisdictional alignment. Congress can consolidate permitting and siting authority for multi-state projects in the national interest. And though the focus of this report is federal, our research unearthed the potential of better-harmonized state permitting processes to speed projects undergoing federal reviews. This promising avenue warrants further exploration to identify effective strategies for federal support of harmonization efforts.

a. Recommendation 2.1: Federal agencies, with Congressional support, should enhance state and Tribal capacity to conduct and participate in permitting processes

State and Tribal resource constraints can contribute to the lengthy timelines attributed to federal, state, and Tribal interactions and reviews. For state and Tribal agencies to actively participate in federal permitting processes and avoid delays from sequential review or political challenges, federal agencies should take a leading role in boosting state and Tribal capacity. Federal agencies should also conduct earlier and more comprehensive engagement with Tribes, on par with federal engagement with state entities and developers.

Federal agencies typically have more resources than state or Tribal institutions and can retain extensive expertise on critical technical matters. To make these resources more accessible, Federal agencies should lay out best practices on how local, state, Tribal, and community entities can and should engage in the permitting process. Federal agencies

114. *See* Appendix, case study: 37. Plains and Eastern Clean Line.

115. Plains and Eastern Clean Line, Project Proposal for New or Upgraded Transmission Line Projects Under Section 1222 of The Energy Policy Act of 2005, (Jul. 2010), https://www.energy.gov/sites/prod/files/Plains%20%26%20Eastern%20Clean%20Line%20Transmission%20Project%20Application.pdf at 2.

116. *See* Order No. 9, *In re* Application of Plains and Eastern Clean Line LLC, No. 10-041-U, at 11 (Ark. Pub. Serv. Comm'n Jan. 11, 2011), http://www.apscservices.info/pdf/10/10-041-u_41_1.pdf at 11.

117. Wesley Brown, *Controversial $2.5 billion Clean Line project stalled; will evaluate options, officials say*, TALK BUS. & POL. (Jan. 3, 2018), https://talkbusiness.net/2018/01/controversial-2-5-billion-clean-line-project-stalled-will-evaluate-options-officials-say/.

118. Patrick Lantrip, *Winds of Change: How massive energy project would fit into the local power structure*, MEMPHIS DAILY NEWS (Jun. 3, 2017), https://www.memphisdailynews.com/news/2017/jun/3/winds-of-change/

119. Michelle Froese, NextEra acquires Oklahoma portion of Plains & Eastern Clean Line transmission project, WINDPOWER ENG'G & DEV. (Dec. 27, 2017), https://www.windpowerengineering.com/nextera-acquires-oklahoma-portion-plains-eastern-clean-line-transmission-project/

should provide technical assistance and make funding available for states and Tribes to hire experts to interpret and conduct any required technical analyses. Such practices can play a major role in equitably distributing knowledge and resources to those entities engaged in the permitting process.

Agencies should also provide funding and support for public engagement around transmission line benefits and costs. Federal assistance should be provided to assist state, Tribal, and local entities in enforcing siting decisions and corridor selection.[120] Tribal consultation and outreach should be prioritized and, when done effectively and intentionally, can lead to more predictable development outcomes and the possibility of including Tribal Nations in financial project development partnerships. And while federal agencies should use their resources to support Tribes in overcoming barriers to participation in the federal permitting process, this only goes so far. Developers themselves—even before the beginning of the formal federal permitting process—can hire dedicated Tribal affairs consultants, akin to the current standard practice of engaging professional government affairs staff or environmental consultants.

One option for providing technical assistance is for Congress to appropriate funds to DOE's National Labs to make transmission experts available on-call to eligible entities.[121] Another example of funding support is through existing Transmission Siting and Economic Development (TSED) grants from DOE, where state and Tribal agencies can pursue federal funding to hire dedicated staff with legal and engineering backgrounds to participate actively in the siting and permitting processes for specific large, interstate or offshore transmission projects. In August 2023, DOE released a funding opportunity announcement for $300 million under the TSED program to support state, Tribal, and local entities in analyzing the impacts of high-voltage transmission projects, assessing alternative corridors, participating in regulatory proceedings, and facilitating other actions that could aid the permitting process.[122]

In the case that conflict arises during the permitting process, the use of a neutral third-party facilitator can also support conflict resolution among federal, state, Tribal, and local authorities. A report from the federal Forum on Environmental Collaboration and Conflict Resolution (ECCR) supports using conflict resolution techniques to shepherd projects to approval.[123] This ECCR study shows how increasing the effective use of environmental conflict resolution and building institutional capacity for collaborative problem solving can produce cost savings and more timely decisions, improve relationships between the government and stakeholders, and result in more creative and lasting solutions to even long-term or entrenched disagreements by increasing understanding among stakeholders and reaching durable agreements.

A skilled neutral third-party facilitator can assist with government-to-government consultation between Tribes and federal agencies, facilitate agency and departmental collaborations, and help resolve state and federal differences and conflicts involving multiple levels of government and the public. To avoid delays, disputes should be brought to the attention of alternative dispute resolution professionals as soon as problems are identified.[124] So far, the Permitting Council has not used its authority for this purpose. This effort should be supported by the Permitting Council, which received

120. See Appendix, case study: 1. Southline Transmission Line Project.

121. For example, DOE GDO currently administers a Tribal Nation Offshore Wind Transmission Technical Assistance Program, which offers capacity building through educational resources and provides on-call assistance from experts. *See* more information at: https://www.energy.gov/gdo/tribal-nation-offshore-wind-transmission-technical-assistance-program.

122. DOE Grid Deployment Off., *Transmission Siting and Economic Development (TSED) Program: What Siting Agencies Need to Know* (Oct. 2023), https://www.energy.gov/sites/default/files/2023-10/102023_TSED-SitingAuthorities.pdf.

123. CEQ, "*Environmental Collaboration and Conflict Resolution (ECCR): Enhancing Agency Efficiency and Making Government Accountable to the People. A Report from the Federal Forum on Environmental Collaboration and Conflict Resolution*," (May 2, 2018), https://ceq.doe.gov/docs/nepa-practice/ECCR_Benefits_Recommendations_Report_%205-02-018.pdf.

124. 42 U.S.C. § 4370m-1(c)(3)(B) (2022).

$350 million in the IRA to fund the implementation and enforcement of FAST-41 through 2031.[125]

b. Recommendation 2.2: Congress should consolidate permitting and siting authority for multi-state projects that are in the national public interest

Large multi-state transmission lines offer outsized reliability, cost savings, and resilience benefits at the regional and national levels. Yet local opposition, while often rooted in legitimate concerns, can overlook or underestimate the collective value of transmission. The disconnect between local opposition and broader national public interest necessitates a recalibration of the permitting and siting authority paradigm.

Congress should vest and consolidate permitting and siting authority at the federal level for multi-state transmission lines that are in the public interest. This approach is not unprecedented; it draws upon some of the existing framework for siting in NIETCs, which already empowers FERC to step in under specific circumstances.[126] However, the scope of current federal statutory authority for transmission siting is limited and does not fully address the complexities and scale of need for modern, multi-state transmission projects.

Congress should build on FERC's current backstop siting authority for projects in NIETCs by granting comprehensive permitting and siting powers for such projects. The Streamlining Interstate Transmission of Electricity (SITE)[127] and Clean Electricity and Transmission Acceleration (CETA)[128] Acts serve as possible legislative models, aiming to bolster grid security and reliability through enhanced federal authority, balanced with ample and sensible stakeholder engagement and protections.

This recommendation is made with a clear understanding of the delicate balance between federal oversight and local autonomy, which warrants a structured, transparent, and collaborative approach, ensuring that all stakeholders, including state authorities, local communities, and private entities, are engaged in a constructive dialogue throughout the project lifecycle. This approach is not about undermining local concerns but about elevating and aligning these concerns within a broader national framework, ensuring that the collective benefits of these projects are realized effectively and equitably.

c. Recommendation 2.3: States should harmonize their permitting processes to create regulatory efficiency and allow more concurrent processes [129]

State processes need to be harmonized among themselves (state-state) and with federal processes (state-federal). State determinations of project need, through State Certificates of Public Convenience and Necessity (CPCN) or similar siting approval processes, and state-level environmental permitting are often required for transmission facilities. These permitting processes vary greatly in their timelines and applicant requirements, creating a patchwork of distinct regulatory requirements. In some cases, these processes require much more and specific information than federal environmental reviews. Harmonizing state permitting requirements need not require lessening the rigor or authority of state reviews; instead, neighboring states can identify the

125. 42 U.S.C. § 4370m-8(d) (2022).

126. 16 U.S.C. § 824p(b) (2022).

127. Streamlining Interstate Transmission of Electricity or "SITE Act", S. 946, 118th Cong. (1st Sess. 2023), https://www.congress.gov/bill/118th-congress/senate-bill/946.

128. Clean Electricity and Transmission Acceleration Act of 2023, H.R.6747, 118th Cong. (1st Sess. 2023), https://www.congress.gov/bill/118th-congress/house-bill/6747.

129. *See* Appendix, case studies: 3. Boardman to Hemingway Transmission Line; 6. Hampton-Rochester-La Crosse Transmission System Improvement Project; 8. Sun Valley to Morgan Transmission Line Project; 9. Antelope Valley Station-Neset Transmission Line; 10. Central Ferry-Lower Monumental Transmission Line Project; 12. City of Tallahassee Southwestern Transmission Line; 13. Tropic to Hatch Transmission Line Project; 14. Barren Ridge Renewable Transmission Project; 16. Bemidji-Grand Rapids Transmission Line Project; 20. New England Clean Power Link; 26. Great Northern Transmission Line; 30. Cardinal-Hickory Creek Transmission Line Project; 31. Mona to Oquirrh Transmission Corridor Project; 34. Northern Pass Project; 35. Potomac-Appalachian Transmission Highline.

best of their distinctive processes to inform reforms that align between them and with federal permitting.

One example of effective harmonization between state and federal environmental reviews is in California under the California Environmental Quality Act (CEQA). The projects reviewed by Niskanen and CATF demonstrate multiple examples of joint EISs and Environmental Impact Reports (EIRs) prepared under NEPA and CEQA.[130] While CEQA's complexity can leave projects more vulnerable to litigation,[131] it provides an example of how state and federal processes can align, as there is the ability for joint CEQA/NEPA review and state agencies can serve as co-lead agencies under the NEPA process. However, CEQA processes include additional procedural rigor and substantive standards that should not be confused with the requirements for federal environmental review under NEPA and federal authorizations.

Incorporation by reference of state environmental review materials for purposes of federal environmental reviews should also be used as appropriate, following proper validation and verification.[132] For example, in the ***Hampton-Rochester-La Crosse Transmission System Improvement Project***, the Rural Utilities Service (RUS) incorporated by reference information from the Minnesota and Wisconsin EISs in preparing its final EIS.[133]

Project-specific MOUs between state and federal permitting authorities can also help to align processes and tailor coordination to particular needs. While MOUs will not fix all underlying issues in coordination, developing cross-state MOUs requires the type of deeper examinations of state processes that can help identify and routinize areas of alignment between state permitting processes.[134] States should also take advantage of opportunities to participate in FAST-41 under an MOU. *See above* Section B.2.b. So far, no state has opted to do so for a transmission project.

To avoid lengthy sequential review processes, states should revise their need and environmental review processes to be concurrent with federal reviews. In Oregon, for example, the state's siting process requires a final route be determined before their review can begin, greatly extending permitting timelines for projects that also undergo federal review like the ***Boardman to Hemingway Transmission Line***.[135] Many other states lack such requirements. Another example of streamlining state and federal reviews would be exempting projects that receive thorough federal environmental review from the state environmental review process.[136] Additionally,

130. *See, e.g.,* Appendix, case studies: 18. Tehachapi Renewable Transmission Project and 36. San Luis Transmission Project.

131. Whitney Hodges, 2023 Year-in-Review CEQA Litigation, 14 NAT'L L. REV. 73 (Jan. 29, 2024), https://www.natlawreview.com/article/2023-year-review-ceqa-litigation ("Despite repeated attempts at reform by the Legislature, [CEQA] continues to be a minefield for those assigned with the herculean task of complying with the law's myriad of directives."); Perkins Coie LLP, Governor Newsom Proposes CEQA Reform (May 22, 2023), https://www.perkinscoie.com/en/news-insights/governor-newsom-proposes-ceqa-reform.html. To promote efficient and effective environmental reviews, the CEQ and the California Governor's Office of Planning and Research jointly issued a Handbook for Integrating California State and Federal environmental reviews. NEPA & CEQA, *Integrated Federal and State Environmental Reviews* (Feb. 2014), https://ceq.doe.gov/docs/ceq-publications/NEPA_CEQA_Handbook_Feb_2014.pdf.

132. 40 C.F.R. § 1501.12 (2023).

133. *See* Appendix, for relevant case study: 6. Hampton-Rochester-La Crosse Transmission System Improvement Project.

134. For example, Massachusetts, Rhode Island, and Connecticut entered into an MOU to coordinate their selection of offshore wind projects to maximize regional benefits and reduce costs. This kind of coordination could serve as a model for interstate coordination on transmission. *See* Conn., R.I., Mass., *Memorandum of Understanding on Offshore Wind Multi-State Coordination* (Oct. 3, 2023), https://energy.ri.gov/sites/g/files/xkgbur741/files/2023-10/MA-RI-CT%20Offshore%20Wind%20Procurement%20Collaboration%20Memorandum%20of%20Understanding%20--%20Final%2010-3-23%20CEM%20Sig%5B45%5D.pdf. See also CEQ, in collaboration with states and local jurisdictions that have environmental review processes, has been preparing memoranda which compare and contrast state and local environmental review requirements with NEPA requirements. As CEQ notes, the memoranda are "designed to...find opportunities to realize efficiencies through collaboration with state and local governments by aligning, where appropriate, combining the environmental review process, https://ceq.doe.gov/laws-regulations/States.html (last visited Mar. 13, 2024).

135. *See* Appendix, for relevant case study: 3. Boardman to Hemingway Transmission Line.

136. For example, a bill introduced during Oregon's 2024 legislative session would have excluded renewable energy facilities or transmission lines proposed wholly on federal lands and subject to NEPA review from additional state-level review. See HB 4090, 82nd Legislative Assembly (Oregon, 2024), https://olis.oregonlegislature.gov/liz/2024R1/Measures/Overview/HB4090.

there are ongoing discussions regarding the degree to which a federal need designation can be effective in moving a project forward.[137]

Finally, to support successful state-federal harmonization, Congress and the federal agencies should provide support to states to participate in the federal permitting process and/or to states that incorporate national needs into their siting and permitting processes. *See* Recommendation 2.1.

d. Recommendation 2.4: The Permitting Council should work with CERPOs to advance projects and coordinate with and support local authorities

Given the balkanization of authority over interstate transmission lines, there is a clear need for centralized federal transmission leadership to coordinate and support states, Tribes, and local authorities along the permitting and approvals process. The Permitting Council should take advantage of existing positions within agencies to support this effort. Specifically, the Council should work with each agency's CERPO to advance transmission projects.

Federal agencies should not sit passively during the environmental review process for transmission lines; instead, they should take a leading role and use NEPA as a tool to inform other decision-makers and the public about transmission projects. The essential NEPA function of providing information to states, Tribes, and other decision-makers provides an opportunity for CERPOs, the Permitting Council, and other agency staff to support local authorities in making timely related permitting decisions.

3. Improving the Environmental Review and Permitting Process

The NEPA process is intended to support informed federal decision-making and guarantee that information on the environmental effects of major federal actions is made available to a larger audience in the decision-making process. NEPA's requirements for information sharing have made NEPA the foundation of federal coordination and assessment of environmental impacts of major federal actions. Decades of NEPA implementation have also shown the importance of NEPA-driven coordination with the communities that infrastructure is intended to serve, creating a framework for developing greater social license for major infrastructure projects and identifying ways to mitigate the impacts of projects that are ultimately built.

While upholding these important goals and purposes of NEPA, there are opportunities to improve efficiencies in the federal permitting process. As found through Niskanen and CATF's in-depth review of 37 transmission projects,[138] supporting data analysis of the federal environmental transmission permitting process, and conversations with transmission stakeholders,[139] purposeful and collaborative pre-planning efforts can lead to a more efficient NEPA process. This includes pre-application engagement between developers and agencies to reduce overall project timelines. As one example, Minnesota Power, the developer of the ***Great Northern Transmission Line***, a 220-mile, 500 kV line,[140] conducted extensive outreach with federal, state, and local agencies, Tribal governments, and landowners along the proposed routes prior to filing applications with the Minnesota Public Utility Commission and DOE for a Presidential Permit required for crossing international borders.[141] This developer's approach to stakeholder engagement demonstrates that pre-planning and early collaboration is an important component

137. For example, the District Court for the Middle District of Pennsylvania issued a decision in December 2023 limiting state authority to deny transmission projects that a Regional Transmission Organization had determined were needed. *See Transcource Pennsylvania, LLC v. Steven M. Defrank*, et al, 1:21-CV-01101 (M.D. Pa. Dec. 6, 2023), https://casetext.com/case/transource-pa-llc-v-defrank.

138. *See* Appendix, List of Transmission Line Case Studies for in-depth project reviews.

139. "Transmission stakeholders" refers to transmission permitting experts, transmission developers, federal officials with knowledge of and experience in transmission siting and permitting, and representatives from Tribal entities and utilities.

140. *See* Appendix, for relevant case study: 26. Great Northern Transmission Line.

141. *See* Dep't of Energy Grid Deployment Off., *Presidential Permits*, https://www.energy.gov/gdo/presidential-permits (last visited Mar. 13, 2023).

of an efficient permitting process; there were only three years[142] from the issuance of an NOI to prepare an EIS to the start of project construction.[143] Further, pre-application work can assist in building stakeholder relationships that mitigate conflict in advance of formal federal review. Transparent processes (*see above* Recommendation 1.4) can provide additional clarity to all stakeholders.

Implementation of these recommendations does not require legislative changes to NEPA. Instead, agencies should take advantage of existing processes and authorities, including through associated rulemakings.[144] Fuller use of already-established mechanisms to carry out the below proposals will result in a more coordinated, efficient, and inclusive environmental review and permitting process.

a. Recommendation 3.1: Agencies and developers should conduct early, sustained, and meaningful stakeholder outreach [145]

Early, sustained, and meaningful stakeholder outreach is critical to improving project design and identifying and resolving potential conflicts that can create delays in transmission development. Done well, pre-application stakeholder outreach that occurs before the formal start of the NEPA process can increase the efficiency of permitting processes, and the outreach and information-sharing requirements of NEPA itself further support efficient timelines. In particular, developer coordination and engagement with Tribal communities early in the project design process can help ensure mutually beneficial outcomes. Projects that fail to engage in meaningful outreach are exposed to avoidable opposition and delays that slow timelines.

As previously noted, the ***Great Northern Transmission Line*** provides an example where early and meaningful engagement improved permitting outcomes. This project was planned to cross the U.S.-Canada border near Roseau, Minnesota and continue on to Grand Rapids, Minnesota. In its pre-filing process, the project developer, Minnesota Power, proposed routes that it developed through 75 voluntary meetings and other outreach forums over a five-year period.[146] The route that emerged at the end of the lengthy stakeholder engagement process had been modified several times to accommodate stakeholders and received letters of support from counties bordering the project and the Red Lake Band of Chippewa Indians, whose land would also border the proposed project.[147] The resulting federal permitting timeline was comparably quick. After the publication of an NOI in June 2014, it only took until November 2016 for an ROD to be released. Without this up-front stakeholder engagement, the transmission line could have been mired in more serious and time-consuming opposition and litigation.[148]

Timely, meaningful engagement with impacted communities must be conducted as part of project planning, approval, and post-implementation monitoring. It is also crucial to emphasize the distinct government-to-government responsibilities of federal agencies to ensure robust engagement through the permitting process when consulting with Tribes on projects that may impact natural and cultural

142. Compared with an average of 4.3 years as indicated by findings from our data analysis, *See* Section C.

143. MINN. STAT. § 216E.03(Subd. 3a, Subd3b), requires any utility that is planning to file an application for a route permit with the Minnesota PUC for a new transmission project to notify local governmental officials within a possible route of the existence of the project and the opportunity for a pre-application meeting.

144. Of course, keeping in mind the pending Supreme Court case that will likely impact *Chevron* deference to agency decision-making. *Loper Bright Enters., Inc. v. Raimondo,* 45 F.4th 359 (D.C. Cir. 2022), *cert. granted in part,* 2023 WL 3158352 (2023) (granting the petition as to Question 2: "Whether the Court should overrule Chevron or at least clarify that statutory silence concerning controversial powers expressly but narrowly granted elsewhere in the statute does not constitute an ambiguity requiring deference to the agency.").

145. *See* Appendix, case studies: 1. Southline Transmission Line Project; 15. Hooper Springs Transmission Project; 17. Sigurd to Red Butte Transmission Line Project; 21. SunZia Southwest Transmission Project; 26. Great Northern Transmission Line; 28. Ten West Link Transmission Line Project; 33. Devers-Palo Verde No. 2 Transmission Line; 37. Plains and Eastern Clean Line.

146. Minn. Elec. Transmission Plan., Transmission Projects Report 2013 (Nov. 1, 2013), https://www.minnelectrans.com/documents/2013_Biennial_Report/html/Ch_4_Public_Participation.htm.

147. Eleanor Stein & Mike O'Boyle, *Siting Renewable Generation: The Northeast Perspective* (March 2017), https://energyinnovation.org/wp-content/uploads/2020/01/siting-renewable-generation.pdf.

148. *See* above note 83.

resources. State and local agencies can coordinate with Tribal agencies, including through NHPA consultations involving state and Tribal Historic Preservation Officers, and applicants are encouraged to coordinate with Tribal agencies with jurisdiction or special expertise regarding the effects of their proposed actions and alternatives. However, coordination on environmental review under NEPA or consultation under NHPA Section 106 should not be confused with the sovereign authorities of Tribes to consult with federal agencies on a government-to-government basis.[149]

Transmission developers do many studies pre-application, but historically Tribes have only been involved or engaged once the formal study begins. In some cases, agency consultation issues are to blame—for example, our research uncovered that agencies have wrongly told developers not to talk to Tribes prior to the commencement of the formal consultation period. Agencies should be resourced and empowered to invest in capacity-building programs to support agency personnel and communities' ability to meaningfully participate. Implementation of the NEPA process must prioritize early, robust, and responsive stakeholder outreach as an essential aspect, ensuring an efficient and timely permitting process.

b. Recommendation 3.2: Agencies should implement robust pre-filing processes [150]

Pre-filing processes provide an opportunity for the applicant and agency to have detailed interactions before the official commencement of environmental review. The key purposes of pre-filing are: 1) to allow an agency and applicant to discuss the application requirements to create a common understanding of what must be filed, and 2) to allow an applicant to vet its project with the agency before filing so that the agency can identify potentially significant problems with the project.

FERC has recognized the value of pre-filing processes in issuing certificates for natural gas pipelines, and encourages pre-filing procedures for all major pipelines, noting that it "reduces the time it takes to develop the record … while ensuring the highest levels of environmental protection and public participation."[151] FERC has found that pre-filing "provides an opportunity for constructive discussions about potential issues and environmental concerns, and early consideration of alternative pipeline routing."[152] FERC adds that, if used effectively, the pre-filing process "can streamline the review once an application is filed. It allows the Commission to focus on any remaining significant issues, and to make more timely decisions."[153] As part of its 2023 Notice of Proposed Rulemaking on the siting of interstate electric transmission facilities, FERC has proposed to revise its policy that the Commission's pre-filing processes must begin at least one year after the filing of relevant state siting applications in NIETCs, acknowledging that federal and state pre-filing processes beginning simultaneously can eliminate an unneeded delay.[154]

A recent proposal to support pre-filing procedures is DOE's proposed Coordinated Interagency Transmission Authorizations and Permits (CITAP) Program.[155] The CITAP Program would improve the IIP Process, make participation in the IIP Process mandatory for a permitting decision from DOE pursuant to the 2023 MOU (see Section B.2.b),

149. Exec. Order No. 13175, 65 Fed. Reg. 67249 (Nov. 9, 2000); White House, *Memorandum for the Heads of Executive Departments and Agencies on Uniform Standards for Tribal Consultation* (Nov. 30, 2022), https://www.whitehouse.gov/briefing-room/presidential-actions/2022/11/30/memorandum-on-uniform-standards-for-tribal-consultation/ ; https://www.achp.gov/government-to-government (last visited Mar. 13, 2024).

150. *See* Appendix, case studies: 26. Great Northern Transmission Line; 33. Devers-Palo Verde No. 2 Transmission Line.

151. FERC, Suggest Best Practices for Industry Outreach Programs to Stakeholder 1, 3 (Jul. 2015), https://www.ferc.gov/sites/default/files/2020-04/stakeholder-brochure.pdf.

152. *Id.* at 17.

153. *Id.*

154. *See* Applications for Permits to Site Interstate Electric Transmission Facilities, 88 Fed. Reg. 2770 (Jan 17, 2023).

155. *See above* note 73, 88 Fed. Reg. 55826.

and set milestones and deadlines for the review of authorizations and environmental reviews.[156]

Following FERC and DOE's lead, agencies making decisions about transmission should implement agency-specific pre-filing processes and encourage applicants to opt in to pre-filing where appropriate.[157] Agencies are best situated to know what they need from an applicant and whether a project presents a problem that should be dealt with before an application is filed. For this reason, there is not necessarily an advantage to standardizing the pre-filing process across different agencies, although there should be predictability and transparency in what the pre-filing process requires.[158] Some amount of standardization at this stage can facilitate coordination at later stages. CEQ can assist this effort by issuing pre-filing guidance specific to transmission. *See below*, Recommendation 3.3. Pre-filing processes should also be supported with sufficient investments in agency capacity and coordination. *See above* Recommendation 1.3.

Moreover, to maximize the efficacy and efficiency of pre-filing processes, it is essential that these procedures are designed to complement, rather then replicate, the formal permitting or application processes. By focusing on early identification and resolution of potential issues, pre-filing should streamline the subsequent stages of project approval without introducing unnecessary redundancies. This approach ensures a pre-filing phase adds value by fostering a more collaborative, informed, and efficient path through the regulatory landscape, ultimately benefiting both the agency and the applicant by saving time and resources.

c. Recommendation 3.3: Developers and agencies should engage in early and collaborative identification of alternatives to be analyzed in an environmental impact statement (EIS) [159]

The consideration of alternatives is the heart of the environmental analysis of a proposed project. Identifying and evaluating alternatives that meet a project's purpose, need, and technical requirements is time- and resource-intensive. Evidence from the transmission projects evaluated by Niskanen and CATF demonstrates that project alternatives should be identified as early as is feasible in a collaborative process that includes relevant federal agencies, the project developer, state and local officials, Tribes, relevant stakeholders, and the public. This facilitates the permitting process by identifying the least contentious alternatives early in the planning process, reducing the likelihood of delay from project opposition. *See also* Recommendation 3.1. That, in turn, creates a strong foundation for the preparation of the EIS and subsequent permitting actions based on the environmental analysis.

For example, Southline Transmission, LLC, based on a series of public meetings, routing workshops, and meetings with local, state, and other federal agencies prior to developing the ***Southline Transmission Line Project***, published a project routing study. Many different route segments were identified and analyzed. This process resulted in two alternatives for the new build section of the project (the other section of the project would upgrade an existing transmission line owned by the Western Area Power Administration [WAPA]). Southline presented the two alternatives to the BLM and WAPA, the joint lead agencies in the preparation of the EIS.

156. *Id.* at 55828.

157. FERC in early 2023 issued a Notice of Proposed Rulemaking to update backstop siting authority that would, if adopted, allow developers to start pre-filing process with FERC at the same time they start state permitting process (cutting down on delays if backstop siting ultimately becomes primary). *See above* note 154, 88 Fe. Reg. 2770.

158. For example, the USDA Rural Utilities Service requires applicants to submit special preliminary studies when applying for financing assistance for classes of electric generation and/or transmission projects that require preparation of an EIS. These preliminary studies are the Alternative Evaluation Study, the Site Selection Study and the Macro-Corridor Study. 7 C.F.R. § 1794.51(c) (2024).

159. *See* Appendix, case studies: 2. TransWest Express Transmission Project; 11. Vantage to Pomona Heights Transmission Line Project; 15. Hooper Springs Transmission Project; 18. Tehachapi Renewable Transmission Project; 21. SunZia Southwest Transmission Project; 22. Gateway South Transmission Project-Segment F; 36. San Luis Transmission Project.

Because WAPA and BLM participated in Southline's routing study and public outreach, they each understood why various route segments were selected or rejected. Both agencies analyzed the Southline alternatives and used the NEPA process to identify reasonable, technically and economically feasible alternatives.[160] As stated by WAPA in its ROD, "[d]ue to Southline's thorough routing process, extensive stakeholder outreach, and early route screening with Western and the BLM, agency alternatives developed through the NEPA process resulted in only small route variations which could potentially reduce or avoid local resource conflicts."[161]

Project developers can proactively initiate the investigation of potential alternatives themselves.[162] Agencies can lead early evaluation of project alternatives by engaging with project sponsors and by adopting practices such as the Macro-Corridor Study, a preliminary study that USDA's RUS requires applicants to submit in anticipation of developing an EIS.[163] CEQ can also support these efforts by developing guidance encouraging early and collaborative identification of alternatives.

d. Recommendation 3.4: Agencies should carefully expand categorical exclusions for transmission development

One means of accelerating transmission infrastructure delivery and decreasing project costs is to increase the efficiency of the environmental review and permitting process through the strategic and appropriate use of categorical exclusions. Appropriately using categorical exclusions with adequate environmental and community safeguards for much-needed transmission projects that are known to have no significant impacts is an important way for agencies to accelerate the deployment of transmission infrastructure. Categorical exclusions are not absolute, meaning that if the agency finds an extraordinary circumstance (e.g., identification of adverse effects on threatened or endangered species in the project area) exists and determines that the presumption of a categorical exclusion is overcome, an EA or EIS will be required. This extraordinary circumstances requirement provides a critical safeguard to the use of categorical exclusions where they would not be appropriate.

Available categorical exclusions should be expanded for more categories of projects within existing project rights-of-way that are known to have no significant impacts. Agencies should look for opportunities to establish or expand existing categorical exclusions for transmission development, where EIS-level review is unnecessary. As an example, a recently proposed rule from DOE would revise an existing categorical exclusion (B4.13, which applies to upgrading or rebuilding transmission lines that are approximately 20 miles in length or less) to exclude the mileage limitation.[164] DOE indicated that its experience with power line upgrades and rebuilds does not suggest that a particular mileage limit is a reliable threshold for whether a project has significant effects. Instead, the potential significance of environmental impacts from upgrading or rebuilding power lines more often depends on local environmental conditions, which well-designed definitions of and screening for extraordinary circumstances can safeguard against. Agencies should look to their existing categorical exclusions and, based on their institutional knowledge, consider how they can be thoughtfully expanded to increase the efficiency of environmental review without causing significant impacts to the environment or impacting public participation.

160. Southline Transmission Line Project Environmental Impact Statement, 81 Fed. Reg. 22076 (Apr. 14, 2016).

161. *Id.* at 22077.

162. As required under the FRA NEPA amendments, an EIS must consider a "reasonable range" of alternatives that includes a consideration of "any negative environmental impacts of not implementing the proposed agency action in the case of the no action alternative," signaling the benefits of agency action. 42 U.S.C. § 4332(2)(C) (2022).

163. *See* USDA Rural Dev., *Exhibit D-8: Guidance for Preparing a Macro-Corridor Study* (Sept. 2011) https://www.rd.usda.gov/sites/default/files/Macro-CorridorStudyGuidance.pdf.

164. National Environmental Policy Act Implementing Procedures, 88 Fed. Reg. 78681 (Nov. 16, 2023).

e. Recommendation 3.5: Agencies should expand the use of programmatic EIS (PEIS) reviews for transmission infrastructure projects, and Congress should ensure that agencies have sufficient capacity to do so [165]

CEQ's NEPA implementing regulations support the use of broader, programmatic environmental reviews that consider the impacts of programmatic federal actions; for example, actions occurring in the same geography, or actions with relevant similarities, including timing, impacts, implementation, or subject matter.[166] CEQ's NEPA regulations also encourage the use of "tiering" to increase the efficiency of environmental review, eliminate repetitive discussions, and focus on issues ripe for decision.[167] Tiering refers to citing earlier NEPA review documents to expedite project-specific environmental review.

For transmission development, a programmatic EIS (PEIS) can be used to identify potential environmental impacts that are common to electric transmission lines, such as viewsheds, migratory birds, and land-use changes. These reviews can be applied where common impacts of transmission development, given the location or nature of particular projects, are "well understood."[168] Programmatic reviews could also identify areas that are more (or less) conducive to transmission and identify potential mitigation measures to be applied on an individual project basis. For example, BLM has issued a draft PEIS to plan for utility-scale solar energy development on public lands throughout the West.[169] Under the draft's proposed alternative, BLM would amend its Western Solar Plan for public land management to make lands available for solar development that have minimal natural resource constraints (e.g., avoiding habitat for sensitive species), less than 10 percent slope, and are located within 10 miles of existing or planned transmission lines.[170] Once finalized, this PEIS will also provide a foundation for subsequent, tiered environmental reviews for individual solar projects.

As one potential approach, a transmission PEIS could be prepared alongside Independent System Operator/Regional Transmission Organization plans for transmission development. Additionally, agencies could expressly make PEIS data available to federal and non-federal permitting entities, including state and Tribal Historic Preservation Offices, for purposes of their own environmental reviews.[171]

Programmatic reviews are a significant investment of federal resources and so must still be implemented carefully to ensure there are subsequent benefits from improved and faster tiered reviews. For example, programmatic reviews that are likely to facilitate many future project-specific reviews are much more valuable than programmatic reviews with vague, small, or speculative future use. Agencies should consider how they can use their authority to conduct PEISs and do so where there are efficiency gains and where PEIS-level review is appropriate. Congress should provide sufficient funding to agencies to ensure data, staff, and other resources are available to prepare useful PEISs with sufficient levels of detail. Environmental reviews for specific transmission projects could then be tiered off of these PEISs.

165. *See* Appendix, case studies: 5. Susquehanna to Roseland Transmission Line; 7. Southwest Intertie Project-South.

166. 40 C.F.R. § 1502.4(b) (2024).

167. 40 C.F.R. § 1501.11 (2024).

168. Aspen Inst. Energy & Env't Program, *Building Cleaner, Faster: Final Report* 1 (2021), https://www.aspeninstitute.org/wp-content/uploads/2021/06/Building-Cleaner-Faster-Final-Report.pdf.

169. *See* BLM, *BLM National Register for Draft Utility-Scale Solar Energy Development PEIS/RMPA*, Document No. DOI-BLM-HQ-3000-2023-0001-RMP-EIS, https://eplanning.blm.gov/eplanning-ui/project/2022371/570 (last visited Mar. 13, 2024).

170. BLM, *Draft Programmatic Environmental Impact Statement for Utility-Scale Solar Energy Development*, Doc. No. DOI-BLM-HQ-3000-2023-0001-RMP-EIS, 2-40–2-47 (Jan. 2024), https://eplanning.blm.gov/public_projects/2022371/200538533/20102762/251002762/2023%20Draft%20Solar%20PEIS%20Volume%201%201-10-2024_508compliant.pdf.

171. Letter from Oceti Sakowin Power Authority to DOEon Comments to Docket DOE–HQ–2023–0050: Coordination of Federal Authorizations for Electric Transmission Facilities, at 4 (Oct. 2, 2023), https://www.regulations.gov/comment/DOE-HQ-2023-0050-0039.

f. Recommendation 3.6: DOE and FERC should minimize environmental review redundancy for the NIETC process

There is the potential for a duplication of efforts with respect to NEPA analysis and permitting review process for the use of the NIETC process—first for DOE's corridor designation process, and subsequently through FERC's siting decision for a project through the DOE-designated corridor. This potential redundancy not only risks delaying the implementation of vital infrastructure projects but also imposes additional burdens on the agencies and stakeholders involved. However, given the different focus for each review, in some instances both agencies may need to conduct separate reviews. For the NIETCs that could benefit from coordinated NEPA reviews, existing regulations may help mitigate the risk of redundancy and delays.[172]

To reduce redundancy and truly capitalize on the benefits of the updated FPA, it is imperative that DOE, FERC, and other relevant agencies use existing regulatory authorities and practices to collaborate closely and streamline environmental review for FERC's siting decision, ensuring that environmental protections are upheld without unnecessary duplication of efforts. These existing tools—including tiering, FERC's participation as a cooperating agency in DOE's review, and FERC's adoption of DOE's review—allow DOE and FERC to collaborate directly on environmental reviews and FERC to use part or all of DOE's environmental review for a NIETC when subsequently permitting a transmission line. To the extent the environmental reviews actually address the same issues, these tools will allow FERC's analysis to proceed expeditiously.

172. *See, e.g.*, collaboration as cooperating agencies, 40 C.F.R. 1501.8; tiering, 40 C.F.R. 1501.11; incorporation by reference, 40 C.F.R. 1501.12; and adoption, 40 C.F.R. 1506.3

E. Conclusion

A significant scale up of high-voltage, long-distance transmission lines is critical to relieving congestion, keeping electricity affordable, interconnecting new clean resources, meeting decarbonization goals, and hardening the grid to weather and security threats. Many have identified the federal permitting process as one area of transmission development due for improvement, but little concrete evidence exists to support claims for suggested improvements.

Niskanen and CATF's analysis of transmission permitting data, deep dives on key transmission line permitting timelines and litigation, and interviews with developers, government officials, and other transmission stakeholders provide substantial evidence of the current challenges facing federal transmission permitting. These findings are foundational to the recommendations offered in this report to improve permitting while maintaining protections for communities and the environment.

Our recommendations reflect the need for clear, specific, and ongoing leadership from the President, at the White House, and within federal agencies. Maintaining transmission development as a national priority and identifying key actors responsible for permitting process coordination will pay dividends in resolving disputes, clarifying roles, and reducing review timelines. There are opportunities for existing bodies, like the Permitting Council, to lean into their role of coordinating agencies. Making transmission an ongoing national priority will require boosted agency capacity and the use of expertise on transmission infrastructure and joint-agency projects. Though many of our recommendations do not require legislative action, Congress can play a significant role by providing federal agencies with the funding needed to plan and deploy transmission and by consolidating permitting and siting authorities for interstate projects in the public interest.

Transmission lines requiring federal permits can pass through different states, Tribal Nations, and local jurisdictions, each with their own regulatory and community engagement processes. At the same time, they involve and impact communities, developers, and other stakeholders key to project success. Our recommendations posit that federal support of and alignment with state, Tribal, and local processes will improve the entire permitting process. This means federal agencies, in tandem with project developers, should conduct meaningful and sustained stakeholder outreach and help identify alternative routes with stakeholder input. Federal agencies should ensure that state, Tribal, and local entities have enough capacity to participate fully in the permitting process. And where appropriate and responsible, federal agencies can propose categorical exclusions or PEISs.

Finally, our data analysis, the interviews we conducted with stakeholders, and our recommendations show that more data transparency is needed across the board to fully understand permitting processes and timelines, and to promote accountability for each step. Existing tools like the Permitting Dashboard should be better leveraged to enable interagency coordination and provide visibility to the public. Better data collection can make digital tools under development today much more useful and comprehensive while enabling future advances.

Throughout the course of our work, several avenues for continuing research emerged. Though this report focused on federal matters, interviews and transmission line data show that harmonization of state regulatory requirements and processes is integral to the success of interstate transmission lines. More work can be done to investigate federal incentives to smooth out regulatory differences between states, or to investigate ways for states to better coordinate among themselves. It is also likely that there are federal authorities already in effect not explicitly identified in this report that can be leveraged to better the current permitting process.

Niskanen and CATF conducted this work in order to build an evidentiary record for transmission permitting reforms. In doing so, we hope to have provided

not just our own perspective on opportunities to improve the permitting process, but we also hope to have created a body of work from which others may reference, analyze, and draw solutions. We look forward to furthering this important conversation and hope our work prompts additional recommendations that go beyond our own.



Appendix: Transmission Case Studies

This Appendix contains a high-level summary of the 37 electric transmission lines analyzed for this report, with a focus on the National Environmental Policy Act (NEPA) timeline for each project. The goal in reviewing the transmission lines was to develop a thorough understanding of how each project navigated (or failed to navigate) the Federal regulatory process. In particular, the reviews focused on what factors led to efficient permitting, extended permitting, or cancelation of a proposed transmission line.

As noted in the report, there is no centralized database for transmission projects, and, as the authors of this Appendix found, locating permitting documents and decisions for individual projects can be extremely difficult. Although the Permitting Dashboard for Federal Infrastructure Projects[1] was developed to create a comprehensive inventory of environmental reviews and authorizations, in practice it does not provide sufficient information to document the complex, multi-layered permitting process that most electric transmission line developers experience.

Accordingly, the authors analyzed the 37 projects through a piecemeal information-gathering process by reviewing NEPA documents, developers' websites, court opinions, media and press releases, studies conducted by other interested entities and, where applicable, state permitting agency documents.

To prepare this portion of the analysis of transmission lines that underlies the report, the Niskanen Center and Clean Air Task Force contracted the services of Nils Nichols and Elisabeth Blaug, both of whom worked for many years at the Federal Energy Regulatory Commission (FERC) on legal and policy issues with respect to Federal permitting and siting issues for natural gas infrastructure and hydroelectric projects. Mr. Nichols and Ms. Blaug have extensive NEPA and environmental law backgrounds; Nils is the author of the 'NEPA Caselaw Digest' published by the American Bar Association, and Elisabeth worked for the White House's Council on Environmental Quality from 1991-1998.

1. Permitting Dashboard, Federal Infrastructure Projects, available at https://www.permits.performance.gov/.

List of Transmission Line Case Studies:

1. Southline Transmission Line Project
2. TransWest Express Transmission Project
3. Boardman to Hemingway Transmission Line
4. Big Eddy-Knight Transmission Project
5. Susquehanna to Roseland Transmission Line
6. Hampton-Rochester-La Crosse Transmission System Improvement Project
7. Southwest Intertie Project-South
8. Sun Valley to Morgan Transmission Line Project
9. Antelope Valley Station-Neset Transmission Line
10. Central Ferry-Lower Monumental Transmission Line Project
11. Vantage to Pomona Heights Transmission Line Project
12. City of Tallahassee Southwestern Transmission Line
13. Tropic to Hatch Transmission Line Project
14. Barren Ridge Renewable Transmission Project
15. Hooper Springs Transmission Project
16. Bemidji-Grand Rapids Transmission Line Project
17. Sigurd to Red Butte Transmission Line Project
18. Tehachapi Renewable Transmission Project
19. Teckla-Osage-Rapid City Transmission Line Project
20. New England Clean Power Link
21. SunZia Southwest Transmission Project
22. Gateway South Transmission Project-Segment
23. Surry-Skiffes Creek-Whealton Project
24. Kake to Petersburg Transmission Intertie Project
25. McClellanville Transmission Project
26. Great Northern Transmission Line
27. Champlain Hudson Power Express
28. Ten West Transmission Line Project
29. Gateway West Transmission
30. Cardinal-Hickory Creek Transmission Line Project
31. Mona to Oquirrh Transmission Corridor Project
32. Sunrise PowerLink Transmission Project
33. Devers-Palo Verde No. 2 Transmission Line
34. Northern Pass Transmission Line Project
35. Potomac-Appalachian Transmission Highline
36. San Luis Transmission Project
37. Plains & Eastern Clean Line

1. Southline Transmission Line Project

Main Takeaways

- Early collaboration among stakeholders facilitates the NEPA process.
- Once a project is permitted, it may take years to complete engineering, acquire needed lands, and finalize commercial arrangements before construction can begin.

Summary

Southline Transmission proposed to construct the Southline Transmission Line Project in New Mexico and Arizona.[2] The project would, among other things, upgrade 120 miles of the Western Area Power Administration's (WAPA) Saguaro-Tucson and Tucson-Apache 115-kV single-circuit transmission lines to a double-circuit 230-kV transmission line.[3] The project would include 225 miles of new 345-kV line between New Mexico and Arizona.[4]

In March 2011, Southline requested financing from WAPA.[5] Based on a series of public meetings, routing workshops, and engagement with local, State, and other Federal agencies prior to developing the project, Southline published a project routing study in April 2012.[6] The study analyzed different route segments designed to maximize the paralleling of existing linear infrastructure, maximize use of existing access roads, and identify and reject route segments with substantial environmental conflicts.[7] This resulted in a "Proponent Preferred" or northern route, and a "Proponent Alternative" or southern route for the New Build portion of the project.[8]

In April 2012, BLM issued a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) with WAPA as a joint lead agency.[9] BLM issued the draft EIS (DEIS) in March 2014[10] and the final EIS (FEIS) in November 2015.[11] WAPA issued its Record of Decision (ROD) on April 14, 2016, noting that due to Southline's April 2012 project routing study, alternatives developed through the NEPA process resulted in only small route variations from those originally proposed.[12] BLM issued its ROD on May 6, 2016.[13]

---

2. Southline Bureau of Land Management (BLM) Notice of Intent (NOI) to Prepare Environmental Impact Statement (EIS), 77 Fed. Reg. 20411, 20412 (Apr. 4, 2012), available at https://www.federalregister.gov/documents/2012/04/04/2012-8094/notice-of-intent-to-prepare-an-environmental-impact-statement-for-the-proposed-southline.

3. Southline DOE Draft Environmental Impact Statement (DEIS) at Abstract (Mar. 2014), available at https://www.energy.gov/sites/default/files/2014/04/f15/EIS-0474-DEIS-Volume1-2014.pdf.

4. NOI to Prepare EIS at 20412.

5. Southline WAPA Record of Decision (ROD), 81 Fed. Reg. 22076 (Apr. 14, 2016), available at https://www.federalregister.gov/documents/2016/04/14/2016-08620/southline-transmission-line-project-environmental-impact-statement.

6. *Id*. at 22077.

7. *Id*.

8. *Id*.

9. Southline NOI to Prepare EIS.

10. Southline DOE DEIS.

11. Southline DOE Final Environmental Impact Statement (FEIS) (Nov. 2015), available at https://www.energy.gov/sites/default/files/2015/11/f27/EIS-0474_FEIS_Front_Matter.pdf.

12. Southline WAPA ROD at 22077.

13. Southline BLM Press Release (May 6, 2016), available at https://www.blm.gov/press-release/blm-issues-final-approval-southline-transmission-line-project.

Southine obtained approval from Arizona and New Mexico in February 2017 and August 2017, respectively;[14] the New Mexico State Land Commission granted a right-of-way (ROW) for the project on August 30, 2016.[15]

Southline's website states that the project is in the final stages of development, which includes completing engineering, concluding land acquisition, and finalizing commercial arrangements.[16] Southline states that "all major...permits have been obtained" and it expects to commence construction in 2025 for Phase 1 (Hidalgo to Vail), which could be operational by 2027, with Phase 2 operational by 2028.[17] In October 2023, the Department of Energy (DOE) announced Phase 1 as one of three transmission lines selected as part of a $1.3 billion funding commitment through the Bipartisan Infrastructure Law's Transmission Facilitation Program (TFP).[18]

Timeline:

April 4, 2012	BLM NOI to prepare EIS
March 2014	BLM DEIS
November 2015	BLM FEIS
April 5, 2016	WAPA ROD
May 6, 2016	BLM ROD
August 30, 2016	New Mexico State Land Commission ROW
February 2017	Arizona completes siting process
August 2017	New Mexico completes siting process
October 2023	DOE selects Phase 1 as TFP project

2. TransWest Express Transmission Project

Main Takeaways:

- Agency coordination is paramount.
- Project scale impacts timelines: TransWest Express is an approximately 730-mile line crossing four states, 14 counties, 15 BLM field offices and five Forest Service offices, convening 49 cooperating agencies in the NEPA review.
- State and federal approvals issued on piecemeal or staggered basis resulted in delay.
- Two federal agencies worked at cross purposes resulting in litigation that delayed the project.

14. Southline Transmission Project 2022 WECC Annual Progress Report at 2 (Feb. 25, 2022), available at https://www.wecc.org/Reliability/Southline%202022%20APR.pdf.

15. "New Mexico Grants right-of-way (ROW) to Southline Transmission Project," KRWG (Aug. 30, 2016), available at https://www.krwg.org/regional/2016-08-30/new-mexico-grants-right-of-way-to-southline-transmission-project.

16. Project website, https://southlinetransmission.com.

17. *Id.*

18. Project website, https://southlinetransmission.com/southline-transmission-project-selected-as-part-of-a-1-3-billion-commitment-to-build-out-nations-electric-transmission/.

Summary

In November 2007, National Grid filed a ROW application with BLM to construct a transmission line from Wyoming to delivery points in the southwestern U.S., crossing Wyoming, Colorado, Utah, and Nevada.[19] The project includes approximately 730 miles of 600 kV transmission lines and two terminals, each containing an AC/DC converter station.[20] The segment between Wyoming and Utah will be a 3,000 MW direct current line; between Utah and Nevada will be two 1,500 MW alternating current segments.[21] In 2008, the project was transferred to TransWest Express, LLC, a newly formed affiliate of the Anschutz Corporation.[22] TransWest Express submitted amended ROW applications in December 2008 and in January 2010 to reflect changes in the proposed project.[23]

WAPA, which provided funding, and BLM, which issued a ROW permit, were joint lead agencies in preparing an EIS.[24] There were 49 cooperating agencies including the Forest Service and Bureau of Reclamation ("Reclamation").[25] The lead agencies issued the NOI to prepare an EIS on January 4, 2011.[26] The Notice of Availability (NOA) of the DEIS on July 3, 2013;[27] and the NOA of the FEIS on May 1, 2015.[28] BLM, WAPA, Reclamation, and the Forest Service issued separate RODs: BLM published its NOA of its ROD on December 16, 2016;[29] WAPA issued its NOA of its ROD on April 3, 2017;[30] and The Forest Service published its NOA of its ROD on May 31, 2017.[31] Reclamation issued its ROD on June 19, 2017.[32]

By January 2020, all federal, state, and county permitting decisions were complete.[33] By June 2021, TransWest Express secured nearly all of the ROWs for the route, including those over 99% of the privately owned lands.[34] The likely hold up of the ROW for the less than one percent of remaining privately owned lands appeared to be from litigation over a conservation easement issued in December 2014 by the Natural Resources Conservation Service (NRCS), part of the U.S. Department of Agriculture (USDA) that

19. TransWest Express BLM FEIS at 1-1 (May 2015), available at https://eplanning.blm.gov/public_projects/nepa/65198/78873/90724/07-Chapter1-Introduction.pdf.

20. Project website, https://www.transwestexpress.net/ ; TransWest Express application to BLM for ROW (Jan. 2010, as amended from Dec. 2008 application), available at https://eplanning.blm.gov/public_projects/nepa/65198/78891/90929/09-ROWapplication-01-2010.pdf.

21. TransWest Express application to BLM for ROW.

22. Project website, https://www.transwestexpress.net/about/history.shtml.

23. TransWest Express application to BLM for ROW.

24. TransWest Express BLM FEIS Introduction at 1-7 (May 1, 2015), available at https://eplanning.blm.gov/public_projects/nepa/65198/78873/90724/07-Chapter1-Introduction.pdf.

25. *Id.*

26. TransWest Express BLM NOI to prepare EIS, 76 Fed. Reg. 379 (Jan. 4, 2011), available at https://www.govinfo.gov/content/pkg/FR-2011-01-04/pdf/2010-33180.pdf.

27. TransWest Express BLM NOA of DEIS, 78 Fed. Reg. 40163 (July 3, 2013), available at https://www.federalregister.gov/documents/2013/07/03/2013-16009/notice-of-availability-of-the-draft-environmental-impact-statement-for-the-transwest-express-600-kv.

28. TransWest Express BLM NOA of FEIS, 80 Fed. Reg. 24962 (May 1, 2015), available at https://www.federalregister.gov/documents/2015/05/01/2015-10248/notice-of-availability-of-the-final-environmental-impact-statement-for-the-transwest-express-600-kv.

29. TransWest Express BLM NOA of ROD, 81 Fed. Reg. 91189 (Dec. 16, 2016), available at https://www.federalregister.gov/documents/2016/12/16/2016-30345/notice-of-availability-of-the-record-of-decision-for-the-transwest-express-transmission-project-in.

30. TransWest Express WAPA ROD, 82 Fed. Reg. 16196 (Apr. 3, 2017), available at https://www.federalregister.gov/documents/2017/04/03/2017-06479/transwest-express-transmission-project-environmental-impact-statement-doeeis-0450.

31. TransWest Express Forest Service ROD (May 31, 2017), available at https://www.fs.usda.gov/project/?project=42526.

32. TransWest Express Reclamation ROD (June 19, 2017), available at https://www.usbr.gov/lc/region/g2000/envdocs/Transwest_ROD_Vol_1_6-19-17.pdf.

33. Project website, https://www.transwestexpress.net/about/history.shtml.

34. *Id.*

encompassed 0.19 percent of the total conservation easement needed for the project.[35]

TransWest Express filed a lawsuit against the USDA on December 19, 2019 and a second amended complaint on March 20, 2020.[36] The parties ultimately reached a settlement in December 2021, which included as a condition that the private parties would grant easements only if NRCS approved applications to waive interest in the easements.[37] In 2022, TransWest Express finalized acquisition of the remaining private lands.[38] In September 2023, TransWest began construction in Wyoming.[39]

Timeline:

November 2007	National Grid files ROW application
July 2008	TransWest forms and acquires project
December 2008	TransWest amends preliminary BLM ROW application
January 4, 2011	BLM NOI to prepare EIS
July 3, 2013	BLM NOA of DEIS
May 1, 2015	BLM NOA of FEIS
December 16, 2016	BLM NOA of ROD
April 3, 2017	WAPA NOA of ROD
May 2017	Forest Service NOA of ROD
June 2017	Reclamation NOA of ROD
December 19, 2019	TransWest files lawsuit against NRCS/USDA
January 2020	All federal, state and county permits complete
June 2021	TransWest secures nearly all ROWs
December 2021	Parties to easement lawsuit file settlement
June 2022	TransWest finalizes acquisition of all private easements
September 2023	Construction activity starts in Wyoming

3. Boardman to Hemingway Transmission Line

Main Takeaways

- Oregon's approval processes are out of sync with the federal NEPA process; route selection is required before approval process can occur.
- Oregon issued approvals more than 3 ½ years after the federal government issued RODs.

35. *Transwest Express LLC v. Vilsack*, Civil Action No. 19-cv-3603-WJM-STV (D. Colo. Mar. 19, 2021).

36. *Id.* at 2.

37. "Developers, Landowner Strike Deal to Advance 2 Western US Power Lines," S&P Global (Dec. 29, 2021), available at https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/developers-landowner-strike-deal-to-advance-2-western-us-power-lines-68233278.

38. Project website, https://www.transwestexpress.net/about/history.shtml.

39. *Id.*

Summary

PacifiCorp, Bonneville Power Administration (BPA),[40] and Idaho Power Company proposed to develop a 290-mile, 500-kV line from the Longhorn substation near Boardman, Oregon to the Hemingway substation near Boise, Idaho.[41] The project will provide additional exchange capacity between the Pacific Northwest and the Intermountain West.[42] The line is part of PacifiCorps' Energy Gateway Transmission Expansion Project, a plan to build more than 2,300 miles of new high-voltage transmission lines, primarily in Wyoming, Utah, Idaho, and Oregon.[43]

The developers applied to BLM for a ROW on December 19, 2007.[44] BLM served as the lead agency alongside several other cooperating federal agencies, including the Army Corps of Engineers ("Corps of Engineers"), BPA, Navy, the U.S. Forest Service ("Forest Service"), Reclamation, and the U.S. Fish and Wildlife Service (FWS).[45] The agencies issued a NOI to prepare an EIS on July 27, 2010,[46] an NOA of the DEIS on December 18, 2014,[47] and the FEIS on November 28, 2016.[48] BLM issued the ROD authorizing a ROW in November 2017.[49]

The Forest Service issued its ROD on November 9, 2018, approving a special-use authorization for the line to cross lands administered by the Wallowa-Whitman National Forest.[50] The Navy issued its ROD on October 19, 2019, allowing for an easement on Navy-administered land.[51]

Oregon requires an energy project developer to obtain a Site Certificate from the Oregon Department of Energy's Energy Facility Siting Council (ESFC) to construct the project on state land.[52] For a linear facility, like a transmission line, the process requires the transmission line boundary be established (a route selected) and fully evaluated to determine if the project meets established standards.[53]

---

40. Bonneville Power Administration (BPA) is a federal agency within the U.S. Department of Energy (DOE) that owns and operates more than 15,000 circuit miles of high-voltage transmission lines in the Pacific Northwest. Agency website, https://www.bpa.gov/.

41. Project website, https://www.pacificorp.com/transmission/transmission-projects/energy-gateway.html.

42. Boardman to Hemingway BLM press release (Nov. 28, 2016), available at https://www.blm.gov/press-release/environmental-impact-statement-boardman-hemingway-project-released.

43. Project website.

44. Boardman to Hemingway BLM Revised NOI to prepare EIS, 75 Fed. Reg. 44008, 44009 (July 27, 2010), available at https://www.govinfo.gov/content/pkg/FR-2010-07-27/pdf/2010-18220.pdf.

45. Boardman to Hemingway BLM ROD at 51-52 (Nov. 2017), available at https://eplanning.blm.gov/public_projects/nepa/68150/125243/152690/20171117_Record_Of_Decision.pdf. 34% (100 miles) of the approved route crosses Federal land (29% BLM-administered land, 2% land administered by the U.S. Forest Service, less than 1% land administered by Reclamation, and 2% land administered by the U.S. Department of Defense. Boardman to Hemingway Project, BLM National NEPA Register, available at https://eplanning.blm.gov/eplanning-ui/project/68150/510.

46. Boardman to Hemingway BLM Revised NOI to prepare EIS.

47. Boardman to Hemingway BLM NOA of Draft EIS, 79 Fed. Reg 75834 (Dec. 19, 2014), available at https://www.federalregister.gov/documents/2014/12/19/2014-29770/notice-of-availability-of-the-draft-environmental-impact-statement-and-land-use-plan-amendments-for.

48. Boardman to Hemingway BLM NOA of FEIS, 81 Fed. Reg. 85632 (Nov. 28, 2016) available at https://www.energy.gov/sites/default/files/2016/11/f34/EIS-0507_BLM_NOA_FEIS.pdf.

49. Boardman to Hemingway BLM ROD.

50. Boardman to Hemingway Forest Service ROD Press Release (Nov. 20, 2018), available at https://www.fs.usda.gov/detail/wallowa-whitman/news-events/?cid=FSEPRD603547.

51. Boardman to Hemingway Navy NOA of ROD (Oct. 2, 2019), available at https://www.federalregister.gov/documents/2019/10/02/2019-21341/notice-of-availability-of-the-record-of-decision-for-department-of-the-navy-real-estate-actions-in.

52. "Facilities Under EFSE," Oregon Department of Energy, available at https://www.oregon.gov/energy/facilities-safety/facilities/pages/facilities-under-efsc.aspx.

53. Idaho Power 2023 Western Electricity Coordinating Council Annual Supplemental Progress Report at 3 (Feb. 22, 2023), available at https://www.wecc.org/Reliability/IPC%202023%20APR.pdf.

Idaho Power submitted its NOI to apply for a site certificate on August 28, 2008.[54] Throughout the next 10 years, Idaho Power engaged in community outreach and public meetings to obtain input and refine the proposed project.[55] In September 2018, Idaho Power finalized its application for a Site Certificate.[56] EFSC issued a final order on September 27, 2022.[57] In a separate proceeding, on June 29, 2023, the Oregon Public Utility Commission (PUC) issued a Certificate of Public Convenience and Necessity (PCN) authorizing the project.[58]

To date, project construction has not started; PacifiCorps' website states the project is "expected to be placed in-service in 2026."[59]

Timeline:

December 19, 2007	Developers jointly apply for BLM ROW
August 28, 2008	Idaho Power NOI to apply for Oregon Site Certificate
July 27, 2010	BLM NOI to prepare EIS
December 18, 2014	BLM NOA DEIS
November 28, 2016	BLM NOA FEIS
November 2017	BLM ROD
January 9, 2018	BLM ROW
September 2018	Idaho Power applies for Oregon Site Certificate
November 9, 2018	Forest Service ROD
October 19, 2019	Navy ROD
September 27, 2022	Oregon Site Certificate
March 29, 2023	Oregon Supreme Court upholds Site Certificate
June 29, 2023	Oregon PUC Certificate of PCN

4. Big Eddy-Knight Transmission Project

Main Takeaway

- A smaller project will facilitate streamlined review.

Summary

As approved, the Big Eddy-Knight Transmission Project is a 28-mile, 500-kV line between BPA's existing Big Eddy Substation in The Dalles, Oregon and a proposed new Knight Substation that would connect to an exist-

54. In the Matter of the Application for Site Certificate for the Boardman to Hemingway Transmission Line, Final Order on Application for Site Certificate, Energy Facility Siting Committee of the State of Oregon ("Oregon Siting Order") at fn. 9, available at https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2022-09-27-Final-Order-on-ASC.pdf.

55. *Matter of Site Certificate for Boardman to Hemingway Transmission Line*, 370 Or. 792, 797-798 (Or. 2023), available at https://cases.justia.com/oregon/supreme-court/2023-s069924.pdf?ts=1678831716.

56. Oregon Siting Order at 5.

57. Oregon Siting Order. On March 29, 2023, the Oregon Supreme Court upheld the Certificate. *Matter of Site Certification for the Boardman to Hemingway Line*, 525 P.3d 864 (Or. 2023).

58. Boardman to Hemingway Oregon PUC Approval Press Release (June 29, 2023), available at https://www.oregon.gov/puc/news-events/Documents/PR-202312.pdf.

59. PacifiCorp website, https://www.pacificorp.com/transmission/transmission-projects/energy-gateway.html.

ing BPA line near Goldendale, Washington.[60] The project will accommodate transmission service requests by increasing BPA's 500-kV transmission capability to move power from the east side of the Cascade Mountains to load centers on the west side of the Cascades and to major transmission lines serving California.[61]

On June 3, 2009, BPA, as lead agency, published a NOI to prepare an EIS; Washington Energy Facility Site Evaluation Council and the Oregon Energy Facility Siting Council also participated in preparing the EIS.[62] On December 10, 2010, they published the NOA of the DEIS.[63] BPA issued the FEIS in July 2011[64] and its ROD in September 2011.[65]

On July 11, 2012, BPA issued a supplemental analysis concluding that the construction of certain temporary structures and roads not previously evaluated did not represent a substantial change to the project.[66] On November 28, 2012, BPA issued another supplemental analysis examining information relevant to the existing transmission line's crossing of an area of high cultural importance that would be further impacted by construction of the project.[67] The supplemental analysis concluded that the potential to disturb cultural sites and adverse effects will be minimized by design adjustments, and that such design adjustments are not substantial changes to the actions described in the FEIS and the ROD.[68]

Construction of the project began in fall 2011 and underwent design adjustments in the latter half of 2012 and 2013 to accommodate newly discovered culturally sensitive sites along the route.[69] The project was energized in the fall of 2015.[70]

Timeline:

June 3, 2009	BPA NOI to prepare EIS
December 2010	BPA NOA of DEIS
July 2011	BPA NOA of FEIS
September 2011	BPA ROD
July 11, 2012	BPA issues supplemental environmental analysis
November 28, 2012	BPA issues second supplemental environmental analysis
Fall 2015	Project energized

60. Big Eddy–Knight BPA NOI to prepare an EIS, 74 Fed. Reg. 26679 (June 3, 2009), available at https://www.federalregister.gov/documents/2009/06/03/E9-12915/big-eddy-knight-transmission-project.

61. *Id.* at 26680.

62. Big Eddy-Knight BPA NOI to prepare an EIS.

63. Big Eddy-Knight NOA of DEIS, 75 Fed. Reg. 237 (Dec. 10, 2010), available at https://www.govinfo.gov/content/pkg/FR-2010-12-10/pdf/2010-31090.pdf.

64. Big Eddy-Knight FEIS (July 2011), available at https://www.bpa.gov/-/media/Aep/efw/nepa/completed/big-eddy-knight-trans-project/Final-EIS/Final-EIS-Vol-1/big-eddy-final-eis-volume-1.pdf.

65. Big Eddy-Knight BPA ROD (Sept. 2011), available at https://www.bpa.gov/-/media/Aep/efw/nepa/completed/big-eddy-knight-trans-project/big-eddy-rod.pdf.

66. Big Eddy-Knight BPA Supplemental Analysis for FEIS (July 11, 2012), available at https://www.bpa.gov/-/media/Aep/efw/nepa/completed/big-eddy-knight-trans-project/big-eddy-sa-01.pdf.

67. Big Eddy-Knight BPA Decision on Supplemental Analysis (Nov. 28, 2012), available at https://www.bpa.gov/-/media/Aep/efw/nepa/completed/big-eddy-knight-trans-project/big-eddy-sa-02.pdf

68. *Id.*

69. "BPA starts up new Northwest transmission line," News Channel 21 (Nov. 17, 2015), available at https://ktvz.com/news/2015/11/17/bpa-starts-up-new-northwest-transmission-line/.

70. BPA Website, available at https://www.bpa.gov/learn-and-participate/public-involvement-decisions/project-reviews/big-eddy-knight.

5. Susquehanna to Roseland Transmission Line

Main Takeaways

- Locating a transmission line on an existing transmission ROW can expedite a project.
- RTO directives can give projects an imperative and a timeline.
- Compensatory mitigation can assuage critical concerns over project impacts.

Summary

In 2007, PJM Interconnection identified a 500-kV transmission line between the Susquehanna Substation in Pennsylvania and the Roseland Substation in New Jersey as the solution for reliability violations forecasted as part of the FERC-approved Regional Transmission Expansion Plan process.[71]

In response, Pennsylvania Power and Light Electric Utilities (PPL) and Public Service Electric and Gas Company's (PSEG) jointly proposed the Susquehanna to Roseland Transmission Line, a 146-mile, 500-kV line that would link the Susquehanna and Roseland substations.[72] The project, which would upgrade an existing 230-kV line, crosses three units of the National Park Service (NPS): the Delaware Water Gap National Recreation Area, Appalachian National Scenic Trail, and Middle Delaware National Scenic and Recreational River in Pennsylvania and New Jersey.[73]

PPL filed an application with the Pennsylvania PUC on January 6, 2009,[74] which authorized the Pennsylvania portion of the line on January 14, 2010.[75] The New Jersey Board of Public Utilities' determination of need for the project was granted on February 11, 2010.[76]

The applicants filed for construction and ROW permits from the NPS to cross three NPS units covering a 4.5 mile section of the 146 mile line.[77] On January 21, 2010, NPS issued a NOI to prepare an EIS.[78] The FWS served as a cooperating agency.[79] NPS published the NOA of the DEIS on November 21, 2011.[80] In their January 30, 2012, comments on the DEIS, PPL and PSEG proposed as compensatory mitigation a Middle

71. Susquehanna to Roseland NPS ROD, 77 Fed. Reg. 63856, 63857 (Oct. 17, 2012), available at https://www.federalregister.gov/documents/2012/10/17/2012-25457/record-of-decision-for-the-final-environmentl-impact-statement-for-the-susquehanna-to-roseland.

72. "Interior Approves Susquehanna-Roseland Transmission Line," DOI Press Release (Oct. 10, 2012), https://www.doi.gov/news/pressreleases/Interior-Approves-Susquehanna-Roseland-Transmission-Line.

73. Susquehanna to Roseland NPS ROD at 63857.

74. Susquehanna to Roseland Pennsylvania PUC Press Release (Mar. 3, 2009), available at https://www.puc.pa.gov/press-release/2009/puc-schedules-two-public-input-hearings-on-proposed-ppl-susquehanna-roseland-transmission-line-siting-application.

75. "N.J. Susquehanna-Roseland Power Line is Approved in Pennsylvania," N.J. Star Ledger (Jan. 15, 2010), available at https://www.nj.com/news/2010/01/nj_power_line_approved_in_penn.html.

76. New Jersey PUC Press Release re Susquehanna-Roseland (Feb. 11, 2010), available at https://nj.gov/bpu/newsroom/news/pdf/20100211a.pdf.

77. Susquehanna to Roseland NPS NOI to prepare EIS, 75 Fed. Reg. 3486 (Jan. 21, 2010), available at https://www.govinfo.gov/content/pkg/FR-2010-01-21/pdf/2010-1094.pdf.

78. *Id*.

79. Susquehanna to Roseland NPS ROD, 77 Fed. Reg. 63856, 63871 (Oct. 17, 2012), available at https://www.federalregister.gov/documents/2012/10/17/2012-25457/record-of-decision-for-the-final-environmental-impact-statement-for-the-susquehanna-to-roseland.

80. Susquehanna to Roseland NOA of DEIS, 76 Fed. Reg. 72001 (Nov. 21, 2011), available at https://www.federalregister.gov/documents/2011/11/21/2011-29943/draft-environmental-impact-statement-for-the-susquehanna-to-roseland-500-kilovolt-transmission-line.

Delaware Mitigation Fund to preserve, restore and enhance NPS lands in the area.[81] NPS published an NOA of the FEIS on August 31, 2012[82] and issued the ROD on October 1, 2012.[83] In December 2012, NPS issued permits for the project and entered into a Memorandum of Agreement with the applicants that established a $66 million compensatory mitigation fund.[84]

On October 15, 2012, ten environmental groups filed a complaint in the U.S. District Court for the District of Columbia against NPS claiming violations of NEPA and other environmental laws.[85] In August 2013, the court granted summary judgment for NPS and dismissed as moot a request for a preliminary injunction.[86] The final portion of the project was energized in May 2015.[87]

Timeline:

2007	PJM determines project is needed
January 6, 2009	PPL requests authorization from PA PUC
January 14, 2010	PA PUC approves project
January 21, 2010	NPS NOI to prepare an EIS
February 11, 2010	NJ BPU approves project
November 21, 2011	NPS NOA of DEIS
August 2012	NPS NOA of FEIS
October 1, 2012	NPS ROD
October 15, 2012	Sierra Club et al. lawsuit opposing project
August 30, 2013	DC District Court grants summary judgment for NPS
May 2015	Project energized

6. Hampton-Rochester-La Crosse Transmission System Improvement Project

Main Takeaway

- State and federal coordination results in a more efficient process.

Summary

Dairyland Power Cooperative, Xcel Energy, Southern Minnesota Municipal Power Agency, Rochester Public Utilities, and WPPI Energy proposed a 345-kV transmission line (with a new 161-kV line component)

81. Susquehanna to Roseland FEIS Volume 3, Appendix L, Part 2 at L-276 to L-277, available at https://parkplanning.nps.gov/document.cfm?documentID=49285&parkID=220&projectID=25147.

82. Susquehanna to Roseland NPS NOA of FEIS, 77 Fed. Reg. 53226 (Aug. 31, 2012), available at https://www.federalregister.gov/documents/2012/08/31/2012-20697/final-environmental-impact-statement-for-the-susquehanna-to-roseland-500-kilovolt-transmission-line.

83. Susquehanna to Roseland NPS ROD (Oct. 1, 1012), available at https://parkplanning.nps.gov/showFile.cfm?projectID=25147&MIMEType=application%252Fpdf&filename=SRTRecord%5Fof%5FDecision%5FFINAL%2Epdf&sfid=143473.

84. *Nat'l Parks Conservation Ass'n v. Jewell*, 965 F. Supp. 2d 67, 72-73, 77 (D.D.C. 2013).

85. *Nat'l Parks Conservation Ass'n, et al.* Complaint (Oct. 15, 2012), available at https://earthjustice.org/wp-content/uploads/susquehannaroselandcomplaint101512.pdf.

86. *Nat'l Parks Conservation Ass'n v. Jewell*, 965 F. Supp. 2d 67, 77, fn. 3 (D.D.C. 2013).

87. "Susquehanna-Roseland Power Line, a $1.4 Billion Project, Switched On," LehighValleyLive.com (May 13, 2015), available at https://www.lehighvalleylive.com/breaking-news/2015/05/susquehanna-roseland_power_lin_4.html.

between Hampton, Minnesota, and La Crosse, Wisconsin.[88] The total length of the lines as approved is approximately 141 miles.[89]

On May 28, 2009, the Rural Utilities Service (RUS) published a NOI to prepare an EIS, noting that Dairyland requested financing for the project and that pursuant to the RUS procedures, Dairyland submitted an Alternative Evaluation Study and a Macro Corridor Study for the RUS review.[90] Based on these studies, the NOI identified preliminary proposed transmission line corridors and siting areas for substations to be considered in the EIS.[91]

On May 22, 2009, the Minnesota PUC granted a Certificate of Need.[92] On January 20, 2010, the applicant filed a Route Permit application,[93] which required a state-level EIS from the Minnesota Department of Commerce.[94] The Minnesota Department of Commerce published a DEIS in March 2011 and FEIS in August 2011.[95] The Minnesota PUC approved the Route Permit in May 2012.[96]

The Wisconsin Public Service Commission (PSC) and the Wisconsin Department of Natural Resources jointly prepared an EIS to inform the Wisconsin PSC's certificate determination.[97] The DEIS was published in November 2011 and the FEIS was published in January 2012.[98] The Wisconsin PSC approved the project on May 30, 2012.[99]

The RUS used information directly from the Minnesota and Wisconsin EISs in preparing its EIS.[100] The DEIS was issued in December 2011[101] and the FEIS was issued in July 2012.[102] The ROD was issued in January 2013.[103] Construction started in January 2013 and the project was completed in September 2016.[104]

---

88. Hampton-Rochester-La Crosse Rural Utilities Service (RUS) ROD at 3-4 (Jan. 2013), available at https://www.rd.usda.gov/sites/default/files/UWP_WI64-Dairyland_CapXHRLC_ROD.pdf.

89. *Id.* at 4.

90. Dairyland Power Cooperative NOI to Prepare EIS, 74 Fed. Reg. 25485, 25485-25486 (May 28, 2009), available at https://www.rd.usda.gov/sites/default/files/UWP_WI64-Dairyland_CapXHRLC_NOI05282009.pdf.

91. *Id.* at 25486.

92. See In the Matter of the Application of Great River Energy, Minnesota PUC Order (May 22, 2009, as modified Aug. 10, 2009), available at https://nocapx2020.info/wp-content/uploads/2009/08/finalorder20098-40627-01.pdf.

93. Minnesota Commerce Department website, Docket No. E002/TL-09-1448, available at https://mn.gov/commerce/energyfacilities/Docket.html?Id=25731.

94. Minn. Sta. 216B.2425; Minnesota Admin. Rules 7850.1900 Subpart 2; see Hampton-Rochester-La Crosse RUS FEIS, Executive Summary at 4 (July 2012), available at https://www.rd.usda.gov/sites/default/files/UWP_WI64-Dairyland_CapXHRLC_FEIS-Cover-TOC.pdf.

95. See Hampton-Rochester-La Crosse RUS FEIS, Executive Summary at 4-5.

96. Minnesota Commerce Department website, Docket No. E002/TL-09-1448.

97. Hampton-Rochester-La Crosse RUS ROD at 6 (Jan. 2013), available at https://www.rd.usda.gov/sites/default/files/UWP_WI64-Dairyland_CapXHRLC_ROD.pdf.

98. Hampton-Rochester-La Crosse RUS FEIS, Executive Summary at 4-5.

99. Dairyland Wisconsin PSC Final Decision, Appendix BB (May 30, 2012), available at https://www.rd.usda.gov/sites/default/files/UWP_WI64-Dairyland_CapXHRLC_FEIS-AppBB.pdf.

100. Hampton-Rochester-La Crosse RUS ROD at 3.

101. Hampton-Rochester-La Crosse RUS DEIS (Dec. 2011), available at https://www.rd.usda.gov/sites/default/files/UWP_WI64-Dairyland_CapXHRLC_DEIS-Cover-Sec1.pdf

102. Hampton-Rochester-La Crosse RUS FEIS.

103. Hampton-Rochester-La Crosse RUS ROD.

104. Minnesota Commerce Department website, Docket No. E002/TL-09-1448.

Timeline:

May 22, 2009	Minnesota PUC Certificate of Need
May 28, 2009	RUS NOI to prepare EIS
January 20, 2010	Dairyland applies for Route Permit
March 2011	Minnesota DEIS
August 2011	Minnesota FEIS
November 2011	Wisconsin DEIS
December 2011	RUS DEIS
January 2012	Wisconsin FEIS
May 2012	Minnesota approves Route Permit
May 30, 2012	Wisconsin approves certificate of PC&N
July 2012	RUS FEIS
January 2013	RUS ROD/construction starts
September 2016	Project completed

7. Southwest Intertie Project-South

Main Takeaway

- Adopting previous NEPA reviews facilitates streamlined decisions.

Summary

Idaho Power Company, and later Great Basin Transmission, proposed the Southwest Intertie Project (SWIP), a 520-mile, 500-kV transmission line from the Harry Allen Substation near Las Vegas, Nevada, to the Midpoint Substation, near Twin Falls, Idaho.[105] In July 1993, BLM prepared an EIS,[106] and in December 1994 issued a ROD for SWIP.[107] Great Basin Transmission decided to develop SWIP as two independent transmission projects: SWIP-South and SWIP-North.[108] SWIP-South comprises a 235-mile, 500-kV southern portion of SWIP, extending from the Harry Allen Substation near Las Vegas, Nevada, northward to the proposed ThirtyMile Substation near Ely, Nevada.[109]

In July 2008, BLM prepared an Environmental Assessment (EA) for SWIP-South, which analyzed the impacts of amending the previously approved ROWs for SWIP, and updated relevant areas evaluated in the 1994 SWIP EIS.[110] In July 2008, the BLM issued a Finding of No Significant Impact (FONSI).[111]

105. WAPA Southwest Intertie Project-South FEIS at 3 (Jan. 2010), available at https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/EIS-0443-FEIS-2010.pdf.

106. *Id.*

107. *Id.*

108. *Id.*

109. Southwest Intertie Project-South DOE Conditional Commitment for Project Financing ROD, 75 Fed. Reg. 65615 (Oct. 26, 2010), available at https://www.federalregister.gov/documents/2010/10/26/2010-27046/conditional-commitment-for-a-federal-loan-guarantee-for-project-financing-for-southwest-intertie.

110. Southwest Intertie Project-South BLM Environmental Assessment (EA) at 1-1 to 1-3 (July 2008), available at https://www.wapa.gov/wp-content/uploads/2023/04/SWIPEASection1.pdf.

111. Southwest Intertie Project-South BLM FONSI (July 2008), available at https://www.wapa.gov/wp-content/uploads/2023/04/SWIPEAFONSI.pdf.

In response to Great Basin's request for partial financing from WAPA, WAPA issued an EIS in January 2010 comprising a four-page cover letter in which it attached and adopted BLM's 1993 SWIP EIS and 2008 SWIP EA, finding that WAPA's financing would not change the environmental impacts.[112] Because WAPA later decided not to provide financial assistance for SWIP-South, DOE decided to conditionally support SWIP-South through DOE's its Loan Guarantee Program, and on October 26, 2010, published a ROD stating it based its decision on WAPA's January 2010 EIS (which had adopted BLM's 1993 EIS and 2008 EA).[113] In January 2014, the line, renamed One Nevada Transmission Line, was completed.[114]

Timeline:

July 1993	BLM issues EIS for entire SWIP project
December 1994	BLM ROD for entire SWIP project
July 2008	BLM EA for SWIP-South
January 2010	WAPA issues EIS that adopts BLM EIS/EA
October 26, 2010	DOE issues ROD that adopts WAPA EIS
January 2014	Project completed

8. Sun Valley to Morgan Transmission Line Project

Main Takeaways

- Projects within one state have fewer complications; a key federal permit was issued in less than 3 years from the start of the NEPA process.
- Small project means fewer complications; here, the transmission line was 38 miles.
- Early state approval is key: the state certificated the project route before the federal permitting process started.

Summary

In July 2008, Arizona Public Service (APS) filed an application with the Arizona Corporation Commission (ACC) proposing a 38-mile, 500-kV and 230-kV transmission line from the Sun Valley Substation to the Morgan Substation.[115] The lines would be constructed on monopole structures.[116]

In March 2009, the ACC certificated a route that modified the APS proposal to include the BLM lands

112. Southwest Intertie Project-South WAPA FEIS at 4 (Jan. 2010), available at https://www.wapa.gov/wp-content/uploads/2023/04/SWIPCoverSheet.pdf.

113. Southwest Intertie Project-South DOE ROD, 75 Fed. Reg. 65615, 65616 (Oct. 26, 2010), available at https://www.federalregister.gov/documents/2010/10/26/2010-27046/conditional-commitment-for-a-federal-loan-guarantee-for-project-financing-for-southwest-intertie.

114. NV Energy-Great Basin Joint Press Release (Jan. 23, 2014), available at https://www.lspower.com/wp-content/uploads/2017/05/2014-ms-js-on-line-dedication-final.pdf.

115. Proposed APS Sun Valley to Morgan BLM Newsletter at 1 (Feb. 2012), available at https://eplanning.blm.gov/public_projects/nepa/80018/107558/131807/newsletter-1.pdf.

116. Sun Valley to Morgan BLM NOA of DEIS, 77 Fed. Reg. 68816 (Nov. 2012), available at https://www.federalregister.gov/documents/2012/11/16/2012-27929/notice-of-availability-of-the-draft-environmental-impact-statement-for-the-proposed-sun-valley-to.

north of State Route 74.[117] APS filed a ROW application with the BLM for this route.[118] The BLM rejected the application in April 2010 because the Bradshaw-Harquahala Resource Management Plan for the area did not include a BLM-designated utility corridor along State Route 74.[119] APS appealed the decision and in December 2010 BLM agreed to prepare an EIS to consider an amendment to the Resource Management Plan to include a utility corridor along the requested route.[120]

The BLM published a NOI to prepare an EIS on April 11, 2011[121] and an NOA of the DEIS on November 16, 2012.[122] In June 2013, the BLM issued the FEIS[123] and issued its ROD granting a right-of-way on January 16, 2014.[124] The project was in-service as of April 2018.[125]

Timeline:

July 2008	APS submits proposal to ACC
March 2009	ACC certificates project route
April 2010	BLM rejects APS ROW application
December 2010	BLM agrees to prepare an EIS for the project
April 11, 2011	BLM NOI to prepare EIS
November 16, 2012	BLM NOA of DEIS
June 2013	BLM FEIS
January 16, 2014	BLM ROD
April 2018	Project in-service

9. Antelope Valley Station-Neset Transmission Line

Main Takeaway

- Project in a single state has fewer complications and results in faster permitting.

Summary

Basic Electric Power Cooperative proposed the Antelope Valley Station-Neset Line to meet the need for addi-

117. Proposed APS Sun Valley to Morgan BLM Newsletter at 1.

118. *Id.*

119. *Id.*

120. *Id.*

121. Sun Valley to Morgan BLM NOI to prepare EIS, 76 Fed. Reg. 20006 (Apr. 2011), available at https://www.federalregister.gov/documents/2011/04/11/2011-8551/notice-of-intent-to-prepare-an-environmental-impact-statement-for-the-proposed-sun-valley-to-morgan.

122. Sun Valley to Morgan BLM NOA of DEIS, 77 Fed. Reg. 68816 (Nov. 2012), available at https://www.federalregister.gov/documents/2012/11/16/2012-27929/notice-of-availability-of-the-draft-environmental-impact-statement-for-the-proposed-sun-valley-to.

123. Sun Valley to Morgan BLM FEIS (June 2013), available at https://eplanning.blm.gov/public_projects/lup/74804/99555/120625/Chapter_1_Introduction.pdf.

124. Sun Valley to Morgan BLM Press Release (Jan. 21, 2014), available at https://www.blm.gov/press-release/blm-approves-arizona-public-service-transmission-line-northern-maricopa-county.

125. APS Ten-Year Transmission System Plan at 6, available at https://www.aps.com/-/media/APS/APSCOM-PDFs/About/Construction-and-Power-Line-Siting/Power-Line-Siting/10-yearTransmissionSystemPlan2019.ashx.

tional transmission capacity in northwestern North Dakota.[126] The final project design included a 265-mile, 345-kV transmission line, a 13-mile, 230-kV line, and five new substations.[127] The project would connect the Integrated System to the high-voltage transmission grid in the upper Great Plains, managed by WAPA, at several locations.[128]

Basin requested financial assistance from the RUS, which served as the lead federal agency for the NEPA review.[129] WAPA and the Forest Service were cooperating agencies.[130] They published the NOI to prepare an EIS on November 2, 2011,[131] the DEIS in November 2012,[132] and the supplemental DEIS in December 2013 to evaluate project changes that resulted from an increase in the electric load forecast.[133] In May 2014, the RUS issued the FEIS.[134]

The North Dakota Public Service Commission approved the project in April 2014.[135] On September 22, 2014, the RUS published an NOA of its ROD.[136] WAPA issued its ROD on December 8, 2014.[137] Basin completed the project in 2017.[138]

Timeline:

November 2, 2011	RUS NOI to prepare an EIS
November 2012	RUS DEIS
December 2013	RUS supplemental DEIS
April 2014	North Dakota PSC approval
May 2014	RUS FEIS
September 22, 2014	RUS NOA of ROD
December 8, 2014	WAPA ROD
2017	Project completed

126. Antelope Valley Station-Neset RUS NOI to prepare EIS, 76 Fed. Reg. 67670 (Nov. 2011), available at https://www.federalregister.gov/documents/2011/11/02/2011-28309/basin-electric-power-cooperative-inc-notice-of-intent-to-prepare-an-environmental-impact-statement.

127. Antelope Valley Station-Neset RUS ROD, 79 Fed. Reg. 72677 (Nov. 2014), available at https://www.federalregister.gov/documents/2014/12/08/2014-28721/antelope-valley-station-to-neset-transmission-project-record-of-decision-doeeis-0478.

128. Id.

129. Antelope Valley Station-Neset RUS NOA of ROD, 79 Fed. Reg. 56557, 56558 (Sept. 22, 2014), available at https://www.federalregister.gov/documents/2014/09/22/2014-22412/basin-electric-power-cooperative-inc-antelope-valley-station-neset-345-kv-transmission-line-project.

130. Antelope Valley Station-Neset RUS ROD.

131 Antelope Valley Station-Neset RUS NOI to prepare EIS.

132. Antelope Valley Station-Neset RUS DEIS (Nov. 2012), available at https://www.energy.gov/sites/default/files/EIS-0478-DEIS-Volume1-2012.pdf.

133. Antelope Valley Station-Neset RUS Supplemental DEIS (Dec. 2013), available at https://www.rd.usda.gov/files/UWP_ND45-Basin_AVS-Neset_SDEIS.pdf.

134. Antelope Valley Station-Neset RUS FEIS (May 2014), available at https://www.rd.usda.gov/files/UWP_ND45-Basin_AVS-Neset_FEIS.pdf.

135. "PSC approves siting for a controversial western ND power line," Prairie Public News Room (Apr. 23, 2014), available at https://news.prairiepublic.org/energy-environment/2014-04-23/psc-approves-siting-for-a-controversial-western-nd-power-line.

136. Antelope Valley Station-Neset RUS NOA of ROD, 79 Fed. Reg. 56557 (Sept. 22, 2014), available at https://www.federalregister.gov/documents/2014/09/22/2014-22412/basin-electric-power-cooperative-inc-antelope-valley-station-neset-345-kv-transmission-line-project.

137. Antelope Valley Station-Neset WAPA ROD (Dec. 8, 2014), available at https://www.energy.gov/sites/default/files/2014/12/f19/EIS-0478-ROD-2014.pdf.

138. Antelope Valley Station-Neset Line, Power Technology, available at https://www.power-technology.com/marketdata/antelope-valley-station-neset-line-us/?cf-view.

10. Central Ferry-Lower Monumental Transmission Line Project

Main Takeaway

- A smaller project in a single state has fewer complications.

Summary

BPA proposed the Central Ferry-Lower Monumental Transmission Line Project in Washington, comprising a 38–40 mile, 500-kV line from BPA's new Central Ferry Substation in Garfield County, Washington west to BPA's existing Lower Monumental Substation in Walla Walla County, Washington.[139]

BPA served as the lead agency.[140] In furtherance of cooperative agreements between BPA and Washington, the Washington Energy Facility Site Evaluation Council also participated in preparation of the EIS.[141] The agencies issued a NOI to prepare an EIS on June 19, 2009,[142] the DEIS in July 2010,[143] and the FEIS in February 2011.[144] BPA issued the ROD in March 2011 approving the 38-mile line.[145]

In August 2011, BPA put the project on hold because of uncertainties regarding the readiness of customer utilities.[146] After an approximately two year delay, project construction moved forward, and the line was energized in late 2015.[147]

Timeline:

June 19, 2009	BPA NOI to prepare EIS
July 2010	BPA DEIS
February 2011	BPA FEIS
March 2011	BPA ROD
August 2011	BPA puts project on hold to reassess need
2013	BPA decides to move forward with project
Late 2015	Project energized

139. Central Ferry-Lower Monumental BPA DEIS at 5-1 to 5-2 (July 2010), available at https://www.energy.gov/sites/default/files/nepapub/nepa_documents/RedDont/EIS-0422-DEIS-2010.pdf.

140. Central Ferry-Lower Monumental BPA Page, available at https://www.bpa.gov/learn-and-participate/public-involvement-decisions/project-reviews/central-ferry-trans-line-project.

141. *Id.*

142. Central Ferry-Lower Monumental BPA NOI to prepare EIS (June 2009), available at https://www.govinfo.gov/app/details/FR-2009-06-19/E9-14448.

143. Central Ferry-Lower Monumental BPA DEIS (July 2010), available at https://www.energy.gov/sites/default/files/nepapub/nepa_documents/RedDont/EIS-0422-DEIS-2010.pdf.

144. Central Ferry-Lower Monumental BPA FEIS (Feb. 2011), available at https://www.energy.gov/sites/default/files/nepapub/nepa_documents/RedDont/EIS-0422-FEIS-2011.pdf.

145. Central Ferry-Lower Monumental BPA ROD (Mar. 2011), available at https://www.energy.gov/sites/default/files/nepapub/nepa_documents/RedDont/EIS-0422-ROD-2011.pdf.

146. National Wind Watch, "BPA to Resume Construction of Electricity Transmission Line" (Aug. 10, 2013), available at https://www.wind-watch.org/news/2013/08/10/bpa-to-resume-construction-of-electricity-transmission-line/.

147. BPA Website, available at https://www.bpa.gov/learn-and-participate/public-involvement-decisions/project-reviews/central-ferry-trans-line-project.

11. Vantage to Pomona Heights Transmission Line Project

Main Takeaway

- Early identification of a new alternative delayed the issuance by 2 years.

Summary

Pacific Power, a division of PacifiCorp, proposed the Vantage to Pomona Heights Transmission Line Project, a new 230-kV line that would extend approximately 40 miles from Yakima County, Washington to Grant County, Washington.[148]

In April 2008, Pacific Power submitted a request to BPA to interconnect the project to BPA's Vantage Substation.[149] In October 2008, Pacific Power filed ROW applications with the BLM and the Army Joint Base Lewis-McChord Yakima Training Center (JBLMYTC).[150] In April 2011, Pacific Power filed a ROW application with Reclamation.[151] Pacific Power filed updated applications with JBLMYTC in November 2013, and with the BLM and Reclamation in June 2016.[152] The BLM served as the lead federal agency, with twelve other public entities, including Reclamation and BPA, as cooperating agencies.[153]

The BLM published a NOI to prepare an EIS on January 5, 2010.[154] On January 4, 2013, the BLM issued the DEIS.[155] Comments on the DEIS identified a new alternative route, triggering a supplemental DEIS, which they issued in January 2015.[156] On October 21, 2016, BLM issued the FEIS.[157] In January 2017, Reclamation issued its ROD.[158] On October 16, 2017, BPA issued its ROD.[159] Project was completed in May 2020.[160]

Timeline:

2008	Pacific Power submits ROW applications
April 2008	Pacific Power files to interconnect with BPA
January 5, 2010	BLM NOI to prepare EIS

148. Vantage to Pomona Heights BPA ROD at 1 (Sept. 2017), available at https://www.bpa.gov/-/media/Aep/efw/nepa/completed/vantage-to-pomona/vantage-pomona-rod.pdf.

149. *Id.* at 2.

150. *Id.*

151. *Id.*

152. *Id.*

153. *Id.*

154. Vantage to Pomona Heights BLM NOI to prepare EIS, 75 Fed. Reg. 429 (Jan. 5, 2010), available at https://www.federalregister.gov/documents/2010/01/05/E9-31240/notice-of-intent-to-prepare-an-environmental-impact-statement-for-the-vantage-to-pomona-heights-230.

155. Vantage to Pomona Heights BLM DEIS (Jan. 4, 2013), available at https://www.bpa.gov/-/media/Aep/efw/nepa/completed/vantage-to-pomona/vantage-pomona-draft-eis.pdf.

156. Vantage to Pomona Heights BLM Supplemental DEIS (Jan. 2, 2015), available at https://www.bpa.gov/-/media/Aep/efw/nepa/completed/vantage-to-pomona/vantage-pomona-supp-draft.pdf

157. Vantage to Pomona Heights BLM FEIS (Oct. 21, 2016), available at available at https://www.bpa.gov/-/media/Aep/efw/nepa/completed/vantage-to-pomona/vantage-pomona-final-eis.pdf.

158. Vantage to Pomona Heights Reclamation ROD (Jan. 2017), available at https://www.usbr.gov/pn/programs/ea/wash/vantage/v2prod.pdf.

159. Vantage to Pomona Heights BPA NOA of ROD, 82 Fed. Reg. 48069 (Oct. 16, 2017), available at https://www.federalregister.gov/documents/2017/10/16/2017-22046/electrical-interconnection-of-the-vantage-to-pomona-heights-transmission-line-project.

160. Rocky Mountain Power letter at 352 (May 27, 2021), available at https://www.rockymountainpower.net/content/dam/pcorp/documents/en/rockymountainpower/rates-regulation/idaho/filings/case-no-pac-e-21-07/5-27-21-application-and-direct-testimony/PAC-E-21-07_RMP_GRC_Application_and_Direct_Testimony_REDACTED.pdf (noting: "The first work sequence to expand the Pomona Heights substation…").

April 2011	Pacific Power submits ROW application to Reclamation
January 4, 2013	BLM DEIS
November 2013	Pacific Power updates ROW application
January 2, 2015	BLM NOA of supplemental DEIS
June 2016	Pacific Power updates ROW application
October 21, 2016	BLM FEIS
January 13, 2017	Reclamation ROD
October 16, 2017	BPA ROD

12. City of Tallahassee Southwestern Transmission Line

Main Takeaways

- A small project within one state will result in more efficient environmental review.
- Unclear what happened to this project.

Summary

The City of Tallahassee proposed the 230-kV Southwestern Transmission Line that would connect the Hopkins-Crawfordville 230-kV line south of the Tallahassee Regional Airport with the existing BP-5 S Substation.[161] The project would be approximately eight miles long, of which 6.4 miles would be in the Apalachicola National Forest.[162] The portion of the project in the forest would be adjacent to an existing utility corridor currently under a Forest Service special use permit with Florida Gas Transmission Company.[163]

On October 14, 2010, the Forest Service issued a NOI to prepare a DEIS.[164] They published the NOA of the DEIS on December 23, 2011.[165] The Forest Service issued the FEIS in March 2012[166] and the ROD authorizing the issuance of a special use permit on March 16, 2012.[167] Further information about the final project status is not easily accessible in the public record.

Timeline:

October 14, 2010	Forest Service NOI to prepare EIS
December 23, 2011	Forest Service NOA of DEIS
March 2012	Forest Service FEIS
March 16, 2012	Forest Service ROD

161. City of Tallahassee Forest Service NOI to prepare EIS, 75 Fed. Reg. 63141, 63142 (Oct. 14, 2010), available at https://casetext.com/federal-register/apalachicola-national-forest-florida-city-of-tallahassee-230kv-southwestern-transmission-line.

162. *Id.*

163. *Id.*

164. *Id.*

165. City of Tallahassee Forest Service NOA of DEIS, 76 Fed. Reg. 80367 (Dec. 23, 2011), available at https://www.federalregister.gov/documents/2011/12/23/2011-32944/environmental-impacts-statements-notice-of-availability.

166. City of Tallahassee Forest Service FEIS (Mar. 2012), available at https://usfs-public.app.box.com/v/PinyonPublic/file/932486739933.

167. City of Tallahassee Forest Service ROD (Mar. 16, 2012), available at https://usfs-public.app.box.com/v/PinyonPublic/file/932484957550.

13. Tropic to Hatch Transmission Line Project

Main Takeaway

- Smaller project footprint has fewer permitting complications.

Summary

Garkane Energy Cooperative proposed a 138-kV line from a new East Valley Substation east of Tropic to the Hatch Substation along a 31-mile route.[168] The project would cross federal lands and therefore requires a Forest Service special use easement across the Dixie National Forest, a BLM ROW, a proposed amendment to the Grand Staircase-Escalante National Monument Management Plan, potential Bryce Canyon National Park issuance of a special park permit for a ROW, and Utah School and Institutional Trust Lands Administration issuance of a ROW.[169]

The Forest Service served as the lead agency, and the BLM and the NPS as cooperating agencies.[170] The agencies published a NOI to prepare an EIS on February 21, 2008,[171] the DEIS in December 2009,[172] and the FEIS in April 2011.[173] The Forest Service issued its ROD in April 2011.[174] The BLM published its NOA of the ROD on September 14, 2011.[175] Construction began in 2013 and the project was energized in 2019.[176]

Timeline:

February 21, 2008	BLM NOI to prepare an EIS
December 2009	BLM DEIS
April 2011	BLM FEIS
April 2011	Forest Service ROD
September 14, 2011	BLM NOA of ROD
2013	Construction commences
2019	Project energized

168. Tropic to Hatch Forest Service NOI to prepare EIS, 73 Fed. Reg. 9517, 9518 (Feb. 21, 2008), available at https://www.federalregister.gov/documents/2008/02/21/E8-3194/dixie-national-forest-ut-tropic-to-hatch-138kv-transmission-line-project.

169. Tropic to Hatch Forest Service NOA of FEIS, 76 Fed. Reg. 19744 (Apr. 8, 2011), available at https://www.federalregister.gov/documents/2011/04/08/2011-8062/final-tropic-to-hatch-138-kv-transmission-line-project-environmental-impact-statement-and-proposed.

170. Tropic to Hatch Forest Service NOA of FEIS, 76 Fed. Reg. 19744 (Apr. 8, 2011), available at https://www.federalregister.gov/documents/2011/04/08/2011-8062/final-tropic-to-hatch-138-kv-transmission-line-project-environmental-impact-statement-and-proposed.

171. Tropic to Hatch Forest Service NOI to prepare EIS.

172. Tropic to Hatch Forest Service DEIS, 74 Fed. Reg. 64660 (Dec. 8, 2009), available at https://www.federalregister.gov/documents/2009/12/08/E9-29227/draft-tropic-to-hatch-138-kv-transmission-line-project-environmental-impact-statement-and-draft.

173. Tropic to Hatch Forest Service FEIS, 76 Fed. Reg. 19744 (Apr. 8, 2011), available at https://www.federalregister.gov/documents/2011/04/08/2011-8062/final-tropic-to-hatch-138-kv-transmission-line-project-environmental-impact-statement-and-proposed.

174. Tropic to Hatch Forest Service ROD (Apr. 2011), available at https://permanent.fdlp.gov/gpo75708/47912_FSPLT2_050157[1].pdf.

175. Tropic to Hatch BLM NOA of ROD, 76 Fed. Reg. 56791 (Sept. 14, 2011), available at https://www.govinfo.gov/content/pkg/FR-2011-09-14/html/2011-23485.htm.

176. Garkane Energy Newsletter (Fall 2019), available at https://www.garkaneenergy.com/sites/default/files/documents/newsletters/fall%202019.pdf.

14. Barren Ridge Renewable Transmission Project

Main Takeaway

- Smaller project footprint within one state helps streamline the permitting process.

Summary

In February 2007, the Los Angeles Department of Water and Power (LADWP) filed a special use application with the Forest Service to cross the Angeles National Forest for the Barren Ridge Renewable Transmission Project in California, which would, as proposed: expand the existing Barren Ridge Switching Station and construct a new Haskell Canyon Switching Station; add 61 miles of new double-circuit, 230-kV transmission between the two switching station; upgrade the existing Barren Ridge-Rinaldi 230-kV line with larger capacity conductor wires for 76 miles between the Barren Ridge Switching Station and the Rinaldi Station; add 12 miles of new 230-kV line to be attached to existing towers between Haskell Canyon and the Castaic Power Plant.[177]

The proposed line would cross BLM and National Forest System lands.[178] The Forest Service and the BLM served as co-lead agencies for the EIS.[179] LADWP was the lead agency for the California Environmental Impact Report (EIR).[180] The BLM, Forest Service, and LADWP published a NOI to prepare a joint EIS/EIR on April 7, 2008.[181] They published the NOA of the DEIS/EIR on August 26, 2011[182] and the NOA of the FEIS/EIR on August 10, 2012.[183]

LADWP approved those components of the project under its jurisdiction in August 2012 and issued a Notice of Determination on September 26, 2012.[184] The BLM signed its ROD on September 24, 2012.[185] The Forest Service issued its ROD on June 14, 2013.[186] The project was placed in service on September 29, 2016.[187]

Timeline:

April 7, 2008	Forest Service and BLM NOI to prepare EIS
August 2011	Forest Service and BLM NOA of DEIS
August 2012	Forest Service and BLM NOA of FEIS
August 14, 2012	LADWP approves its project components

177. Barren Ridge Forest Service ROD at 1 (June 14, 2013), available at https://usfs-public.app.box.com/v/PinyonPublic/file/932114835794.

178. Barren Ridge Forest Service NOI to prepare an EIS, 73 Fed. Reg. 18734, 17835 (Apr. 7, 2008), available at https://www.federalregister.gov/documents/2008/04/07/E8-6897/angeles-national-forest-ca-ridgecrest-field-office-ca-barren-ridge-renewable-transmission-project.

179. *Id.*

180. *Id.*

181. *Id.*

182. Barren Ridge Forest Service NOA of DEIS, 76 Fed. Reg. 53453 (Aug. 26, 2011), available at https://casetext.com/federal-register/environmental-impacts-statements-notice-of-availability-228.

183. Barren Ridge Forest Service NOA of FEIS, 77 Fed. Reg. 47839 (Aug. 10, 2012), available at https://www.federalregister.gov/documents/2012/08/10/2012-19687/environmental-impacts-statements-notice-of-availability.

184. Barren Ridge Forest Service ROD at 2.

185. Barren Ridge LADWP EIR Addendum at 3 (Oct. 2018), available at https://clkrep.lacity.org/onlinedocs/2019/19-0419_misc_09-26-2019.0001.pdf.

186. *Id.*; Barren Ridge Forest Service ROD.

187. "LADWP Completes Barren Ridge Transmission Project," News Data (Sept. 29, 2016), available at https://www.newsdata.com/california_energy_markets/news_in_brief/ladwp-completes-barren-ridge-transmission-project/article_7442ebd5-e738-5697-a160-c58c2303e22b.html.

September 24, 2012	BLM ROD
September 26, 2012	LADWP Notice of Determination
June 2013	Forest Service ROD
September 2016	Project placed in service

15. Hooper Springs Transmission Project

Main Takeaways

- Agencies should identify potential issues as early as feasible while the NEPA process should identify important information that informs and results in project revisions. The later issues are identified, the longer the process takes.
- Here, the NEPA process took six years because route options/alternatives were revised several times.

Summary

BPA proposed the Hooper Springs Transmission Project comprising the following: 1) A new 138/115-kV Hooper Springs Substation; 2) a new 24-mile, 115-kV transmission line extending from the Hooper Springs Substation to a new BPA facility that will connect the new line to Lower Valley Energy's existing transmission system in Caribou County, Idaho; and 3) a new 0.2-mile, single circuit 138-kV transmission line extending from the Hooper Springs Substation to PacifiCorp's existing Threemile Knoll Substation to connect the new line to the regional transmission grid.[188]

In May 2009, BPA issued a preliminary EA which revealed that the proposed route crossed contaminated mining sites that are the subject of a Superfund Site Investigation; accordingly, BPA determined that an EIS was required.[189]

BPA served as the lead agency, with Forest Service, the BLM, and the Idaho Governor's Office of Energy Resources as cooperating agencies.[190] The agencies issued a NOI to prepare an EIS on July 8, 2010[191] and the DEIS in March 2013.[192] In May 2014, BPA issued a supplemental DEIS to evaluate an additional route option.[193] The agencies issued the FEIS in January 2015.[194] BPA issued its ROD in March 2015.[195] The Forest Service issued its ROD in February 2015.[196] The project was energized in October 2019.[197]

---

188. Hooper Springs BPA ROD at 1 (Mar. 2015), available at https://www.energy.gov/sites/default/files/2015/04/f21/EIS-0451-ROD-MAP-2015.pdf.

189. Hooper Springs BPA NOI to prepare EIS, 75 Fed. Reg. 39241, 39242 (July 8, 2010), available at https://www.govinfo.gov/content/pkg/FR-2010-07-08/pdf/2010-16622.pdf.

190. *Id.*

191. *Id.*

192. Hooper Springs BPA DEIS (Mar. 2013), available at www.energy.gov/sites/default/files/EIS-0451-DEIS-Volume1-2013_0.pdf.

193. Hooper Springs BPA Supplemental DEIS (May 2014), available at https://www.energy.gov/sites/default/files/2014/05/f15/EIS-0451-SDEIS_Vol1-2014.pdf.

194. Hooper Springs BPA FEIS (Jan. 2015), available at https://www.energy.gov/sites/default/files/2015/01/f19/EIS-0451-FEIS-2015.pdf.

195. Hooper Springs BPA ROD (Apr. 2015), available at https://www.energy.gov/sites/default/files/2015/04/f21/EIS-0451-ROD-MAP-2015.pdf.

196. Hooper Springs Forest Service ROD (Feb. 2015), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3829750.pdf.

197. Lower Valley Energy website, available at https://www.lvenergy.com/about-us/history/.

Timeline:

July 8, 2010	BPA NOI to prepare EIS
March 2013	BPA DEIS
May 2014	BPA supplemental DEIS
January 2015	BPA FEIS
February 2015	Forest Service ROD
March 2015	BPA ROD
October 2019	Project energized

16. Bemidji-Grand Rapids Transmission Line Project

Main Takeaway

- Single state, smaller footprint projects result in a more efficient process.

Summary

Minnkota Power Cooperative, Otter Tail Power Company, and Minnesota Power[198] proposed the Bemidji-Grand Rapids Transmission Line, an approximately 68-mile, 230-kV line between Bemidji, Minnesota and Grand Rapids, Minnesota.[199] The project will meet future electric demand and maintain electric transmission reliability standards.[200] It is part of CapX2020, which is a joint initiative of 11 transmission-owning utilities in Minnesota, North Dakota, South Dakota, and Wisconsin, formed to expand the electric transmission grid to ensure continued reliable service.[201]

Minnkota Power applied to the RUS for project financing.[202] The RUS and the State of Minnesota jointly served as lead agencies, with the Forest Service, Corps of Engineers, U.S. Bureau of Indian Affairs (BIA), and the Leech Lake Band of Ojibwe as cooperating agencies.[203] The RUS issued a NOI to prepare an EIS on July 18, 2008, noting it would prepare the EIS jointly with the Minnesota Department of Commerce, Office of Energy Security.[204] They issued the DEIS in February 2010.[205] They issued the FEIS in September 2010.[206] The RUS issued the ROD in November 2010.[207]

198. Bemidji-Grand Rapids RUS NOI to prepare EIS, 73 Fed. Reg. 41312 (July 18, 2008), available at https://www.federalregister.gov/documents/2008/07/18/E8-16493/minnkota-power-cooperative-inc-notice-of-intent-to-hold-public-scoping-meetings-and-prepare-an.

199. Bemidji-Grand Rapids RUS DEIS at ES-2 (Feb. 2010), available at https://www.rd.usda.gov/sites/default/files/UWP_ND20-Minnkota_BGR_DEIS.pdf.

200. *Id*. at ES-4.

201. Minnesota Electric Transmission Planning website, available at https://www.minnelectrans.com/documents/2009_Biennial_Report/html/Ch_6_Needs_Sec_6.2_Northwest_6.2.5.htm.

202. Bemidji-Grand Rapids RUS NOI to prepare EIS at 41313.

203. *Id*.

204. *Id*. at 41312.

205. Bemidji-Grand Rapids RUS DEIS (Feb. 2010), available at https://www.rd.usda.gov/sites/default/files/UWP_ND20-Minnkota_BGR_DEIS.pdf.

206. Bemidji-Grand Rapids RUS FEIS (Sept. 2010), available at https://www.rd.usda.gov/sites/default/files/UWP_ND20-Minnkota_BGR_FEIS.pdf.

207. Bemidji-Grand Rapids RUS ROD (Nov. 2010), available at https://www.rd.usda.gov/sites/default/files/UWP_ND20-Minnkota_BGR_ROD.pdf.

The Minnesota PUC issued its order adopting the proposed Route Permit for the project in November 2010.[208] The project was energized in September 2012.[209]

Timeline:

July 18, 2008	RUS NOI to prepare DEIS
February 2010	RUS DEIS
September 15, 2010	RUS NOA of FEIS
November 2010	Minnesota PUC Route Permit
November 2010	RUS ROD
September 2012	Project energized

17. Sigurd to Red Butte Transmission Line Project

Main Takeaway

- Early stakeholder process streamlines the permitting process.

Summary

PacifiCorp, d/b/a Rocky Mountain Power ("Rocky Mountain"), proposed a 170-mile line between Sevier County, Utah, and Washington County, Utah to respond to anticipated load growth in southwestern Utah.[210] The project is one segment of PacifiCorps' Energy Gateway Transmission Expansion Program.[211]

On December 19, 2008, Rocky Mountain submitted a ROW application to the BLM and the Forest Service to cross their respective lands, which they revised on September 11, 2009 and July 5, 2011 to reflect changes to the project.[212] In the year between the initial December 2008 application and the January 5, 2010 NOI to prepare an EIS, the federal agencies and the applicant invested significant resources in the public scoping process.[213] As a result, the draft EIS included an agency preferred route.[214] After the close of the DEIS comment period, the applicant had enough certainty and public acceptance of the preferred route to submit applications for all local and state permits.[215] They received all permits without any public opposition.[216]

The BLM served as the lead agency, and cooperating agencies included the Forest Service and other federal,

208. "Bemidji-Grand Rapids power line project receives approval," MPR News (Nov. 1, 2010), available at https://www.mprnews.org/story/2010/11/01/bemidji-grand-rapids-power-line-project-receives-approval.

209. "Xcel, Otter Tail Power Complete 345-kV transmission line," Power Grid International (Sept. 1, 2017), available at https://www.power-grid.com/td/xcel-energy-otter-tail-power-complete-345-kv-transmission-line/#gref

210. Sigurd to Red Butte BLM NOA of FEIS, 77 Fed. Reg. 61020 (Oct. 5, 2012), available at https://www.federalregister.gov/documents/2012/10/05/2012-24521/notice-of-availability-of-final-environmental-impact-statement-for-the-sigurd-to-red-butte-no.

211. PacifiCorp Website, "Energy Gateway," available at https://www.pacificorp.com/transmission/transmission-projects/energy-gateway.html.

212. Sigurd to Red Butte BLM ROD at 4 (Dec. 2012), available at https://pscdocs.utah.gov/electric/12docs/1203597/241309ExARebutGerrard1-18-2013.pdf.

213. PacifiCorp Comments on DOE's Improving Performance of Federal Permitting and Review of Infrastructure Projects Request for Information at 7 (Oct. 30, 2013), available at https://www.energy.gov/sites/prod/files/2013/10/f4/Comments_RFI-IIP_PacifiCorp.pdf.

214. *Id.* at 8.

215. *Id.*

216. *Id.*

state, and county agencies.[217] The agencies published the NOA of the DEIS on May 27, 2011.[218] They published their NOA of the FEIS on October 5, 2012.[219] The BLM issued its ROD in December 2012.[220]

On September 17, 2012, Rocky Mountain applied to the Utah PSC for a certificate for the project.[221] Utah PSC issued the certificate on March 19, 2013.[222] The project was placed in service in May 2015.[223]

Timeline:

December 19, 2008	Rocky Mountain applies for BLM/Forest Service ROW
September 11, 2009	BLM and Forest Service revise ROW application
January 5, 2010	BLM NOI to prepare DEIS
May 27, 2011	BLM NOA of DEIS
July 5, 2011	BLM and Forest Service revise ROW application
September 17, 2012	Rocky Mountain applies for Utah PSC certificate
December 2012	BLM ROD
March 19, 2013	Utah PSC issues certificate
May 2015	Project placed in service

18. Tehachapi Renewable Transmission Project

Main Takeaway

- Unexpected and unforeseen events can delay the permitting process. Here, shortly before the DEIS/EIR was issued, a fire affected 75% of the project area on Forest Service lands, requiring a supplemental EIS.
- Late identification of an issue raised by another agency extended the NEPA process.

Summary

The Tehachapi Renewable Transmission Project is a series of new and upgraded high-voltage electric transmission lines with eight segments totaling 173 miles, proposed to be constructed and operated by Southern California Edison (SCE).[224] The project would be located within Kern, Los Angeles, and San Bernardino counties, California.[225]

---

217. Sigurd to Red Butte BLM NOI to prepare EIS, 75 Fed. Reg. 430 (Jan. 5, 2010), available at https://www.federalregister.gov/documents/2010/01/05/E9-31239/notice-of-intent-to-prepare-an-environmental-impact-statement-for-the-sigurd-red-butte-transmission.

218. Sigurd to Red Butte BLM NOA of DEIS, 76 Fed. Reg. 30962 (May 27, 2011), available at https://www.govinfo.gov/content/pkg/FR-2011-05-27/pdf/2011-13009.pdf.

219. Sigurd to Red Butte BLM NOA of FEIS.

220. Sigurd to Red Butte BLM ROD (Dec. 2012), available at https://pscdocs.utah.gov/electric/12docs/1203597/241309ExARebutGerrard1-18-2013.pdf.

221. Sigurd to Red Butte Utah PSC Certificate of Public Convenience and Necessity at 1 (Mar. 19, 2013), available at https://pscdocs.utah.gov/electric/12docs/1203597/242589l203597ROri.pdf.

222. *Id.*

223. Gateway South website, available at https://www.pacificorp.com/transmission/transmission-projects/energy-gateway/gateway-south.html.

224. Tehachapi Forest Service NOI to prepare EIS, 72 Fed. Reg. 51405 (Sept. 7, 2007), available at https://www.govinfo.gov/content/pkg/FR-2007-09-07/pdf/E7-17168.pdf.

225. *Id.*

On June 29, 2007, SCE filed an application with California PUC for a Certificate of Public Convenience and Necessity to construct the project.[226] SCE also filed an application for a special use authorization with the Forest Service on June 29, 2007 because the proposed transmission line would traverse approximately 42 miles of National Forest System lands.[227]

On September 7, 2007, the Forest Service issued a NOI to prepare a joint EIS/EIR with the California PUC.[228] An NOA for the DEIS/EIR was issued on February 20, 2009.[229] Shortly before they issued DEIS/EIR, the Station Fire broke out and caused widespread damage in the project area.[230] An estimated 75% of the project area on Forest Service lands was affected by the fire.[231] The Forest Service determined additional analysis was required, but because these changed conditions did not necessitate the preparation of a supplemental EIR, the process to prepare a joint FEIS/EIR was discontinued, and the Forest Service and CPUC proceeded to independently complete their respective environmental reviews.[232] In October 2009, the CPUC issued its final EIR.[233]

On February 8, 2010, Forest Service issued a NOI to prepare a draft supplemental EIS addressing impacts of the fire on Forest Service lands.[234] The Forest Service published the NOA of the draft supplemental EIS on April 30, 2010,[235] the NOA of the final supplemental EIS on September 24, 2010,[236] and the ROD on October 4, 2010.[237]

Earlier approvals of the project by the CPUC and Forest Service required SCE to consult with the Federal Aviation Administration (FAA) for aviation safety.[238] The FAA recommended installing marker balls on certain transmission line spans and aviation lighting on certain transmission structures, thus requiring project modifications.[239] In light of this, on September 26, 2012, the Forest Service issued a NOI to prepare a joint supplemental EIS/EIR with CPUC for the project.[240] The agencies issued the draft on April 11, 2013,[241]

---

226. Tehachapi Forest Service FEIS at ES-1 (Oct. 2009), available at https://file.lacounty.gov/SDSInter/bos/supdocs/58826.pdf.

227. *Id.*

228. Tehachapi Forest Service NOI to prepare EIS.

229. Tehachapi Forest Service NOA of Joint DEIS/EIR, 74 Fed. Reg. 7889 (Feb. 20, 2009), available at https://www.govinfo.gov/content/pkg/FR-2009-02-20/pdf/E9-3661.pdf.

230. Tehachapi Forest Service NOI to prepare Supplemental DEIS, 75 Fed. Reg. 6168 (Feb. 8, 2010), available at https://www.govinfo.gov/content/pkg/FR-2010-02-08/pdf/2010-2263.pdf.

231. *Id.*

232. Tehachapi Forest Service ROD at 2 (Oct. 2010), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5212352.pdf.

233. Id. Contradicting this language in the ROD, the U.S. Forest Service appears to have been a signatory to CPUC's Final EIR. Tehachapi CPUC Final EIR (Oct. 2009), available at https://file.lacounty.gov/SDSInter/bos/supdocs/58826.pdf

234. Tehachapi Forest Service NOI to prepare Supplemental DEIS.

235. Tehachapi Forest Service NOA of Supplemental DEIS, 75 Fed. Reg. 22778 (Apr. 30, 2010), available at https://www.govinfo.gov/content/pkg/FR-2010-04-30/pdf/2010-10156.pdf.

236. Tehachapi Forest Service NOA of Supplemental FEIS, 75 Fed. Reg. 58376 (Sept. 24, 2010), available at https://www.federalregister.gov/documents/2010/09/24/2010-23974/environmental-impacts-statements-notice-of-availability.

237. Tehachapi Forest Service ROD (Oct. 4, 2010), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5212352.pdf.

238. Tehachapi Forest Service NOI to prepare Joint Supplemental EIS, 77 Fed. Reg. 59165 (Sept. 26, 2012), available at https://www.federalregister.gov/documents/2012/09/26/2012-23471/notice-of-intent-to-prepare-a-joint-supplemental-environmental-impact-statementenvironmental-impact.

239. *Id.*

240. *Id.*

241. Tehachapi Forest Service ROD at 2 (Oct. 17, 2012), available at https://usfs-public.app.box.com/v/PinyonPublic/file/933148218443.

and the final in October 2014.[242] The Forest Service issued its ROD on October 17, 2014.[243] In Q4 2016, the project was energized.[244]

Timeline:

June 29, 2007	SCE submits special use application to Forest Service
June 29, 2007	SCE submits project certificate application to CPUC
September 7, 2007	Forest Service NOI to prepare joint EIS/EIR
February 20, 2009	Forest Service NOA of DEIS/EIR
Summer 2009	Station fire in project area
October 2009	Forest Service and CPUC final EIR
February 8, 2010	Forest Service NOI to prepare draft supplemental EIS
April 30, 2010	Forest Service NOA of draft supplemental EIS
September 24, 2010	Forest Service NOA of final supplemental EIS
October 4, 2010	Forest Service ROD
September 26, 2012	Forest Service NOI to prepare joint supplemental EIS/EIR
April 11, 2013	Forest Service draft supplemental EIS/EIR
October 2014	Forest Service final supplemental EIS/EIR
October 17, 2014	Forest Service ROD
Q4 2016	Project energized

19. Teckla-Osage-Rapid City Transmission Line Project

Main Takeaway

- From the NOI to preparing an EIS to project operation took just more than 5 years.

Summary

Black Hills Power proposed a 150-mile, 230-kV, transmission line between Wyoming and Rapid City, South Dakota, to strengthen the regional transmission network, improve system reliability, and help meet regional demand.[245] In South Dakota, the project would cross the Black Hills National Forest.[246] In Wyoming, the project would cross the Thunder Basin National Grasslands, private lands, state lands, and BLM lands.[247]

The Forest Service served as the lead agency with the BLM as a cooperating agency.[248] On August 26, 2011,

242. *Id.*

243. *Id.*

244. "SoCalEd finishes multipart Tehachapi transmission project to move renewables," S&P Global (Jan. 5, 2017), available at https://www.spglobal.com/marketintelligence/en/news-insights/trending/wxiro-axiapzzc99tzncdg2.

245. Teckla-Osage-Rapid City Forest Service NOI to prepare EIS, 76 Fed. Reg. 53400 (Aug. 26, 2011), available at https://www.federalregister.gov/documents/2011/08/26/2011-21712/black-hills-national-forest-sd-thunder-basin-national-grassland-wy-teckla-osage-rapid-city.

246. *Id.*

247. *Id.*

248. *Id.*

the Forest Service published a NOI to prepare an EIS.[249] They issued the DEIS in December 2013[250] and published the NOA of the FEIS on December 5, 2014.[251] On May 19, 2015, the Forest Service and the BLM issued a joint ROD as well as separate RODs for lands within their respective jurisdictions.[252]

Black Hills Power filed an application to the South Dakota PUC on June 30, 2014, which was approved on December 24, 2014.[253] In July 2015, the Wyoming PSC approved Black Hill's request to construct a 15-mile segment of the project. [254] Black Hills Power started construction in March 2016[255] and the project was placed in service by December 2016.[256]

Timeline:

August 2011	Forest Service NOI to prepare DEIS
December 24, 2013	Forest Service DEIS
June 30, 2014	Black Hills applies for South Dakota Certificate of PCN
July 22, 2014	Black Hills applies for Wyoming Certificate of PCN
November 2014	South Dakota issues Certificate of PCN
November 2014	Forest Service FEIS
May 19, 2015	Forest Service and BLM RODs
July 2015	Wyoming issues Certificate of PCN
March 2016	Project construction starts
December 2016	Project placed in service

20. New England Clean Power Link

Main Takeaway

- Single state, underground line that had a quick permitting process, but the developer could not secure power contracts.

Summary

On May 20, 2014, TDI New England filed an application with DOE for a Presidential Permit to construct a 154-mile, 300- to 320-kV transmission line extending from the Quebec border under Lake Champlain to Benson, Vermont, where it would follow existing ROWs to a converter station to be built in Ludlow, Ver-

249. *Id.*

250. Teckla-Osage-Rapid City Forest Service DEIS (Dec. 2013), available at https://puc.sd.gov/commission/dockets/electric/2014/EL14-061/appendixc.pdf.

251. Teckla-Osage-Rapid City Forest Service NOA of FEIS, 79 Fed. Reg. 72172 (Dec. 5, 2014), available at https://casetext.com/federal-register/environmental-impact-statements-notice-of-availability-925.

252. Teckla-Osage-Rapid City Forest Service Press Release (May 19, 2015), available at https://www.fs.usda.gov/detail/mbr/news-events/?cid=STELPRD3838289.

253. Teckla-Osage South Dakota PUC Order Approving Black Hills Application, Docket No. EL14-061 (Dec. 24, 2014), available at https://puc.sd.gov/commission/Orders/electric/2014/EL14-061final.pdf.

254. "Black Hills starts construction on 230-kV transmission line," S&P Global (Mar. 24, 2016), available at https://www.spglobal.com/marketintelligence/en/news-insights/trending/evleu7ms7n6znxmn6mz4aw2.

255. *Id.*

256. Black Hills Corporation Transmission Plan, slide 2 (Dec. 8, 2016), available at https://doc.westconnect.com/Documents.aspx?NID=17530&dl=1.

mont.[257] The total distance through Lake Champlain would be approximately 97.6 miles, and the 56.1-mile overland portion of the line would be buried, primarily within existing public road and railroad ROWs.[258]

On August 26, 2014, DOE, as the lead agency, published a NOI to prepare an EIS with the Corps of Engineers, U.S. Coast Guard, and EPA as cooperating agencies.[259] They issued the DEIS in May 2015[260] and the FEIS in October 2015.[261] The Vermont Public Service Board issued a Certificate of Public Good on January 5, 2016.[262] DOE published its ROD issuing a Presidential permit to the project on December 12, 2016.[263]

In 2017, TDI proposed the Clean Power Link project in response to Massachusetts Clean Energy Request for Proposals, a program to help utilities procure renewable energy.[264] In January 2018, Clean Power Link was not selected.[265] In February 2023, lacking contracts,[266] TDI filed an application for project funding under DOE's Transmission Facilitation Program. As of the publication of this report, the New England Clean Power Link has not received funding through the Transmission Facilitation Program.[267]

Timeline:

May 20, 2014	TDI files application for Presidential Permit
August 26, 2014	DOE issues NOI to prepare DEIS
May 2015	DOE issues DEIS
October 2015	DOE issues FEIS
January 5, 2016	Vermont Public Service Board issues Cert. of Public Good
December 12, 2016	DOE issues ROD for Presidential Permit
2017	TDI files proposal in response to Massachusetts RFP
January 2018	Massachusetts rejects proposal
February 2023	TDI files application for project funding from DOE

257. New England Clean Power Link Application at cover letter pg. 1, application at 2-1, 2-3, 2-5, 2-15 (May 20, 2014), available at http://necplinkeis.com/wp-content/uploads/2014/08/US-DOE-Presidential-Permit-Application.pdf.

258. *Id.* at 2-3, 2-7, 2-15.

259. New England Clean Power Link DOE NOI to prepare EIS, 79 Fed. Reg. 50901 (Aug. 26, 2014), available at http://www.necplink.com/docs/NECPL-Notice-of-Intent-79-Fed-Reg-50901.pdf.

260. New England Clean Power Link DOE DEIS (May 2015), available at https://www.energy.gov/sites/default/files/2015/06/f22/EIS-0503-DEISv1-2015.pdf.

261. New England Clean Power Link DOE FEIS (Nov. 2015), available at https://www.energy.gov/sites/prod/files/2015/10/f27/Final%20NECPL%20EIS%20Appendix%20M%20CRD%202015-10-26.pdf.

262. New England Clean Power Link Vermont Public Service Board Order (Jan. 5, 2016), available at http://www.necplink.com/docs/final_order.pdf.

263. New England Clean Power Link DOE ROD, 81 Fed. Red. 89450 (Dec. 12, 2016), available at https://www.energy.gov/sites/default/files/2016/12/f34/EIS-0503_NECPL_ROD_FR.pdf.

264. "5 companies propose transmission projects for Massachusetts clean energy RFP," Utility Dive (July 31, 2017), available at https://www.utilitydive.com/news/5-companies-propose-transmission-projects-for-massachusetts-clean-energy-rf/448239/.

265. "Rejected transmission projects forge ahead after Massachusetts picks Eversource," S&P Global (Jan. 29, 2018), available at https://www.spglobal.com/marketintelligence/en/news-insights/trending/hk-u3svcanlg43exe_u0ew2.

266. "Scott renews hope in billion-dollar underwater powerline," VermontBiz (Feb. 16, 2023), available at https://vermontbiz.com/news/2023/february/16/scott-renews-hope-billion-dollar-underwater-powerline.

267. TDI Press Release (Feb. 1, 2023), available at http://www.necplink.com/press-releases.php and http://www.necplink.com/press-releases/020123.php. DOE press release (10/30/2023), available at https://www.energy.gov/articles/biden-harris-administration-announces-13-billion-build-out-nations-electric-transmission.

21. SunZia Southwest Transmission Project

Main Takeaways

- Large project footprint impacts timing.
- Significant changes to a project will inevitably slow the review process.
- Interagency coordination and stakeholder engagement are paramount.

Summary

On September 11, 2008, Sunzia Transmission, LLC filed an application for a ROW from the BLM to locate two 500-kV transmission lines located across approximately 515 miles of Federal, State, and private lands between central New Mexico and central Arizona.[268] The purpose of the Project is to transport up to 4,500 megawatts of primarily renewable energy from New Mexico to markets in Arizona and California.[269]

Three NEPA analyses were prepared for SunZia between 2009 and 2023:

On May 29, 2009, BLM issued a NOI to prepare an EIS that identified 14 cooperating agencies, including the Department of Defense (DOD) and the U.S. Department of the Army, White Sands Missile Range (WSMR).[270] On May 29, 2012, BLM issued an NOA of the DEIS.[271] In June 2013, the BLM issued the FEIS.[272] The DOD identified issues with the Preferred Alternative corridor detailed in the EIS, citing potential impacts of the above-ground transmission line on military operations and readiness activities in a locale north of the White Sands Missile Range, and on May 27, 2014, the Secretary of Defense sent a letter to the Secretary of Interior with proposed mitigation measures that would address DOD's objections.[273]

In November 2014, the BLM prepared an EA to assess the DOD's proposed mitigation measures that would include placing five miles of the line underground.[274] The BLM concluded that the DOD mitigation measures would not create new impacts significantly different from those analyzed in the 2013 FEIS.[275]

In January 2015, the BLM issued its ROD for the 2013 EIS, which identified the BLM preferred alternative evaluated in the 2013 FEIS that incorporated the DOD's mitigation measures.[276] The BLM issued a

---

268. SunZia 2015 BLM ROD at 1 (Jan. 2015), available at https://eplanning.blm.gov/public_projects/2013584/200486954/20040619/250046814/SunZia%20ROD%20with%20Appendices%20(January%202015).pdf.

269. SunZia 2009 BLM NOI to prepare EIS, 74 Fed. Reg. 25764 (May 29, 2009), available at https://www.govinfo.gov/content/pkg/FR-2009-05-29/pdf/E9-12512.pdf.

270. *Id.*

271. SunZia 2012 BLM NOA of DEIS, 76 Fed. Reg. 31637 (May 29, 2012), available at https://www.federalregister.gov/documents/2012/05/29/2012-12978/notice-of-availability-of-the-draft-environmental-impact-statement-for-the-sunzia-southwest-500-kv.

272. "BLM Releases Environmental Assessment on DOD Proposal to Run Segments of SunZia Southwest Transmission Line Underground," BLM Press Release (Nov. 25, 2014), available at https://www.blm.gov/press-release/blm-releases-environmental-assessment-dod-proposal-run-segments-sunzia-southwest.

273. *Id.*

274. *Id.*

275. *Id.*

276. SunZia 2015 BLM ROD (Jan. 2015), available at https://eplanning.blm.gov/public_projects/2013584/200486954/20040619/250046814/SunZia%20ROD%20with%20Appendices%20(January%202015).pdf.

ROW grant in September 2016.[277] However, the DOD continued to raise concerns about the WSMR.[278] In addition, stakeholders expressed concerns that the ROW would allow the line to cross the Rio Grande near Socorro, which would affect bird migration routes.[279] From 2017 to 2019, SunZia and the DOD engaged in discussions regarding the WSMR.[280]

On March 27, 2020, as revised on December 21, 2020 and September 14, 2021, SunZia submitted an application to the BLM and the Forest Service to co-locate the SunZia transmission line with existing transmission line easements across the Sevilleta National Wildlife Refuge; obtain a ROW to construct a transmission line on Forest Service lands; and to request amendment of their September 2016 ROW to the Socorro Field Office RMP.[281] SunZia's proposed revisions would result in the project, among other things, crossing the Rio Grande at a different spot and avoiding the WSMR.[282]

On June 4, 2021, the BLM, as lead agency, issued a NOI to prepare an EIS on the proposed amendments.[283] On July 29, 2021, SunZia became a Fixing America's Surface Transportation Act project pursuant to Title 41 of the Act ("FAST-41").[284] FAST-41 status means the proposed action is closely monitored by Federal agencies and the Federal Permitting Improvement Steering Council.[285]

On May 2, 2022, the BLM issued an NOA of the DEIS.[286] On February 17, 2023, the BLM issued a FEIS addressing only the amendments.[287] On May 23, 2023, BLM issued its ROD.[288] Construction began on September 1, 2023.[289]

Timeline:

September 11, 2008	SunZia applies for BLM ROW
May 29, 2009	BLM NOI to prepare EIS

277. SunZia Project Update for New Mexico Renewable Energy Transmission Authority at slide 6 (May 3, 2017), available at https://nmreta.com/wp-content/uploads/legacy_pdf/SunZia-Update-for-RETA--5.3.2017.pdf.

278. SunZia Application to BLM for Transportation and Utility Systems on Federal Lands at A3-1 (Dec. 2020), available at https://eplanning.blm.gov/public_projects/2011785/200481766/20041457/250047650/E_SunZia Att A3_Segment 4 Reroute_2020-12-18.pdf.

279. "Protect Our Migratory Birds: Demand SunZia Energy Bury Rio Grande Transmission Lines," Rio Grande Agricultural Land Trust (Mar. 8, 2019), available at https://rgalt.org/protect-our-migratory-birds/.

280. SunZia Application to BLM for Transportation and Utility Systems on Federal Lands at A3-1 (Dec. 2020), available at https://eplanning.blm.gov/public_projects/2011785/200481766/20041457/250047650/E_SunZia Att A3_Segment 4 Reroute_2020-12-18.pdf.

281. SunZia 2022 BLM NOA of DEIS, 87 Fed. Reg. 25653 (May 2, 2022), available at https://www.federalregister.gov/documents/2022/05/02/2022-09379/notice-of-availability-of-a-draft-environmental-impact-statement-and-resource-management-plan; SunZia 2023 BLM ROD at ES vii, (May 16, 2023), available at https://eplanning.blm.gov/public_projects/2011785/200481766/20078613/250084795/20230517%20SunZia%20ROD_508.pdf.

282. SunZia 2023 BLM ROD at ES vii-viii, 32, available at https://www.federalregister.gov/documents/2022/05/02/2022-09379/notice-of-availability-of-a-draft-environmental-impact-statement-and-resource-management-plan.

283. SunZia 2021 NOI to prepare EIS, 86 Fed. Reg. 30066 (June 4, 2021), available at https://www.federalregister.gov/documents/2021/06/04/2021-11788/notice-of-intent-to-prepare-an-environmental-impact-statement-and-resource-management-plan.

284. SunZia 2023 BLM ROD at 16.

285. *Id.*

286. SunZia 2022 BLM NOA of DEIS, 87 Fed. Reg. 25653 (May 2, 2022), available at https://www.federalregister.gov/documents/2022/05/02/2022-09379/notice-of-availability-of-a-draft-environmental-impact-statement-and-resource-management-plan.

287. SunZia 2023 BLM ROD at vii.

288. *Id.*

289. Department of the Interior (DOI) Press Release (Sept. 1, 2023), available at https://www.doi.gov/pressreleases/biden-harris-administration-celebrates-groundbreaking-new-sunzia-transmission-line.

May 29, 2012	BLM DEIS
June 2013	BLM FEIS
May 27, 2014	DOD proposes mitigation measures
November 2014	BLM EA on DOD proposal
January 2015	BLM ROD incorporating DOD measures
September 2016	BLM ROW
March 27, 2020-September 2021	SunZia files amendments to Sep 2016 ROW
June 4, 2021	BLM NOI to prepare EIS for ROW amendment
May 2, 2022	BLM NOA of DEIS
February 17, 2023	BLM FEIS
May 16, 2023	BLM ROD on amendment
September 1, 2023	Construction begins

22. Gateway South Transmission Project-Segment F

Main Takeaways

- Large scale projects crossing multiple states take longer to permit.
- Project revisions during the permitting process will delay the project.

Summary

PacifiCorp, d/b/a Rocky Mountain Power, proposed Gateway South, Segment F, a 416-mile, 500-kV single-circuit transmission line that would traverse Wyoming, Colorado, and Utah.[290] The project would begin in Wyoming at the Aeolus Substation and extend south and west to the Clover Substation near Mona, Utah.[291] The project is Segment F of Gateway South, part of Pacificorps' Energy Gateway Transmission Expansion Project.[292]

On November 28, 2007, Rocky Mountain filed an application for a ROW with the BLM and the Forest Service, which they revised in December 2008, October 2010, and January 2013 to reflect changes in the project, including reductions in the project's geographic footprint and providing a preferred route.[293] The BLM served as the lead agency with numerous federal, state, county, and conservation districts serving as cooperating agencies (including the Forest Service, BIA, Corps of Engineers, DOD, and FWS at the federal level).[294]

290. Energy Gateway website, available at https://www.pacificorp.com/transmission/transmission-projects/energy-gateway.html.

291. *Id.*

292. *Id.*

293. Energy Gateway South NOA of DEIS, 79 Fed. Reg. 9916, 9918 (Feb. 21, 2014), available at https://www.federalregister.gov/documents/2014/02/21/2014-03683/notice-of-availability-of-the-draft-environmental-impact-statement-and-land-use-plan-amendments-for.

294. Energy Gateway South NOI to prepare EIS, 76 Fed. Reg. 18241 (Apr. 1, 2011), available at https://www.federalregister.gov/documents/2011/04/01/2011-7736/notice-of-intent-to-prepare-an-environmental-impact-statement-for-the-proposed-energy-gateway-south.

On April 1, 2011, the BLM issued a NOI to prepare an EIS.[295] On February 21, 2014, BLM issued the DEIS.[296] On May 13, 2016, the BLM published the NOA of the FEIS.[297]

In December 2016, the BLM issued its ROD, which authorized relocating a two-mile portion of the existing Bears Ears to Bonanza 345-kV transmission line to eliminate multiple line crossings and avoid the Raven Ridge Area of Critical Environmental Concern.[298] In January 2017, the BLM issued a ROW for the portions of the project that would cross BLM land.[299]

In July 2020, PacifiCorp notified the BLM that WAPA had expressed concerns about moving the Bears Ears line due to cost, required service interruptions, impacts on agency workload and staff, and the complications of the government's contracting process to move.[300]

In December 2020, the BIA issued its ROD, granting a ROW for the project to cross 1.6 miles of tribal land within the Uintah and Ouray Reservation. [301]

In March 2021, PacifiCorp proposed an alternate route to address WAPA's concerns.[302] On December 21, 2021, the BLM issued a NOI to prepare an EA for the alternative route.[303] In March 2022, the BLM issued the EA and a FONSI.[304] On May 25, 2022, the BLM issued a Notice to Proceed with Construction of Gateway South.[305] PacifiCorp estimates the project will be placed in service at the end of 2024.[306]

Timeline:

November 28, 2007	PacifiCorp submits initial application for BLM ROW
2008-2013	PacifiCorp submits revisions to reflect project changes
April 1, 2011	BLM NOI to prepare a DEIS

295 *Id.*

296 Energy Gateway South NOA of Draft EIS, 79 Fed. Reg. 9916 (Feb. 21, 2014), available at https://www.federalregister.gov/documents/2014/02/21/2014-03683/notice-of-availability-of-the-draft-environmental-impact-statement-and-land-use-plan-amendments-for.

297. Energy Gateway South BLM NOA of FEIS, 81 Fed. Reg. 29912 (May 13, 2016), available at https://www.federalregister.gov/documents/2016/05/13/2016-11371/notice-of-availability-of-the-final-environmental-impact-statement-for-the-energy-gateway-south; https://eplanning.blm.gov/public_projects/nepa/53044/73680/80928/006_Ch1_PurposeNeed.pdf.

298. Energy Gateway South BLM ROD (Dec. 2016), available at https://eplanning.blm.gov/public_projects/nepa/53044/92847/111847/EGS-RecordofDecision.pdf.

299. Energy Gateway South BLM ROW (Jan. 18, 2017), available at https://eplanning.blm.gov/public_projects/nepa/53044/169715/206293/Energy_Gateway_South_executed_grant.pdf.

300. Alternate Route for the Gateway South Transmission Line at the Colorado/Utah Border BLM EA at 3 (Mar. 2022), available at https://eplanning.blm.gov/public_projects/2013749/200504573/20056952/250063134/Raven%20Ridge%20ACEC%20RMPA_Proposed%20RMPA_508%20final.pdf.

301. Energy Gateway South BIA ROD at i (Nov. 2020), available at https://www.pacificorp.com/content/dam/pcorp/documents/en/pacificorp/transmission/energy-gateway/GWS_BIA_EPG_SIGNED_FINAL_ROD_12-16-2020.pdf

302. Energy Gateway South NOI to prepare EA, 86 Fed. Reg. 72269, 72270 (Dec. 21, 2021), available at https://eplanning.blm.gov/public_projects/53044/200078762/20061076/250067258/Notice%20to%20Proceed%20-%20Gateway%20South.pdf.

303. Alternate Route for the Gateway South Transmission Line at the Colorado/Utah Border BLM Environmental Assessment at 8 (Mar. 2022), available at https://eplanning.blm.gov/public_projects/2013749/200504573/20056952/250063134/Raven%20Ridge%20ACEC%20RMPA_Proposed%20RMPA_508%20final.pdf

304. *Id.*; Alternate Route for the Gateway South Transmission Line at the Colorado/Utah Border BLM FONSI (Mar. 30, 2022), available at https://eplanning.blm.gov/public_projects/2013749/200504573/20056951/250063133/Raven%20Ridge_FONSI_508%20final.pdf.

305. Gateway South BLM Notice to Proceed (May 25, 2022), available at https://eplanning.blm.gov/public_projects/53044/200078762/20061076/250067258/Notice%20to%20Proceed%20-%20Gateway%20South.pdf.

306. Gateway South website, available at https://www.pacificorp.com/transmission/transmission-projects/energy-gateway/gateway-south.html.

February 21, 2014	BLM NOA of DEIS
May 13, 2016	BLM NOA of FEIS
December 2016	BLM ROD
January 2017	BLM ROW
November 2020	BIA ROD
March 2021	PacifiCorp submits alternative route proposal
December 21, 2021	BLM NOI to prepare EA
March 2022	BLM EA/FONSI
May 25, 2022	BLM Notice to Proceed with Construction
End of 2024	Expected in-service date

23. Surry-Skiffes Creek-Whealton Project

Main Takeaway

- Agencies must work together and respect expertise of other agencies or risk litigation.

Summary

In August 2013, Virginia Electric and Power Company (Dominion) filed with the Corps of Engineers for a Joint Permit Application for a proposed transmission line and associated infrastructure, known as Surry-Skiffes Creek-Whealton project.[307] The project, which crosses the James River in Virginia, includes a 7.76-mile, 500-kV overhead transmission line from Surry Nuclear Power Plant to the proposed Skiffes Creek switching station in James City County, and 20.2 miles of 230-kV overhead line along an existing ROW from the switching station to Whealton Substation in Hampton, Virginia.[308] The project would include 17 in-stream transmission towers to support the 500-kV line, and placement of 27 transmission towers in non-tidal wetlands.[309]

In June 2017, the Corps of Engineers prepared an EA concluding that the project would not significantly affect the environment.[310] The Corps of Engineers received comments expressing concern with the Project's proximity to historic sites, including from the NPS.[311] On July 3, 2017, the Corps of Engineers issued a permit for the project, which several conservation groups challenged in the U.S. District Court for the District of Columbia.[312] On May 23, 2018, the District Court upheld the permit.[313] On February 26, 2019, the project was energized.[314] On March 1, 2019, the U.S. Court of Appeals for the District of Columbia Circuit found

307. Joint Application for Surry-Skiffes-Whealton Project (Aug. 8, 2013), available at https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/6555.

308. *Id.* at iii; Surry-Skiffes Creek-Whealton Corps of Engineers NOI to prepare EIS, 84 Fed. Reg. 29177, 29178 (June 21, 2019), available at https://www.federalregister.gov/documents/2019/06/21/2019-13229/intent-to-prepare-a-draft-environmental-impact-statement-for-a-proposed-high-voltage-electrical.

309. Surry-Skiffes Creek-Whealton Corps of Engineers NOI to prepare EIS at 29177.

310. Surry-Skiffes Creek-Whealton Corps of Engineers DEIS at 1-28 (Nov. 27, 2020), available at https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/16460.

311. Nat'l Parks Conservation Ass'n v. Semonite, 311 F. Supp. 3d 350, 359 (D.D.C. 2018), available at https://casetext.com/case/natl-parks-conservation-assn-v-todd-t-semonite-lieutenant-gen-us-army-corps-of-engrs-1.

312. *Id.* at 360.

313. *Id.* at 356–57.

314. Surry-Skiffes Creek-Whealton Corps of Engineers NOI to prepare EIS at 29178.

that the Corps of Engineers' FONSI was arbitrary and capricious, and reversed and remanded to the District Court with instructions to vacate Dominion's permit and direct the Corps of Engineers to prepare an EIS.[315] However, the appeals court was unaware that Surry-Skiffes was already constructed and energized by February 26, 2019.[316] Accordingly, on May 19, 2019, it remanded the case to the District Court to consider whether vacatur was appropriate.[317] On November 8, 2019, the District Court remanded to the Corps of Engineers without vacatur and with instructions to prepare an EIS.[318]

On June 21, 2019, the Corps of Engineers issued a NOI to prepare an EIS.[319] On November 27, 2020, the Corps of Engineers issued a DEIS.[320] The FEIS is anticipated to be issued in 2024.[321]

Timeline:

August 2013	Dominion files Joint Permit Application for Corps permits
June 2017	Corps EA/FONSI
July 3, 2017	Corps issues final project permits
May 2018	Federal District Court upholds Corps permits
February 26, 2019	Dominion energizes transmission line
March 1, 2019	Court of Appeals vacates permits and requires EIS
May 19, 2019	Court of Appeals remands to consider proper remedy
November 8, 2019	District Court remands with instructions to prepare EIS
June 21, 2019	Corps NOI to prepare EIS
November 27, 2020	Corps DEIS
2024	Corps FEIS anticipated

24. Kake to Petersburg Transmission Intertie Project

Main Takeaway

- Project approved but not built due to unfavorable economics.

Summary

Southeast Alaska Power Agency (SEAPA) proposed to construct the Kake to Petersburg Transmission Intertie Project, a 46.8- to 56.5-mile line connecting the isolated electric system currently serving the city of Kake,

315. *Nat'l Parks Conservation Ass'n v. Semonite*, No. 18-5179 (D.C. Cir. 2019), available at https://www.cadc.uscourts.gov/internet/opinions.nsf/0/87FABC162438AE4B852583B000549984/$file/18-5179.pdf.

316. *Nat'l Parks Conservation Ass'n v. Semonite* No. 18-5179 at 5 (D.C. Cir. 2019), available at https://www.cadc.uscourts.gov/internet/opinions.nsf/0/87FABC162438AE4B852583B000549984/$file/18-5179.pdf.

317. *Nat'l Parks Conservation Ass'n v. Semonite*, No. 18-5179 (D.C. Cir. 2019) (on remand), available at https://caselaw.findlaw.com/court/us-dc-circuit/2000799.html.

318. *Nat'l Parks Conservation Ass'n v. Semonite*, 422 F.Supp.3d 92 (D.D.C. 2019), available at https://casetext.com/case/natl-parks-conservation-assn-v-semonite-4.

319. Surry-Skiffes Corps of Engineers NOI to prepare EIS, 84 Fed. Reg. 29177 (June 21, 2019), available at https://www.federalregister.gov/documents/2019/06/21/2019-13229/intent-to-prepare-a-draft-environmental-impact-statement-for-a-proposed-high-voltage-electrical.

320. Surry-Skiffes Corps of Engineers DEIS (Nov. 27, 2020), available at https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/16460.

321. Corps of Engineers website, available at https://www.nao.usace.army.mil/Missions/Regulatory/SkiffesCreekPowerLine.aspx.

Alaska with SEAPA's interconnected electric network near Petersburg, Alaska.[322] The line would cross the Tongass National Forest, requiring a special use authorization from the Forest Service.[323] On May 7, 2010, the Forest Service issued a NOI to prepare an EIS, which was corrected on July 28, 2014 following changes to the proposal.[324] The Forest Service published the NOA of the DEIS in 2014[325] and the FEIS in June 2016.[326] The Forest Service issued its ROD on November 30, 2016 authorizing a ROW for the project.[327]

It appears the project has not yet commenced construction; in 2020, the CEO of SEAPA said the economics of the project are not favorable and that funding for the project would likely have to come from the state.[328]

Timeline:

May 7, 2010	Forest Service NOI to prepare a DEIS
July 28, 2014	Forest Service corrected NOI to prepare a DEIS
2014	Forest Service NOA of DEIS
June 2016	Forest Service FEIS
November 30, 2016	Forest Service ROD

25. McClellanville Transmission Project

Main Takeaway

- The NEPA process was extensive; stalling after 14 years and still no movement 19 years later.

Summary

Central Electric Power Cooperative ("Central Electric"), an electric transmission cooperative that provides transmission to South Carolina's 20 retail electric cooperatives, proposed a 15-20 mile, 115-kV transmission line through portions of coastal South Carolina.[329] The project would provide electric service to the McClellanville community and surrounding areas.[330] Central Electric sought financing from the RUS, and the RUS

322. Kake to Petersburg Forest Service NOI to prepare EIS, 75 Fed. Reg. 25195, 25196 (May 7, 2010), available at https://www.federalregister.gov/documents/2010/05/07/2010-10702/kake-to-petersburg-transmission-line-intertie-project.

323 Kake to Petersburg Forest Service Corrected NOI to prepare EIS, 79 Fed. Reg. 43707, 43708 (July 28, 2014), available at https://www.federalregister.gov/documents/2014/07/28/2014-17669/tongass-national-forest-aaska-kake-to-petersburg-transmission-line-intertie

324. Kake to Petersburg Forest Service NOI to prepare EIS; Kake to Petersburg Forest Service Corrected NOI to prepare EIS.

325. Kake to Petersburg Forest Service NOA of DEIS (2014), available at https://www.govinfo.gov/app/details/GOVPUB-A13-PURL-gpo67407.

326. Kake to Petersburg Forest Service FEIS (June 2016), available at https://dot.alaska.gov/sereg/projects/kake_acce55/assets/2016%20Kake%20Petersberg%20Trans%20Line%20EIS.pdf.

327. Kake to Petersburg Forest Service ROD at 19 (Nov. 2016), available at https://www.govinfo.gov/content/pkg/GOVPUB-A13-PURL-gpo94171/pdf/GOVPUB-A13-PURL-gpo94171.pdf.

328. "40 Million for a Road?," Juneau Empire (Jan. 13, 2020), available at https://www.juneauempire.com/news/40-million-for-a-road-some-kupreanof-island-residents-want-that-money-for-ferries/. Note that the project was covered under FAST-41, which shows completion of federal permits, but the federal permitting dashboard for infrastructure projects states, without further explanation, that the Forest Service special permit was canceled; Kake to Petersburg Transmission Project page, available at https://www.permits.performance.gov/permitting-project/fast-41-covered-projects/kake-petersburg-transmission-project.

329. McClellanville RUS DEIS at 1-1, 1-2, 1-4 (Apr. 2014), available at https://www.rd.usda.gov/sites/default/files/UWP_SC50-SouthCentral_McClellanville_DEIS.pdf.

330. *Id.* at Attachment, McClellanville Power Supply Alternatives Evaluation Study (Sept. 2010) at 1.

served as the lead agency.[331] The Forest Service and Corps of Engineers served as cooperating agencies.[332]

As discussed in its September 17, 2010 NOI to prepare an EIS, the RUS initially determined in 2005 that it would prepare an EA, but based on comments received from agencies and the public, determined that an EIS would be required.[333] They issued the DEIS in April 2014.[334]

On August 30, 2019, the RUS issued a supplemental DEIS.[335] As explained in the Notice, updated engineering and other issues resulted in substantial changes to the proposed action, including the need to evaluate new transmission line corridors and to account for a new winter weather operating agreement between Dominion Energy South Carolina and Berkeley Electric Cooperative that addresses load concerns during the winter months.[336] In October 2019, the RUS issued a notice of comment period extension on the supplemental DEIS.[337] There does not appear to have been any action since that time, nor is there readily accessible information as to why there has been no action.

Timeline:

September 17, 2010	RUS NOI to prepare a DEIS
April 2014	RUS DEIS
August 30, 2019	RUS NOA of supplemental DEIS
October 2019	RUS notice of comment extension supplemental DEIS

26. Great Northern Transmission Line

Main Takeaways

- Extensive pre-application planning, evaluation, and stakeholder outreach can streamline the permitting process. By the time Great Northern submitted a route for state and federal approval, the proposal and border crossing point had been modified several times to accommodate stakeholders.
- Lines that do not cross multiple states have fewer issues.

Summary

On October 22, 2013, Minnesota Power (MP) filed an application with the Minnesota PUC for a certificate to construct a 220-mile, 500-kV transmission line to deliver hydropower from the Minnesota-Manitoba,

331. *Id.* at Attachment, McClellanville Biological Assessment at 1.

332. *Id.* at 1.

333. McClellanville RUS NOI to Prepare EIS, 75 Fed. Reg. 56979 (Sept. 17, 2010), available at https://www.rd.usda.gov/sites/default/files/UWP_SC50-SouthCentral_McClellanville_FR-NOI_EIS_Sept2010.pdf.

334. McClellanville RUS DEIS.

335. McClellanville RUS SDEIS (Aug. 30, 2019), available at https://www.rd.usda.gov/sites/default/files/UWP_SC50-SouthCentral_McClellanville_SDEIS_Aug2019.pdf.

336. *Id.* at 2-7.

337. McClellanville RUS Notice of Extension of Comment Period for EIS, 84 Fed. Reg. 56758 (Oct. 23, 2019), available at https://www.federalregister.gov/documents/2019/10/23/2019-23065/central-electric-power-cooperative-inc-extension-of-comment-period-for-an-environmental-impact.

Canada border to Grand Rapids, Minnesota.[338] The project as proposed could transmit up to 750 MW of power.[339]

Starting in August 2012, and prior to filing state or federal applications, Minnesota Power implemented an outreach strategy to include agency and public comments and concerns early in the project routing process and prior to the regulatory processes.[340] The feedback gathered from Minnesota Power's extensive public engagement culminated in the identification of two proposed routes: the "Blue" and alternate "Orange" routes.[341]

On April 15, 2014, as amended on October 29, 2014, Minnesota Power submitted an application with the Department of Energy for a Presidential Permit.[342] In the same week it filed its April 15, 2014 application, Minnesota Power also applied to the Minnesota PUC for a Route Permit.[343] Additionally, on October 22, 2013, Minnesota Power filed an application for a certificate with the Minnesota PUC.[344] In its Presidential Permit application, Minnesota Power proposed the Orange and Blue Routes, as well as several segment options identified in the stakeholder process.[345]

On June 27, 2014, DOE issued a NOI to prepare an EIS.[346] DOE and the Minnesota Department of Commerce—Energy Environmental Review and Analysis served as co-lead agencies.[347] Cooperating agencies included the Army Corps of Engineers, FWS, Environmental Protection Agency (EPA), and Red Lake Band of Chippewa Indians.[348]

On October 29, 2014, Minnesota Power submitted an amendment to its Presidential Permit application proposing a new border crossing location.[349] On June 26, 2015, DOE issued an NOA of the Draft EIS.[350] In October 2015, the agencies issued the FEIS.[351]

On December 3, 2015, the Department of Interior, on behalf of the FWS, submitted a comment letter that indicated that the Final EIS did not adequately address impacts to FWS lands or compensatory mitigation.[352]

338. Great Northern DOE NOI to Prepare EIS, 79 Fed. Reg. 36493, 36493-36494 (June 27, 2014), available at https://www.federalregister.gov/documents/2014/06/27/2014-15070/notice-of-intent-to-prepare-an-environmental-impact-statement-and-to-conduct-public-scoping-meetings.

339. Great Northern DOE NOA for Presidential Permit, 79 Fed. Reg. 27587 (May 14, 2014), available at https://www.federalregister.gov/documents/2014/05/14/2014-11108/application-for-presidential-permit-great-northern-transmission-line.

340. Minnesota Electric Transmission Planning website, available at https://www.minnelectrans.com/documents/2013_Biennial_Report/html/Ch_4_Public_Participation.htm.

341. *Id.*

342. Great Northern DOE Notice of Amended Application for Presidential Permit, 79 Fed. Reg. 68673 (Nov. 18, 2014), available at https://www.federalregister.gov/documents/2014/11/18/2014-27259/amended-application-for-presidential-permit-great-northern-transmission-line.

343. *Id.*

344. Great Northern DOE NOI to Prepare EIS at 36493-36494.

345. Great Northern DOE NOA for Presidential Permit.

346. Great Northern DOE NOI to Prepare EIS.

347. *Id.* at 36494.

348. Great Northern DOE ROD for Issuing a Presidential Permit, 81 Fed. Reg. 83825, 83826 (Nov. 22, 2016), available at https://www.federalregister.gov/documents/2016/11/22/2016-28091/record-of-decision-for-issuing-a-presidential-permit-to-minnesota-power.

349. Great Northern DOE Notice of Amended Application for Presidential Permit.

350. Great Northern DOE NOA for DEIS, 80 Fed. Reg. 36795 (June 26, 2015), available at https://www.federalregister.gov/documents/2015/06/26/2015-15625/notice-of-availability-noa-for-the-draft-environmental-impact-statement-eis-and-announcement-of.

351. Great Northern DOE FEIS (Oct. 2015), available at https://www.energy.gov/sites/default/files/2015/10/f27/EIS-0499_FEIS_Cover_Chapt5.pdf.

352. Great Northern DOE ROD for Issuing a Presidential Permit at 83827.

At that time, the Minnesota PUC had not issued a route permit for the project and it was not clear if FWS Interest Lands would be potentially impacted by the project.[353]

On June 30, 2015, the Minnesota PUC issued a certificate for the project.[354] The Minnesota PUC approved the route in February 2016.[355] Because the route crossed FWS land, a ROW permit was required.[356] FWS prepared an EA for that action and issued a permit in January 2017.[357]

On November 22, 2016, DOE issued its ROD.[358] Construction of the line was completed in February 2020.[359]

Timeline:

October 2013	Great Northern files for cert. of need with Minnesota PUC
April 2014	MP files Presidential Permit application with DOE
April 2014	MP route application with Minnesota PUC
October 2014	MP files amended application
June 27, 2014	DOE NOI to prepare EIS
June 26, 2015	DOE NOA of the DEIS
June 30, 2015	Minnesota PUC grants certificate
October 2015	DOE FEIS
February 2016	Minnesota PUC approves Route Permit
November 2016	DOE issues ROD and Presidential Permit
January 2017	FWS issues ROW permit
February 2020	Project completed

27. Champlain Hudson Power Express

Main Takeaway

- Working closely with affected communities and providing community benefits to address their concerns can help overcome project opposition.

Summary

Champlain Hudson Power Express ("Champlain") proposed to construct an underground, 333-mile, 320-

353. *Id.*

354. Project website, available at http://greatnorthern transmissionline.com/about.html.

355. "Route Permit For 500-Kilovolt Power Line Approved," CBS News (Feb. 26, 2016), available at https://www.cbsnews.com/minnesota/news/route-permit-for-500-kilovolt-power-line-approved/.

356. Great Northern DOE ROD for Issuing a Presidential Permit at 83827.

357. Project website; Great Northern DOE ROD for Issuing a Presidential Permit at 83827. It should be noted that DOE asserted that FWS's concerns raised in the December 3, 2015 DOI/FWS comment letter were resolved pursuant to the execution of a July 26, 2016, "Memorandum of Understanding for Conservation Measures for the Great Northern Transmission Line Project" (source unavailable).

358. Great Northern DOE ROD for Issuing a Presidential Permit.

359. "Minnesota Power Energizes Great Northern Transmission Line to Move Company Closer to 50 Percent Renewable Energy by 2021," Business Wire (June 11, 2020), available at https://www.businesswire.com/news/home/20200611005106/en/Minnesota-Power-Energizes-Great-Northern-Transmission-Line-to-Move-Company-Closer-to-50-Percent-Renewable-Energy-by-2021#.

kV transmission line to transmit power from Quebec, Canada to New York City.[360] The project will start at the U.S.-Canada border and run the length of Lake Champlain and through parts of the Hudson River.[361]

On January 25, 2010, Champlain filed an application with the DOE for a Presidential Permit to cross the U.S.-Canada border.[362] The DOE served as the lead federal agency, and cooperating agencies included the Corps of Engineers, EPA, and the New York State Departments of Environmental Conservation and Public Service.[363]

The DOE issued a NOI to prepare an EIS on June 18, 2010.[364] On April 30, 2012, the DOE issued an Amended NOI modifying the scope of the EIS to reflect applicant-proposed revisions to the project.[365] They issued the DEIS on September 1, 2013[366] and published the FEIS in August 2014.[367] The DOE issued its ROD on September 24, 2014.[368]

The DOE issued Presidential Permit No. PP-362 on October 6, 2014.[369] On April 20, 2015, the Corps of Engineers issued a permit,[370] and on April 18, 2013, New York PSC issued a certificate to construct and operate the project.[371] On July 21, 2020, the DOE issued Presidential Permit PP–481 transferring the facilities authorized in PP–362 to CHPE LLC.[372] On April 30, 2021, DOE issued Presidential Permit No. PP–481–1, amending the permit to incorporate proposed revisions to the project route and authorizing the increase in the project's capacity from 1,000 MW to 1,250 MW.[373] On March 22, 2022, the DOE issued an amended Presidential Permit No. PP–481–2 to clarify the maximum non-simultaneous rate of transmission to account for anticipated line losses. [374]

360. "Champlain Hudson Power Express ("Champlain") Receives Presidential Permit," Blackstone (Oct. 7, 2014), available at https://www.blackstone.com/news/press/champlain-hudson-power-express-receives-presidential-permit/ ; Champlain DOE FEIS Volume I: Impact Analysis at S-14 (Aug. 2014), available at http://chpexpresseis.org/docs/library/final-eis/easy/CHPE%20FEIS%20Vol%20I_Impact%20Analyses_Aug14%20(1%20of%202).pdf.

361. "Champlain Hudson Power Express Receives Presidential Permit."

362. Champlain DOE ROD for Issuing a Presidential Permit, 79 Fed. Reg. 59258 (Oct. 1, 2014), available at https://www.energy.gov/nepa/articles/eis-0447-record-decision.

363. *Id.* at 59259.

364. Champlain DOE NOI to prepare EIS, 75 Fed. Reg. 34720 (June 18, 2010), available at https://www.federalregister.gov/documents/2010/06/18/2010-14760/notice-of-intent-to-prepare-an-environmental-impact-statement-and-to-conduct-public-scoping-meetings.

365. Champlain DOE Amended NOI to Modify EIS Scope, 77 Fed. Reg. 25472 (Apr. 30, 2012), available at https://www.federalregister.gov/documents/2012/04/30/2012-10304/amended-notice-of-intent-to-modify-the-scope-of-the-environmental-impact-statement-for-the-champlain.

366. Champlain DOE DEIS Volume I: Impact Analysis (Sept. 2013), available at http://chpexpresseis.org/docs/library/environmental-impact-statement/easy/CHPE%20DEIS_Vol%20I_Part%20I.pdf.

367. Champlain DOE FEIS Volume I: Impact Analysis (Aug. 2014), available at http://chpexpresseis.org/docs/library/final-eis/easy/CHPE%20FEIS%20Vol%20I_Impact%20Analyses_Aug14%20(1%20of%202).pdf.

368. Champlain DOE ROD for Issuing a Presidential Permit, OE Docket No. PP-362 (Sept. 24, 2014), available at http://www.chpexpresseis.org/docs/library/CHPE%20ROD%2009_24_2014.pdf.

369. Champlain DOE Presidential Permit, OE Docket No. PP-362 (Oct. 6, 2014), available at https://www.energy.gov/sites/prod/files/2014/10/f18/PP-362%20CHPE%20FINAL.pdf.

370. Champlain Corps of Engineers Permit (April 20, 2015), available at https://chpexpress.com/wp-content/uploads/2022/07/CHPE-Army-Corps-Permit-with-modifications-1-5-rev.pdf.

371. Champlain NYPSC Order Granting Certificate of Environmental Compatibility and Public Need (Apr. 18, 2013), available at https://chpexpress.com/wp-content/uploads/2020/03/permit-PSC.pdf.

372. Champlain DOE Presidential Permit PP-481 (July 21, 2020), available at https://www.energy.gov/sites/prod/files/2020/07/f76/PP-481_CHPE%20LLC.pdf.

373. Champlain DOE Presidential Permit PP-481-1 (Apr. 30, 2021), available at https://www.energy.gov/sites/default/files/2021-04/PP-481-1_CHPE%20LLC_Final.pdf.

374. Champlain DOE Presidential Permit PP-481-2, (Mar. 22, 2022), available at https://www.energy.gov/sites/default/files/2022-03/PP-481-2_CHPE%20LLC%20Final%20Signed.pdf.

Champlain started construction on November 30, 2022[375] and expects the line to be fully operational in spring 2026.[376]

Champlain worked closely with affected communities throughout project development and provided extensive community benefits that both helped overcome opposition to the project, and garner community support.[377]

Timeline:

January 25, 2010	Champlain applies to DOE for Presidential Permit
June 18, 2010	DOE NOI to prepare a DEIS
April 18, 2013	New York PSC issues certificate
September 2013	DOE Draft EIS
August 2014	DOE Final EIS
September 24, 2014	DOE ROD
October 6, 2014	DOE Presidential Permit
April 2015	Corps of Engineers permit
April 30, 2021	DOE amended Presidential Permit
March 22, 2022	DOE amended Presidential Permit
November 30, 2022	Champlain begins construction
Spring 2026	Project expected to be operational

28. Ten West Link Transmission Line Project

Main Takeaways

- Meaningful stakeholder engagement can help avoid permitting delays.
- Coordination and collaboration facilitates the permitting process.

Summary

DCR Transmission (DCRT) proposed the Ten West Link Transmission Line Project, a 125-mile, 500-kV transmission line from Tonopah, Arizona to Blythe, California.[378] The project is designed to transmit 3,200 MW of electricity and provide interconnection capability for new renewable projects in the region.[379] The proposed route would cross 83 miles of federal land, including lands managed by the BLM, Bureau of Rec-

375. "Governor Hochul Announces Start of Construction on 339-Mile Champlain Hudson Power Express Transmission Line to Bring Clean Energy to New York City," Governor Kathy Hochul Official Website (Nov. 30, 2022), available at https://www.governor.ny.gov/news/governor-hochul-announces-start-construction-339-mile-champlain-hudson-power-express.

376. Project website, available at https://chpexpress.com/#.

377. "How a $6B transmission project made it in New York," E&E News (Mar. 3, 2023), available at https://www.eenews.net/articles/how-a-6b-transmission-project-made-it-in-new-york/; CHPE Press Release (Nov. 1, 2022), available at https://chpexpress.com/news/champlain-hudson-power-express-announces-financial-close/.

378. Power Technology, available at https://www.power-technology.com/projects/ten-west-link-transmission-line-project-usa/?cf-view.

379. Ten West BLM Scoping Report at 4 (June 21, 2016), available at https://eplanning.blm.gov/public_projects/nepa/59013/77409/86065/Ten_West_Link_scoping_report.pdf.

lamation, and the FWS-managed Kofa National Wildlife Refuge (NWR).[380]

On September 14, 2015, DCRT filed a ROW application with the BLM.[381] On March 23, 2016, the BLM, as lead agency, issued a NOI to prepare an EIS.[382] On September 22, 2016, the project was listed on the FAST-41 dashboard, which provided a coordinated and transparent environmental review and authorization process involving a number of stakeholders including the BLM, cooperating agencies, tribal leadership, and local communities.[383] In response to scoping comments that raised a number of concerns, most notably the route across the Kofa NWR,[384] the August 2018 DEIS identified a preferred alternative that resolved a number of stakeholder concerns, including avoiding the Kofa NWR.[385] The BLM and cooperating agencies issued a FEIS in September 2019.[386]

As discussed in the BLM's November 2019 ROD, the Selected Alternative was developed to emphasize the use of BLM utility corridors while minimizing impacts to biological, cultural, recreational, and other resources and public uses, including avoiding the Kofa NWR and areas of dense cultural resources near the Mule Mountains in California, and residential and other development near Quartzsite, Arizona, and Blythe, California.[387] The alternative also minimizes impacts to the Colorado River Indian Tribes (CRIT) Reservation and private agricultural land in California.[388]

The ACC approved the Arizona portion of the project on March 31, 2020.[389] The CPUC issued a certificate on November 5, 2021.[390] DCRT commenced construction of the project on January 19, 2023.[391]

Timeline:

September 14, 2015	DCRT files ROW with BLM
March 23, 2016	BLM NOI to prepare a DEIS
September 22, 2016	Project listed on FAST-41 dashboard
August 2018	BLM NOA of DEIS

380. Ten West Link BLM DEIS at Abstract (Aug. 2018), available at https://eplanning.blm.gov/public_projects/nepa/59013/156052/191072/Ten_West_Link_DEIS_.pdf.

381. Ten West Webpage on Permitting Dashboard, Federal Infrastructure Projects, available at https://www.permits.performance.gov/permitting-project/fast-41-covered-projects/ten-west-link.

382. Ten West Link BLM NOI to prepare an EIS, 81 Fed. Reg. 15556 (Mar. 23, 2016), available at https://www.federalregister.gov/documents/2016/03/23/2016-06626/notice-of-intent-to-prepare-an-environmental-impact-statement-for-the-proposed-ten-west-link.

383. Ten West Webpage on Permitting Dashboard; "Ten West Link Transmission Line Project Breaks Ground," Permitting Dashboard, Federal Infrastructure Projects (Jan. 20, 2023), available at https://www.permits.performance.gov/fpisc-content/ten-west-link-transmission-line-project-breaks-ground.

384. Ten West Link BLM Scoping Report at 11.

385. Ten West Link BLM DEIS at 4-49.

386. Ten West Link BLM FEIS (Sept. 2019), available at https://eplanning.blm.gov/public_projects/nepa/59013/20003312/250003944/Final_EIS_Ten_West_Link.pdf.

387. Ten West Link BLM ROD at 3 (Nov. 2019), available at https://eplanning.blm.gov/public_projects/nepa/59013/20008845/250010401/Record_of_Decision.pdf.

388. *Id.*

389. Ten West Link Arizona Corporation Commission Order Approving Certificate of Environmental Compatibility, Docket No. L-21088A-19-0309-00185 (Mar. 31, 2020), available at https://docket.images.azcc.gov/0000201314.pdf?i=1704036930639.

390. Ten West Link CPUC Decision Granting Certificate of Public Convenience and Necessity (Nov. 5, 2021), available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M420/K858/420858355.PDF.

391. "Ten West Link Commemorates Start of Construction on Transmission Line Connecting California and the Desert Southwest," Ten West Press Release (Jan. 20, 2023), available at https://tenwestlink.com/wp-content/uploads/2023/04/011923_DCRT-News-Release_FINAL.pdf.

September 2019	BLM NOA of FEIS
November 2019	BLM ROD
March 31, 2020	ACC approves AZ Certificate
November 5, 2021	CPUC Certificate of PCN
January 19, 2023	Construction commences

29. Gateway West Transmission

Main Takeaway

- Large scale projects crossing multiple states, federal lands, and private lands present more challenges and take more time to permit.

Summary

Idaho Power and PacifiCorp, d/b/a Rocky Mountain Power ("applicants"), proposed the Gateway West project comprising ten transmission line segments originating in Wyoming and terminating at the Hemingway substation in Idaho, totalling approximately 1,103 miles of new 230-kV and 500-kV lines.[392] Gateway West is part of PacifiCorps' Energy Gateway Transmission Expansion Project.[393] On May 7, 2007, as revised in October 2007, August 2008, May 2009, January 2010, February 2012, and August 2013, PacifiCorp applied to the BLM for a ROW on BLM-administered lands.[394]

In May 2008, the BLM issued a NOI to prepare an EIS.[395] The BLM served as the lead federal agency, and cooperating agencies included a number of federal, state, and local agencies.[396] In April 2013, BLM issued the FEIS,[397] and on November 12, 2013, issued its ROD, which explained that the BLM decided to pursue a phased decision for the project by authorizing Segments 1 through 7 and Segment 10 but deferring the decision for Segments 8 and 9 due to a "lack of complementary siting preferences among federal, state, and local authorizing entities in Idaho.[398]

In August 2014, the applicants submitted a revised ROW application for segments 8 and 9.[399] On September 19, 2014, BLM issued a NOI to prepare a supplemental EIS.[400] In October 2016, the BLM published a final

392. Gateway West BLM DEIS at ES-1 (July 2011), available at https://eplanning.blm.gov/public_projects/nepa/65164/78836/90552/05-TOC-acronymlist.pdf.

393. Project website, available at https://www.pacificorp.com/transmission/transmission-projects/energy-gateway.html.

394. Gateway West BLM NOA of ROD, 78 Fed. Reg. 68467 (Nov. 14, 2013), available at https://www.federalregister.gov/documents/2013/11/14/2013-27261/notice-of-availability-of-the-record-of-decision-for-the-gateway-west-230345500-kv-transmission-line.

395. Gateway West BLM NOI to Prepare an EIS, 78 Fed Reg 28425 (May 16, 2008), available at https://casetext.com/federal-register/notice-of-intent-to-prepare-an-environmental-impact-statement-for-the-gateway-west-230500-kv-transmission-line-project-in-idaho-and-wyoming-and-possible-land-use-plan-amendments.

396. *Id*.

397. Gateway West BLM FEIS (Apr. 2013), available at https://eplanning.blm.gov/public_projects/nepa/65164/78833/90518/001-CoverAbstr.pdf.

398 Gateway West BLM ROD at 3 (Nov. 12, 2013), available at https://eplanning.blm.gov/public_projects/nepa/65164/78824/90495/02-RODwoutAppendices.pdf.

399. Gateway West NOI to prepare a Supplemental EIS and possible Land Use Plan Amendments for Segments 8 and 9, 79 Fed. Reg. 56399 (Sept. 9, 2014), available at https://www.federalregister.gov/documents/2014/09/19/2014-22408/notice-of-intent-to-prepare-a-supplemental-environmental-impact-statement-and-possible-land-use-plan.

400. *Id*.

supplemental EIS for segments 8 and 9.[401]

The BLM issued its ROD for Segments 8 and 9 in January 2017.[402] The State of Idaho, Owyhee County, Idaho, and three environmental organizations appealed the BLM's ROW decision to the Interior Board of Land Appeals (IBLA), and the Governor of Idaho requested that the BLM reconsider the January 19, 2017 decision and select an alternative with fewer impacts to State and county resources and communities.[403] On April 18, 2017, the case was remanded to BLM.[404]

On May 5, 2017, Congress passed the Morley Nelson Snake River Birds of Prey National Conservation Area Boundary Modification Act, directing the BLM to issue a ROW to segments 8 and 9 through the Morley Nelson Snake River Birds of Prey National Conservation Area, which represented the portion of an (unselected) alternative from the supplemental EIS.[405]

On August 28, 2017, the BLM issued a NOI to prepare an EA that would rely on the 2013 EIS and the 2016 final supplemental EIS.[406] The final EA and Finding of No New Significant Impact (FONNSI) were issued on January 5, 2018.[407] On April 26, 2018, the BLM issued a Notice of Availability for the decision authorizing the ROW for segments 8 and 9.[408] One section of Gateway West is energized, and the others are in various stages of construction.[409]

Timeline:

May 7, 2007	Applicants file for BLM ROW
October 2007	Applicants revise BLM ROW application
May 16, 2008	BLM NOI to prepare EIS
August 2008	Applicants revise BLM ROW application
May 2009	Applicants revise BLM ROW application
January 2010	Applicants revise BLM ROW application
July 2011	BLM DEIS
April 2013	BLM FEIS

401. Gateway West BLM final Supplemental EIS and Proposed Land Use Plan Amendments for Segments 8 and 9 (Oct. 2016), available at https://eplanning.blm.gov/public_projects/nepa/39829/84776/101489/Main_Text_Gateway_West_Final_SEIS.pdf.

402. Gateway West BLM ROD Segments 8 and 9 (Jan. 2017), available at https://eplanning.blm.gov/public_projects/nepa/39829/95570/115576/GWW_Segments_8_and_9_FINAL_ROD_without_appendices.pdf.

403. "BLM re-opens comment on authorization of Gateway West transmission line," BLM Press Release (Aug. 28, 2017), available at https://www.blm.gov/press-release/blm-re-opens-comment-authorization-gateway-west-transmission-line; Gateway West Segments 8 & 9 Permitting Dashboard, Federal Infrastructure Projects, available at permits.performance.gov/permitting-project/fast-41-covered-projects/gateway-west-segments-8-9.

404. Gateway West BLM NOA of ROD Segments 8 and 9, 83 Fed. Reg. 18342 (Apr. 26, 2018), available at https://www.federalregister.gov/documents/2018/04/26/2018-08808/notice-of-availability-of-decision-record-for-the-gateway-west-transmission-line-project-and.

405. Gateway West Segments 8 & 9 Permitting Dashboard; Gateway West BLM NOI to prepare an EA to Reconsider ROD Approving Segments 8 and 9, 82 Fed. Reg. 40797 (Aug. 28, 2017), available at https://www.federalregister.gov/documents/2017/08/28/2017-18181/notice-of-intent-to-prepare-an-environmental-assessment-to-reconsider-the-january-19-2017-record-of.

406. Gateway West BLM NOI to prepare an EA to Reconsider ROD Approving Segments 8 and 9 at 40798.

407. Gateway West BLM EA and FONNSI for Segments 8 & 9 (Jan. 5, 2018), available at https://eplanning.blm.gov/public_projects/nepa/92974/130145/158278/2_GWW_EA_FINAL_JAN2018.pdf.

408. Gateway West BLM NOA of ROD Segments 8 and 9, 83 Fed. Reg. 18342 (Apr. 26, 2018), available at https://www.federalregister.gov/documents/2018/04/26/2018-08808/notice-of-availability-of-decision-record-for-the-gateway-west-transmission-line-project-and.

409. Gateway West Project Website, available at https://www.pacificorp.com/transmission/transmission-projects/energy-gateway/gateway-west.html.

August 2013	Applicants revise BLM ROW application
November 14, 2013	BLM ROD approving segments 1-7, deferring 8 & 9 review
August 2014	Applicants file ROW application for segments 8 & 9
September 19, 2014	BLM NOI to prepare supplemental EIS
October 7, 2016	BLM NOA of supplemental EIS
January 19, 2017	BLM supplemental EIS ROD
April 18, 2017	IBLA rescinds and remands supplemental EIS ROD
May 5, 2017	BLM directed to issue specific ROW for segments 8 & 9
August 28, 2017	BLM NOI to prepare an EA
January 5, 2018	BLM final EA and FONSI
March 30, 2018	BLM ROD/ROW for segments 8 & 9
2020-to date	Some segments operational, others in construction

30. Cardinal-Hickory Creek Transmission Line Project

Main Takeaways

- An efficient NEPA and permitting process was held up by state and federal litigation.
- Although partially built, the project is awaiting FWS determination to cross Refuge land.

Summary

Dairyland Power Cooperative, American Transmission Company LLC, and ITC Midwest LLC ("utilities") proposed a 125-mile, 345-kV transmission line between Dane County, Wisconsin and Dubuque County, Iowa.[410] Dairyland Power Cooperative requested RUS financing for its portion of the project.[411] The RUS served as the lead agency and the FWS and Corps of Engineers as cooperating agencies.[412] The FWS evaluated the utilities' request for a ROW easement and a Special Use Permit to cross the Upper Mississippi River National Wildlife and Fish Refuge ("Refuge").[413] On October 18, 2016, the RUS published a NOI to prepare an EIS.[414] The RUS issued the DEIS in December 2018,[415] and the FEIS in October 2019.[416] On January 16, 2020, the RUS, FWS, and the Corps signed the ROD.[417]

In September 2020, the FWS determined that permitting the line to cross through the Refuge would be compatible with the Refuge Act and granted a ROW permit.[418] Several environmental groups sued, arguing

410. Cardinal-Hickory Creek RUS NOI to prepare EIS, 81 Fed. Reg. 71696 (Oct. 18, 2016), available at https://www.rd.usda.gov/sites/default/files/UWP-NOI.pdf.

411. *Id.*

412. *Id.* at 71697.

413. Cardinal-Hickory Creek RUS ROD at 4 (Jan. 16, 2020), available at https://www.rd.usda.gov/sites/default/files/CHC_ROD_Final_508.pdf.

414. Cardinal-Hickory Creek RUS NOI to prepare EIS.

415. Cardinal-Hickory Creek RUS DEIS (Dec. 2018), available at https://www.rd.usda.gov/sites/default/files/CHC_DEIS_Vol_I_Web_508_111918.pdf.

416. Cardinal-Hickory Creek RUS FEIS Volume 1 Chapters 1-2 (Oct. 2019), available at https://www.rd.usda.gov/files/Vol_I_FEIS_Ch_1-2_508.pdf.

417. Cardinal-Hickory Creek RUS ROD.

418. *Driftless Area Land Conservancy v. Rural Utils. Serv.*, 74 F.4th 489, 2 (7th Cir. 2023), available at https://www.govinfo.gov/content/pkg/USCOURTS-ca7-22-01347/pdf/USCOURTS-ca7-22-01347-0.pdf.

that the permit violated the Refuge Act and NEPA.[419] While litigation was pending, the utilities applied for an amended permit and also asked the FWS to consider a land exchange as an alternative to the permit.[420] During this review, in an August 27, 2021 letter, the FWS revoked the compatibility determination and the ROW permit across the Refuge after determining that issuance was based on an erroneous interpretation of existing easements.[421] The letter also promised to consider the proposed land exchange.[422]

After protracted litigation regarding the EIS and the FWS permit issuances, on July 19, 2023, the U.S. Court of Appeals for the 7th Circuit removed a preliminary injunction that barred developers from building a section of the project across the Refuge, noting that the issue was "premature" because the FWS had not made a final decision on whether the power line could cross the Upper Mississippi National Fish and Wildlife Refuge, nor on the proposed land swap in exchange for approval to cross the refuge.[423]

RUS issued the draft Supplemental EA in September 2023.[424] In October 2023, the RUS issued a final supplemental EA that will be used to inform the FWS on the impacts from a land exchange across the Refuge.[425]

The eastern half of the project was energized on December 7, 2023.[426] Project construction in Iowa and Wisconsin is nearly complete.[427]

Timeline:

October 18, 2016	RUS NOI to prepare DEIS
December 2018	RUS DEIS
October 2019	RUS FEIS
January 16, 2020	RUS/Corps/FWS ROD
September 2020	FWS approves ROW
August 27, 2021	FWS rescinds Refuge permit/compatibility determination
July 19, 2023	Seventh Circuit removes preliminary injunction
September 2023	RUS draft supplemental EA
October 2023	RUS final supplemental EA
December 7, 2023	Eastern half of project operational

419. *Id.*

420. *Id.*

421. *Id.*

422. *Id.*

423. *Id.* at 5-6.

424. Cardinal-Hickory Creek RUS draft Supplemental EA (Sept. 2023), available at https://www.rd.usda.gov/media/file/download/cardinal-hickpry-chc-sea-508.pdf.

425. Cardinal-Hickory Creek RUS final Supplemental EA (Oct. 2023), available at https://www.rd.usda.gov/media/file/download/chc-final-sea-508.pdf.

426. "Eastern Half of Cardinal-Hickory Creek Transmission Line Energized," Cardinal Hickory Creek, Cardinal-Hickory Creek Press Release (Dec. 11, 2023), available at https://www.cardinal-hickorycreek.com/joint-news-release-eastern-half-of-cardinal-hickory-creek-transmission-line-energized/.

427. "Dairyland and co-owners, ATC and ITC Midwest, are pleased by Seventh Circuit decision in the Cardinal-Hickory Creek federal National Environmental Policy Act (NEPA) case," Dairyland Power Website (undated), available at https://www.dairylandpower.com/positive-ruling-cardinal-hickory-creek-project.

31. Mona to Oquirrh Transmission Corridor Project

Main Takeaway

- A shorter line within one state results in a more efficient permitting process. This process took just more than six years from the ROW application to project operation.

Summary

PacifiCorps, d/b/a Rocky Mountain Power, proposed a 69-mile, 500-kV transmission line from the Mona Substation near Mona, Utah, to a new Mona Annex Substation, that would continue on to a new Limber Substation, and two 345kV lines from the Limber Substation comprising 31 miles to the existing Oquirrh Substation in West Jordan, Utah, and a 45-mile line to the existing Terminal Substation in Salt Lake City, Utah.[428]

The line is part of PacifiCorps' Energy Gateway Transmission Expansion Project.[429] Between issuance of the draft and FEIS, they revised the project from a 3,000 MW transfer capacity to a 1,500 MW design configuration.[430]

Portions of the project would cross lands administered by two BLM Field Offices.[431] In January 2007, Rocky Mountain filed a ROW application with the BLM, which acted as the lead agency, and with the Utah Governor's Public Lands Policy Coordination Office, which represented all Utah state agencies, serving as a cooperating agency.[432] The BLM published the NOI to prepare an EIS on October 16, 2007.[433] The BLM published the NOA of the DEIS on May 15, 2009[434] and issued the FEIS in April 2010.[435] The BLM published the NOA of the ROD on February 10, 2011, authorizing a ROW on BLM-administered lands.[436]

On June 16, 2010, the Utah PSC approved the project.[437] The project was placed in service in May 2013.[438]

Timeline:

January 2007	PacifiCorp applies for BLM ROW
October 16, 2007	BLM NOI to prepare DEIS
May 15, 2009	BLM NOA of DEIS

428. Project website, available at https://www.pacificorp.com/transmission/transmission-projects/energy-gateway/gateway-central.html.

429. Project website.

430. Mona-Oquirrh BLM FEIS Volume II at A-1 (Apr. 2010), available at https://pscdocs.utah.gov/electric/10docs/1003539/66598ExUUUApp.pdf.

431. Mona-Oquirrh BLM FEIS Volume I at S-1.

432. Mona-Oquirrh BLM FEIS Volume I at 1-1.

433. Mona-Oquirrh BLM NOI to prepare EIS, 72 Fed. Reg. 58681 (Oct. 16, 2007), available at https://casetext.com/federal-register/notice-of-intent-to-prepare-an-environmental-impact-statement-to-analyze-pacificorps-mona-to-oquirrh-double-circuit-500345-kilovolt-kv-transmission-line-ut-82829-and-amend-the-pony-express-resource-management-plan-for-the-salt-lake-field-office-utah.

434. Mona-Oquirrh BLM NOA of DEIS, 74 Fed. Reg. 22960 (May 15, 2009), available at https://www.federalregister.gov/documents/2009/05/15/E9-11297/notice-of-availability-of-draft-environmental-impact-statement-for-the-mona-to-oquirrh-transmission.

435. Mona-Oquirrh BLM FEIS.

436. Mona-Oquirrh BLM NOA for ROD, 76 Fed. Reg. 7581 (Feb. 10, 2011), available at https://www.govinfo.gov/app/details/FR-2011-02-10/2011-2993.

437. Mona-Oquirrh Application for Certificate of Public Convenience and Necessity (June 16, 2010), available at https://pscdocs.utah.gov/electric/17docs/1703540/302760RMPCrossEx2RepTransMay3120186-12-2018.pdf.

438. Project website, available at https://www.pacificorp.com/transmission/transmission-projects/energy-gateway/gateway-central.html.

April 2010	BLM FEIS
June 16, 2010	Utah PSC approval
February 10, 2011	BLM NOA of ROD/ROW
May 2013	Project in-service

32. Sunrise PowerLink Transmission Project

Main Takeaway

- Early stakeholder engagement can facilitate a more efficient permitting process.

Summary

San Diego Gas & Electric Company (SDG&E) proposed to construct a new 500-kV transmission line from the existing Imperial Valley Substation to a new Central Substation to be located in San Diego County.[439] Between the proposed new Central East Substation and SDG&E's existing Peñasquitos Substation (in the City of San Diego), SDG&E would construct a new 59-mile 230 kV double-circuit and single-circuit transmission line, portions of which would be underground.[440] The transmission lines would total approximately 150 miles.[441]

To assist in the development of the proposed route, SDG&E initiated a comprehensive public outreach program starting in 2005, designed to include the public and project stakeholders early in the route selection process.[442] On November 2, 2005, SDG&E filed a ROW application with the BLM,[443] and on December 14, 2005, SDG&E filed an application for a Certificate of Public Convenience and Necessity with the CPUC.[444] On August 31, 2006, the BLM issued a NOI to prepare a joint EIS/EIR with the CPUC.[445] Several federal agencies served as cooperating agencies, including the Forest Service.[446] On January 11, 2008, the BLM issued an NOA of the DEIS/EIR.[447] Based on new information involving changes to the "connected actions" analyzed in the DEIS/EIR and route revisions proposed by SDG&E in comments on the DEIS/EIR, the

439. Sunrise PowerLink BLM and CPUC FEIR/FEIS at ES-13 (Oct. 2008), available at https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/JVR/AdminRecord/IBR/319%20CPUC%20and%20BLM%202008%20Final-Environmental-Impact-Report%20Sunrise%20Power%20Link-October-2008.pdf.

440. *Id.*

441. *Id.*

442. Sunrise PowerLink CPUC Application for Certificate of Public Convenience and Necessity at I-2 to I-5 (Dec. 14, 2005), available at https://www.sdge.com/sites/default/files/A_05_12_014_public_report_0.pdf.

443. Sunrise PowerLink CPUC/BLM FEIS/EIR at ES-1 (Oct. 2008), available at https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/JVR/AdminRecord/IBR/319%20CPUC%20and%20BLM%202008%20Final-Environmental-Impact-Report%20Sunrise%20Power%20Link-October-2008.pdf.

444. *Id.*

445. Sunrise PowerLink BLM NOI to prepare Joint EIS/EIR, 71 Fed. Reg. 51848 (Aug. 31, 2006), available at https://www.federalregister.gov/documents/2006/08/31/E6-14502/notice-of-intent-to-prepare-a-joint-environmental-impact-statementreport-and-proposed-land-use-plan.

446. Sunrise PowerLink BLM ROD at 2 (Jan. 20, 2009), available at https://ia.cpuc.ca.gov/Environment/Info/aspen/sunrise/rod.pdf.

447. Sunrise PowerLink BLM NOA of DEIS/DEIR, 73 Fed. Reg. 2062 (Jan. 11, 2008), available at https://www.federalregister.gov/documents/2008/01/11/E8-280/notice-of-availability-of-draft-environmental-impact-statementenvironmental-impact-report-eiseir-and.

BLM and the CPUC issued a Recirculated Draft EIR/Supplemental DEIS on July 11, 2008.[448]

The BLM issued its FEIS/EIR in October 2008.[449] On December 8, 2008, the CPUC issued a decision approving a certificate for the project.[450] On January 20, 2009, the BLM issued its ROD.[451] Both the CPUC and the BLM selected a route that crosses the Cleveland National Forest.[452] In January 2009, SDG&E applied to the Forest Service for a Special Use Permit.[453] On December 10, 2010, the Forest Service issued the permit.[454] Mainline construction started in November 2010 and the project was energized in June 2012.[455]

Timeline:

November 2, 2005	SDG&E applies for BLM ROW
December 14, 2005	SDG&E applies for CPUC Certificate of PCN
August 31, 2006	BLM NOI to prepare a DEIS
January 11, 2008	BLM NOA of DEIS/EIR
July 11, 2008	BLM NOA SDEIS/EIR
October 2008	BLM FEIS/EIR
December 8, 2008	CPUC Certificate
January 2009	SDG&E applies to Forest Service for Special Use Permit
January 20, 2009	BLM ROD
July 9, 2010	Forest Service ROD
November 2010	Mainline project construction begins
December 10, 2010	Forest Service grants Special Use Permit
June 2012	Project energized

33. Devers-Palo Verde No. 2 Transmission Line

Main Takeaways

- One state can stop or significantly delay a project if it finds insufficient benefits to the state.
- Failing to resolve key issues before an application is filed can add unnecessary challenges to project design.

---

448. Sunrise PowerLink BLM NOA of Recirculated DEIR/Supplemental DEIS, 73 Fed. Reg. 39982, 39983 (July 11, 2008), available at https://www.federalregister.gov/documents/2008/07/11/E8-15943/notice-of-availability-of-the-recirculated-draft-environmental-impact-reportsupplemental-draft; Sunrise PowerLink Recirculated DEIR/Supplemental DEIS Introduction at 1-1 to 1-6 (July 2008), available at https://ia.cpuc.ca.gov/Environment/info/aspen/sunrise/rdeir/rdeir/1_intro.pdf.

449. Sunrise PowerLink CPUC/BLM FEIS/EIR.

450. Sunrise PowerLink CPUC Decision Granting Certificate of Public Convenience and Necessity (Dec. 24, 2008), available at https://ia.cpuc.ca.gov/Environment/info/aspen/sunrise/D08-12-058.pdf.

451. Sunrise PowerLink BLM ROD.

452. Sunrise PowerLink Forest Service ROD at 1 (July 9, 2010), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5320675.pdf.

453. *Id.*

454. Sunrise PowerLink Forest Service Special Use Permit (Dec. 10, 2010), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5320668.pdf.

455. CPUC website, available at https://ia.cpuc.ca.gov/Environment/info/aspen/sunrise/sunrise.htm#constprog_mm.

Summary

On April 11, 2005, Southern California Edison (SCE) filed an application with the CPUC for the Devers-Palo Verde No. 2 (DPV2) Transmission Line, proposing 278 miles of transmission line, with approximately 176 miles in California and 102 miles in Arizona, and an upgraded 48.2 miles of SCE's existing 230-kV lines between the Devers Substation west to San Bernardino, CA (the 48.2 mile segment referred to as "West of Devers").[456] Approximately 4.4 miles of the 48.2 mile segment would cross tribal lands owned by the Morongo Band of Mission Indians, for which SCE leases the ROWs.[457] The leases were to expire in 2010 and 2019, and at the time of the application SCE was negotiating with the Morongo Band for renewal in order to accommodate the proposed West of Devers upgrade.[458]

As proposed, the project would cross BLM land in both California and Arizona, and a small portion would cross Forest Service land in California.[459] On December 7, 2005, the BLM, acting as lead federal agency, issued a NOI to jointly prepare an EIS/EIR with the CPUC.[460] The May 2006 DEIS/EIR eliminated the West of Devers segment because SCE and the Morongo Band had not reached a ROW agreement.[461] Instead, the review analyzed a new alternative upgrade, which involved a second 41.6-mile, 500-kV line next to the existing Devers-Valley 500-kV #1 line.[462] The BLM and CPUC completed the FEIR/EIS in late October 2006.[463] The BLM delayed issuing its ROD pending approval of the Arizona portion by the ACC.[464]

On January 25, 2007, the CPUC approved the DPV2 Project.[465] On June 7, 2007, the ACC denied approval for the Arizona portion of the line.[466] The ACC's primary rationale was that Arizona would bear many project impacts with minimal (if any) benefits.[467] On May 14, 2008, as twice supplemented in September 2008, SCE filed with the CPUC a Petition for Modification (PFM) to permit SCE to commence construction of only the California portion of DPV2 as reviewed in the FEIS/EIR, in light of the renewable resource potential in the vicinity of the terminus of the project near Blythe, California.[468] If Arizona did not approve the section of the project in Arizona, SCE stated, DPV2 could be used to deliver renewable resources from anticipated projects in Blythe to California load centers.[469] In February 2009, the CPUC prepared an addendum to the 2006 final

---

456. Devers-Palo Verde CPUC Application, https://ia.cpuc.ca.gov/environment/info/aspen/dpv2/pea/application.pdf; DPV2 BLM and CPUC DEIS/DEIR at B-1 to B-2, B-21 (May 2006), available at https://ia.cpuc.ca.gov/environment/info/aspen/dpv2/deir/b_project_description.pdf.

457. DPV2 BLM and CPUC DEIS/DEIR at B-21.

458. *Id*.

459. Id.; DPV2 BLM and CPUC DEIS/DEIR Executive Summary at ES-21 (May 2006), available at https://eplanning.blm.gov/public_projects/nepa/66556/81394/94961/Devers-Palo_executive_summary.pdf.

460. DPV2 BLM NOI to prepare EIS/EIR, 70 Fed. Reg. 72845 (Dec. 7, 2005), available at https://www.federalregister.gov/documents/2005/12/07/E5-6975/notice-of-intent-to-prepare-an-environmental-impact-statement-eisenvironmental-impact-report-eir-for.

461. West of Devers Upgrade Project BLM and CPUC DEIS/DEIR at A-2 (Aug. 2015), available at https://ia.cpuc.ca.gov/environment/info/aspen/westofdevers/deir/a_introduction.pdf.

462. DPV2 BLM and CPUC DEIS/DEIR at ES-28, ES-34, ES-57 (May 2006), available at https://eplanning.blm.gov/public_projects/nepa/66556/81394/94961/Devers-Palo_executive_summary.pdf.

463. DPV2 BLM and CPUC NOA of FEIS/FEIR (Oct. 24, 2006), available at https://ia.cpuc.ca.gov/environment/info/aspen/dpv2/fnoa.pdf.

464. DPV2 BLM NOA of ROD, 76 Fed. Reg. 42725, 42726 (July 19, 2011), available at https://www.govinfo.gov/content/pkg/FR-2011-07-19/pdf/2011-18186.pdf.

465. DPV2 CPUC Addendum to FEIR at 2 (Feb. 2009) available at https://docs.cpuc.ca.gov/Published/Graphics/110364.pdf.

466. DPV2 Arizona Corporation Commission Decision No. 69638 at 1, Docket No. L00000A-06-0295-00130 (June 6, 2007), available at https://images.edocket.azcc.gov/docketpdf/0000073735.pdf.

467. *Id*. at 6-8.

468. DPV2 CPUC Addendum to FEIR at 2-3.

469. *Id*.

EIR to analyze the impacts of the modifications, and on November 20, 2009, the CPUC authorized the PFM.[470]

In July 2011, the BLM and the Forest Service issued a joint ROD approving a combination of the proposed project and alternatives analyzed in the final EIR/EIS, including a transmission line on an alignment which begins at the Colorado River Station located near Blythe, California, and extends to the Devers Substation in Palm Springs, spanning 115 miles, a portion of which continues from the Devers Substation to the Valley Substation in Riverside County, spanning 41.6 miles.[471]

Project construction was completed by September 2013.[472]

Timeline

April 11, 2005	SCE applies to CPUC
December 2005	BLM NOI to prepare EIS/EIR jointly with CPUC
May 2006	BLM DEIS/EIR issued
October 2006	BLM FEIS/EIR issued
January 25, 2007	CPUC approves DPV2
June 7, 2007	ACC denies approval
May 2008-September 2008	SCE files Petition for Modification to build only in CA
February 2009	CPUC prepares addendum to 2006 final EIR
November 9, 2009	CPUC authorizes Petition for Modification
July 2011	BLM and Forest Service ROD
September 2013	Project construction completed

34. Northern Pass Transmission Line Project

Main Takeaway

- A state can kill a project even after the project has received key federal permits and has a power supply agreement.

Summary

As approved, the Northern Pass Transmission Line Project, proposed by Northern Pass Transmission LLC, is a 192-mile transmission line to transmit electricity from Canada across the U.S.-Canada border through northern New Hampshire.[473] The line, portions of which would be underground, would include a 300-kV HVDC line from the U.S.-Canada border to a converter station to be constructed in Franklin, New Hampshire, and from Franklin, a 345-kV line extending to an existing substation in Deerfield, NH.[474]

470. DPV2 CPUC/BLM CEQA Addendum to FEIS/FEA at 3-4 (Oct. 2012), available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M036/K346/36346286.pdf.

471. DPV2 BLM ROD at 10 (July 2011), available at https://ia.cpuc.ca.gov/environment/info/aspen/dpv2/record_of_decision_071911.pdf.

472. Project website, available at https://ia.cpuc.ca.gov/environment/info/aspen/dpv2/dpv2.htm.

473, Northern Pass DOE ROD for Issuing a Presidential Permit, 82 Fed. Reg. 55595 (Nov. 22, 2017), available at https://www.federalregister.gov/documents/2017/11/22/2017-25254/record-of-decision-for-issuing-a-presidential-permit-to-northern-pass-transmission-llc-for-the.

474, Northern Pass DOE Presidential Permit, OE Docket No. PP-371 at 1 (Nov. 16, 2017), available at https://www.energy.gov/oe/articles/pp-371-northern-pass-transmission-llc.

On October 14, 2010, Northern Pass applied to the DOE for a Presidential Permit to construct the line across the U.S.-Canada border.[475] Northern Pass amended its application in July 2013 and August 2015.[476] The DOE served as the lead agency and the Forest Service, Corps of Engineers, and the New Hampshire Office of Energy and Planning as cooperating agencies.[477] On February 11, 2011 the DOE released an initial NOI to prepare EIS.[478] They published the DEIS in July 2015.[479] On September 30, 2015, following an amended application from Northern Pass to address comments on the draft to increase the amount of the transmission line that would be buried, the DOE determined a supplemental EIS would be needed.[480] They issued the supplemental EIS in November 2015[481] and the FEIS in August 2017.[482] On November 16, 2017, the DOE concurrently issued a ROD[483] and a Presidential Permit.[484] The Forest Service issued its draft ROD in September 2017.[485]

In January 2018, Massachusetts, through its Clean Energy Request for Proposals, selected Northern Pass to deliver hydropower to the state through the line.[486]

In 2015, Northern Pass filed an application for a Certificate of Site and Facility with the New Hampshire Site Evaluation Committee.[487] On March 30, 2018, the New Hampshire Site Evaluation Committee rejected the project,[488] and on July 18, 2019, the New Hampshire Supreme Court affirmed the decision.[489] The project was canceled in July 2019.[490]

Timeline:

October 14, 2010	Northern Pass applies for Presidential Permit
February 11, 2011	DOE NOI to prepare EIS
July 2013	Northern Pass amends Presidential Permit application
July 2015	DOE DEIS
August 2015	Northern Pass amends Presidential Permit application

475, Northern Pass DOE ROD for Issuing a Presidential Permit at 55595.

476, *Id.* at 55595-55596.

477, *Id.* at 55597.

478. Northern Pass DOE NOI to prepare EIS, 76 Fed. Reg. 7828 (Feb. 11, 2011), available at https://www.federalregister.gov/documents/2011/02/11/2011-3147/notice-of-intent-to-prepare-an-environmental-impact-statement-and-conduct-public-scoping-meetings.

479. Northern Pass DOE DEIS (July 2015), available at https://www.energy.gov/sites/default/files/2015/07/f24/EIS-0463-DEIS-Summary-2015.pdf.

480. Northern Pass DOE NOI to prepare Supplement to the DEIS, 80 Fed. Reg. 58725 (Sept. 30, 2015), available at https://www.federalregister.gov/documents/2015/09/30/2015-24772/notice-of-intent-to-prepare-a-supplement-to-the-draft-northern-pass-transmission-line-project.

481. Northern Pass DOE Supplement to the DEIS (Nov. 2015), available at https://www.energy.gov/sites/default/files/2015/11/f27/EIS-0463-S1-DEIS-2015.pdf.

482. Northern Pass DOE FEIS (Aug. 2017), available at https://www.energy.gov/sites/default/files/2017/08/f35/EIS-0463-FEIS-Summary.pdf.

483. Northern Pass DOE ROD for Issuing a Presidential Permit.

484. Northern Pass DOE Presidential Permit.

485. Northern Pass Forest Service Draft ROD (Sept. 2017), available at https://www.forestsociety.org/document/draft-national-forest-decision-northern-pass.pdf.

486. "Mass. Taps Eversource's Northern Pass for Hydropower Project," Associated Press (Jan. 25, 2018), available at https://www.wbur.org/news/2018/01/25/hydropower-massachusetts-eversource.

487. Northern Pass Supreme Court of New Hampshire Appeal at 4 (July 19, 2019), available at https://cases.justia.com/new-hampshire/supreme-court/2019-2018-0468.pdf?ts=1563541492.

488. *Id.* at 6.

489. *Id.* at 3.

490. "Eversource abandons Northern Pass project after defeat in NH Supreme Court," Associated Press (July 26, 2019), available at https://www.wmur.com/article/eversource-northern-pass-project-update/28519439.

September 30, 2015	NOI to prepare supplemental EIS
October 2015	Application to NH Site Evaluation Committee
November 2015	DOE supplemental EIS
August 2017	DOE FEIS
September 2017	Forest Service draft ROD
November 2017	DOE ROD and Presidential Permit
January 2018	Massachusetts selects project to supply electricity
March 30, 2018	NH Site Evaluation Committee rejects project
July 18, 2019	NH Supreme Court upholds rejection
July 24, 2019	Project canceled

35. Potomac-Appalachian Transmission Highline

Main Takeaways

- Delay can result in project cancellation. Four years after PJM identified the need for the project, changes in the economy precluded the need for the project.
- The three state permitting agencies rejected applications before the NEPA process started.

Summary

PJM proposed the 765-kV transmission Potomac-Appalachian Transmission Highline (PATH) project to alleviate numerous projected reliability criteria violations identified in its Regional Transmission Expansion Plan.[491] It would require approvals from the three states it crossed: West Virginia, Virginia and Maryland.[492]

In May 2009, the developers submitted ROW applications for those portions of the project that would cross the NPS and Forest Service lands.[493] On June 17, 2010, the NPS issued a NOI to prepare an EIS.[494]

In 2009, the Maryland Public Service Commission (PSC) rejected PATH's application for regulatory approval as improperly filed.[495] It appears that the Virginia State Corporation Commission (SCC) and the West Virginia PSC also dismissed the applications they received, but available sources are inconclusive about the state approval proceedings due to the elapsed time since then and the unavailability of internet sources at that time.[496]

---

491. Potomac-Appalachian Transmission Highline (PATH) National Park Service and Forest Service NOI to prepare EIS, 75 Fed. Reg. 34477, 34478 (June 17, 2010), available at https://www.federalregister.gov/documents/2010/06/17/2010-14581/potomac-appalachian-transmission-highline-path-environmental-impact-statement-harpers-ferry-national.

492. *Id.* at 34477-334478.

493. *Id.*

494. *Id.*

495. Maryland PSC 2009 Annual Report at fn. 26 (undated), available at https://www.psc.state.md.us/wp-content/uploads/2009-Annual-Report.pdf.

496. Report to the Commission on Electric Utility Regulation of the Virginia General Assembly at 10, Virginia State Corporation Commission (Sept. 1, 2009), available at https://rga.lis.virginia.gov/Published/2009/RD193/PDF; Eto, Joseph H., *Building Electric Transmission Lines: A Review of Recent Transmission Projects*, Lawrence Berkeley National Laboratory, at 20 (September 2016), available at https://eta-publications.lbl.gov/sites/default/files/lbnl-1006330.pdf (providing a timeline but citing generally to the state agencies' websites, which do not contain archives going back as far as these proceedings); Project Wikipedia page, available at https://en.wikipedia.org/wiki/Potomac-Appalachian_Transmission_Highline (providing a timeline but citing broken links); Stop PATH WV, available at https://www.stoppathwv.com/index.html (containing a detailed timeline without sources).

On February 28, 2011, PJM requested that FirstEnergy and the AEP suspend the project, stating that "recent dramatic swings in economic forecasts and evolving public policies (particularly with respect to renewable energy) are adding greater uncertainty to our planning studies."[497] Thereafter, AEP and FirstEnergy with

drew the three applications in Virginia, Maryland and West Virginia.[498] In 2012, PJM removed the project from future plans.[499]

Timeline:

May 2009	Applicants file for NPS ROW
c. 2009	Applicants file for approvals in WV, VA, and MD
c. September 2009	MD PSC rejects application as improperly filed
c. October 2009	VA SCC files to dismiss application as inadequate
c. October 2009	WV PSC files to dismiss application
June 17, 2010	NPS NOI to prepare EIS
February 28, 2011	PJM requests applicants suspend project
2012	PJM removed project from future plans

36. San Luis Transmission Project

Main Takeaways

- Early screening, planning, and scoping processes can facilitate shorter review timelines. The NEPA process took only two and a half years, and was facilitated by WAPA screening potential alternatives through a vigorous planning and scoping process.
- Project was ultimately canceled because it was unable to get financing

Summary

WAPA is statutorily required to facilitate delivery of power to federally authorized projects including a set of facilities owned by Reclamation called the San Luis Unit (SLU), a part of the Central Valley Project.[500] In response to Reclamation's transmission request to WAPA to interconnect several key SLU facilities to WAPA's Central Valley transmission system, WAPA, in partnership with Duke-American Transmission Company (DATC), considered several transmission options, including, as ultimately selected, the San Luis Project comprising 95 miles of new transmission lines, a 65-mile, 500-kV line; a 20-mile, 230-kV line; a 3-mile, 230-kV line; and a seven-mile, 70-kV line.[501] WAPA would construct, own, maintain and operate the lines, which would be located mostly adjacent (whenever practicable) to existing transmission lines in Alameda,

497. "AEP Seeks to Withdraw Applications for PATH Project," PR Newswire (Feb. 28, 2011), available at https://www.prnewswire.com/news-releases/aep-seeks-to-withdraw-applications-for-path-project-117073768.html.

498 *Id.*

499 "PJM to Cancel High Voltage Transmission Line," Power Magazine (Jul. 19, 2012), available at https://www.powermag.com/pjm-to-cancel-high-voltage-transmission-line/; see also Eto, Building Electric Transmission Lines: A Review of Recent Transmission Projects at 21.

500. San Luis Transmission Project (SLTP) WAPA NOI to prepare EIS, 78 Fed. Reg. 70035 (Nov. 22, 2013), available at https://www.federalregister.gov/documents/2013/11/22/2013-28043/notice-of-intent-to-prepare-an-environmental-impact-statement-for-the-san-luis-transmission-projec.

501. SLTP WAPA ROD, 81 Fed. Reg. 28065, 28065-28066 (May 9, 2016), available at https://www.govinfo.gov/content/pkg/FR-2016-05-09/pdf/2016-10802.pdf.

San Joaquin, Stanislaus, and Merced Counties in California.[502]

WAPA issued a NOI to prepare an EIS, which noted a joint EIS/EIR would be prepared, on November 22, 2013.[503] WAPA served as the lead federal agency and the San Luis and Delta-Mendota Water Authority as the lead California agency.[504] Reclamation served as a cooperating agency.[505] In February 2015, WAPA prepared an updated Alternatives Screening Report, which presented all potential alternatives identified during the planning and scoping process and the reason the agency retained or eliminated each potential alternative from further consideration.[506]

The agencies issued the DEIS/EIR in July 2015[507] and the FEIS/EIR in March 2016.[508] The ROD was published on May 9, 2016.[509] On January 31, 2018, WAPA, San Luis & Delta-Mendota Water Authority, Reclamation, and DATC agreed to parameters for negotiating and developing a contract to construct the project.[510]

In October 2022, WAPA announced that it "will not be moving forward with executing the agreements necessary to implement the [SLTP]. The SLTP Proponent(s) were not able to achieve financing, and therefore, WAPA has cancelled work on the SLTP. The SLTP has been removed from WAPA's OASIS queue."[511]

Timeline:

November 22, 2013	WAPA NOI to prepare an EIS
February 2015	WAPA Updated Alternatives Screening Report
July 2015	WAPA DEIS/EIR
March 2016	WAPA FEIS/EIR
May 9, 2016	WAPA ROD
January 31, 2018	Agreement to negotiate construction terms and conditions
October 7, 2022	WAPA cancels project

37. Plains and Eastern Clean Line

Main Takeaway

- Political and public opposition, rather than regulatory process, can kill a project.

---

502. SLTP WAPA NOI to prepare EIS.

503. *Id.* at 70035.

504. *Id.*

505. *Id.*

506. SLTP WAPA Alternatives Screening Report (updated Feb. 2015), available at https://www.energy.gov/sites/prod/files/2016/03/f30/EIS-0496_SLTP_Final_EIS-EIR_3_Appendices_A-B_0.pdf.

507. SLTP WAPA & San Luis Delta-Mendota Water Authority DEIS (July 2015), available at https://www.energy.gov/sites/default/files/2015/08/f25/EIS-0496_San_Louis_DEIS__Main_2015-07.pdf.

508. SLTP WAPA & San Luis Delta-Mendota Water Authority FEIS (Mar. 2016), available at https://www.energy.gov/sites/default/files/2016/03/f30/EIS-0496_SLTP_Final_EIS-EIR_1_Cover-Chapter3_0.pdf.

509. SLTP WAPA ROD.

510. See SLTP WAPA website, available at https://www.wapa.gov/about-wapa/regions/sn/san-luis-transmission-project/.

511. *Id.*

Summary

In May 2010, Clean Line Energy filed an application with the Arkansas PSC for a certificate to operate the Plains and Eastern Clean Line as a public utility.[512] The proposed project, as modified in 2015, included a ffl 600-kV direct current electric transmission system with the capacity to deliver up to 4,000 MW primarily from renewable energy generation facilities in Oklahoma to load-serving entities in the Mid-South and Southeast.[513] The line would traverse Oklahoma, Arkansas, and Tennessee, approximately 705 miles.[514]

In June 2010, the DOE issued a Request for Proposals for New or Upgraded Transmission Line Projects Under Section 1222 of the Energy Policy Act of 2005.[515] Section 1222 authorizes the DOE to partner with private entities to develop transmission facilities, which circumvents state-level regulatory requirements and provides for Federal eminent domain authority.[516] In July 2010, as modified in August 2011, Clean Line submitted a proposal to DOE for Plains and Eastern, and at DOE's request, submitted an updated application in January 2015.[517]

In January 2011, Arkansas PSC rejected Clean Line's application to operate as a public utility "based on information about its current business plan and present lack of plans to serve customers in Arkansas."[518] Accordingly, as a merchant transmission developer, Clean Line could neither own nor operate transmission facilities within Arkansas nor exercise eminent domain.[519]

In October 2011, the Oklahoma Corporation Commission approved public utility status for the Plains and Eastern Clean Line.[520] Also in October 2011, the Tennessee Valley Authority (TVA) signed a Memorandum of Understanding with Clean Line Energy to consider purchasing Plain Line transmission capacity and wind to serve its load.[521] In January 2015, the Tennessee Regulatory Authority granted Plains and Eastern a certificate and the authority to operate as a wholesale transmission-only public utility in Tennessee.[522]

On December 21, 2012, the DOE, as lead agency, issued a NOI to prepare an EIS.[523] DOE and cooperating agencies including the BIA, Natural Resources Conservation Service, TVA, Corps of Engineers, EPA, and

---

512. Arkansas PSC Order No. 9, Docket No. 10-041-u at 1 (Jan. 11, 2011), available at http://www.apscservices.info/pdf/10/10-041-u_41_1.pdf.

513. Plains and Eastern Clean Line DOE ROD, 81 Fed. Reg. 18602, 18603 (Mar. 31, 2016), available at https://www.energy.gov/sites/default/files/2016/03/f30/Clean%20Line%20ROD%20-%20FR03312016.pdf.

514. *Id.* at 18602.

515. DOE Request for Proposals for New or Upgraded Transmission Line Projects Under Section 1222 of the Energy Policy Act of 2005, 75 Fed. Reg. 32940 (June 10, 2010), available at https://www.federalregister.gov/documents/2010/06/10/2010-13943/request-for-proposals-for-new-or-upgraded-transmission-line-projects-under-section-1222-of-the.

516. See Downwind LLC et al v. US DOE et al, 3:16-cv-207-DPM (E.D. Ark. 2017), available at https://info.bracewell.com/37/753/uploads/2017-12-21-downwind-v-doe-order.pdf. On December 21, 2017, the District Court for the Eastern District of Arkansas dismissed a challenge by landowners, finding that states do not have veto power over whether a transmission line approved by DOE pursuant to its Section 1222 authority could be built; thus Arkansas PSC authorization was not required for the Project to go forward.

517. Plains and Eastern Clean Line DOE ROD at 18603.

518. Arkansas PSC Order No. 9 at 11.

519. *Id.*

520. Oklahoma Corporation Commission Order No. 590530, Cause No. PUD 201000075 at 15 (Oct. 28, 2011), available at https://imaging.occ.ok.gov/ap/orders/0300d92c.pdf.

521 "Clean Line signs agreement with Tennessee Valley Authority," The Oklahoman (Oct. 26, 2011), available at https://www.oklahoman.com/story/news/nation-world/2011/10/26/clean-line-signs-agreement-with-tennessee-valley-authority/61124009007/.

522. "Tennessee clears transmission line to deliver Oklahoma wind to Southeast," Utility Dive (Jan. 14, 2015), available at https://www.utilitydive.com/news/tennessee-clears-transmission-line-to-deliver-oklahoma-wind-to-southeast/352798/.

523. Plains and Eastern Clean Line DOE NOI to Prepare EIS, 77 Fed. Reg. 75623 (Dec. 21, 2012), available at https://www.federalregister.gov/documents/2012/12/21/2012-30833/notice-of-intent-to-prepare-an-environmental-impact-statement-for-the-plains-and-eastern-clean-line.

FWS issued the DEIS on December 17, 2014.[524] In October 2015, the DOE issued a FEIS.[525] In March 2016, the DOE issued an ROD and concluded it would participate in the development of the project.[526] On March 25, 2016, Clean Line Energy and DOE signed a participation agreement for the development of the project.[527]

Shortly after the change in federal administration in January 2017, members of the Arkansas congressional delegation wrote to the Secretary of Energy requesting a review of the section 1222 permit.[528] In addition, despite previous support from TVA,[529] members of the Tennessee congressional delegation opposed the project; in June 2017, Tennessee Senator Lamar Alexander publicly called on TVA not to purchase power from Clean Line.[530] In December 2017, TVA backed out of the MOU with Clean Line.[531]

On December 22, 2017, Clean Line sold the Oklahoma portion of the project to NextEra Energy.[532] In March 2018, the DOE and Clean Line terminated the Participation Agreement.[533]

Timeline:

May 2010	Clean Line applies to Arkansas PSC
June 2010	DOE Request for Proposals under EPAct section 1222
July 2010	Clean Line submits proposal to DOE
January 2011	Arkansas PSC rejects application
August 2011	Clean Line provides additional information to DOE
October 2011	Oklahoma approves public utility status
October 2011	TVA and Clean Line MOU
December 2012	DOE NOI to prepare EIS
December 2014	DOE DEIS issued
January 2015	TN approves application
January 2015	Plains and Eastern files updated application with DOE
October 2015	DOE FEIS
March 25, 2016	DOE signs Participation Agreement with Clean Line
December 2017	TVA backs out of 2011 MOA
December 2017	NextEra acquires Oklahoma assets
March 2018	DOE and Clean Line announce termination of PA

524. Plains and Eastern Clean Line DOE DEIS, 79 Fed. Reg. 75132 (Dec. 17, 2014), available at https://www.federalregister.gov/documents/2014/12/17/2014-29524/plains-and-eastern-clean-line-transmission-project-draft-environmental-impact-statement.

525. Plains and Eastern Clean Line DOE FEIS at S-23 (Oct. 2015), available at https://www.energy.gov/sites/default/files/2015/11/f27/EIS-0486_FEIS_Summary_0.pdf.

526. Plains and Eastern Clean Line DOE ROD at 18602.

527. Plains and Eastern Clean Line DOE Participation Agreement (Mar. 25, 2016), available at https://www.energy.gov/sites/prod/files/2016/03/f30/Clean%20Line%20-%20Participation%20Agreement%20%20-%20EXECUTED%20VERSION%20(dated%20March%2025....pdf.

528. "Press Release: Arkansas Delegation Urges Secretary Perry to Review Clean Line Project," Steve Womack Official Website (Mar. 7, 2017), available at https://womack.house.gov/news/documentsingle.aspx?DocumentID=398764.

529. "Controversial $2.5 billion Clean Line project stalled; will evaluate options, officials say," Talk Business and Politics (Jan. 3, 2018), available at https://talkbusiness.net/2018/01/controversial-2-5-billion-clean-line-project-stalled-will-evaluate-options-officials-say/.

530. "Winds of Change: How massive energy project would fit into the local power structure," Memphis Daily News (June 3, 2017), available at https://www.memphisdailynews.com/news/2017/jun/3/winds-of-change/.

531. "Controversial $2.5 billion Clean Line project stalled; will evaluate options, officials say."

532. "Clean Line Energy sells Okla. portion of 700-mile line to NextEra," S&P Global (Dec. 22, 2017), available at https://www.spglobal.com/marketintelligence/en/news-insights/trending/5bd0zrwxgsmnsqkz0mjqfg2.

533. Plains and Eastern Clean Line DOE Termination and Release Agreement (Mar. 23, 2018), available at https://www.energy.gov/sites/prod/files/2018/03/f49/Clean%20Line%20Termination%20and%20Release%20Agreement%20FINAL%20Redacted.pdf.

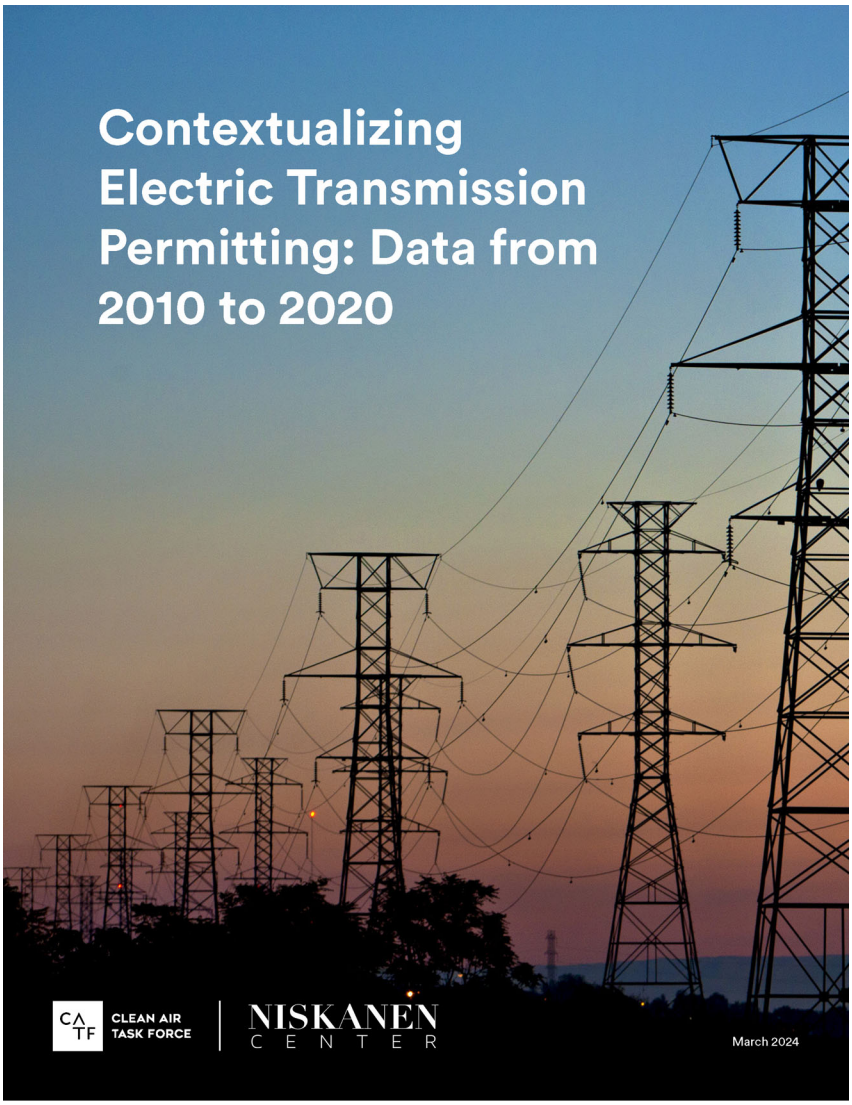

Contextualizing Electric Transmission Permitting: Data from 2010 to 2020
CLEAN AIR TASK FORCE
NISKANEN CENTER
March 2024

Table of Contents

Introduction and Purpose 3

Key Findings 4

- Proportion of Projects with an EIS 4
- Project Drivers 4
- Line Length 5
- Triggers for NEPA Review 5
- Geography 6
- Timeline for EIS Review 6

Discussion and Conclusion 8

Data and Methodology 9

Appendix 11

Authors

Natalie Manitius, *Clean Energy Siting Associate, Clean Air Task Force*
Johan Cavert, *Transmission Policy Analyst, Niskanen Center*
Casey Kelly, *Senior Advisor, Research & Electricity Policy, ClearPath*

Acknowledgements

Contributors:
Robin Allen, Gabriel Kaplan, Elvin Choi, Frank Sturges, Charlie Adams

Reviewers:
Kenneth Sercy, Corey Schrodt, Megan Gibson, Alex Breckel, Nicole Pavia, Annabel Williams, Evan Chapman, Lindsey Griffith, Matthew Mailloux, Cheryl Lombard, Landon Stevens, Chris Tomassi

Data:
The C Three Group

The views and findings of this report do not necessarily reflect the views of the reviewers.

Introduction and Purpose

Electric transmission is essential to maintaining grid reliability[1] while meeting growing electricity demand,[2] connecting new generation and storage to the grid,[3] and advancing affordability by relieving congestion.[4] Federal permitting is cited as a challenge to the development of energy infrastructure and, in particular, electric transmission lines.[5,6,7] New transmission lines that constitute a major federal action with significant effects on the environment are subject to the preparation and review of Environmental Impact Statements (EIS), the most thorough environmental review required under the National Environmental Policy Act (NEPA). The recent debate over the need for electric transmission permitting reform reveals uncertainties about how federal permitting impacts the ability to add new transmission lines to the bulk power system in the United States. To better inform policy debates about a topic critical to maintaining a reliable, affordable grid, this report comprehensively assesses how federal permitting impacted new transmission lines added to the U.S. bulk power system from 2010 to 2020.

A patchwork of entities plan, develop, and oversee the construction of electric transmission infrastructure across the U.S. The lack of centralized data, access restrictions, and the heterogeneity of the data units (e.g., miles, circuit-miles, megawatt-miles) inhibits policymakers' ability to fully understand and characterize the landscape of the U.S. transmission system. Likewise, there is not a comprehensive source for federal permitting data. Scarcity of accessible data means policymakers and advocates must often rely on anecdotal examples of electric transmission permitting as evidence. The report summarizes trends in transmission development, comparing projects that underwent an EIS to all transmission projects in the bulk power system. This analysis uses two distinct datasets and focuses on the period from 2010 to 2020. The first dataset includes 947 new transmission lines added to the bulk power system in the U.S. that came into service between 2010 and 2020 (referred to as the "New Lines dataset"). The second dataset includes an inventory of 37 electric transmission lines in the bulk power system that were in an active federal EIS process between 2010 and 2020 (referred to as the "EIS Lines dataset"). Finally, we contextualize our findings with planned and projected future transmission needs.

Our findings suggest that federal environmental reviews are more likely to be required for long-distance transmission lines that interconnect new generation and increase reliability. Permitting review timelines average 4.3 years, ranging from a minimum of 1 year to a maximum of 11 years.[8] Projected growth in transmission, coupled with increased federal funding and authority, suggest a greater proportion of projects will undergo a federal permitting process. These findings underscore the need for a comprehensive review of current permitting processes to promote the development of electric transmission infrastructure, crucial for delivering reliable, affordable, and low-carbon electricity.

1 NERC. (2023). Long-Term Reliability Assessment. https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2023.pdf

2 Wilson, J., & Zimmerman, Z. (2023). The Era of Flat Power Demand is Over. Grid Strategies. https://gridstrategiesllc.com/wp-content/uploads/2023/12/National-Load-Growth-Report-2023.pdf

3 Lawrence Berkeley National Laboratory. (2023). Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection As of the End of 2022. https://eta-publications.lbl.gov/sites/default/files/queued_up_2022_04-06-2023_0.pdf

4 Lawrence Berkeley National Laboratory. (2022). Empirical Estimates of Transmission Value using Locational Marginal Prices. https://eta-publications.lbl.gov/sites/default/files/lbnl-empirical_transmission_value_study-august_2022.pdf

5 Bird, L., & McLaughlin, K. (2023). US Clean Energy Goals Hinge on Faster Permitting. World Resources Institute. https://www.wri.org/insights/clean-energy-permitting-reform-us

6 Williams, Aime. (2022). Permitting Reforms for U.S. Infrastructure Lay Bare Energy Tensions. Financial Times. https://www.ft.com/content/c8028f4f-7d60-48f7-a269-1e718a7b721f

7 Moore, Daniel. (2023). Clean Grid Developers See Teeth in Federal Permitting Deadlines. Bloomberg Law. https://news.bloomberglaw.com/environment-and-energy/clean-grid-developers-see-teeth-in-federal-permitting-deadlines

8 Average and median statistics for permitting review timelines are based on the 'Publication Date for Notice of Intent (NOI)' and Publication date of latest 'Record of Decision (ROD)' columns in the dataset (for the 33 transmission lines identified that were not canceled and had both a published NOI and ROD). For those lines with multiple agency RODs, the date the latest ROD published was used to determine the end date of review. Two lines, Sunzia and Tehachapi, had multiple EIS timelines conducted for a single transmission project. In those cases, total review times were calculated by adding together the length of each EIS review period. Time between publication of the first ROD and publication of the second NOI was not included.



Key Findings

Proportion of Projects with an EIS

Although projects requiring an EIS make up a small proportion of the total number of new transmission lines in the country, they represent a significant proportion of all new line miles. This analysis identified 37 transmission projects with an EIS in progress or completed between 2010 and 2020. Four of these projects were eventually canceled and are not included in the data analysis. The remaining 33 projects represent **3.5% of all new transmission lines but 26% of all new line miles** added to the bulk power system during that decade. In this report, the term "transmission lines" refers to individual projects. Some projects were constructed in segments at different points in time, so we treated each segment as an individual transmission line within the data.

Project Drivers

Transmission lines are built to advance multiple objectives. Our New Lines dataset indicates a leading project driver for each transmission line, including generation (both renewable and nonrenewable), load growth, asset renewal, and reliability. This distinction was made by The C Three Group, a research and consulting firm whose data was used for this analysis.[9]

The three most common drivers for all new transmission lines in the bulk power system were reliability (51%), renewable and nonrenewable generation (26%), and load growth (19%). Lines built to interconnect renewable generation accounted for 22% of all new lines.

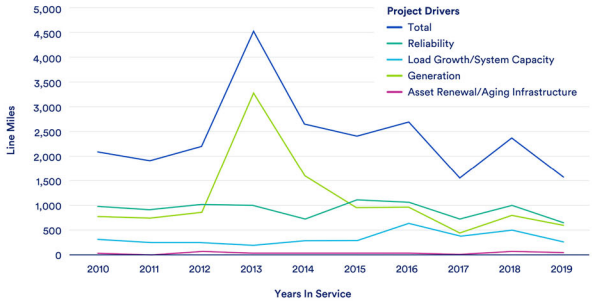
New lines built for load growth and system capacity needs saw the greatest growth over the decade (see Figure 1 below). New lines built for reliability needs accounted for the largest share of all new line miles, at 38%.[10]

Lines built to connect generation to the grid were more likely to require an EIS than other lines, accounting for 61% of lines with an EIS but only 26% of new lines in the bulk power system.

9 See the C Three Group: https://www.cthree.net/

10 Notably the spike in transmission developed in 2013 is largely attributable to the Competitive Renewable Energy Zones program in Texas that resulted in the development of roughly 3,600 miles of transmission lines capable of carrying 18,500 MW of electricity; Powering Texas. (2021). The Importance of Transmission: Bringing Texans More Affordable, Reliable Power. https://www.poweruptexas.org/wp-content/uploads/2021/01/Transmission-Fact-Sheet-Web-Version.pdf

Figure 1: Transmission Line Miles That Came Into Service Each Year, by Project Type



Line Length

Transmission lines that required an EIS had an average line length of 192 miles and a median of 144 miles – significantly longer than the length of all new lines in the bulk power system, an average of 26 miles and a median of 15 miles. This indicates that **projects that require federal permitting were more than seven times longer in length than the average transmission project.**

New lines built to interconnect renewable generation to the grid had the longest average line length of the different transmission project types. This is true for both all new lines (51 miles) and those that require an EIS (277 miles). **The average line length for projects built to interconnect renewable generation to the grid was more than double the average for reliability and load growth drivers.** The median line lengths similarly reveal that lines driven by interconnection of renewable generation are twice the length of reliability-driven projects and three times the length of lines driven by load growth. Lines built to interconnect renewable generation to the grid accounted for 41% of all new line miles despite accounting for only 22% of all new lines. For comparison, projects connecting nonrenewable generation to the grid accounted for similar shares of new line miles (4.3%) and new lines (3.9%).

Triggers for NEPA Review

In addition to providing information on how many projects require a NEPA EIS, this analysis also provides more context into what triggers the need for an EIS review. NEPA applies to a project when a major federal action is taken. Some projects may only be required to complete an environmental assessment (EA), but those that are anticipated to significantly affect the environment require an EIS. Projects in our dataset triggered a NEPA EIS because they crossed public land, were planned by a federal power marketing administration, received federal funding, or required a Clean Water Act Permit.

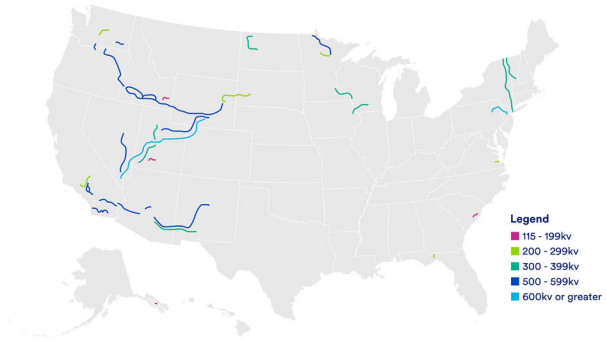
The two most common major federal actions that triggered a NEPA review consisted of projects that crossed federal land or had federal involvement in project funding. In some cases, projects can trigger NEPA for more than one reason (i.e. the project crosses federal land and is planned by a power marketing administration). For specific NEPA triggers for each project in our dataset, see Table A in the appendix.

Geography

Of all new lines added to the bulk power system, 54 out of 947 (5.5%) crossed state or international borders while 15 out of 33 lines (45%) requiring an EIS crossed state or international borders. This illustrates that a much higher share of EIS lines crossed a border compared to the overall percentage of new transmission lines.

Notably, 21 of the 33 (64%) projects requiring an EIS were built within the California Independent System Operator (CAISO)'s region or the non-RTO West. The region has a much larger share of projects that require an EIS compared to its share of all new lines added to the bulk power system across the U.S., which is only 12%.

Figure 2: Map of the 33 Completed Lines in the EIS Lines Dataset, by Voltage Class

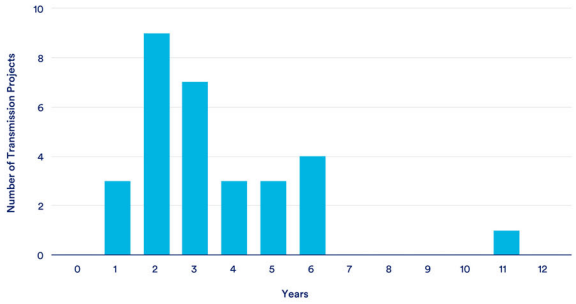


Timeline for EIS Review

EIS reviews across all electric transmission projects in our database took an average of 4.3 years, with a median of 3.7 years and a range stretching from 1 to 11 years (see Figure 3 below). This timeframe begins at the Notice of Intent (NOI), when the EIS review for a project is publicly announced and concludes once a project has a Record of Decision (ROD), when the final decision and explanation for the decision are published alongside commitments for actions that avoid or mitigate environmental impacts. The Center for Growth and Opportunity at Utah State similarly found that solar, hydropower, wind, and nuclear projects that began the EIS process between 2009 and 2022 had an average time of 3 years between the NOI and ROD.[11] Functionally, the permitting process begins well before the NOI, when project proponents undertake planning, outreach, and analysis needed to file for a permit application. The timing of these pre-application portions of the permitting process are opaque and rarely made public, and are therefore not reported here.

11 Morales, J., & Rigby, S. (2023). NEPA Timelines for Clean Energy Projects: Understanding Delays in Clean Energy Development. The Center for Growth and Opportunity at Utah State University. https://www.thecgo.org/research/nepa-timelines-for-clean-energy-projects-understanding-delays-in-clean-energy-development/

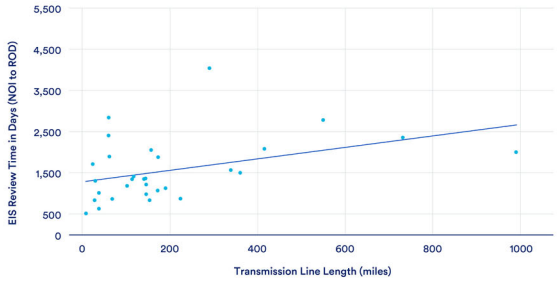
Figure 3: Time to Complete NEPA EIS Review (NOI to ROD)



We find that there is a moderate relationship between the length of transmission lines and their respective timelines for an EIS review. Figure 4 below illustrates how increases in transmission line length correlate with non-trivial increases in EIS review times. The trend line indicates that an increase of 100 miles in the length of transmission lines leads to a nearly 5-month increase in EIS review timelines.

Furthermore, the Pearson correlation coefficient is 0.41. This positive and moderate value indicates that changes in review length lead to changes in transmission line length but does not fully explain changes in EIS review timelines. This suggests that characteristics other than line length impact the time it takes to complete an EIS review.

Figure 4: Relationship Between Transmission Line Length and EIS Review Time, 2010 to 2020





Discussion and Conclusion

Our findings show federal environmental reviews are more likely to apply to long-distance lines, roughly 200 miles or greater in length, that are built to interconnect new generation and promote reliability. Lines that required an EIS make up only a small fraction, 3.5%, of all newly built electric transmission lines. However, they make up a proportionally larger share, 26%, of total new line miles. Contextualizing these findings within projections of national transmission system growth and triggers for federal permitting is necessary to assess the implications of past federal permitting trends for future transmission development.

Projections for future transmission needs vary widely based on the models used and their input assumptions, such as load growth and clean energy deployment. According to a meta-analysis performed by the Department of Energy, the median projected increase in transmission capacity for 2040 ranged from 22% to 143% for intraregional lines and from 40% to 643% for interregional relative to 2020. Although projections vary widely due to uncertainties about the future, the range of projections for transmission capacity growth dwarf historical figures. Between 2010 to 2020, electricity capacity grew by 7%, load growth was relatively flat,[12] and transmission expansion occurred at a rate of 1%.[13]

Long and unpredictable federal permitting processes hindered the timely development of electric transmission infrastructure historically, and pose a challenge to future growth. Our analysis found that preparing an EIS disproportionately affected interstate lines, lines in the Western U.S., and took an average of 4.3 years to complete, with a range of 1 to 11 years. Faster and more predictable federal permitting timelines are expected to play an important role in accelerating transmission development timelines, particularly in the Western U.S. and on interstate projects. This study identified the two most common triggers for an EIS review to be crossing federal land or federal involvement in federal project funding. With the additional federal funding programs for transmission from the bipartisan Infrastructure Investment and Jobs Act and the Inflation Reduction Act, and the expanded federal siting authority under National Interest Electric Transmission Corridors, an increase in the number of projects that require an EIS due to federal involvement is anticipated.[14]

Projected future transmission needs and increased federal funding and authority for developing electric transmission lines suggest that federal permitting may be required for a larger share of future development than our analysis revealed for the 2010 to 2020 period. While transmission system capacity can be increased by optimizing existing infrastructure with grid-enhancing technologies[15] and reconductoring lines with innovative technologies, building new transmission lines will also be necessary. The long and unpredictable federal permitting timelines for electric transmission observed historically pose a significant challenge to maintaining future grid reliability in the face of growing demand and ambitious decarbonization goals.

---

12 See: EIA Annual Energy Review https://www.eia.gov/totalenergy/data/annual/; Table 7.6 electricity end-use consumption and Table 8.11b Electric net summer capacity: electric power sector.

13 Greer, D., King, C., Mendez, A., & Gülen, G. (2019). U.S. Transmission Miles in Relation to Electricity Generation, Peak Power, and Number of Customers. Energy Institute, The University of Texas at Austin. https://energy.utexas.edu/sites/default/files/UTAustin_EIoF_Transmission_2019-02-21.pdf

14 Quinlan, P., & Schaff, H. (2023). Federal Policy Supports New Transmission, But Will it be Enough? T&D World. https://www.tdworld.com/overhead-transmission/article/21259460/federal-policy-supports-new-transmission-but-will-it-be-enough

15 U.S. Department of Energy. (2022). Grid-Enhancing Technologies: A Case Study on Ratepayer Impact. https://www.energy.gov/sites/default/files/2022-04/Grid%20Enhancing%20Technologies%20-%20A%20Case%20Study%20on%20Ratepayer%20Impact%20-%20February%202022%20CLEAN%20as%20of%20032322.pdf

Data and Methodology

New Lines Dataset

The "New Lines dataset" is a subset of data on electric transmission infrastructure projects across North America obtained from the C Three Group, an energy infrastructure and utility market research and consulting firm.[16] The dataset provides a comprehensive catalog of transmission projects with information on their ownership, location, development status, voltage, project drivers, and other technical information. We chose to exclude lines shorter than 5 miles and/or below 115kV because we wanted to focus on transmission lines and not distribution lines. While there is no bright line threshold, the bulk power system is typically at voltages at or above 115 kV.[17] For the purposes of this analysis, we filtered the dataset based on the following criteria:

- Completed and in-service new lines only (excludes rebuilds and upgrades)
- In-service between 2010-2020
- Voltage: 115 kV or greater
- Mileage: 5 miles or greater
- At least one domestic endpoint

Figure 5: New Lines by Voltage Class

Voltage (kV)	Number of Projects	Percent of Projects
100-199	522	55%
200-299	176	19%
300-399	208	22%
500+	41	4%
Total	**947**	**100%**

The "New Lines dataset" subset contains 947 projects with a combined 24,542 line miles. These projects reflect new transmission lines on the bulk power system that were developed from 2010 up to 2020.

Projects in the dataset were identified by the C Three Group as having a main driver behind the need for the project. Where multiple drivers were identified, the C Three team made an informed decision based on the most commonly cited reason as to which most influenced the need for the project. Drivers include reliability, load growth, generation (renewable, nonrenewable, or unknown), generation deactivation, asset renewal, storm or fire hardening, economics/congestion, public policy, and others.

16 See the C Three Group: https://www.cthree.net/

17 NERC. (2023). Understanding the Grid. https://www.nerc.com/news/Documents/March%202023%20Understanding%20the%20Grid.pdf

EIS Lines Dataset

Our EIS Lines dataset contains electric transmission lines that had an EIS in progress or completed an EIS in the 2010-2020 period. This data was compiled from several sources, including federal databases, academic studies, and publicly available inventories. From our research, we identified 83 electric transmission line projects that had an EIS in progress or completed. These lines were cataloged, assessed, and reviewed thoroughly based on available sources and prior literature.

Because there is no centralized database, we can not definitively state that our dataset represents all electric transmission projects that meet our criteria with an EIS in progress or completed; some eligible lines may have been inadvertently excluded.
Of the 83 lines identified and documented, 37 lines fit the following criteria that aligned with the New Lines dataset. Four of these lines were eventually canceled and were excluded from our analysis. The remaining 33 lines were included in our analysis:

- New lines only (excludes rebuilds and upgrades)[18]
- Federal Review Status: Projects that had an EIS in progress or completed between 2010 and 2020 (meaning the project published an NOI, Final Environmental Impact Statement, ROD, or was in the process of having an EIS prepared at some point during the decade).[19]
- Voltage: 115 kV or greater
- Mileage: 5 miles or greater
- At least one domestic endpoint

Limitations

The datasets utilized in this report were developed through exhaustive research efforts that sought to find and document information on new transmission lines in the bulk power system that were built and/or had an EIS in progress over a 10-year period. The decentralization of electric transmission information required finding and leveraging numerous sources. We cannot definitively state that these datasets captured all projects and EIS, which implicitly limits our analysis and results.

In drawing comparisons between the two datasets, we recognize the wide differences that exist between the datasets, including sourcing, categorization of lines, and scoping criteria. Our comparisons are meant to provide an indication of the proportion of transmission projects that require an EIS, and of the characteristics of those EIS projects relative to a broader set of new transmission lines added to the bulk power system.

With these considerations in mind, we believe our results are important to present and share because our primary goal is to further the public understanding of these complicated processes.

18 To focus on single electric transmission lines and avoid complicated multipurpose projects that might have been influenced by factors unrelated to transmission, we eliminated any projects that primarily consisted of maintenance, interconnection (generation-tie lines) projects, transmission line rebuilds, or those that were ancillary to other federal projects. Transmission infrastructure projects that were canceled were not included.

19 Environmental Assessments (EAs), a less complex review, were not included due to the limited nature of this research project and the fact that the most relevant relevant lines (long distance, high-capacity, interstate projects) were more likely to to have undergone an EIS review than a EA).

Appendix

The EIS lines dataset is a compilation and update of various sources, including the following:

- Moch, Jonathan M. and Henry Lee. "The Challenges of Decarbonizing the U.S. Electric Grid by 2035." Policy Brief, February 2022.
- Goggin, Michael, Gramlich, Rob and Michael Skelly. 'Transmission Projects Ready to Go: Plugging into America's Untapped Renewable Resources' ACEG, Grid Strategies. 2021.
- Federal Infrastructure Permitting Dashboard: '2020 Recommended Performance Schedule Data - Appendix A.'
- Federal Permitting Dashboard.
- U.S. Department of Agriculture Rural Utility Service Environmental Impact Statements.
- Department of Energy Environmental Impact Statements.
- Open EI Transmission NEPA Database.

Table A: EIS Lines Dataset[20]

How to read the table

*Not included in EIS line statistics because line was canceled

**Lines with two distinct EIS timelines conducted for 1 transmission project. Total length from EIS NOI to ROD is the combination of both EISs but does not count the time between publication of the first ROD and publication of the second NOI.

***Multiple RODs were published in the EIS process

Name	Category	Line Length (miles)	Dominant Line Voltage (kV)	Voltage Range (kV)	States	Number of States	Region	Project Drivers[21]	Lead Federal Agency	Year Project Proposed	Date of NOI Publication	Year Federal EIS Issued	Date Last ROD Published	Time in Days (NOI to Last ROD)	Time in Years (NOI to Last ROD)	Status of NEPA Review	Energized?	NEPA Trigger
Southline Transmission Line Project	Interstate line	360	345	230-345	NM, AZ	2	Non-RTO West	Generation: Renewable	BLM + DOE (WAPA)	2009	4/4/2012	2015	5/16/2016	1503	4.1	Complete	Pending	Crosses Federal lands and WAPA funding
TransWest Express Transmission Project	Interstate line	732	600	600	WY, UT, NV	3	Non-RTO West	Generation: Renewable	BLM	2007	1/4/2011	2016	6/14/2017	2353	6.4	Complete	In progress	Crosses Federal lands

20 The EIS Lines dataset includes a total of 37 observations but only 30 projects that were not canceled concluded the EIS process and released a completed ROD before 2020. Statistics relating to the length of EIS review are taken from these 30 observations.

21 As determined by C Three.

Name	Category	Line Length (miles)	Dominant Line Voltage (kV)	Voltage Range (kV)	States	Number of States	Region	Project Drivers[71]	Lead Federal Agency	Year Project Proposed	Date of NOI Publication	Year Federal EIS Issued	Date Last ROD Published	Time in Days (NOI to Last ROD)	Time in Years (NOI to Last ROD)	Status of NEPA Review	Energized?	NEPA Trigger
Boardman to Hemingway Transmission Line	Interstate line	290	500	500	OR, ID	2	Non-RTO West	Generation: Renewable	BLM	2007	9/12/2008	2016	10/2/2019	4037	11.1	Complete	Pending	Crosses Federal lands
Big Eddy-Knight Transmission Project	Interstate line	28	500	500	OR, WA	2	Non-RTO West	Load growth/ system capacity	BPA (DOE)	2008	6/3/2009	2011	9/16/2011	835	2.3	Complete	Project complete (2015)	BPA owned
Susquehanna to Roseland Transmission Line	Interstate line	146	500	500	PA,NJ	2	PJM	Reliability	DOI (NPS)	2009	1/21/2010	2012	10/1/2012	984	2.7	Complete	Project complete (2015)	Crosses Federal lands
Hampton-Rochester-La Crosse Transmission System Improvement Project	Interstate line	141	345	161-345	MN, WI	2	MISO	Reliability	USDA (RUS)	2009	5/28/2009	2012	2/8/2013	1352	3.7	Complete	Project complete (2016)	RUS Funding
Southwest Intertie Project-South	Intertie financing (Single state)	235	500	500	NV	1	Non-RTO West	Generation: Renewable	DOE / BLM	1992	Not published	2010	10/26/2010	NA	NA	Complete	Project complete (2014)	WAPA Funding
Sun Valley to Morgan Transmission Line Project	Single state line	38	500	230-500	AZ	1	Non-RTO West	Generation: Renewable	BLM	2007	4/11/2011	2013	1/15/2014	1010	2.8	Complete	Project complete (2016)	Crosses Federal lands
Antelope Valley Station-Neset Transmission Project	Single state line	190	345	115-345	ND	1	MISO/ SPP	Reliability	USDA (RUS)	2011	11/2/2011	2014	12/8/2014	1132	3.1	Complete	Project complete (2017)	RUS Funding
Central Ferry-Lower Monumental Transmission Line Project	Single state line	38	500	500	WA	1	Non-RTO West	Generation: Renewable	DOE (BPA)	2009	6/19/2009	2011	3/11/2011	630	1.7	Complete	Project Complete (2015)	BPA Owned
Vantage to Pomona Heights Transmission Line Project	Single state line	60	230	230	WA	1	Non-RTO West	Reliability	BLM	2008	1/5/2010	2016	10/16/2017	2841	7.8	Complete	Unknown	Crosses Federal lands

Name	Category	Line Length (miles)	Dominant Line Voltage (kV)	Voltage Range (kV)	States	Number of States	Region	Project Drivers[11]	Lead Federal Agency	Year Project Proposed	Date of NOI Publication	Year Federal EIS Issued	Date Last ROD Published	Time in Days (NOI to Last ROD)	Time in Years (NOI to Last ROD)	Status of NEPA Review	Energized?	NEPA Trigger
City of Tallahassee Southwestern Transmission Line	Single state line	8	230	230	FL	1	Non-RTO South	Reliability	USDA (NFS)	2010	10/14/2010	2012	3/16/2012	519	1.4	Complete	Unknown	Crosses Federal lands
Tropic to Hatch Transmission Line Project	Single state line	30	138	138	UT	1	Non-RTO West	Load growth/ system capacity	USDA (NFS)	2008	2/21/2008	2011	9/14/2011	1301	3.6	Complete	Project complete (2019)	Crosses Federal lands
Barren Ridge Renewable Transmission Project	Single state line	62	230	230	CA	1	CAISO	Generation: Renewable	BLM	2008	4/7/2008	2012	6/14/2013	1894	5.2	Complete	Project complete (2016)	Crosses Federal lands
Hooper Springs Transmission Project	Single state line	24	115	115	ID	1	Non-RTO West	Storm/Fire hardening	DOE (BPA)	2006	7/8/2010	2015	3/16/2015	1712	4.7	Complete	Project Complete (2019)	BPA Owned
Bemidji–Grand Rapids Transmission Line Project	Single state line	68	230	230	MN	1	MISO	Generation: Renewable	USDA (RUS)	2008	7/18/2008	2010	12/2/2010	867	2.4	Complete	Project complete (2012)	RUS Funding
Sigurd to Red Butte Transmission Project	Single state line	172	345	345	UT	1	Non-RTO West	Generation: Renewable	BLM	2008	1/5/2010	2012	12/7/2012	1067	2.9	Complete	Project complete (2015)	Crosses Federal lands
Tehachapi Renewable Transmission Project	Single state line	173	500	500	CA	1	CAISO	Generation: Renewable	USDA (NFS)	2004	9/7/2007	2010	10/17/14	1874	5.1	Complete	Project complete (2016)	Crosses Federal lands
Teckla-Osage-Rapid City Transmission Line Project	Interstate line	144	230	230	WY, SD	2	SPP, Non-RTO West	Load growth/ system capacity	USDA (NFS)	2009	8/26/2011	2014	5/19/2015	1362	3.7	Complete	Project complete (2016)	Crosses Federal lands
New England Clean Power Link	International Line	154	300	300	VT, Canada	1 (+Canada)	ISO NE	Generation: Renewable	DOE	2013	8/26/2014	2015	12/12/2016	839	2.3	Complete	In progress	Presidential Permit
SunZia Southwest Transmission Project	Interstate line	550	500	500	NM, AZ	2	Non-RTO West	Generation: Renewable	BLM	2006	5/29/2009	2015	5/19/2023	2779	7.6	Complete	In progress	Crosses Federal lands

Name	Category	Line Length (miles)	Dominant Line Voltage (kV)	Voltage Range (kV)	States	Number of States	Region	Project Drivers[71]	Lead Federal Agency	Year Project Proposed	Date of NOI Publication	Year Federal EIS Issued	Date Last ROD Published	Time in Days (NOI to Last ROD)	Time in Years (NOI to Last ROD)	Status of NEPA Review	Energized?	NEPA Trigger
Gateway South Transmission Project-Segment E	Interstate line	416	500	500	WY, CO, UT	3	Non-RTO West	Generation: Renewable	BLM	2007	4/1/2011	2016	12/13/2016	2083	5.7	Complete	In progress	Crosses Federal lands
Surry-Skiffes Creek-Whealton Project	Single state line	27.96	230	230-500	VA	1	PJM	Reliability	Army Corps of Engineers	2012	6/21/2019	In progress	In progress	NA	NA	Underway	Pending	Federal permit
Kake to Petersburg Transmission Intertie Project	Single state line	60	138	69-138	AK	1	N/A	Generation: Nonrenewable	USDA (NFS)	2010	5/7/2010	2016	11/30/2016	2399	6.6	Complete	Pending	Crosses Federal lands
McClellanville Transmission Project	Single state line	20	115	115	SC	1	Non-RTO South	Reliability	USDA (RUS)	2005	9/17/2010	In progress	In progress	NA	NA	Underway	Pending	RUS Funding
Great Northern Transmission Line	International Line	224	500	500	Canada, MN	1 (+Canada)	MISO	Generation: Renewable	DOE	2012	6/27/2014	2015	11/22/2016	879	2.4	Complete	Project complete (2020)	Presidential Permit
Champlain Hudson Power Express	International Line	339	300	300-345	NY, Canada	1 (+Canada)	NY ISO	Generation: Renewable	DOE	2010	6/18/2010	2014	10/1/2014	1566	4.3	Complete	In progress	Presidential Permit
Ten West Transmission Line Project	Interstate line	114	500	500	AZ, CA	2	CAISO, Non-RTO West	Reliability	BLM	2015	3/23/2016	2019	11/22/2019	1339	3.7	Complete	In progress	Crosses Federal lands
Gateway West Transmission	Interstate line	990	500	230-500	WY, ID	2	Non-RTO West	Generation: Renewable	BLM	2007	5/16/2008	2013	11/14/2013	2008	5.5	Complete	In progress	Crosses Federal lands
Cardinal-Hickory Creek Transmission Line Project	Interstate line	102	345	345	IA, WI	2	MISO	Reliability	USDA (RDA/RUS)	2014	10/18/2016	2019	1/16/2020	1185	3.2	Complete	In progress	Crosses Federal lands
Mona to Oquirrh Transmission Corridor Project	Single state line	145	345	345-500	UT	1	Non-RTO West	Generation: Renewable	BLM	2007	10/16/2007	2010	2/10/2011	1213	3.3	Complete	Project complete (2013)	Crosses Federal lands

Name	Category	Line Length (miles)	Dominant Line Voltage (kV)	Voltage Range (kV)	States	Number of States	Region	Project Drivers[11]	Lead Federal Agency	Year Project Proposed	Date of NOI Publication	Year Federal EIS Issued	Date Last ROD Published	Time in Days (NOI to Last ROD)	Time in Years (NOI to Last ROD)	Status of NEPA Review	Energized?	NEPA Trigger
Sunrise PowerLink Transmission Project	Single state line	117	500	230-500	CA	1	CAISO	Generation: Renewable	BLM / USDA (NFS)	2005	8/31/2006	2008	7/9/2010	1408	3.9	Complete	Project complete (2012)	Crosses Federal lands
Devers-Palo Verde No. 2 Transmission Line	Single State Line	157	500	500	CA	1	CAISO	Generation: Renewable	BLM / CPUC	2005	12/7/2005	2006	7/19/2011	2050	5.6	Complete	Project complete (2013)	Crosses Federal lands
Northern Pass Transmission Line Project	Interna-tional Line	192	320	320-345	NH	1 (+Can-ada)	ISO NE	Generation: Renewable	DOE	2010	2/11/2011	2017	11/22/2017	2476	6.8	Complete	Canceled	Presi-dential Permit
Potomac-Appalachian Transmission Highline	Interstate line	290	765	765	WV, VA, MD	3	PJM	Other	DOI (NPS), USDA (NFS)	2007	6/17/2010	NA	NA	NA	NA	Canceled	Canceled	Crosses Federal lands
San Luis Transmission Project	Single State Line	95	500	70-500	CA	1	CAISO	Generation: Renewable	DOE (WAPA)	2013	11/22/2013	2016	5/9/2016	899	2.5	Complete	Canceled	WAPA pro-posal
Plains & Eastern Clean Line	Interstate line	700	600	600	OK, AR, TN	2-3	SPP, MISO	Generation: Renewable	DOE	2010	12/21/2012	2015	3/31/2016	1196	3.3	Complete	Canceled	DOE partici-pation

Transmission lines that underwent more than one EIS

	Nsme	Date of NOI Publication	Date Last ROD Published	Time in Days (NOI to Last ROD)	Time in Years (NOI to Last ROD)
EIS 1	Tehachapi Renewable Transmission Project	9/7/2007	10/4/2010	1123	3.1
EIS 2	Tehachapi Renewable Transmission Project	9/26/2012	10/17/14	751	2.1
EIS 1	Sunzia	5/29/2009	1/23/2015	2065	5.7
EIS 2	Sunzia	6/4/21	5/19/23	714	2.0

Senator CAPITO. Thank you. Thank you all very much.

I am going to begin with a question for all witnesses. I believe I know the answer to this one, but both Republican and Democrat administrations over the last couple decades have recognized the need to address the environmental review process, and those administrations have taken efforts through changes to regulations and guidance to do so.

Despite these efforts, Federal environmental review and permitting challenges persist. So this is a yes or no. I would like to ask each of you, do you agree that Congress must come together to develop a bipartisan bill to tackle these challenging issues? Mr. Harrell, then we will just go down the line.

Mr. HARRELL. Yes, Senator.

Ms. PAVIA. Yes.

Mr. BOOKER. Yes, Senator.

Mr. HARRIS. Yes.

Ms. PILCONIS. Yes.

Senator CAPITO. Thank you. Good. I thought I knew the answer to that.

Ms. Pilconis, under current law and regulation, projects can take years or even decades to progress from concept to completing the NEPA process. What are the real-world impacts of this lengthy timeline for projects on consumers of goods and services that your members produce?

Ms. PILCONIS. Thank you, Senator, for that question.

Senator CAPITO. Mr. Harris, I am going to go to you with the same question.

Go ahead, excuse me.

Ms. PILCONIS. For the construction industry, delays cause uncertainty. They also cause work force instability. Our contractors can't commit to hiring workers, they can't order materials when there are delays on breaking ground for projects, often because they are tied up for years with lawsuits.

Delays also drive up costs. They increase project costs, as inflation and material shortages make projects more expensive over time. Delays also increase investments. Delays are preventing AGC members from building our quality of life and delivering safe projects that are going to benefit communities.

Senator CAPITO. OK, across the Country.

Mr. Harris, your homebuilding.

Mr. HARRIS. Thank you, Madam Chairman.

The cost of permitting adds to the cost of housing. Every time I, as I said in my testimony, every time you raise the cost of the house $1,000, you lock out 106,000 family units. That is substantial.

We speak about the value of homeownership. Well, the value of homeownership is good for everyone. It stabilizes families, it stabilizes neighborhoods, it stabilizes communities, employee bases, volunteer bases. Homeownership is a public good. And in trying to increase or make better the processes for permitting, we can decrease the cost.

The time value of money for developers, home builders, adds to the cost of a house. Right now where we have seen the average cost

of a house go up $90,000 in the last two and a half years, we have locked so many people out of the American dream.

Senator CAPITO. Thank you. I know there is a shortage as well. So we can get into that maybe later.

I want to ask about judicial review. It came up in almost everybody's testimony. Many projects are targeted with litigation all throughout the process. The resulting legal costs and project delays can be enough to stop a project, which happened with our Atlantic Coast Pipeline in West Virginia.

So, Mr. Booker, will you describe some of your members' experiences with litigation after EIS or EA is finalized? You have your permits in hand, and then you can't go forward. You kind of outlined it in your statement, saying you can't pay the worker if you can't move forward.

Can you just expand on that a little bit?

Mr. BOOKER. Yes, I mean, as I said, you don't get paid unless you go do work. And you have to have a project to do that. You also can't just pull a laborer off a shelf and say, your project starts next Friday.

Senator CAPITO. Right.

Mr. BOOKER. We have to prepare for that, we have to train, we have joint labor-management training that, depending on the project, whether it is a pipeline or offshore wind or any other energy sector, we have to train people to do that. In order to do that, we have to have predictability.

So this litigation, as unpredictability, creates chaos in the construction industry and it doesn't allow us to get the safest, most skilled, most productive workers if we don't know when that job is going to start, or if we are expecting it to start in a month and then it gets delayed by two, three, 4 months.

So that litigation is causing chaos and chaos in the industry. Also, it is causing our members not to get paid. That is the biggest thing for us, it is about jobs, about us to be able to get people their paycheck.

Senator CAPITO. Right. Ms. Pilconis, can you elaborate on that in terms of, is there a specific stage of the court process that is particularly challenging, or is just through the whole, you mentioned it can be as long as 6 years. But it can be probably longer than that, if you can drag it through court.

Ms. PILCONIS. Correct. We know that NEPA is the most litigated environmental statute. We know that the amount of lawsuits that are being filed, it is increasing. We know from current studies and data that it can take multiple years, up to four and a half years to make your way through the litigation process, where it is resolved at the appellate level.

Lawsuits can stop projects that have already broken ground in their tracks through the form of injunctions, studies that have been done, whether it through an EIS, an EA, or using a categorical exclusion. Those decisions can be sent back to the agencies, which is delaying breaking ground. Essentially we keep having do-overs, even after you have received the project approval.

There is really good language that Congress and this committee has already passed in statute to put some limits on litigation.

MAP–21 has a 150-day statute of limitation window. We are recommending that be applied to all critical infrastructure projects.

There is also great language in FAST–41, but that is only applicable to a small number of projects that opt into the program. But that language requires challengers to raise concerns early in the process, where there is a lot of opportunity for public comment, for working these things out on the front end and not dragging projects into long litigation years after.

Senator CAPITO. Right. Before I go to Senator Whitehouse, I will say, you say if you are sending it back to agencies for reconsideration you are running into the problem that Ms. Pavia said came out in their survey, which is, I don't want to say lack of expertise, not enough capacity to really move these through the different agencies quickly.

Senator Whitehouse?

Senator WHITEHOUSE. Thank you, Chairman.

Mr. Booker, welcome, thank you for mentioning project labor agreements. You had a project labor agreement with one of the offshore developers. We have seen the huge success of project labor agreements in Rhode Island. It aligns the interests of the workers with the interests of the developers. Your orange shirts so show up, as you said. And things get built on time, on budget, and done right.

Indeed, American submarines are built in buildings in Quonset, Rhode Island, that were constructed under project labor agreements. So thank you for flagging that.

With respect to the seven offshore wind projects that are now at a standstill, how many jobs do you estimate those would have supported?

Mr. BOOKER. Thousands. From what the actual work in the water that will be, from the port upgrades, the harbor upgrades. We are building vessels in this Country again to support offshore wind. So it is in the thousands, if not tens of thousands. Thousands of building trades jobs, laborer jobs and tens of thousands of related jobs to that.

Senator WHITEHOUSE. And when an ongoing project is put on a standstill, do you have a sense of what that means for the consumer at the end of the day?

Mr. BOOKER. We are losing power in the Country, right? We need a baseload of power, we need predictability in power. So not only are my members suffering from not being able to go to work every day, we are also not being able to plug in that power into the grid that we need.

Senator WHITEHOUSE. Thanks.

Ms. Pavia, you mentioned at the very end of your testimony discrepancies between the existing treatment of pipelines under the Natural Gas Act and the existing treatment of transmission lines under the Federal Power Act. Could you real quickly let me know where those areas are, and maybe for the record put a list together of where you think those should be harmonized?

Ms. PAVIA. Yes, sure. There are definitely differences between FERC's authority over interState natural gas pipelines and transmission lines. The Natural Gas Act, Section 7, gives FERC full

siting and permitting authority over interState natural gas pipelines.

Alternatively, the Federal Power Act in Section 216 creates national interest electric transmission corridors that can be created through the Department of Energy. FERC has a limited authority to site projects only within those specific corridors.

Right now, the Department of Energy is going through the process of designating those corridors. But there are only three of them so far. What we see from the differences between the natural gas regulations and the transmission regulations is that——

Senator WHITEHOUSE. If you don't mind making a list, so I don't have to use all my time on this one question.

Ms. PAVIA. Oh, yes.

Senator WHITEHOUSE. Mr. Harrell, you say a looming transmission shortage poses a direct threat to America's energy security. You recommend that permitting new lines will be absolutely necessary. You also suggest that there are ways to move more electrons over existing power lines.

How would you balance those things? How much growth can we have in grid availability from moving more electrons over the same lines, versus how much are we going to need to solve by actually building new?

Mr. HARRELL. Thank you for the question, Senator, and for your leadership in these areas.

We need both, when push comes to shove. The scale of the amount of building work we are going to have to do over the coming decades here is immense. New transmission and increasing the capacity of the existing infrastructure is going to be critical.

Senator WHITEHOUSE. What is your best estimate for where the big new progress is most likely to be made? Is it going to be more in building new, or more in new technologies that allow electrons to run more smoothly over existing infrastructure?

Mr. HARRELL. Given the scale of rising demand, we are going to need to build significantly more energy infrastructure, transmission and——

Senator WHITEHOUSE. But you don't have a sense of which, one part electron efficiency, three parts new transmission? You don't have a——

Mr. HARRELL. If I made an educated guess, 75–25, we are going to need to build out more infrastructure around it.

Senator WHITEHOUSE. That is what I figured.

A couple of things in my last minute that you can all respond to as questions for the record. One is, I have come to despise interagency process.

[Laughter.]

Senator WHITEHOUSE. I really can't stand it any longer. It is a terrible excuse for the executive branch to dawdle and fiddle around and have things move at the speed of the most recalcitrant agency. It is also a place where things go to die. And in an accountability-free zone, because at the end of the day, when whatever was in the interagency process fails, everybody walks away and there is nobody who was responsible for that.

So if you have thoughts on what we can do in Congress to turn interagency process into an efficient mechanism for coordinating

these agencies, which is what we need, rather than the executive branch excuse hold for not getting things done and not having anybody accountable for that failure, I am happy to hear from all five of you on that one.

The last thing is, very often, we saw this particularly in offshore wind, we got the first steel in the water and the first electrons on the grid in Rhode Island on offshore wind because we had engaged with obviously interested stakeholders right from the get-go. Too often, the Federal regulatory process and State regulatory process begins with a filing from somebody who wants to develop something who hasn't lifted a finger to go out and talk to the folks who are going to be affected.

The first offshore wind permit that was sought at the Federal level was catastrophically bad in that respect. They hadn't even talked to fishermen about which direction you should array your equipment. They just were trying to jam it through on the strength of the pressure of their investors and their desire to get the electrons ashore.

So if you could also talk to me, and to the degree of precision that you can, about in what regulatory processes there should be a filing requirement stating what you have done to identify the stakeholders and saying what you have done to run the project by them and get their preliminary input so you start in a better place.

I went over, my apologies. But if we can get those two things, I would appreciate it.

Senator CAPITO. All right. Senator Cramer.

Senator CRAMER. The first thing I am going to get is that last 6 minutes and send to all my Republican friends, so they know why I like working with Sheldon Whitehouse so much.

[Laughter.]

Senator CRAMER. Anyway, thank you all for being here, and thank you, Chairman Capito and Ranking Member Whitehouse, for having this really important hearing so early in this term. Because there is a lot of work to do, and as we have learned, it takes a while.

There are two areas I would really love to explore, but I am going to start with you, Ms. Pilconis, and Mr. Harris, really all of you. But you spoke most thoroughly on the topic that isn't anywhere in my prep, but it gets me right to this issue. The capital intensity of these projects is, I think, lost oftentimes on a lot of folks. Even to the point of workers, I mean, labor can't just sit on the sidelines and wait for the years to go by.

But what I want to ask about is, the Supreme Court, you referenced Sackett, and either you or Mr. Harris referenced the fact that the Corps of Engineers still hasn't adequately responded to that ruling. Prior to Sackett, there was West Virginia v. EPA, or as I like to say, West Virginia and North Dakota v. EPA, and there is the Major Questions Doctrine, we have repealed the Chevron Doctrine.

All of this, all of these are such clear messages that the bureaucracy does not have the power that they think they have and that they have been exercising. The fact that Sackett wasn't clear enough in the definition of jurisdictional waters that the durable rule that the administration came up with in response to it was,

don't worry about those 80,000 404 permits. Maybe 79,800 of them really weren't necessary. But you should at least ask us first, and you referenced the process.

My question is this: what part of this, or why do we even have to seek jurisdictional determination or permission when we know, when anybody can read it, any homeowner can read it, this isn't a jurisdictional water, I don't need a 404 permit. In other words, we don't put a highway patrolman on every car on the interState, just in case one of them speeds. We presume most of them are not going to violate the law.

Where am I wrong on this, Ms. Pilconis? Where am I wrong on this, and how can we simplify it?

Ms. PILCONIS. The problem is that it is not clear. And you can ask one person if something is jurisdictional and the next person if something is jurisdictional, and you might get two different answers.

So for the construction community, we need clarity. And it is very difficult to move forward when you don't know what is a Water of the United States. Not getting a permit when you are in federally controlled water has very significant penalties, civil and criminal penalties. So the consequences and what is at risk is huge for the developer, for the contractor.

Sackett did provide some guardrails. It provide some clarity. But what came out of that Supreme Court decision is not being implemented by the agencies. As Mr. Harris said, there are very unclear terms that have not been defined in the regulations, and that is what is causing a lot of confusion.

Senator CRAMER. Mr. Harris, elaborate.

Mr. HARRIS. Thank you, Senator. Along with clarity, we need consistency. We need consistency between the core districts. If we could get true definitions of the terms that we were talking about, then our builders, our developers, would know when they could take reasonable risks before they make a tremendous investment in both the property and start moving the dirt. So we do need that consistency and clarity.

Senator CRAMER. But one thing is for sure, is that they can't be the same as they were before Sackett, right? There is certainly many fewer jurisdictional waters than there were previous to Sackett.

So as long as there is a 1 percent chance that it is jurisdictional, you are almost obligated to your shareholders, to your customers, to your workers, to seek the Federal Government's permission to obey the law. And I mean seek their permission to allow you to obey the law, which is mind-boggling.

OK, we only have a minute left. I only have a minute left. We will explore some more if we get another round.

But on the electricity side, because this is really, this is the hard work, and I think one of the challenges and one of the things that we oftentimes forget, and this gets to cross purposes, I suppose, is that electricity is the generation, transmission and distribution in a largely monopoly world of electric consumption.

Where it gets very iffy is that somebody determines those rates. There are regulators that determine those rates. And transmission

and generation being built out absent a planning process by the local utility can put the tab on the wrong people really easily.

The solution—there is a solution. We have to find a solution. We have to find a Federal backstop.

But I think on linear, to the Ranking Member's point, linear siting for transmission lines should be the same as it is for a water pipeline or any other linear infrastructure. I think we can do that. But we do have to recognize those State regulators, having been one at one point, and the Governors. It is just going to be a lot harder, and we will talk about it in another round if we get a chance.

Thank you, Madam Chair.

Senator CAPITO. Thank you. Senator Kelly.

Senator KELLY. Thank you, Madam Chair.

I am glad we are holding this hearing today to discuss the long-overdue need to fundamentally re-examine how the Federal Government handles the permitting processes. I think it is important to start by saying that there are very good reasons why our bedrock environmental laws exist.

The Clean Air Act improves our air quality and has been shown to prevent childhood asthma and other respiratory problems. The Clean Water Act and Safe Drinking Water Act makes sure that rivers, lakes, and sources of drinking water aren't full of unhealthy pollutants.

And requirements to review the long-term impacts of infrastructure development on Federal lands ensures that we protect our national parks and monuments and forests for future generations. I believe there is bipartisan agreement that having these protections for public health and for our environment are an appropriate thing to do.

The question then is whether our current framework allows us to accomplish the goals of these bedrock statutes without needlessly delaying commonsense projects. A few years ago, I traveled to Taiwan to visit with some businesses who were considering expanding their microchip manufacturing and also their clean energy businesses into the State of Arizona.

While I was touring one of their tech parks, I think it was on the northern side of the island, our guide pointed out that right there in the middle of the park was the government permitting office. Our guide shared that any time a company may need a new air or water permit or land use permit, or anything else, they could go to that office, and the staff there would help them get the permit they needed.

By contrast, these businesses shared how confusing the U.S. permitting process was. Why did they have to work with the city, or the county government on their land use permit, then talk to two or three different Federal Government agencies about air, land, and water permits?

These businesses, they are prepared to invest hundreds of millions of dollars in the United States and create thousands of great-paying jobs. But our permitting process led them to delay or scale back the planned investments. It is not that these businesses wanted to skirt clean air and clean water protections; they just wanted to be able to understand that their requirements, like what the re-

quirements were, and have certainty that once they met those requirements, they wouldn't need to deal with years of lawsuits.

So Mr. Harrell, at a more macro level, can you describe how Federal permitting processes create uncertainty for businesses looking to make investments in the United States, and what are the opportunity costs for our current permitting system?

Mr. HARRELL. Thank you, Senator Kelly. Thank you for your leadership on critical infrastructure and trying to drive foreign investments into our Country. Ultimately, companies are evaluating how the process to operate in this Country impacts their investment and the returns they are ultimately getting on a long-term project.

Today, the process is particularly unpredictable. So there is a wide range of factors that developers have to factor in when they evaluate. So the desperate need to provide more certainty in the process, to show us kind of the sideboards of how long it could take if it is a particularly complicated project, because sometimes it is, and how do we maximize the resources that are being invested.

I think a great example is your work on the CHIPS and Science Act, and the regulatory reforms that were needed to catalyze and build out those CHIPS, that regulatory predictability allowed private developers to move resources faster, but ultimately didn't sacrifice significant environmental outcomes.

Senator KELLY. Thank you. And Ms. Pavia, as I mentioned, and what is going on in Arizona, most of the economic development, the projects there that we are attracting are for clean energy industries and things like microchip and battery manufacturing is most of it. As we as a Nation look to encourage more clean energy manufacturing, how does our current permitting system affect that development?

Ms. PAVIA. Thank you. In the context of transmission permitting, uncertainties in the transmission permitting process actually hinder the interconnection of clean and zero-emitting and storage capacity resources. As I mentioned, we found that 2,600 gigawatts of clean energy is sitting in interconnection queues today. So the challenge there is to unleash that potential in those queues.

Senator KELLY. And it is in a queue because there is no transmission available, because the permitting is held up.

Ms. PAVIA. That is right. The permitting processes are not keeping up with the deployment rates of transmission that we need to unlock those resources.

Senator KELLY. Right. Thank you. Let's fix that.

Senator CAPITO. OK, Senator Curtis.

Senator CURTIS. Chairman Capito, Ranking Member Whitehouse, thank you for holding this hearing.

As I have been sitting here today, the best analogy I can think of is it feels like we are on a train and we all know it is going to wreck. And everybody on the train has the answers, right? We could take these five witnesses and the few members who are here, if you would lock us in a room, I think we could get to this.

So I am grateful. There is hardly a topic that is discussed more in Washington and is acknowledged as bipartisan, yet we can't get it across the finish line. So thanks for your work and working with

our House colleagues. I pledge my support and I am anxious to help you in this matter.

Mr. Harrell, I would like to first of all give you a shout-out for the work you do, and your organization. As you know, it has been very, very important in my understanding of these issues.

I want to talk just a little bit about Utah. Utah strives to be a leader on this. We have Operation Gigawatt that showcases the State's interest in geothermal and nuclear and all these energies.

And geothermal, it would be hard to find an energy source that finds better agreement among everybody that this is something that is important and needs to develop. Yet we struggle with permitting.

So I want to ask you, what additional measures could the Federal Government take to support State-led efforts in expanding geothermal, particularly in a State like Utah?

Mr. HARRELL. Thank you, Senator Curtis. And thank you for your leadership on these issues over the course of your time in Congress. I am excited to see the next big things here in the Senate, as well.

It underscores a really key point. And Utah is a great example nationwide of where Federal, State and local entities need to be synched up in the right way to drive new economic opportunities. So Project Gigawatt focusing on how to leverage and grow new geothermal, new nuclear, new hydrogen development in the State.

I think there are four key things that I think could be particularly helpful for the Federal process to synch up with that Utah strategy. On the geothermal side, I think a no-brainer is to remove the duplicative environmental analysis that is required for geothermal exploration. We should streamline that process. There is a bipartisan bill in Congress considering that.

Then if a site is feasible, it is still going to have to move under an environmental process for the generation project. So let's take the pure exploration environmental analysis out of it and kind of unleash innovators in that space.

I think there's a lot that we can do to streamline permitting at existing facilities that have been closed, at brownfields. I know your State is looking significantly at deploying small modular reactors and microreactors that could unlock significant development in the State. We are going to have to resolve some of these frictions with federalism, both on pipelines and transmission that are out there, to tap building out infrastructure for new hydrogen, for example, in the State.

So those are some key things that I think will solve problems that we are seeing nationwide, but really will help unlock the Utah strategy.

Senator CURTIS. I am going to come back to transmission. You have talked about it, it has been talked about a lot here, and yet just like the other parts, we are not making progress. I am going to stereotype Republicans here a little bit and say that we do struggle with this, and the whole aspect of permitting reform.

Talk to me, and particularly my Republican colleagues, about transmission. What is it that we are not getting? What is it we need to know? How do we get this done?

Mr. HARRELL. I think it is about growing clean energy infrastructure as a whole. We need to build out more wires, and that is not just about renewables. There are projects that have been stifled by the judicial process that are connecting and putting new gas facilities on the grid. If we are going to deploy new small modular reactors and advanced reactors, the scale of rising demand in the amount of new generation we are going to have to build potentially as big as the size of the Texas grid at a minimum over the next decade, actually doubling the U.S. grid over the next decade, we are going to need to connect a lot of new resources in place.

Ultimately, that means streamlining Federal reviews, trying to find ways to make that process move more quickly. And then providing some more clarity to the judicial process. Transmission projects have seen significant delays. There are multiple transmission projects in this Country that have nearly turned 21.

Senator CURTIS. Well, listen, there are some good proposals out there. I would just like to invite my Republican and Democratic colleagues; I am anxious to work on this and be helpful and see if we can find a solution.

Mr. Harris and Ms. Pilconis, I was a mayor of my city. When I think of building regulations, I tend to think of city, county and State regulations. I think a lot of people don't really understand that Federal adds yet another layer of regulations on this.

Can you both just speak quickly to that Federal layer that people may not see?

Mr. HARRIS. As a recovering mayor myself, part of the 12-step program, recognizing I had a problem and knowing there is a higher power, it is not met, no, I am and I currently sit on my planning and zoning commission. So I know that of the 24 precent of the cost of a new home that is directly related to government regulation, that local and State government shares in that responsibility to make sure that the permitting process at all levels is efficient.

Senator CURTIS. I am almost out of time. I am sure they will give you just a quick response.

Ms. PILCONIS. Just that where you can delegate or assign responsibility to the State so it can help streamline the process, such as through NEPA assignments or where States can take over for permitting, many States have done that with the 402 stormwater permitting process. And that can reduce duplication. We have heard from our members it can very much streamline things.

Senator CURTIS. Thanks, all of you. I yield my time.

Senator CAPITO. Senator Padilla.

Senator Padilla . Thank you, Madam Chair. Thank you and Ranking Member Whitehouse for this timely hearing.

In California, we talk a lot about permitting. But I think it is important to note at the outset that permitting isn't just a bureaucratic hurdle, there is a purpose for the process. And it is a foundation of responsible infrastructure development, energy production and environmental protection. They are not mutually exclusive; they have to go together.

There are a number of important bipartisan reforms, like last year's Energy Permitting Reform Act that Congress should pass. I am sure it has been raised earlier in the hearing.

But I also believe that the committee needs to grapple with the fact that a big challenge that was just exacerbated is actually staffing. Policy is policy; paperwork is paperwork.

But people are people. We need to be clear about ensuring our Federal agencies have the staffing levels necessary to process permitting applications as expeditiously and responsibly as possible. What we are seeing in the early days of this Trump Administration through the so-called Department of Government Efficiency is actually freezing and firing at unprecedented levels the work force that we rely on for permitting.

Ms. Pavia, you touched on this in your testimony. Can you discuss how staffing levels and capacity writ large are impacting the permitting process?

Ms. PAVIA. Absolutely. In our study, which we conducted over the course of 2023, 2024, and it was published in April 2024, one of the main challenges that we heard from developers, from agencies from across the spectrum was the lack of specific permitting, permitting and transmission, knowledgeable staff available at the agencies and at field offices for those agencies.

An anecdotal piece here, we talked to a developer who said that if they couldn't catch one person in particular at a field office, that would add months to their permitting timeline. So the importance of staffing is really, really critical. You can set timelines for things, you can set deadlines. But at the end of the day, if there aren't people there available to do the work, it is really hard to get the work done.

Senator PADILLA. Thank you, yes. It certainly seems that by shrinking the work force, we are doing the opposite of achieving energy independence or energy dominance. So we have some work to do.

Now, as some of you may know, I am a member of both this committee as well as Energy and Natural Resources. So I come at it from both angles, the commitment and the priority of streamlining and reforming the Federal planning process to meet the energy demand and ensure the reliability of the electrical grid. Transmission is an essential part of the reliable, efficient and affordable grid, and is often a factor, a factor physically constraining new grid interconnection requests. According to NERC, the limited addition of interState electric transmission infrastructure poses a grid reliability problem, particularly with the growing population and growing economy.

Ms. Pavia, a followup question. In your testimony, you pointed to the misalignment in requirements between different jurisdictions with permitting authority as a key factor in slowing down transmission permitting more specifically. Would requiring interregional planning that ensures regions jointly address needs and align priority projects help minimize any misalignment? What other recommendations might you have?

Ms. PAVIA. I do think that would help. FERC Order 1920, for example, requires longer-term regional transmission planning processes and cost allocation. I think that looking further out as a region and thinking about all of the affordability, reliability, and other challenges that might be faced would encourage the planning of longer distance transmission lines.

So I do think that Federal, that these coordination efforts will actually help resolve a few of these issues. However, transmission permitting jurisdiction, as you noted, really lies with the States. So there still needs to be State-to-State harmonization and State and tribal harmonization, along with the general harmonization of State transmission permitting policies with Federal transmission permitting policies.

Senator PADILLA. Just underscoring the biggest point of all, which is we all have to work together. Federal jurisdictions, Federal, State to State, but ultimately we are physically and legally interconnected.

Thank you for your thoughtfulness. Thank you, Madam Chair.

Senator CAPITO. Thank you. Senator Ricketts.

Senator RICKETTS. Thank you, Chairman Capito, and Ranking Member Whitehouse, for holding today's important hearing. And thank you to the witnesses for being here today to share your experiences as well on what we need to do to reform our Federal permitting process.

I believe we can make commonsense permitting reform to unleash the projects for American energy, infrastructure, homebuilding, agriculture, all those sort of things, while protecting our environment. Permitting reform is about modernizing our regulatory system to ensure that we are deploying projects efficiently, not about undercutting environmental standards.

Regulatory delay for permitting infrastructure, energy, and environmental projects is a hidden tax on Americans. This Congress, I am excited to serve as chairman of the Fisheries, Water and Wildlife Subcommittee. The U.S. Fish and Wildlife Service, Endangered Species Act and Clean Water Act are within the subcommittee's jurisdiction.

In Nebraska, the U.S. Army Corps of Engineers often finds itself in the middle of all these important policies. In addition to maintaining waterways and providing power, the Corps is responsible for flood prevention and to protect both natural and built environment.

Conflicting statutes like the Flood Control Act of 1944 and the Endangered Species Act actually pit protecting human life and property against protecting wildlife and the environment. Complicated court history and administrative actions relating to the devastating flood events along the Missouri River has made even the most commonsense projects avoidable and anticipated flooding difficult to permit. The lack of clear congressional intent and direction has compounded a difficult situation and authorized unintended priorities and create new environment programming.

Situations like this can be found all across the Country. Western wildfire victims, biofuel proponents and residential developers find themselves navigating the same impossible regulatory scheme.

We do not have to settle for years-long court battles, bureaucratic backlogs and complex statutes at the expense of natural resources and safety. The Fiscal Responsibility Act of 2023 reformed the National Environmental Policy Act for the first time in 50 years to mandate timelines and page counts for environmental analyses. The FRA also streamlined the use of categorical exclusions, which should expedite the deployment of CEQ-approved activities.

As Governor, one of the things I did to be able to help streamline this was implement a process called Lean Six Sigma, and I know the Chairman is like, can't get through any sort of hearing without me trying to mention Lean Six Sigma, when we are talking about permitting reform. Because this is one of the things we did that, again, shouldn't be controversial. It is about streamlining the process which we have been all talking about here today.

So for example, we can't change environmental regulations at the State, but we can look at the process. It was 110 steps long, for example, to issue an air construction permit. We cut that down to 22, and cut the time delay down from issuing that permit from 190 days to just 65 days.

Those are the kinds of reform that are possible, thanks to the great staff we had in Nebraska. Actually one of those folks, the gentleman who ran my Department of Environment and Energy, Jim Macy, is the Region 7 EPA administrator. So I am really pleased to see him doing that. The point is, we can do this.

Ms. Pilconis, you talked about some of the conflicting regulations maybe agencies are doing. I mentioned the Flood Control Act and the Endangered Species Act. Can you give me some examples of laws or regulations that are conflicting that we may need to address to provide clear congressional intent, so that the courts will have that when they are making these decisions?

Ms. PILCONIS. I think that clear congressional intent is most important. Having clear statutory language that lays out Congress' intent, making sure that is carried out and implemented by the agencies, and for Congress to be able to step in when agencies are showing overreach or they are causing conflicting or inconsistent determinations.

As far as where there are conflicts, I mean, we have NEPA, the overarching statute, bringing all the resource agencies together at the table to try to analyze and assess what the impact of a proposed major action will be, the ideas having coordination and communication and discussion about how these programs align, so that you can do concurrent reviews instead of sequential reviews and end up having the monitoring, the studies, the work that you are doing satisfy all of the programs so that you can reach one final document.

Senator RICKETTS. Just off the top of your head, can you think of, are there specific conflicting laws that we need to address through this process, or specific agency regulations that we need to address through this process?

Ms. PILCONIS. What comes to mind for me is not so much conflict between the laws, but inconsistent interpretation of the laws at the Federal agency level, and making sure that the application is consistent, so that you don't have diverging, different opinions.

With NEPA and recent court decisions and executive actions, it is not clear what the long-term role CEQ will play in issuing implementing regulations. We need to be sure that when Federal agencies are implementing NEPA and carrying out NEPA through their own agency regulations that we don't have inconsistency.

So that is an area that we are focused on moving forward and ensuring that agencies carry out NEPA consistently per the statute.

Senator RICKETTS. I think we would all agree that consistency is going to be important, especially when it comes to interpretation. Is there something this committee can do along those lines, when we are thinking about reform, things that we ought to be putting into the statute to be able to accomplish that?

Ms. PILCONIS. I think making sure that terms are clear. As Mr. Harris talked about, with the Clean Water Act, I mean, we have language in the regulation that is being inconsistently applied. With NEPA, great work was done in the Fiscal Responsibility Act, being clear that you are analyzing reasonably foreseeable effects, that you are looking at reasonable alternatives that are technologically and economically feasible, how is that being implemented. And Congress having oversight and stepping in where agencies are implementing that inconsistently.

Senator RICKETTS. Great. Thank you very much.

Senator WHITEHOUSE.

[Presiding.] Senator Schiff.

Senator SCHIFF. Thank you, Chairman. In California, really, the top issue is housing, the lack of housing, the lack of affordable housing. It is fundamentally a supply problem. We just don't have anywhere near enough housing. We can move people off the streets into shelter, but if we are not building more housing and building it quickly, there will simply be new people taking their place on the streets.

So my question, let me address it to you, Mr. Harris, is what can we do to accelerate the building of housing that is affordable? How much of the challenge in terms of the time limits or lack of time limits in approving new projects is a Federal problem, and how much of it is a State and local problem? And if it is more a State and local problem, are there things we can do to incentivize local governments and agencies to get to yes quicker on new housing?

Mr. HARRIS. Senator, thank you very much for the question. It is something that is near and dear to our hearts.

We believe it is a supply problem, that the inventory is driving up the inflationary cost of shelter. We think that of the 24 percent of the cost of a new home is related to government regulation. About, I don't know, a quarter of that is probably Federal, the remainder is State and local. And they are handling the heaviest part of that.

When I have the opportunity to talk to lieutenant Governors and Governors that are saying, look, we need more housing in our State, I encourage them to look at the policies and procedures that local and State governments have in regard to housing. Have they updated their housing plan? Have they put barriers in place to keep the growth or disincentivize growth happening in their communities?

And it is the same way it could happen at the Federal Government. If the Federal Government used highway dollars to get the speed limit regulated, they have used Federal dollars to raise the drinking age. So I believe that if the Federal Government was to look at incentivizing these communities, either in applications for CDBG grants or any of the Federal dollars that flow to municipalities, if they have consistent pro-housing, pro-growth opportunities, then I think that would incentivize them to do that, Senator.

Senator SCHIFF. Thank you. I look forward to working with you to identify how we can facilitate at the Federal level but also incentivize the local level, getting approvals of new housing more quickly.

Mr. Booker, I wanted to ask you about offshore wind. We have two big offshore wind projects, but in Humboldt and Morro Bay. And I am concerned about the rash of cancellations we are seeing of offshore wind projects in the last couple of years, and the new administration's executive order blocking leasing for offshore wind projects. I really don't understand the point of that. It is going to kill a lot of jobs and reduce a lot of energy.

Is the suspension of leasing, is this just a design to be a gift to the oil industry? Why would we want to stop offshore wind and all the jobs and energy that it creates?

Mr. BOOKER. I am probably not the right guy to answer that question. But what I will say is that killing the offshore wind jobs is killing America jobs. This President, this administration, talked about creating American jobs, the American dream.

And when we start picking winners and losers of renewables versus oil and gas versus nuclear versus hydro, the end result of that, if a political appointee is deciding who wins and who loses, at the end of the day it is the American worker who loses if someone is chosen, if one industry is chosen over the other.

That is why we have always been all-of-the-above, we support all of that, we support American jobs, we support American workers. I would encourage this administration to not pick winners and losers in the energy sector and let the market dictate where it makes sense. On the east coast and on the west coast, offshore wind has made sense as an economical, viable energy source that is creating good American jobs.

Senator SCHIFF. Thank you.

Finally, on the transmission interconnection issue, it seems to me one of the biggest areas where we could really move forward with a lot of new energy projects and clean energy projects, last year California's grid operator known as CISO stated that its interconnection queue now contains more than three times the generating capacity needed to achieve all of our State's renewable energy goals, three times the amount needed.

How do we get that transmission working? I am curious, a lot of projects that apply to join the grid, they end up essentially dissolving even before they get the opportunity. Is that because of the delays in access to the grid, or is it because you have all these projects applying to the grid that are not necessarily financially viable or don't have their funding? Why are those projects falling out, and what do we do to get the grid working so that when you have a new project, it can come online in a time-effective way?

Ms. PAVIA. I think it is a little bit of both. There are a lot of projects that apply to the queue just to get in line. They may not be 100 percent ready for deployment.

But I think this all stems from a process that is very long because of the lack of transmission that is available on the other side. And there is a kind of chicken and egg problem as well, where you don't want to build a transmission line if you don't know that there is going to be generation on the other side of that line. You also

don't want to put new generation into the queue if you don't think there is going to be a transmission line built.

So there is kind of this chicken and egg problem as well that I think we have to address in interconnection specifically.

Senator SCHIFF. Yes, I know in combining these two issues that in the Humboldt area where they have an offshore wind project, they are trying to figure out exactly that chicken and egg problem. It is one of the windiest places on earth. There are some deep water challenges to that particular venue, but then they don't have the transmission capacity, even if they built it tomorrow.

Thank you, Mr. Chairman, and I yield back.

Senator WHITEHOUSE. Senator Husted.

Senator HUSTED. Thank you, Mr. Chairman. Interesting enough, until a couple of weeks ago, I was on the other side of this question, as a lieutenant Governor working in economic development in the State of Ohio. I can tell you that the frustration that local and State leaders have with Federal regulators is epic, from my experience, because of the lack of certainty, because of the lack of understanding the process, because one regulator may have a different opinion than another regulator and the timelines of this are very frustrating.

But I would ask the question of why we are having this discussion, because I think that we are saying that the regulatory regime we built to protect the environment and other important factors has become so large and unwieldy that it is in conflict with other priorities like the idea of made in America, about creating more jobs in this Country, about building a resilient supply chain in this Country for our economic and national security and everything from energy to computer chips to pharmaceuticals, whatever that might be.

And the topic of time is money has come up, the saying time is money has come up several times today, which is so true, because we know that if you lack a predictable timeframe for doing things, many people just won't invest. They won't take the risk of making those investments, whether that is in building chips or data centers or power plants.

The NEPA process, I can tell you that one, I have seen this happen so many times where we had the CHIPS Act, for example, we need to build chips, very much supported the Federal Government leaning in on this on a bipartisan basis. But the NEPA process extends out the timeframe for which you can build the FAPS. We say it is a national security priority, but then these regulations get in the way.

We also hear, I left a community where they are currently discussing whether or not they will have enough energy to meet the demand of made in America, and can't know whether they can build the power plants or the supply chain. That is the regulations, and then the regulators on timeframes and deliverables.

And the idea that literally slowing these things down is actually contrary to our economic national security, and even environmental interest. When you think that unless you have enough energy that comes from, whether it is gas-fired power plants or SMNRs, and wind and solar, that taking a longer time to build those means you

can't decommission coal-powered plants because you don't have the energy supply chain.

So if you accept my context for my concern, quickly, I would love for every one of you to just tell me a couple of things, just quickly, things that we should do to fix that.

Ms. PAVIA. Thank you for your question, Senator. Timelines are important, page limits are important. You did great work with the Fiscal Responsibility Act, putting those things into law. I think then it comes down to accountability and making sure that folks are held to that.

In the Fiscal Responsibility Act is the requirement for agencies to report to Congress if they are missing those timelines, having oversight over that and making sure you are getting that information, understanding why deadlines are being missed. In MAP–21, there are actual penalties for missing deadlines. That only applies to surface transportation projects. I think having that applied to more critical infrastructure projects could hold agencies more accountable.

FAST–41 created the permitting dashboard which creates an incredible amount of transparency so that the public and everyone can see what are the milestones, when are they happening. There is only a few amount of projects, about 30 right now, that are on the dashboard. So having that apply to more projects.

I think making use of general permits, there are ways to make sure that things are getting done more quickly through the use of categorical exclusions, general permits.

Mr. HARRELL. Senator Husted, I would urge think big. This is not an around the edges issue, as you point out. There is a lot of duplication. We have had significant new environmental statutes put in place after NEPA was enacted in 1969. We have to see how these things synch up together to provide more predictability, that modernize the system and make step-change reform. Because then it gets clear the status quo is not serving our economic or our environmental interests.

Mr. HARRIS. I would like to say that just calling a tool or a permit efficient and predictable doesn't make it efficient and predictable. We need something that will be efficient and predictable every time.

Mr. BOOKER. I think we have to require agencies to make a decision, either up or down. If the answer is no, then we can reapply for it. And then we have to put timelines on litigation, so that if a project is permitting, going, and people are working, the decisions have been made by the agency, it is good to go, that the litigation can't stop a project going forward.

Ms. PAVIA. I would second the use of the permitting dashboard. It is a great existing tool that we can continue to leverage more fully. I would also just hearken back to what I said earlier about staffing, both at the local and Federal capacity for permitting expertise, especially for linear infrastructure projects, it is going to be really important.

The IRA did provide some technical assistance through programs like TSED, but I think more can be done in the capacity space.

Senator HUSTED. Thank you.

Senator WHITEHOUSE. Senator Lummis.

Senator LUMMIS. Thank you, Mr. Chairman, and thank you, panel, for being here today.

This is a subject that vexes people in both parties at all levels of government. So I am thrilled that you are willing to address these issues today.

I am going to start with something called permit by rule, which is something that President Trump has touted in an Executive Order. I have a bill that would authorize permit by rule. My cosponsor is Mr. Budd. It is called the Full Responsibility and Expedited Enforcement Act, the FREE Act.

So my question is, Mr. Harrell, how can implementing permit by rule streamline Federal permitting while ensuring robust environmental protections? And what steps should Congress take to ensure agencies followup on these reforms?

Mr. HARRELL. Thank you, Senator, and thanks for your leadership on this issue. This is the type of thinking big item, right, how can we shift to a build and comply structure rather than this arduous, multi-step process.

In many cases, projects face unnecessary case by case reviews that aren't getting us any better benefits for the environment, and purely is just driving out the length of the review process and driving up costs. That is not good for the consumer, it is not good for the environment.

So agencies are going to need to set out the rules of the road, which your bill lays out in the early stages. Then I think Congress is going to need to codify that, because in the end, this can't be a structure. This shift is a big change. It can't go on the ebbs and changes of an administration. We need a regulatory system that works for the next 40 years, not the next 4 years.

This is the type of thing that I think we can take a significant chunk of projects off and streamline for projects that have like characteristics, are built in the same type of areas, or need to comply in the same way.

Senator LUMMIS. I agree, Mr. Harrell. I don't think it is for every situation, but for a very standard situation that has consistent replicable compliance standards, it might work well. So thank you. I look forward to working with you all on that.

Mr. Harris, I am going to turn to you. In Wyoming, we have a housing shortage. There is a community, very small community, Kemmerer, Wyoming, where this TerraPower nuclear power plant is going to come in and have construction job demands that are going to require housing.

So I am interested in hearing your thoughts on this issue, given your experience in small volume homebuilding in a State that is very similar to my State of Wyoming.

Mr. HARRIS. Thank you very much, Senator, for the question. I think the community needs to decide where the housing needs to go and then work together with builders and the Federal authorities about what is the most appropriate for that.

You reduce those barriers and you will start having more builders who want to build homes either for rent, wherever the build on the housing ladder, whether it is temporary housing, apartments, to first-time homebuyers to move-up housing, all of that takes the cooperation.

Real eState development is really community development and how we can all work together to get these houses built in the communities that need them.

Senator LUMMIS. So how can streamlining permitting help homeowners?

Mr. HARRIS. It will lower the price, because the cost of regulation continues to drive. So if I decide to, if I have to jump through a lot of hoops to develop a piece of land, then that increases the cost per acre or per lot that I am going to need on that home. Then eventually that will be passed on to the homebuyer.

But each one of those regulations continues to work through that. The permitting process needs to be well-defined, consistent, every time.

Senator LUMMIS. Thank you.

Now, I am going to ask one more question, changing subjects to something called Class Six. I invite any of you, I suspect, maybe, Mr. Harrell, this is for you. But any one of you is welcome to weigh in.

States can expedite permitting by directly implementing Federal requirements. There is something called Class Six primacy that allows for that. Wyoming successfully applied for and received this Class Six primacy, but I am told that the EPA has 151 pending Class Six permit applications, while only four have been granted.

So for any of you who are familiar with this Class Six, what reforms can ensure that States seeking Class Six can navigate the process more quickly, and with greater certainty?

Mr. HARRELL. Senator, I am happy to hop in there. Class Six primacy is an area where you are shifting responsibility to the folks who are closer on the ground, who can move more quickly, and the law requires them to still have the same environmental standards.

So it is a no-brainer that we can move faster, bring those decisions back to the lower level. And there is probably no better example over the last 4 years, particularly in clean energy, that shows that just throwing money at the problem isn't fixing it. Between the Infrastructure Bill and annual appropriations, EPA has gotten more resources to process these and they continue to move at glacial speed.

We have to set clear timelines. They need to be more transparent about where they are in the process, particularly with States. It needs to be a more iterative process. If they see something in the State proposal that isn't meeting the Federal standard to take on this responsibility, that needs to be up front.

I think we can move much faster on this. It was exciting to see West Virginia get cleared here recently and there are a bunch of States in the pipeline that I think could benefit from this.

Then the Federal regulators can focus on more complicated projects in places like California, for example, that aren't going to explore primacy.

Senator LUMMIS. And it is proving successful, for States that have already received Class Six primacy?

Mr. HARRELL. Your State, and North Dakota, are two great examples. Wyoming and North Dakota are moving these projects in under a year, where the Federal process, as you mentioned, has 150-plus projects in the pipeline.

Senator LUMMIS. Thank you, Mr. Chairman, and thank you to our committee. I appreciate your being here today.

Senator WHITEHOUSE. We are deciding whether this is the end of the hearing or not.

[Laughter.]

Senator WHITEHOUSE. The Chair was kind enough to give me the gavel for purposes of moving through the members, but it is not clear that I have the gavel for purposes of closing out the hearing without her permission.

So in the spirit of bipartisanship, I am waiting for that signal. So if you will just stand by for a minute. OK, I have clearance to proceed.

First of all, thank you. This was a very, very helpful hearing. Senator Lummis, in the response from Mr. Harris, he mentioned the importance of the community making the decisions about where the housing should go.

I think that aligns pretty well with the comment that I made earlier that in these filing things, it would be helpful if there was right at the very front a requirement of who are the stakeholders and how have I engaged with them already, so that all doesn't get backed up into the regulatory process, it is done up front and center and here we go. I didn't have to close out the hearing, because the Chairman is here. I don't want to get in trouble.

[Laughter.]

Senator CAPITO.

[Presiding.] My apologies for missing the last few minutes.

I think we have a lot of commonality here, a lot of good ideas and a lot of thoughts that I think are going along the same lines. I think we should think big, and then come down from big to where we can meet the sweet spot. Because like Senator Curtis said, we have been talking about this for years; we haven't quite gotten there.

So I am committed, and I know you are.

Senator WHITEHOUSE. What is the word?

Senator CAPITO. Together, to work on this together. That is our key word today.

So anyway, with no further questions, I would like to thank the witnesses and all of my colleagues for their participation. Senators who wish to submit written questions for the record have until 4 p.m. on Wednesday, March 5th to do so. The witness responses to those questions are due back to the committee no later than 5 p.m. on Wednesday, March 19th, and will be submitted to the hearing.

The hearing record will remain open, as I said earlier, until March 21st, and anybody, I would hope that you would submit suggestions that you might have heard today or other suggestions. The public will be allowed to submit comments and materials to the hearing record by sending these documents to permitting@epw.senate.gov. This email address is also accessible on the committee's website, on our contact page.

With that, this hearing is adjourned.

[Whereupon, at 1:46 p.m., the hearing was adjourned.]



February 19, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment and Public Works
U.S. Senate
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and Public Works
U.S. Senate
Washington, DC 20510

Dear Chairman Capito, Ranking Member Whitehouse and Members of the U.S. Senate Committee on Environment and Public Works:

On behalf of Associated Builders and Contractors, a national construction industry trade association with 67 chapters representing more than 23,000 members, I thank you for holding the hearing, "Improving the Federal Environmental Review and Permitting Processes." ABC members play a significant role in building America's infrastructure and seek to inform the committee of legislative opportunities to responsibly streamline the Clean Water Act by eliminating persistent statutory barriers to state assumption and enhancing U.S. Army Corps of Engineers and U.S. Environmental Protection Agency processes.

Background

Section 404 of the CWA prohibits the deposition of dredge or fill material into the waters of the United States without a permit. The U.S. Army Corps of Engineers exclusively administers Section 404 in every state except Michigan and New Jersey.

In 1977, Congress amended the CWA to provide for broad state assumption of Section 404 permitting, compliance and enforcement, recognizing the superior efficiency, consistency and transparency achievable via localized administration of wetland permitting. Forty-eight years later, only three states have assumed Section 404 permitting, contrary to congressional intent. The negligible assumption of Section 404 permitting by states may be attributable to the CWA providing the USACE with procedural and substantive advantages it fails to provide states, including:

- **Endangered Species Act Section 7 liability protection for incidental take of listed species.** On the other hand, state permittees must secure incidental take liability protection via comparatively time- and cost-intensive compliance with ESA section 10 conditions, including the preparation of habitat preservation plans.

- **No durational limit for permits.** In contrast, the CWA limits the duration of state issued permits to five years, requiring duplicative applications and determinations, unnecessarily complicating long-term project delivery.

The lack of state assumption of Section 404 permitting should concern Congress, as USACE completion of Section 404 permitting process averages nearly 800 days and nearly $300,000 in applicant administrative costs per permit, frustrating action on America's critical housing and infrastructure priorities. In comparison, at the time of Florida's Section 404 assumption, Florida's

state-administered wetland program covered 86% of waters subject to concurrent USACE permitting and permitted in 17 days the same activity in the same waterway that USACE permitted in 300 days.

On Feb. 15, 2024, the U.S. District Court for the District of Columbia divested Florida's Section 404 authority, exemplifying persistent statutory barriers to state implementation, contrary to the CWA's explicit preservation of states' "primary responsibilities and rights" to ensure the integrity of water resources.

Recommendations To Enhance State Assumption of Section 404 Permitting

Given that approximately 12 states currently administer local wetland programs not contemplated by USACE's nationally standardized program, encouraging state assumption would eliminate duplicative permitting, achieve decisional consistency and promote transparency by reducing points of contact for permittees.

Congress should enact amendments consistent with the following recommendations to vest states with increased Section 404 authority. The recommendations below improve transparency, consistency and efficiency by advancing localized administration of wetland permitting and reducing federal government overlap.

- **Authorize Endangered Species Act Section 7 liability protection to flow through state or tribal Section 404 enforcement agencies:** Congress should allow states to secure ESA Section 7 incidental take permits covering all state-administered Section 404 program permittees, subject to adequate state regulatory provision for subsequent species and site-specific U.S. Fish and Wildlife Service or National Marine Fisheries Service determinations.

- **Authorize states and tribes that assume Section 404 authority to issue permits of equivalent duration to USACE Section 404 permits:** Congress should ensure parity in the duration of permits issuable by USACE and state authorities by substituting the present five-year lifetime of state-issued permits under Section 404 with a provision that state permits may not exceed statutory or regulatory limitations governing the duration of permits issued by USACE.

- **Clarify that states and tribes may assume authority to issue Section 404 permits for discharges into a portion of assumable waters:** Congress should eliminate the current "all or nothing" assumption framework and afford states latitude to administer permitting for those activities and assumable waters they are best equipped to manage.

- **Authorize expenditure of EPA Wetland Development Grant Program funding to offset continuing state Section 404 implementation costs by supplementing state fee-for-service revenues:** In view of the potential for wider Section 404 assumption to relax demands on federal personnel and resources, Congress should at minimum eliminate present obstacles to expenditure of existing federal funding for state water quality programming on continuing administration of assumed programs.

Conclusion

By advancing state assumption, Congress would provide permittees with a coordinated, predictable and transparent permitting process. This action would further empower the construction industry to plan and execute even the most complex projects while safeguarding our communities, maintaining a healthy environment and being good stewards of public funds.

ABC appreciates the opportunity to comment on today's hearing and looks forward to working with the committee during the 119th Congress. ABC is committed to building our nation's infrastructure projects with the highest standards of quality and safety to benefit the communities we all serve.

Sincerely,



Kristen Swearingen
Vice President, Legislative & Political Affairs

Testimony for the Record

U.S. Senate Committee on Environment and Public Works

"Improving the Federal Environmental Review and Permitting Processes."

February 19, 2025

America's mining industry supplies the essential materials necessary for every sector of our economy – from technology and healthcare to energy, transportation, infrastructure, and national security. The National Mining Association (NMA) is the only national trade organization that serves as the voice of the U.S. mining industry and the hundreds of thousands of American workers it employs before Congress, the federal agencies, the judiciary, and the media, advocating for public policies that will help America fully and responsibly utilize its vast natural resources.

We work to ensure America has secure and reliable supply chains, abundant and affordable energy, and American-sourced materials – all delivered under world-leading environmental, safety, and labor standards. The NMA has a membership of nearly 300 companies and organizations involved in every aspect of mining, from producers and equipment manufacturers to service providers.

The mining industry operates under a comprehensive framework of federal and state laws, regulations, and policies that govern nearly every inch of a mine site. While the NMA and our members support regulations that both foster environmental protection and promote responsible development, we also *rely* on fair, consistent, and predictable permitting processes to support our national priorities and remain competitive in the global economy. For too long, regulatory uncertainty in the permitting process has delayed projects, chilled investment in U.S. mining operations, and inhibited the ability to mine the raw materials on which our nation's energy, infrastructure, manufacturing, and mining supply chains depend.

Permitting uncertainty can also cause project proponents and investors alike to look outside the U.S. when determining where to invest and develop projects. This puts our nation's supply chain independence at risk and creates a dangerous situation where we become increasingly import-dependent on necessary materials from adversarial countries.

National Environmental Policy Act

For decades, the U.S. has faced increasingly significant challenges to permit and approve projects that provide the minerals, raw materials and energy resources needed for nearly every sector of our economy. From the mining industry's perspective, an inefficient National Environmental Policy Act (NEPA) process is a primary contributor to the lengthy and unpredictable process that discourages the capital investments required for energy and mineral exploration and mine development. The implementation of NEPA and its use as a tool for litigation has allowed this well-intentioned law to stray far from its intended purpose and underlying text. Additionally, a recent report by S&P Global found that it takes an average of 29 years to bring a mine online in the United States – longer than any other country except Zambia.[1]

Clearly, an inefficient NEPA process presents a major barrier to the domestic mining sector's ability to perform to its full potential and meet more of our energy, manufacturing, national security, and infrastructure needs. These delays have real consequences. A study from SNL Metals & Minerals found that, on average, a typical mining project loses more than one-third of its economic value as a result of protracted delays in receiving the numerous permits needed to begin production.[2] The longer the wait, the more the value of the investment is eroded, even to the extent that the project ultimately becomes an unviable investment. Even a large, high-grade deposit will remain unmined if the balance between costs, revenue, and timetable is not favorable.

Change is needed to make the permit process for mining projects, including the NEPA component, more efficient and timely. The NMA appreciates the congressional efforts to reduce delays and duplication caused by NEPA analyses. The Fiscal Responsibility Act of 2023, which amended the statutory language of NEPA for the first time since its original enactment, was designed to recognize the procedural nature and limited scope of NEPA while setting and enforcing firm timelines and page limits for environmental reviews. Having the correct NEPA guardrails remains paramount even as the future of the Council of Environmental Quality's (CEQ) NEPA regulations is unclear in light of recent court decisions and President Trump's executive order directing CEQ to propose rescission of its regulations and develop guidance for agencies on NEPA implementation within 30 days. The mining industry looks forward to engaging with the administration on the development of NEPA guidance to provide the needed certainty for NEPA implementation and compliance to facilitate investment in new capital-intensive mining projects.

A much-needed step for permitting certainty in the U.S. is litigation reform under NEPA and other environmental statutes. Lawsuits that last years, or even decades, erode project proponent's trust and reliance on the permitting process. NMA

[1] S&P Global, "United States Ranks Next to Last in Development Time for New Mines that Produce Critical Minerals for Energy Transition," July 18, 2024. https://press.spglobal.com/2024-07-18-United-States-Ranks-Next-to-Last-in-Development-Time-for-New-Mines-that-Produce-Critical-Minerals-for-Energy-Transition,-S-P-Global-Finds

[2] SNL Metals & Mining, Permitting, Economic Value and Mining in the United States, June 2015.

members have experienced protracted and disruptive litigation delays, with some litigation not even being commenced until years after projects have been approved and construction activities have begun. There can and should be a better balance between access to courts to address grievances and concrete timeframes for litigation, including appeals.

Clean Air Act and the $PM_{2.5}$ Standard

The mining industry operates under a comprehensive framework of federal and state environmental laws, including the Clean Air Act (CAA), which establishes air quality standards for emissions from industrial activities. While the industry supports regulations that protect air quality and public health, recent revisions to the National Ambient Air Quality Standard (NAAQS) for fine particulate matter ($PM_{2.5}$) will impose significant new permitting challenges.

In February 2024, the EPA finalized a more stringent $PM_{2.5}$ standard, lowering the allowable level from 12 micrograms per cubic meter to 9 micrograms—a threshold that aligns with natural background levels in many areas[3]. This will dramatically expand the number of counties designated as nonattainment, increasing permitting hurdles for mining, mineral processing, and infrastructure projects. The mining industry is already subject to lengthy and unpredictable permitting processes, with new projects facing delays that span decades. The revised standard further complicates efforts to bring critical mineral, coal, and aggregate projects online, jeopardizing the materials supply chain necessary for manufacturing, energy, and infrastructure development.

With nearly 569 counties at risk of falling into nonattainment, securing permits for new or expanded operations will become increasingly difficult, costly, and uncertain. These permitting restrictions will not only affect mining but will stall investments in energy production, road construction, and industrial development, directly contradicting congressional efforts to promote economic growth and domestic manufacturing. As the U.S. works to reshore critical supply chains and strengthen energy and mineral security, permitting reform must be a priority. The NMA and its members urge policymakers to ensure that implementation of the $PM_{2.5}$ standard does not undermine essential mining, infrastructure, and industrial investments that are critical to U.S. competitiveness and national security.

Clean Water Act

Mine operators regularly obtain Clean Water Act (CWA) section 404 dredge and fill permits from the U.S. Army Corps of Engineers (Corps) and CWA section 402 National Pollutant Discharge Elimination System (NPDES) permits from the U.S. Environmental Protection Agency (EPA) and state permitting authorities.

---

[3] U.S. Environmental Protection Agency, *Final Reconsideration of the National Ambient Air Quality Standards for Particulate Matter ($PM_{2.5}$)*, EPA (Feb. 7, 2024), *found at*, https://www.epa.gov/pm-pollution/final-reconsideration-national-ambient-air-quality-standards-particulate-matter-pm.

For our members, CWA permitting is often a significant hurdle to executing critical projects efficiently and effectively. The lack of clarity around the federal scope of jurisdiction over "Waters of the United States," and implementation challenges stemming from it, have resulted in project delays and increased costs. The NMA supports efforts to address CWA permitting challenges and promote transparency in EPA's water quality criteria development process; provide regulatory certainty in shoring up the existing CWA section 402(k) permit shield provision; and clarify timing of the CWA section 404(c) veto process to support fairness and predictability.

The NMA also encourages the Committee to explore statutory revisions to the CWA Section 401 state certification process to clarify the factors states and authorized Tribes can consider in their review; support the reauthorization of the Corps' current suite of Nationwide Permits; promote flexibility in the compensatory mitigation process; and find ways to help states and the federal government work together to support the CWA's cooperative federalism framework.

Conclusion

Investing in this supply chain and reshoring essential energy and mineral supply chain capacity is critical to our own national security and economic competitiveness. We need federal policies that truly incentivize responsible domestic resource development – beginning with extraction and supporting the entire value chain of energy and minerals – and provide regulatory certainty through permitting reforms. This is necessary to attract adequate private sector investment.

Without action on durable and lasting permitting reforms, the U.S. will be watching the global competition for mineral and energy dominance from the sidelines. The NMA supports efforts to strike the correct balance between ensuring environmental protections while allowing important projects that drive the U.S. economy to move forward. The NMA and its members look forward to working with the committee to advance permitting reform efforts.

WATERS ADVOCACY COALITION

February 19, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment & Public Works
U.S. Senate
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment & Public Works
U.S. Senate
Washington, D.C. 20510

Dear Chairman Capito and Ranking Member Whitehouse:

The Waters Advocacy Coalition (WAC) applauds your leadership in holding today's hearing on "Improving the Federal Environmental Review and Permitting Processes." WAC represents a large and diverse cross-section of the nation's broad business community, including the construction, transportation, real estate, recreation, mining, manufacturing, forestry, agriculture, energy, wildlife conservation, and public health and safety sectors. Our members are vital to building a thriving national economy and are essential to achieving the nation's critical infrastructure, manufacturing, supply chain, transportation, and energy goals.

Our members operate their businesses in compliance with a comprehensive framework of federal and state laws, regulations, and policies. They regularly obtain a wide range of federal environmental permits, including Clean Water Act (CWA) permits. These include dredge and fill permits from the U.S. Army Corps of Engineers under CWA section 404 and discharge permits from the U.S. Environmental Protection Agency and state permitting authorities under CWA section 402. Many of our members also conduct activities under the Corps' Nationwide Permit program, which provides an important option to expedite projects that have lower environmental impact.

For many of our members, CWA permitting can be a major hurdle in moving essential projects forward efficiently. We therefore have a significant interest in the Committee's work to address how to improve the federal environmental review and permitting processes. We appreciate the Committee's work to address these challenges and ensure that essential projects are not hindered by bureaucratic delays or uncertainties, while supporting the CWA's cooperative federalism framework, environmental protection, and the need for a more streamlined, predictable regulatory framework.

We look forward to working with you to identify opportunities for targeted reforms that will help achieve our nation's ambitious national priorities and support the communities that depend on these projects.

Sincerely,

American Exploration & Mining Association
American Farm Bureau Federation
American Gas Association

Associated Builders and Contractors
Associated General Contractors of America
American Road and Transportation Builders Association
Golf Course Superintendents of America
Independent Petroleum Association of America
National Asphalt Pavement Association
National Association of Home Builders
National Association of State Departments of Agriculture
National Association of Realtors
National Club Association
National Cotton Council
National Multifamily Housing Council
National Rural Electric Cooperative Association
National Stone, Sand & Gravel Association
RISE (Responsible Industry for a Sound Environment)
Southeastern Lumber Manufacturers Association
USA Rice
U.S. Chamber of Commerce

DRAFT

American Road and Transportation Builders Association
Associated Builders and Contractors
Associated General Contractors of America
Leading Builders of America
Liquid Energy Pipeline Association
National Club Association
National Association of Home Builders
National Association of Realtors
National Mining Association
National Asphalt Pavement Association
National Rural Electric Cooperative Association
National Stone, Sand & Gravel
Association The Fertilizer Institute
RISE (Responsible Industry for a Sound Environment)
Southeastern Lumber Manufacturers Association

cc: Members of the Committee on Environment and Public Works

DRAFT

DRAFT

WESTERN GOVERNORS' ASSOCIATION

MICHELLE LUJAN GRISHAM
GOVERNOR OF NEW MEXICO
CHAIR

SPENCER COX
GOVERNOR OF UTAH
VICE CHAIR

JACK WALDORF
EXECUTIVE DIRECTOR

February 20, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment
and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment
and Public Works
United States Senate
456 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Capito and Ranking Member Whitehouse:

In light of the Committee's February 19 hearing, Improving the Federal Environmental Review and Permitting Processes, attached please find Western Governors' Association Policy Resolution 2023-10, Infrastructure Permitting.

Current permitting processes governing land management activities and infrastructure development can negatively affect the pace and scale of critically important projects, such as wildfire mitigation, habitat improvements, energy systems investments, and housing construction. Western Governors urge Congress to consider how to improve and streamline these processes while still providing meaningful opportunities for public input and promoting and a safe and healthy environment.

I request that this document be included in the permanent record of the hearing, as it articulates Western Governors' collective and bipartisan policy positions and recommendations on this important issue.

Thank you for your consideration of this request. Please contact me if you have any questions or require further information.

Sincerely,



Jack Waldorf
Executive Director

Attachment

Policy Resolution 2023-10
Infrastructure Permitting

A. BACKGROUND

Western states and territories face a host of challenges in balancing the protection of human health and the environment with the many needs of growing populations. Robust permitting processes help achieve that balance by ensuring environmental protection and public participation. Current permitting processes governing land management activities and infrastructure development can negatively affect the pace and scale of critically important projects: to provide wildfire mitigation and habitat improvements, to ensure safe roads and bridges, to build drinking water and wastewater capacity, to improve energy systems including transmission and distribution, to construct and place broadband and other telecommunications infrastructure, and to address supply chain shortages. These review processes can be improved and streamlined while still providing meaningful opportunities for public input and promoting a safe and healthy environment for our citizens.

B. GOVERNORS' POLICY STATEMENT

1. A clear, consistent, focused, and effective environmental review process is essential to protect environmental resources, ensure public participation, and facilitate timely decision making in the design, financing and execution of critical infrastructure and land management projects. Western Governors urge Congress and the Administration to streamline the review of critical infrastructure projects and land management activities, where appropriate, to achieve the goals of federal legislation that invests in improving infrastructure and enhancing ecosystem function.

2. The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental considerations into their decision-making processes, which have been defined through regulations and guidance issued by the Council on Environmental Quality (CEQ). Federal agencies' NEPA review processes should seek to comply with CEQ requirements as efficiently and effectively as possible. Litigation risk should not cause agencies to take an overly cautious approach to the permitting process. Instead, federal agencies should fully utilize existing mechanisms to streamline the environmental review process, such as any available categorical exclusions, where appropriate, while ensuring that robust consideration of environmental factors remains integral to the process.

3. CEQ should revise its guidance to direct agencies to consider only those impacts that are reasonably foreseeable and have a proximate relationship to the proposed action and also include robust socioeconomic analysis.

4. Western Governors believe Congress and the Administration should take steps to mitigate the risk of excessive project delays associated with legal challenges. Judicial review of federal decisions can significantly delay project implementation and can cause significant cost increases due to the rising cost of materials and labor. Agencies should initiate tribal, state, and county consultation in the earliest stages of the review process.

5. Federal permitting policies and efforts to streamline permitting processes should be flexible enough to meet the diverse needs of local communities. While significant investment in energy generation and transmission, transportation infrastructure, and land and water management is needed across the West, the specific types of projects pursued within each municipality, state, territory and tribe will differ based on factors including geography, geology, economy, climate, as well as the differing policy goals of each jurisdiction. Creating a robust federal permitting framework that is accommodating of the diverse natural and political landscape of the West is essential for the success of the region as a whole.

6. Western Governors are concerned that lengthy reviews in federal permitting processes are impeding states' ability to invest federal funding that would provide environmental or conservation benefits and for which individual projects are typically similar in scope, such as construction of wildlife crossings on highways or fiber for wildfire monitoring cameras. CEQ should consider how best to streamline review processes for similar projects delivering an environmental or conservation outcome to ensure that federal funds are invested effectively.

7. The Administration and Congress, in continuing to evaluate permitting processes, should consider how to make these processes more accessible to underserved or historically disadvantaged communities, small and rural communities, and recipients of smaller awards to ensure that it is cost-effective for these groups to access federal funding. For example, small communities often choose not to apply for federal funding for transportation and infrastructure improvements because of the complexity and cost of the federal permitting process as well as the cost of compliance with federal requirements.

8. Western Governors recognize the value of interagency reviews, such as reviews under Section 309 of the Clean Air Act, which authorizes the Environmental Protection Agency (EPA) to review all federal actions affecting the quality of the environment, but urge Congress and federal agencies to evaluate and address steps that may cause undue delays in permitting, including by improving coordination of federal agency activities.

9. Western Governors recognize the importance of highly qualified staff in local agency field offices that evaluate and process permitting applications. Governors are concerned by shortages of realty specialists in local field offices, especially as many staff responsible for permitting at these agencies are becoming eligible for retirement. Significant federal investment in infrastructure and land management projects increases the workload on agency staff, exacerbating existing shortages. It also increases the need for technical assistance for local communities and states applying to use federal funds. Federal land management agencies that receive funding for staffing to implement federal investments should prioritize hiring qualified permitting staff in local field offices to ensure permits are processed in a timely manner and technical assistance needs are met.

10. The Federal Infrastructure Permitting Dashboard operated by the Federal Permitting Improvement Steering Council (FPISC) adds transparency, accessibility, and agency accountability to the permitting process. The Administration and Congress should continue to empower and support the FPISC in its efforts to improve the federal permitting process. However, the FPISC, which is limited to select projects that qualify for inclusion, is only a temporary solution while comprehensive permitting reforms are developed and implemented. Fundamentally, Congress and the Administration must pursue

comprehensive reforms that increase transparency, accessibility, and agency accountability for all projects.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. The Governors direct WGA staff to work with Congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

This resolution will expire in June 2026. Western Governors enact new policy resolutions and amend existing resolutions on a semiannual basis. Please consult http://www.westgov.org/resolutions for the most current copy of a resolution and a list of all current WGA policy resolutions.

Family Farm ALLIANCE®
PROTECTING WATER FOR WESTERN IRRIGATED AGRICULTURE

February 21, 2025

Hon. Shelley Moore Capito, Chairman
Hon. Sheldon Whitehouse, Ranking Member
Committee on Environment and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, D.C. 20510

Transmitted Electronically

Re: Comments for the February 19, 2025 Hearing Record - *Improving the Federal Environmental Review and Permitting Processes.*

Dear Chair Moore Capito and Ranking Member Whitehouse:

On behalf of the Family Farm Alliance (Alliance), I appreciate the opportunity to provide these comments for the hearing record for the February 19, 2025, hearing entitled *"Improving the Federal Environmental Review and Permitting Processes"* on behalf of the family farmer and rancher members of the Family Farm Alliance.

Family Farm Alliance Background

The Alliance is a grassroots organization of family farmers, ranchers, irrigation districts and allied industries in 16 Western states. The Alliance is focused on one mission: To ensure the availability of reliable, affordable irrigation water supplies to Western farmers and ranchers. The Alliance believes that without new sources of water, increasing urban and environmental demands in a changing climate will deplete existing agricultural supplies and seriously threaten the future of Western irrigated agriculture.

The often slow and cumbersome federal regulatory process is a major obstacle to realization of projects and actions that could enhance Western water supplies. NEPA implementation can have a direct bearing on the success or failure of critical water supply enhancement projects. Further, our members include many Western water managers, who often are subjected to NEPA mechanisms like Categorical Exclusions (CEs) and Environmental Assessments / Findings of No Significant Impact (EA/FONSI) in conjunction with annual operations and maintenance activities on ditches or major rehabilitation and repair projects on existing dams.

Past Alliance Efforts to Engage in Efforts to Modernize NEPA

Over the past two decades, the Alliance has engaged in several forums with the intent of providing constructive recommendations to streamline federal environmental laws – most of them signed into law over 40 years ago. Once again, we find ourselves dedicating time to yet another set of proposals to change how one of those laws – NEPA – should be implemented by the administrative branch.

1. House of Representatives NEPA Task Force

In 2005, we surveyed irrigators and water managers throughout the West and asked them to identify the regulatory impediments they most frequently encounter as they seek to construct projects that enhance water supplies. NEPA "horror" stories were abundant, and some of those impediments related to NEPA implementation will be described later in this letter. Later that year, Alliance representatives participated in hearings conducted by the Congressionally directed NEPA Task Force. We used that forum to provide recommendations to streamline NEPA regulations as they relate to new water supply and conservation projects.

We worked closely with Congress as the NEPA Task Force was developed, and generally supported its findings and recommendations. In assessing the Task Force report, we compared it to the problems identified by the Alliance's survey and to recommendations we presented to the Task Force. Of course, our focus was more specifically directed at how the Task Force recommendations would contribute to a more streamlined regulatory process for water supply infrastructure projects. The federal NEPA examination culminated in 2007, when land management agencies adopted rules that clarified existing NEPA procedures and added new procedures to assure inclusion of modest NEPA-related requirements instituted in the Energy Policy Act of 2005.

2. Obama Administration CEQ NEPA Guidance

In August 2011, President Obama called for further steps to enhance the efficient and effective permitting and environmental review of infrastructure development "through such strategies as integrating planning and environmental reviews; coordinating multi-agency or multi-governmental reviews and approvals to run concurrently; setting clear schedules for completing steps in the environmental review and permitting process; and utilizing information technologies to inform the public about the progress of environmental reviews as well as the progress of Federal permitting and review processes." The December 7, 2012, guidance issued by CEQ intended to set forth straightforward ways by which the CEQ Regulations, properly understood and applied, support these strategies.

The draft guidance outlined principles for agencies to follow when performing NEPA environmental reviews. Importantly, as noted in the draft guidance, the principles simply provided CEQ's interpretation of existing regulations promulgated under NEPA and did not change

agencies' obligations regarding NEPA and the CEQ Regulations. We developed multiple comment letters for CEQ during this process and could not argue with the overall philosophy embedded in these principles. However, at that time, it was difficult to see how the proposed guidance would change the status quo. There appeared to be nothing in the guidance that would likely have any impact on how agencies approach their NEPA responsibilities.

3. Trump 45 Administration Changes to NEPA Regulations

The Trump Administration's CEQ requested comments on specific aspects of NEPA regulations in its June 20, 2018, Federal Register notice. We developed a detailed response to that request. Prior to the Trump Administration rulemaking, CEQ had not materially updated its NEPA rules since 1976. The streamlining effort was intended to address President Trump's concerns that environmental reviews required under NEPA took too long, cost too much, and delayed or derailed crucial infrastructure projects. We shared those same concerns. President Trump issued a 2017 executive order requiring CEQ to streamline NEPA requirements. The agency received over 12,500 public comments on their proposed rulemaking, including recommendations developed by the Alliance in 2017.

CEQ in early 2020 released its proposed rule modernizing NEPA to facilitate more efficient, effective, and timely environmental reviews. The 2020 NEPA Rule focused on reducing page and time limits and allowed applicants a greater role in preparing NEPA documents. It allowed agencies to determine that compliance with the environmental review requirements of other statutes serves as the "functional equivalent" of NEPA compliance. It clarified various existing definitions, most importantly the definition of "effect." The rule also amended existing rules to ensure that agencies focus their attention on effects that are "reasonably foreseeable" and have a "reasonably close causal relationship" to the proposed action.

Certain environmental groups were upset because the new rule veered off the path contemplated by former President Obama's CEQ. That approach would have required federal agencies to consider greenhouse gas emissions and climate change when conducting NEPA reviews. CEQ was asked for this guidance informally by federal agencies and formally in a petition filed in 2008 by three environmental groups. These groups wanted to slow down or stop major projects solely based on an assumption that they might accelerate global warming.

The Alliance position has been that NEPA should not be used as a vehicle to advance climate regulations that are outside the law's scope and original intent. Federal agencies implementing the requirements of NEPA should not engage – or be forced to engage – in costly and unnecessary assessments specific to a potential influence on or because of climate change. And we do not need a flood of litigation that attempts to change NEPA into a global warming prevention statute. This is the message the Alliance conveyed to the Trump-Pence transition team in early 2017, when we developed over fifty (50) pages of specific recommendations for the new administration to consider. Unfortunately, many proposed revisions in CEQ's latest Phase 2 rule would take NEPA in exactly the wrong direction.

4. Actions Taken by the Biden Administration

On his first day in office, President Biden signed an Executive Order (EO) entitled "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis." Among many other things, the EO directed all executive departments and agencies to immediately review and take appropriate action to address federal regulations and other executive actions taken during the last four years that were "harmful to public health, damaging to the environment, unsupported by the best available science, or otherwise not in the national interest." An accompanying White House fact sheet, published on January 20, 2021, specifically directed CEQ to review the 2020 NEPA Regulations for consistency with E.O. 13990's objectives.

On January 27, 2021, the President issued EO 14008, which required federal infrastructure expenditures to factor reducing greenhouse gas emissions in federal permitting decisions relating to climate change. On October 6, 2021, CEQ released draft regulations (Docket #CEQ-2021-0002), The Alliance submitted extensive comments on November 19, 2021, including concerns that the Biden Administration NEPA rule could significantly impede implementation of Western water infrastructure projects supported by the Alliance and other Western agricultural and water resource organizations.

On April 19, 2022, CEQ issued its "Phase 1" final rule which reinstated requirements previously rescinded by the 2020 Trump Administration rule. The rule again requires federal agencies to consider "direct," "indirect," and "cumulative" impacts, including climate change and environmental justice communities, of proposed projects. It also reinstates federal agency authority to determine the "purpose and need" of and consider alternative design and approaches to proposed projects. And it would once again treat NEPA regulations as "a floor rather than a ceiling" for environmental review standards. These Phase 1 changes are not reforms. Rather, they return to the same unworkable NEPA that existed prior to the 2020 rule.

CEQ's "Phase 2" rule was released on July 31, 2023. In addition to eliminating several positive provisions of the 2020 NEPA rule, it also turns back the clock to reinstate several concepts from 1978 regulations that maintain the status quo, rather than improving NEPA implementation. The Phase 2 rule also included provisions to implement the newly enacted NEPA reforms included in the FRA without ensuring they are prioritized. Finally, the rule proposes sweeping new, substantive mandates relating to climate change and environmental justice to NEPA, a law which historically and legally has been implemented as a procedural law. We do not believe that NEPA should be used as a vehicle to advance climate regulations (or environmental justice proposals) that are outside the law's scope and original intent.

NEPA Reforms Enacted in the Fiscal Responsibility Act of 2023 (P.L. 118-5)

On June 3, 2023, the FRA (P.L. 118-5) was signed into law, codifying the first significant reforms to NEPA since 1982 by:

- Streamlining federal NEPA review times by designating a single lead agency and limiting analyses to one environmental document;

- Setting page limits of 150 for most environmental impact statements (EISs) and 75 for environmental assessments (EAs);

- Requiring completion of EAs within one year and EISs within two years;

- Requiring agencies to set a process for project sponsors to prepare their own EAs and EISs with agency supervision;

- Encouraging agencies to rely on programmatic environmental reviews;

- Authorizing use of CEs in other agencies' procedures;

- Modifying the definition of "major federal action" as determined by agencies to be "subject to substantial federal control and responsibility;"

- Limiting NEPA analyses to "reasonably foreseeable" environmental impacts of proposed actions, rather than requiring analyzing a much broader scope of environmental impacts unrelated to proposed projects;

- Limiting consideration to "reasonable range of alternatives" in NEPA reviews and requiring alternatives to be "technically and economically feasible" and meet the "purpose and need of the proposal," consistent with the 2020 rule and court precedents;[1]

- Limiting agencies to identify only "irreversible and irretrievable commitments" of federal resources rather than all resources and exclude NEPA reviews of non-federal actions with no or minimal funding, funding assistance, loan, or loan guarantees; and

- Requiring agencies "ensure the professional integrity, including scientific integrity," of the NEPA documents and use "reliable data and resources."

In our view, if properly implemented, these provisions should promote greater regulatory certainty for environmental reviews.

[1] And, agencies are not required to do new scientific or technical research that are not necessary to reasonably choose among alternatives.

Concerns and Suggested Solutions for Improving the Federal NEPA Permitting Process for Water Resource Projects in the Western U.S.

Let's talk about some of the biggest challenges facing water resource projects in the Western U.S. when it comes to the NEPA permitting process. The current system is slow, confusing, and often bogged down in red tape. But we believe there are real solutions that can make it work better for everyone.

What's Not Working?

First, let's address the delays. NEPA reviews take far too long, sometimes stretching for years or even decades, making it nearly impossible to get critical water projects off the ground. A big part of the problem is the lack of clear definitions—what counts as a "significant impact" is often up for interpretation, leading to inconsistent decisions and endless litigation.

Then there's the rollback of 2020 reforms. The old rules had introduced much-needed efficiencies, such as streamlining review times and consolidating environmental documents. But reverting to outdated regulations has reintroduced inefficiencies and left the door wide open for more lawsuits, which only adds to the delays.

Another major issue is the introduction of broad new mandates around climate change and environmental justice. While these may be important topics, adding vague and unpredictable requirements to NEPA reviews creates unnecessary complications for water infrastructure projects. The added requirement in the Biden Administration Phase 2 Rule to identify an "environmentally preferable alternative" would leave agencies with a lot of leeway to reject projects based on subjective criteria.

The lack of coordination among federal agencies is another major hurdle. For example, agencies like the U.S. Fish and Wildlife Service and NOAA Fisheries don't always work together efficiently, often delaying projects simply because they aren't on the same page. And without a clearly defined lead agency, decision-making can get chaotic.

On top of that, the system makes it unnecessarily difficult to use Categorical Exclusions (CEs) for routine water management activities. Essential maintenance and minor upgrades—things that have minimal environmental impact—shouldn't require an Environmental Assessment (EA), let alone a full NEPA review. The definition of "major federal action" is too broad, capturing projects that shouldn't even fall under NEPA's full review process. Using CEs should be a simple and efficient way of implementing NEPA for groups of routine projects that have shown they have minimal if any environmental impact.

Finally, NEPA reviews don't always give enough weight to agriculture and water security. Delayed permits for surface and groundwater development and management projects put Western farmers and ranchers at serious risk of not having a sustainable water supply to grow food and

fiber for this Nation and the world. Our water infrastructure is crucial to national food security, and it deserves to be prioritized.

How Can We Fix It?

So, what's the solution? We've got a few ideas.

First, let's put clear and reasonable timelines in place. Environmental Impact Statements (EIS) should be completed within two years, and Environmental Assessments (EA) within one year, as outlined in the Fiscal Responsibility Act (FRA). Agencies also need strict deadlines to keep interagency coordination moving.

Next, we need to codify and strengthen the NEPA reforms from 2020. These reforms streamlined permitting by allowing a single lead agency and consolidated documents, which cut down on redundant paperwork and delays. We also need to bring back litigation reforms, requiring that concerns be raised during the public comment period instead of after the fact in courtrooms.

We should also narrow the scope of climate and environmental justice mandates within NEPA. While these issues matter, NEPA should stay focused on its core procedural role. Agencies need to assess direct, foreseeable impacts rather than hypothetical global effects of the project at hand.

Another key improvement would be better coordination among agencies. A designated NEPA Ombudsman within the Administration could help resolve conflicts and make sure agencies are working together efficiently. Agencies should also be required to conduct concurrent, rather than sequential, reviews to speed up the process.

We also need to expand the use of Categorical Exclusions. Routine water management activities like irrigation system repairs, forest restoration, and wildfire mitigation shouldn't be held up by lengthy and costly environmental reviews. We should also redefine "major federal action" so that small-scale projects with minimal impact aren't unnecessarily subjected to full NEPA scrutiny.

Agricultural and water infrastructure projects should be a top priority. NEPA reviews should explicitly assess the economic and food security benefits of proposed water projects. States' water planning processes also need to be factored into project definitions.

Finally, we need to improve transparency and public input. A pre-clearance process could help identify potential legal challenges early on, preventing last-minute lawsuits. We should also limit the number of "reasonable alternatives" agencies must consider—only those that are technically and economically feasible should make the cut.

Moving Forward

If we put these fixes into action, we can cut down on unnecessary delays, provide much-needed

certainty for water resource projects, and make sure NEPA works for, not against, Western agriculture and water security. It's time to bring common sense back into the process.

Over the past two decades, we have witnessed escalated litigation by groups that use wildlife protection and climate change as reasons to eliminate sectors of production agriculture. Many of the federal decisions responsible for harming Western producers are driven by a small group of environmental litigation organizations.

With the passage of bipartisan reforms in the FRA, we believe a bipartisan consensus can be achieved regarding broader permitting reforms, and we implore you to listen to American farmers and ranchers to find out why they support those efforts. In our view, many of the changes made to rules and guidance implementing decades-old federal environmental laws, including the ESA, NEPA, the CWA and the SDWA, have tried to help bring them into the modern era. By focusing on important process improvements, more efficient, informed, and transparent management and infrastructure development decisions can be made without impacting the effectiveness of environmental or species protection measures.

While we believe the Trump Administration will move in a different direction from the Biden Administration on issues like environmental regulations and permitting reforms, the Alliance and its members support all efforts, both administratively and legislatively, to improve the efficiency and effectiveness of NEPA.

Thank you for this opportunity to provide input on this matter, which is particularly important to the family farmers and ranchers of our membership. We are hopeful that a concerted good-faith effort working with stakeholders and the Trump Administration will result in a regulatory process that will be efficient, fair, and effective.

If you have any questions about this letter, I encourage you or your staff to contact me at (541)-892-6244.

Sincerely,



Dan Keppen
Executive Director

MERCED IRRIGATION DISTRICT

WATER a POWER

Merced Irrigation District
Testimony for the Hearing Record

Committee on the Environment and Public Works
United States Senate

Oversight Hearing
"Improving the Federal Environmental Review and Permitting Processes"
February 19, 2025

Dear Chairwoman Capito, Ranking Member Whitehouse, and members of the Committee:

I appreciate the opportunity to submit this testimony. The issue of Clean Water Act permitting could not be more dire for Merced Irrigation District (MID) and the community we serve in rural Merced, California at this moment.

Without federal intervention related to a Clean Water Act 401 Water Quality Control Certification issue MID is now facing, all signs point to the California State Water Resources Control Board subverting our current federal hydropower relicensing effort with FERC, resulting in a complete takeover of water operations of our locally owned and operated reservoir, resulting in dire consequences for our community.

Background

The Merced Irrigation District is a California Public Agency under the California Irrigation District Law. MID was established in 1919. It owns, operates and maintains the New Exchequer Dam and Reservoir (Lake McClure) and McSwain Dam and Reservoir (Lake McSwain) on the Merced River. They are located in the western foothills of the Sierra Nevada mountain range, approximately 23 miles northeast of the City of Merced.

Lake McClure has a storage capacity of 1,024,600 acre-feet, while Lake McSwain has a storage capacity of 9,730 acre-feet and is operated principally as a regulating reservoir for MID's hydroelectric generation facilities at New Exchequer Dam (Federal Energy Regulatory Commission Project No. 2179).

The water managed by MID flows west from Lakes McClure and McSwain through the New Exchequer Dam hydroelectric plant creating more than 100 megawatts of clean, renewable energy. The water then continues down the Merced River through more than 700 miles of canals for irrigation use by more than 2,200 Merced County growers.

The water supplied by New Exchequer Dam and Lake McClure supports thousands of jobs and is associated with $1 .5 billion in economic output in an otherwise economically disadvantaged community. The majority of those served by MID's water are small generational family farmers, with the average farm size being fewer than 50 acres.

Additionally, MID's operations provide:

- 140,000 acre feet of local groundwater recharge, sustaining local drinking water quality for roughly 150,000 people
- Flood protection for 15 different communities, representing 169,000 people, for 130 miles
- Flows down the Merced River during droughts
- Cold-water releases down the Merced River during critical time periods
- On-demand voltage regulation for the statewide electric grid

<u>At Stake: Local Control of Our Reservoir</u>

In 2005, MID began preliminary work on a new license through the Federal Energy Regulatory Commission (FERC). In 2008, MID issued its Notice of Intent to Relicense and Preliminary Application Document. This began numerous costly studies analyzing the impacts of the project. Based on these studies and multiple years of collaboration with federal and state agencies, in 2012 a final application was filed with FERC. In 2015, FERC issued a final Environmental Impact Statement (FEIS).

The FEIS dictated several conditions and studies to be conducted under the new license for New Exchequer Dam, including new increased flow releases downstream of the reservoir. The federal relicensing process represents a $36 million investment paid completely by the local community that depends on Lake McClure for its water supply, economy, and way of life.

As part of the FERC relicensing process, MID is required to obtain a Clean Water Act (CWA) 401 Water Quality Control Certificate from the Environmental Protection Agency. Implementation of the CWA varies from state to state; in California, that authority has been delegated to the State Water Resources Control Board.

At the same time MID has been pursuing a new FERC license, California's State Water Resources Control Board has sought to update its Bay Delta Water Quality Control Plan

for the Sacramento-San Joaquin River Delta which the Merced River ultimately flows into.

In summary, the Bay Delta plan calls for an unimpaired - and adaptable - flow regime from Lake McClure and other local reservoirs. The resulting new flows would be sent downstream nearly 200 miles for the purported benefit of water quality in the Sacramento-San Joaquin Bay Delta.

The effects of the Bay Delta Plan flow diversions would have a devastating impact on our agricultural water supply, domestic food production, local employment and economic activity as well as local drinking water quality.

Further compounding these negative impacts would be reduced hydroelectric production that is crucial for our regional and national electric grid support and reliability. The issue of the Bay Delta Plan has been contentious and the subject of multiple past and present lawsuits by MID and many other local irrigation districts.

More than a decade ago, the State Water Resources Control Board had stated on its website that it intended to use its CWA 401 certification authorities to implement the Bay Delta Water Quality Control Plan. When asked about this during a public meeting in Merced, California, at the time the chair of the Board said that would not be the case. Yet here we are and that's exactly what has happened.

Which brings us to today.

In January of 2025, the State Water Resources Control Board issued its draft CWA 401 certification for the federal hydropower relicensing process. It spans more than 100 pages and in no uncertain terms, directly implements its Bay Delta Water Quality Control Plan.

In addition to attempting to implement its plan through the CWA 401 certification process, the State Water Resources Control Board included many other onerous requirements that result in effectively removing authority from FERC and operational management of the reservoir from MID.

Among the most problematic conditions placed on the operations of the Merced River Hydroelectric Project by the State Water Resources Control Board through the CWA 401 certificate:

- Decisions about water management and releases from Lake McClure would, in part, be recommended by three separate committees, rather than MID's knowledgeable engineers and managers who have safely and efficiently managed the reservoir for decades. The ultimate decision about management of the water supply would rest solely and exclusively with the Executive Director of the State Water Resources Control Board, an unelected career bureaucrat.

- MID would be responsible for maintaining flows all the way to the confluence of the San Joaquin River, nearly 30 miles downstream of MID's last point of control on the river. That stretch of river has dozens of water users which are not part of MID and exist outside its jurisdiction.
- The minimum year-end carryover storage in our reservoir proposed by FERC in its FEIS is rendered meaningless. As proposed in the CWA 401 certificate, the Deputy Director of the State Water Resources Control Board, another unelected career bureaucrat, would annually make that carryover determination regardless of consequences to MID.
- Perhaps most egregious, at any time, these two career bureaucrats can modify the flow schedule - and carryover storage - anytime they want with no accountability to anyone, creating total uncertainty about water supply for MID's agricultural water users and hydroelectric operations.

Without immediate federal intervention, the State Water Resources Control Board will steal a local water project and leave the local community holding the empty reservoir.

MID will find itself burdened with:

- All the on-going operations costs of maintaining the lake and dam facilities for flood control and dam safety
- Inadequate water supplies for critical domestic food production
- Severely reduced hydroelectric production to fund these operations

- The loss of hundreds of millions of dollars in economic activity and thousands of jobs in one of the most economically disadvantaged communities in the state.

Thank you for your time and consideration. We look forward to working with you and the Subcommittee to resolve this urgent matter immediately.

Sincerely,



John Sweigard
General Manager
Merced Irrigation District

Portland Cement Association
200 Massachusetts Ave NW, Suite 200
Washington D.C., 20001
202.408.9494
www.cement.org

February 19, 2025

The Honorable Shelley Moore Capito
Chairman
Environment and Public Works Committee
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
Environment and Public Works Committee
Washington, D.C. 20510

Dear Chairman Capito and Ranking Member Whitehouse:

The Portland Cement Association (PCA) appreciates your holding of the hearing titled, *Improving the Federal Environmental Review and Permitting Process*. This hearing is essential, as the cement[1] industry works to innovate the manufacturing of material essential to civilization. Regulatory reform to multiple permitting regimes is urgently needed to streamline energy access and implement technological modernization that are imperative to the cement industry.

While the cement industry fully supports critical reforms to the National Environmental Protection Act (NEPA) that will help move major infrastructure projects- including those involving PCA members, our statement for today's hearing focuses on what we like to call "industrial sector permitting." "Industrial sector permitting" is critical to the cement industry's efforts to move projects forward to innovate our manufacturing process, including fuel switching, the utilization of on-site renewable energy & alternative fuels, implementing energy efficiency upgrades, beneficially using coal combustion residuals (CCRs), and developing carbon capture, utilization & storage (CCUS) technologies.

We urge Congress to tackle the permitting issues relating to carbon capture technology installation & construction as well as energy supply & transmission. We are encouraged that the Senate is willing to address the regulatory and legal hurdles that delay or block the construction of energy infrastructure, which has resulted in raising prices for energy-intensive manufacturers like cement. We hope both chambers will work together towards this goal of lowering prices for energy consumers. As part of this legislation, we encourage certain provisions to assist manufacturers in reducing their energy bills and GHG emissions. They include:

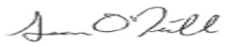
- Modernizing the New Source Review program so that carbon capture equipment and other technologies may be installed by manufacturers without needless delays and impediments;
- Provide flexibility in the Clean Air Act for manufacturers to switch to fuels with fewer greenhouse gas and other emissions;

[1] Cement is manufactured through a tightly controlled chemical combination of calcium, silica, aluminum, iron, and other minor ingredients. These materials are heated to high temperatures, 2700°F or more, until they become clinker, an intermediate product. Once cooled, gypsum is added to the clinker, and the product is ground into a fine powder that becomes cement. Cement is the primary ingredient of concrete.

- Improving the Resource Conservation and Recovery Act so it permits manufacturers to recover energy from post-industrial and post-consumer materials;
- Building upon the Inflation Reduction Act's carbon capture investments to streamline NEPA, the Clean Water Act, Underground Injection Control, and other permitting barriers for the construction of carbon transmission infrastructure.

Federal leadership is urgently needed to update federal permitting to enable industrial modernization and decarbonization to meet America's infrastructure needs. PCA looks forward to working with the Environment and Public Works Committee on this important work. Please contact Sean O'Neill, Senior Vice President of Government Affairs, at soneill@cement.org if you have any questions.

Sincerely,



Sean O'Neill
Senior Vice President, Government Affairs
Portland Cement Association


CEMENT PLANT PERMITTING PROCESS
GOAL: ENERGY EFFICIENCY
GOAL: FUEL SWITCHING/ALTERNATIVE FUELS
GOAL: COAL COMBUSTION RESIDUALS (CCRS)
GOAL: RENEWABLE ENERGY (E.G., WIND, SOLAR)
Supplied with Source of Alternative Fuels
Store CCRs for use in manufacturing blended cements
Implement solar panels or wind turbines in cement facility
Proposal Review: Determine Whether Clean Air Act (CAA) New Source Review Permit Needed
NSR Mandates Modification of Source is a Physical Change in Operation Resulting in a Significant Increase in Emissions
Meets Criteria for Resource Conservation and Recovery Act
Storage Requirements: Resource Conservation and Recovery Act
Analysis: Impacts to Endangered or Threatened Species
Renewable energy projects may conflict with endangered species
Renewable energy projects may conflict with threatened species
Analyze Impacts to Endangered or Threatened Species
Incorporate requirements from Analysis of Endangered or Threatened Species in Permits/Control
Disapproved; Revoked
Approved; Legal to Construct
Disapproved; Revoked
Approved; Legal to Construct
Disapproved; Revoked
Approved; Legal to Construct

From: Ayrea, Maggie (EPW)
To: Permitting@epw.senate.gov
Subject: Portland Cement Submission
Date: Thursday, April 3, 2025 11:47:00 AM
Attachments: PCA_PermittingReform_Side1.pdf
EPW Permitting Reform Hearing Letter FINAL 01 19 2025.pdf

From: Josh Reiner
Sent: Friday, February 21, 2025 5:31:07 PM (UTC-05:00) Eastern Time (US & Canada)
Cc: Permitting@epw.senate.gov
Subject: Re: Portland Cement Submission

Josh Reiner
Director, Government Affairs
Portland Cement Association

(M) 202.713.8011 | jreiner@cement.org

BTA Border Trade Alliance

February 24, 2025

Hon. Shelley Moore Capito
Chairman
Senate Committee on Environment
and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Hon. Sheldon Whitehouse
Ranking Member
Senate Committee on Environment
and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Delivered via electronic mail

Dear Chairman Capito and Ranking Member Whitehouse:

The Border Trade Alliance appreciates the opportunity to submit comments for the record for the hearing held February 19, 2025 entitled "**Improving the Federal Environmental Review and Permitting Processes**."

The following comments reflect the BTA's position on presidential permits, which are required for the construction and modernization of international bridges and land border ports of entry.

Presidential permits in international cross-border projects

The presidential permit process for border crossings has historically been expensive, cumbersome, and time consuming. That process, however, was greatly improved in 2019 following the issuance of Executive Order 13867, which designated the Secretary of State to receive all applications for the issuance or amendment of presidential permits for the construction, connection, operation, or maintenance of international border crossings. The Secretary makes a recommendation to the President of the United States whether to proceed with the application. The Secretary's recommendation is to occur within 60 days of application receipt, and any further information requested of agencies by the President is to be provided within 30 days. This clearly defined process ensures exhaustive environmental reviews are not required before the submittal of a permit application.

But as administrations come and go, the durability of any Executive Order becomes more uncertain.

In the Fiscal Year 2024 National Defense Authorization Act, however, Congress made a significant advancement in clarifying the presidential permitting process. It achieved this by codifying a well-defined procedure in statute, aligning with the 2019 Executive Order, for international bridges crossing the Rio Grande at the Texas-Mexico border.

Eligible applicants under the bill had until December 31, 2024 to submit an application for a permit.

The Border Trade Alliance believes the language included in the NDAA established a wise model. We believe new statutory language should be adopted that removes any deadlines for permit application submissions and that should apply to the entire southern and northern land borders.

Continued

Support in Congress

We believe the inclusion of language around permitting reform in the Fiscal Responsibility Act of 2023 is indicative of a desire in both chambers of Congress and in both parties to design a better process toward the completion of infrastructure projects that are of national importance. Furthermore, an improved presidential permit process is consistent with the passage of the bipartisan infrastructure law that authorized $3.4 billion for the construction, modernization, and expansion of 26 land border ports of entry.

Modernized border crossings are of national importance, as they are essential to maintaining the U.S.' competitive standing and ensuring the country's ability to efficiently process international trade and travel. Requiring presidential permit applications to be subject to an onerous and overly bureaucratic regulatory regime risks dramatically delaying the completion of needed projects along the border and drives up costs

Thank you for the opportunity to submit these comments. We believe improving the process around the issuance of presidential permits would enhance the trade and security of the United States and would facilitate important infrastructure development on both of the country's land borders.

Sincerely,

Pete Sepulveda, Jr.
Chairman
Border Trade Alliance

Britton Mullen
President
Border Trade Alliance

The United States urgently needs a three- to four-fold expansion of its electric transmission infrastructure to support grid reliability, economic growth, energy security, and affordability. However, the federal permitting process remains a key bottleneck, alongside issues in planning, cost allocation, and interagency coordination.

The attached report, prepared by the Niskanen Center (note that one of the primary authors is now a Senior Attorney at SELC, Megan Gibson) and Clean Air Task Force, provides evidence-based recommendations to improve federal transmission permitting without weakening environmental protections or community engagement.

Given the likelihood that the National Interest Electric Transmission Corridor (NIETC) program will be dismantled, among other things, under the second Trump administration Congressional action will be essential to ensure the transmission system remains resilient, reliable, and capable of serving America's growing energy needs.

Key Actions for Congress

The recommendations from the report may have strong bipartisan appeal because they align with priorities across the political spectrum: energy security, economic development, consumer affordability, and streamlined government processes.

1. Strengthen Federal Leadership and Oversight on Transmission Buildout
   - Recognize transmission as a national priority through legislative mandates prioritizing American energy independence and resilience—a core Republican and Democratic objective.
   - Require regular Congressional oversight hearings on permitting bottlenecks, interagency coordination, and regional transmission development.
   - Consider legislation granting FERC broader siting authority for multi-state transmission projects in the national interest (such as models from the SITE & CETA Acts).
   - Direct GAO reports on interagency coordination effectiveness to ensure government accountability and efficiency.

2. Improve Permitting Transparency and Accountability
   - Mandate expanded use of the Federal Permitting Dashboard for all nationally significant transmission projects to track review timelines and reduce bureaucratic delays.
   - Require binding review schedules with enforceable deadlines for permit decisions, ensuring that regulatory agencies do not slow-walk approvals.
   - Encourage early engagement with landowners and local governments to reduce unnecessary litigation and prevent drawn-out permitting battles.

3. Enhance Federal Agency Resources and Coordination

- Increase funding for key agencies (DOE, FERC, CEQ, DOI, EPA) to hire specialized staff focused on transmission project reviews, rather than relying on overwhelmed generalists.
- Expand FAST-41 permitting coordination and require better interagency cooperation to avoid redundant environmental reviews.
- Require regular reports to Congress on the implementation of streamlined transmission permitting to ensure agencies are held accountable.

4. Strengthen State, Tribal, and Local Partnerships
- Provide technical and financial support to states, Tribes, and local governments to ensure they can participate meaningfully in transmission planning.
- Encourage state-led solutions by harmonizing federal, state, and local permitting processes to reduce sequential permitting delays.
- Support early and meaningful engagement with landowners, Tribes, and impacted communities—an approach that reduces litigation risk and promotes voluntary cooperation over eminent domain battles.

5. Streamline Environmental Reviews While Maintaining Protections
- Expand categorical exclusions for transmission projects in existing rights-of-way to reduce unnecessary environmental reviews.
- Encourage programmatic environmental impact statements (PEIS) to pre-clear transmission corridors and reduce repetitive environmental analyses.
- Prevent duplicative reviews under federal permitting laws, ensuring that one agency review is sufficient rather than requiring redundant approvals from multiple agencies.

Key Actions for Federal Agencies

Department of Energy (DOE)
- Develop a stronger interregional transmission coordination role to avoid a piecemeal, project-by-project approach to grid expansion.
- Use loan programs and public-private partnerships to accelerate transmission development and reduce ratepayer costs.

Federal Energy Regulatory Commission (FERC)
- Take a stronger role in interregional transmission planning, ensuring states do not create regulatory bottlenecks that stall necessary projects.
- Use its existing authorities under the Federal Power Act to streamline cost allocation and project approvals.

Council on Environmental Quality (CEQ)
- Mandate early coordination among federal agencies to eliminate unnecessary permitting conflicts and delays.
- Provide clear guidance on project alternatives analysis, ensuring regulatory certainty for developers.

Department of the Interior (DOI)

- Prioritize right-of-way approvals for transmission lines that enhance energy security and economic development.
- Create a streamlined approval process for transmission projects that reduce congestion and lower electricity costs for consumers.

Congressional Oversight and Legislative Opportunities

- Regular oversight hearings on DOE, FERC, and CEQ coordination efforts to prevent bureaucratic inertia.
- Require annual reporting on transmission project permitting timelines to track whether agencies are meeting their deadlines.
- Commission a GAO study on the effectiveness of existing transmission permitting reforms to ensure policy improvements are data-driven.
- Introduce legislation to consolidate siting authority for major interstate projects under FERC, while maintaining state and local input.



PNNL-37164

Planning and Development Pathways to Interregional Transmission

2025

Juliet Homer (PNNL)
Christina Simeone (NREL)
David Hurlbut (NREL)
Brie Van Cleve (PNNL)
Faith Martinez Smith (NREL)

Prepared for the U.S. Department of Energy
under Contract DE-AC05-76RL01830

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor Battelle Memorial Institute, nor any of their employees, makes **any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights**. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or Battelle Memorial Institute. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

PACIFIC NORTHWEST NATIONAL LABORATORY
operated by
BATTELLE
for the
UNITED STATES DEPARTMENT OF ENERGY
under Contract DE-AC05-76RL01830

Printed in the United States of America

Available to DOE and DOE contractors from
the Office of Scientific and Technical Information,
P.O. Box 62, Oak Ridge, TN 37831-0062
www.osti.gov
ph: (865) 576-8401
fox: (865) 576-5728
email: reports@osti.gov

Available to the public from the National Technical Information Service
5301 Shawnee Rd., Alexandria, VA 22312
ph: (800) 553-NTIS (6847)
or (703) 605-6000
email: info@ntis.gov
Online ordering: http://www.ntis.gov

PNNL-37164

Planning and Development Pathways to Interregional Transmission

January 2025

Juliet Homer (PNNL)
Christina Simeone (NREL)
David Hurlbut (NREL)
Brie Van Cleve (PNNL)
Faith Martinez Smith (NREL)

Prepared for
the U.S. Department of Energy
under Contract DE-AC05-76RL01830

Pacific Northwest National Laboratory
Richland, Washington 99354

Preface

This report was prepared in connection with the National Transmission Planning (NTP) Study, which the U.S. Department of Energy's (DOE's) Grid Deployment Office led in partnership with National Renewable Energy Laboratory (NREL) and Pacific Northwest National Laboratory (PNNL) (GDO 2024a). The aim of the NTP Study was to identify transmission that will provide broad-scale benefits to electric customers, inform regional and interregional transmission planning processes, and identify interregional and national strategies to accelerate decarbonization while maintaining system reliability. The NTP Study report and resources are available at https://www.energy.gov/gdo/national-transmission-planning-study.

This report provides a high-level assessment of obstacles to deploying interregional transmission, along with a review of potential solutions to such challenges and system actors or organization types who might address each challenge and how. The aim of this report is to complement the NTP Study and other state, regional, and national grid modernization and reform efforts with a focused discussion of the barriers and potential solutions to developing interregional transmission that can unlock benefits otherwise out of reach. While this report does not identify any single silver bullet or make specific recommendations, it continues the ongoing conversation surrounding the Nation's energy transition by providing a survey of options that various actors across government and industry can pursue to modernize the grid to meet current and future needs.

There are three other companion reports under the NTP Study umbrella: the *Western Interconnection Baseline Study* (Western Baseline) report (Oikonomou et al. 2024); the *Interregional Renewable Energy Zones* (IREZ) report (Hurlburt et al. 2024); and the *Barriers and Opportunities To Realize the System Value of Interregional Transmission* (Barriers) report (Simeone and Rose 2024). The Western Baseline report serves as a comparative baseline for the scenario analysis conducted in the NTP Study, whereas the IREZ and Barriers reports are intended to raise options for achieving the benefits highlighted by the NTP Study. The Western Baseline report uses production cost modeling to compare a 2030 industry planning case of the Western Interconnection to a high renewables case with additional planned future transmission projects based on the best available data. The IREZ report assesses the potential for interregional renewable energy zone corridors to help spur regulatory and financial decision-making. The Barriers report identifies and examines how current market rules and operating practices may prevent existing transmission facilities from delivering maximum potential value across regions. The Barriers report also provides possible solutions, both incremental and transformative, to realize the full benefits of interregional transmission.

Acronyms and Abbreviations

Barriers	*Barriers and Opportunities To Realize the System Value of Interregional Transmission* (report)
BPA	Bonneville Power Administration
CAISO	California Independent System Operator
CITAP	Coordinated Interagency Transmission Authorizations and Permits
CREPC	Committee on Regional Electric Power Cooperation
CREZ	Competitive Renewable Energy Zone
CSNP	Centralised Strategic Network Plan
DOE	U.S. Department of Energy
EIPC	Eastern Interconnection Planning Collaborative
ENTSO-E	European Network of Transmission System Operators for Electricity
ERCOT	Electric Reliability Council of Texas
ESIG	Energy Systems Integration Group
EU	European Union
FERC	Federal Energy Regulatory Commission
GDO	Grid Deployment Office
GW	Gigawatt(s)
HVDC	High-voltage direct current
IREZ	*Interregional Renewable Energy Zones* (report)
IRP	Integrated resource plan
ISO	Independent system operator
ISP	Integrated (transmission) system plan
JTIQ	Joint Targeted Interconnection Queue
kV	Kilovolt(s)
LRTP	Long-Range Transmission Planning
MISO	Midcontinent Independent System Operator
MVP	Multi-Value Projects
NERC	North American Electric Reliability Corporation
NREL	National Renewable Energy Laboratory
NTP	National Transmission Planning
NYISO	New York Independent System Operator, Inc.
Ofgem	Office of Gas and Electricity Markets (Great Britain)
OMS	Organization of MISO States
PJM	PJM Interconnection, L.L.C.
PMA	Power marketing administration
PNNL	Pacific Northwest National Laboratory

PTO	Participating transmission owner
RSC	SPP Regional State Committee
RTO	Regional transmission organization
SAA	PJM State Agreement Approach
SPP	Southwest Power Pool, Inc.
WAPA	Western Area Power Administration
WECC	Western Electricity Coordinating Council
WestTEC	Western Transmission Expansion Coalition
WRAP	Western Resource Adequacy Program

Executive Summary

The National Transmission Planning (NTP) Study (GDO 2024a), which was led by the U.S. Department of Energy's (DOE's) Grid Deployment Office in partnership with National Renewable Energy Laboratory (NREL) and Pacific Northwest National Laboratory (PNNL), demonstrates that interregional transmission can provide a wide range of benefits under a variety of potential future electric system scenarios, including reliability, resilience, economic, and decarbonization benefits. Long-term co-optimized generation and transmission scenarios simulated in the NTP Study suggest the electric grid will be less costly and more resilient if solutions include interregional transmission. Specifically, the NTP Study finds that improving interregional transmission can enhance grid reliability, particularly in response to extreme weather events, as it allows more resources to be shared across regions and energy to be moved from where it is available to where it is needed. The NTP Study also finds that a substantial expansion of the transmission system throughout the entire contiguous United States delivers the largest benefits to customers under various grid decarbonization scenarios and would save $270–$490 billion in system costs through 2050, with approximately $1.60 to $1.80 in system cost savings for every dollar spent on transmission (GDO 2024a).

Despite the potential for significant benefits, there are a variety of barriers to developing interregional transmission. This report is designed to supplement the technical findings in the multiyear NTP Study, with a qualitative assessment of obstacles to interregional transmission, and a high-level survey of potential solutions to such challenges. **This report provides state and federal decision-makers, transmission planners, and other industry participants with a survey of areas to explore to overcome existing barriers to planning and developing interregional transmission.**

Key Challenges for Planning and Deploying Interregional Transmission

Developers of new interregional transmission face many of the same barriers as those encountered by developers of regional or local transmission, only these challenges are exacerbated as interregional transmission projects tend to span greater distances over multiple jurisdictions and have higher overall costs and benefits. Interregional transmission developers also face unique technical challenges associated with dual-transmission system modeling, system-to-system operations, and lack of standardization of data and analysis methods.

Compounding the difficulties, there are no comprehensive, multi-value interregional transmission planning processes to identify and compare interregional transmission solutions to local or regional projects, and no organization or authority has clear responsibility for interregional planning. **For various reasons, incremental local transmission upgrades may preempt larger regional or interregional transmission projects that can potentially address multiple needs more cost-effectively.**

The authors of this report interviewed transmission system experts, planners, and developers in the United States; reviewed literature; and reviewed comments from Federal Energy Regulatory Commission (FERC) proceedings to understand the institutional and regulatory challenges to developing interregional transmission in the United States. Table ES-1 summarizes some of the challenges to interregional transmission development by challenge category.

Table ES-1 Summary of challenges to interregional transmission development

Challenge category	Challenge
Planning Challenges	• Lack of multi-value interregional planning that compares interregional solutions to potential regional and local projects • Lack of organization or authority clearly responsible for interregional planning • Lack of common methods and assumptions across planning regions for determining interregional transmission needs • Inconsistent benefits consideration, benefits calculation, and cost allocation methods between planning regions • Lack of generation and transmission co-optimized expansion planning
Operational Challenges	• Lack of co-optimization of interties along seams, leading to inefficient outcomes
Development Challenges	• Lack of incentives for incumbent utilities to build transmission outside their service territories • Complex and challenging siting and permitting requirements • Challenging financing and cost recovery
Merchant Challenges	• Different benefits and challenges associated with merchant project development • Lack of merchant HVDC* interconnection processes • Gap in how market operators value merchant interregional transmission

* High-voltage direct current

Strategies to Overcome Barriers to Interregional Transmission

This report identifies potential practices and approaches that states, federal entities, regional transmission organization (RTO)/independent system operators (ISOs), utilities, and other industry participants and decision-makers can consider to improve the likelihood that new, efficient interregional transmission is built. Table ES-2 provides a high-level list of approaches found in the literature and public proceedings, and collected through expert interviews, that could contribute to progress. Approaches are grouped by the entity type (state, federal, RTO/ISO/utility, or other industry players) that could implement the strategy. In this report, the authors present multiple pathways available to decision-makers to further the discussion and potentially advance interregional transmission. However, in listing the specific strategies in Table ES-2, PNNL and NREL do not specifically endorse one or more of those strategies.

Because the findings of the NTP Study indicate that increasing interregional transmission capability can result in meaningful consumer savings, reduced power outages during large-scale extreme weather events, and enhanced resilience for the U.S. electric system, interregional transmission planning and development is important as the Nation undertakes a once-in-a-lifetime effort to modernize the aging electric transmission system.

Table ES-2 Potential interregional transmission facilitation strategies

Category	Strategies
State-Led Options	• Collaborate with neighboring states on major projects that can benefit each state • Participate in (or create) multistate coordinating committees on energy policy • Create a state-specific transmission planning authority • Conduct state-level strategic transmission planning • Ensure adequate staffing and resources specific to transmission issues, including augmenting state research capabilities • Develop regulatory directives and expectations, including criteria for transmission projects intended to increase market access and provide additional economic benefits • Lead efforts to improve transmission planning transparency and early-stage stakeholder involvement • Institute competitive renewable energy zones
Federal Options	• Develop an interregional transmission planning framework • Identify interregional transmission planning principles • Explore opportunities to improve the integration of merchant projects • Develop broader and standardized cost-benefit metrics • Consider creating new entities, such as a national transmission planning organization • Continue to explore minimum interregional transfer capability requirements • Engage federal power market administrations • Continue to support siting and permitting activities
RTO/ISO and Utility-Led Options	• Go beyond minimum interregional coordination required by FERC • Develop joint operational and planning models with neighboring regions • Form national or multi-region planning organizations to conduct exploratory planning • Inform potential cost allocation approaches through joint regional data collection and common benefits metrics • Explore geographic partnerships that maximize the quantity and reliability of time-diversified renewable energy options • Increase the value of merchant interregional transmission by allowing excess capacity to be optimized by the RTO/ISO • Improve trading and address operational inefficiencies across existing interties • Work to quantify the resource adequacy value of interregional transmission
Industry Options	• Increase public engagement and awareness in advance of new projects • Establish tangible evidence of commercial interest • Consider public-private partnerships for interregional transmission projects • Develop studies and models showing multiple benefits across regions or proposed new projects

Contents

Preface ii
Acronyms and Abbreviations iii
Executive Summary v
Contents viii
1.0 Introduction 1
2.0 Key Findings of the National Transmission Planning Study 2
3.0 Factors that May Limit Interregional Transmission Development 4
3.1.1 Planning Challenges 6
3.1.2 Development Challenges 9
3.1.3 Operational Challenges 10
3.1.4 Merchant-Related Challenges 10
4.0 Potential Considerations for Advancing Interregional Transmission Development 13
4.1 State-Led Actions to Advance Interregional Transmission 13
4.1.1 Planning and Policy Options 14
4.1.2 Transparency and Capacity Building 18
4.2 Federal Actions to Support Interregional Transmission 19
4.2.1 Planning and policy actions 19
4.3 RTO/ISO and Utility Voluntary Actions to Support Interregional Transmission 24
4.3.1 Planning and Policy Options 24
4.3.2 Engagement and Coordination 26
4.4 Industry Actions That Can Advance Interregional Transmission 27
5.0 Opportunities to Increase and Broaden Engagement by the Public and Interested Parties 28
6.0 Conclusion 31
References 1

Figures

Figure 1 HOT interfaces identified in the NTP Study for achieving 90% by 2035 emissions reductions under mid-demand scenarios for AC or MT HVDC buildouts. 3
Figure 2 FERC Order 1000 Transmission Planning Regions (FERC 2021a) 5
Figure 3 Resource areas and interregional connections in CAISO's 20-year plan (CAISO 2022a) 17

Tables

Table 1 Summary of challenges to interregional transmission development 12

Table 2 Potential interregional transmission facilitation strategies.....32

1.0 Introduction

The National Transmission Planning (NTP) Study (GDO 2024a), led by the U.S. Department of Energy's (DOE's) Grid Deployment Office (GDO) in partnership with the National Renewable Energy Laboratory (NREL) and the Pacific Northwest National Laboratory (PNNL), was conducted to understand the transformation needed to ensure the U.S. electric system continues to reliably serve customers as the power sector evolves and transitions. The results of the NTP Study show that significantly more transmission needs to be built in the United States—roughly two to three times the current transmission system—to meet future demand growth, reliability requirements, and achieve existing and potential future public policy goals (such as decarbonizing the grid) (GDO 2024a). The NTP Study shows that the benefits of transmission expansion include enhanced grid reliability and resilience to extreme events, customer savings, and the ability to integrate new generation onto the grid. The NTP Study also finds that a substantial expansion of the transmission system throughout the entire contiguous United States delivers the largest benefits to customers under various future scenarios and would save $270–$490 billion in System Costs through 2050, with approximately $1.60 to $1.80 in system cost savings for every dollar spent on transmission. While the NTP Study conducts a nationwide optimization and assessment of transmission scenarios and the relative costs and benefits of different scenarios, it does not replace existing transmission planning processes or identify site-specific transmission lines. **This paper provides a bridge between the transmission planning scenarios featured in the NTP Study and the existing transmission planning and development processes in place in the United States and identifies potential paths forward to advance interregional transmission development.**

Given existing challenges to planning and developing interregional transmission in the United States today, this paper summarizes considerations and potential solutions to overcome those challenges. Many of the challenges and solutions shared in this paper have been described in other documents, but we summarize them in this paper to be considered alongside the NTP Study results.

This report is informed by interviews with or views expressed by industry experts, published reports and articles, and public comments in various regulatory proceedings. While the goal of this report is to provide an overview of the current state of discussion, there are undoubtedly additional options and issues that do not appear here. The authors hope this report provides a starting point for conversations at the state, regional, and national level that complement the formal conversations and proceedings at FERC and elsewhere.

2.0 Key Findings of the National Transmission Planning Study

The NTP Study was a multiyear effort that combined innovative methods with state-of-the-art industry practices demonstrating a forward-thinking approach to understanding the role and value of transmission in future power systems. The NTP Study sought to:

- Develop new national-grid-scale planning tools and methods that can be used by industry, especially when planning for interregional transmission capacity needs
- Identify potential transmission solutions that will provide broad-scale benefits to electric customers under a wide range of potential futures
- Inform planning processes for regional and interregional transmission
- Identify interregional and national strategies to maintain grid reliability as the grid transitions, including to a reliance on weather-dependent energy resources.

The key findings of the NTP Study are summarized by topic below (GDO 2024a):

- **Grid reliability**: Improving interregional transmission can enhance grid reliability as it allows more resources to be shared across regions and energy to be moved from where it is available to where it is needed. Interregional transmission can improve resilience to modeled extreme weather events.
- **Consumer savings**: A substantial expansion of the transmission system throughout the entire contiguous United States delivers the largest benefits to customers and would save the $270–$490 billion system-wide through 2050, with approximately $1.60 to $1.80 in savings in electric system costs for fuel, generation, and storage capacity, and other costs for every dollar spent on transmission from access to lower cost generation and more resource sharing for reliability.
- **Integrating new generation into the grid**: Expanded transmission enables the grid connection of new generation, balancing the variability of wind and solar resources and accommodating growing energy demands while maintaining system reliability and energy affordability.

The national planning perspective of the NTP Study provided a holistic examination of transmission, assuming regulatory and institutional barriers are overcome (GDO 2024a). This paper addresses planning and development barriers, some of which are regulatory and institutional, that can limit transmission development, particularly interregional transmission development. One way to use the NTP Study and this report is to consider the solutions described herein to help realize projects consistent with high-opportunity transmission (HOT) interfaces identified in the NTP Study. HOT interfaces represent common transmission transfer capacities between regions that are identified in 75 percent of 96 modeled scenarios considered in the NTP Study.

Figure 1 shows HOT interfaces between planning regions for two different types of transmission buildouts considered in the NTP Study: an alternating current (AC) transmission buildout and a multi-terminal (MT) high-voltage direct current (HVDC) buildout, both of which can be used to meet 90 percent by 2035 emissions targets for a mid-demand scenario.[1] Transmission projects

[1] The NTP Study modeled low, medium, and high demand scenarios. The mid-demand scenario assumes 2.0 percent/year growth in electricity demand.

that align with these HOT interfaces to increase transfer capacity could be strong candidates for further study and could serve as a starting point for states, planners, and developers interested in accelerated transmission expansion.

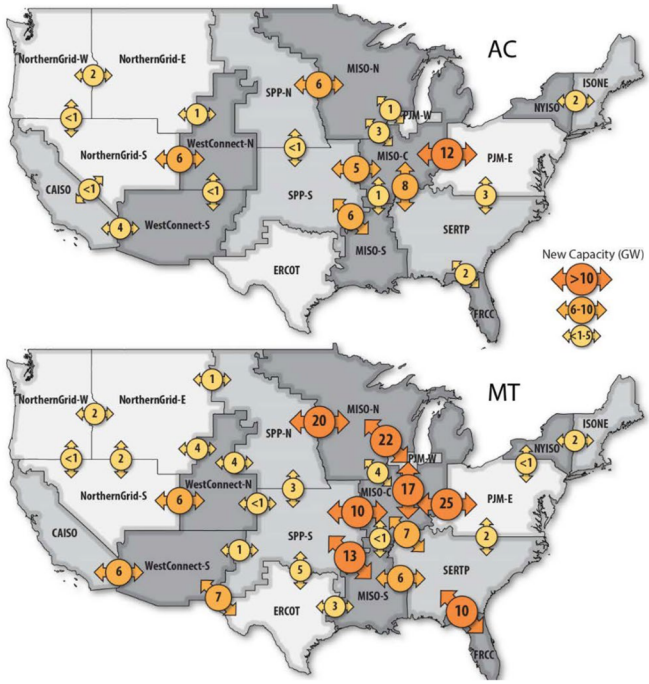


Figure 1 HOT interfaces identified in the NTP Study for achieving 90% by 2035 emissions reductions under mid-demand scenarios for AC or MT HVDC buildouts. For more details see: https://www.energy.gov/sites/default/files/2024-10/NationalTransmissionPlanningStudy-Chapter2.pdf

3.0 Factors that May Limit Interregional Transmission Development

There are a variety of factors that may limit interregional transmission planning and development. As context for the planning and deployment challenges described in this section, there are three general geographic scales of transmission projects:

- **Local transmission projects,** which are included in a utility's local transmission plan and involve lower-voltage projects solely within the service territory of that utility. This type of project comprises the majority of the transmission built in recent years and is not the focus of this report (Gramlich and Caspary 2021).
- **Regional transmission projects,** which are typically identified in regional transmission planning processes or by merchant transmission developers and span more than one utility service territory or state. FERC Order 1000—the last landmark transmission planning rule prior to Order 1920—requires designated FERC Order 1000 regions[2] to conduct regional transmission planning (FERC 2011). Figure 2 shows the FERC Order 1000 Transmission Planning Regions (FERC 2021a). Regional transmission planning processes, per FERC Order 1000, must evaluate whether transmission alternatives at the regional level may resolve the transmission planning region's needs more efficiently or cost-effectively than alternatives identified by individual utilities in their local transmission planning processes (FERC 2011).
- **Interregional transmission projects** are typically identified first in regional transmission plans and then through interregional coordination and span more than one transmission planning region. Merchant transmission developers also identify interregional projects outside of the regional planning process. FERC Order 1000 requires planning regions to engage in interregional coordination but stops short of requiring interregional planning (FERC 2011). FERC Order 1920 takes a similar approach, extending the FERC Order 1000 (FERC 2011) interregional transmission coordination requirements to the new long-term regional transmission planning process but again declining to require interregional planning (FERC 2024a).

The callout box in this section describes FERC Orders that are relevant to regional and interregional transmission planning.

[2] There are 12 transmission planning regions in the continental United States, 11 of which fall under the jurisdiction of FERC. One of the 12—the Electric Reliability Council of Texas (ERCOT)—falls under state jurisdiction (FERC 2021a). Of the 12 transmission planning regions, seven align with the footprint of a regional transmission organization (RTO) or independent system operator (ISO) that implements FERC's transmission planning rules. Some of the planning regions align with a single state, but most have a multistate footprint.

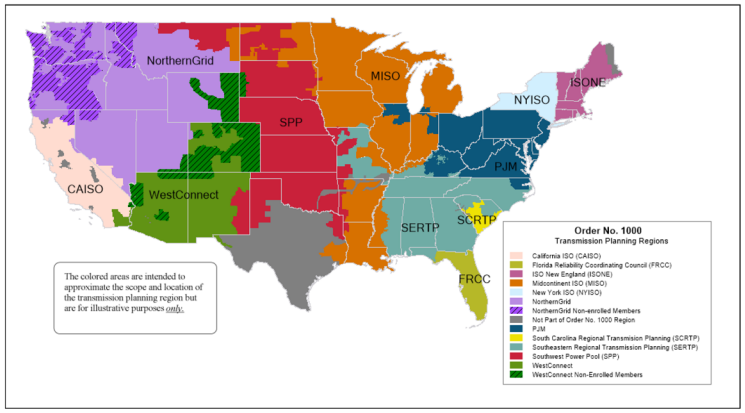


Figure 2 FERC Order 1000 Transmission Planning Regions (FERC 2021a)

FERC ORDERS RELEVANT TO REGIONAL AND INTERREGIONAL TRANSMISSION PLANNING

Regional and interregional transmission fall within the jurisdiction of FERC as part of its responsibility to regulate interstate transmission and wholesale electricity rates in interstate commerce. **FERC Order 888** from 1996 (FERC 2020) required open access to transmission systems and established minimum transmission planning requirements. **FERC Order 890** from 2007 (FERC 2007) required coordinated regional transmission planning and established key planning principles. **FERC Order 1000** from 2011 (FERC 2011) required transmission planning regions to develop regional transmission plans and required interregional coordination between these regions. Regional planning processes are required to evaluate transmission alternatives that can meet needs more efficiently or cost-effectively than projects identified in local transmission expansion plans. Transmission projects may address needs such as reliability, market efficiency (e.g., reduce congestion), public policy, or multiple needs. Order 1000 established certain cost allocation principles and requires methods to be put in place to allocate the cost of eligible new regional and interregional facilities (FERC 2011). Order 1000 requires planning regions to engage in interregional coordination but stops short of requiring interregional planning (FERC 2011). **FERC Order 1920**, issued in 2024, establishes certain long-term regional planning requirements that incorporate specific factors into future-looking scenarios and quantify specific types of benefits when evaluating potential transmission solutions (FERC 2024a). Order 1920 extends the Order 1000 interregional transmission coordination requirements to the new long-term regional transmission planning process (FERC 2024a). While FERC considered some of the topics described in this paper in the rulemaking proceeding that led to Order 1920, many were not addressed directly by the scope of Order 1920 and remain part of the ongoing application and evolution of the Nation's transmission planning processes.

To identify barriers to successful interregional transmission planning and development as well as potential strategies to overcome these barriers, the authors reviewed research and industry reports and conducted interviews with transmission experts, transmission project developers, and regulatory experts. We also drew insights from written and verbal comments from industry leaders (i.e., planners, regulators, and policymakers) in various federal and regional contexts.

Some key limiting factors to interregional transmission development suggested by transmission stakeholders in various forums are described below.

3.1.1 Planning Challenges

- There is **a lack of comprehensive, multi-value interregional transmission planning processes to identify and compare interregional transmission solutions to local or regional projects** and there is **no planning organization or authority responsible for interregional transmission planning** (Pfeifenberger et al. 2021). Transmission planning regions plan to address their own reliability needs through their local and regional transmission planning processes. This is often done on a relatively near-term basis that makes it difficult to identify interregional transmission projects that can more optimally serve the reliability needs of multiple regions than separate, regional or local transmission projects. The long-term regional planning and interregional coordination required by FERC Order 1920 (FERC 2024a) may reduce this barrier to interregional projects, though the need

to plan on a nearer-term basis to ensure reliability will continue and cannot be entirely overcome given the nature of reliability system planning. In some instances, local and regional reliability-based transmission projects will be essential to ensure reliability as they tend to develop more quickly than larger interregional transmission projects.

- There are **no common methodologies and assumptions for conducting planning and establishing interregional transmission needs**. While North American Electric Reliability Corporation (NERC) reliability standards are consistent across the country, NERC allows its Regional Entities to develop reliability standards that are region-specific. Each local transmission provider may develop its own planning criteria. Similarly, each transmission planning region may develop its own methodologies for identifying transmission needs. **This lack of common methodologies and assumptions for establishing transmission needs among transmission planning regions can inhibit the ability to analyze interregional transmission needs and identify the types of high-benefit interregional transmission projects consistent with the NTP Study findings**. In addition, regions may conduct planning activities under different timelines making it more difficult to coordinate across regions. Each transmission planning region must comply with specific interregional transmission coordination requirements from FERC. However, under FERC Order 1000, transmission planning regions are not required to fully align all elements of their interregional transmission coordination timelines, procedures, methods, and definitions with one another. For example, the details of interregional project identification, evaluation, selection, and cost allocation processes and criteria may be unique to each interregional coordination forum (FERC 2011).
- **Reliability-driven transmission projects generally do not undergo an analysis of broader economic and public policy benefits**. Reliability-driven projects can be approved without considering economic and public policy benefits (Pfeifenberger et al. 2021). This can lead to inefficient outcomes as reliability projects with lower total benefits and higher costs can be approved rather than alternative multi-value projects. **Incremental reliability-based transmission upgrades may, therefore, preempt larger regional or interregional transmission projects that can potentially address multiple needs more cost-effectively.**
- Currently, **regional transmission system models often do not include the latest transmission and generation plans or details of neighboring systems**, other than at the point of interconnection. This makes it difficult to model the system impacts of interregional transmission solutions in a meaningful way that helps determine how a proposed interregional transmission project can alleviate the need for proposed regional projects. In turn, this makes it difficult to assess the impacts and benefits of proposed interregional solutions. Since FERC Order 1000 requires interregional solutions to meet transmission needs in a more efficient or cost-effective manner than regional solutions to benefit from broad cost allocation (FERC 2011), incomplete identification of benefits may prevent interregional solutions from being meaningfully considered. In the West, the Western Electricity Coordinating Council (WECC) maintains a west-wide model of the system, and the Eastern Interconnection Planning Collaborative (EIPC) maintains an interconnection-wide model for the East. These models and data are inputs used in the regional transmission planning processes but they are not complete representations of each region's transmission system. However, there are initiatives to *develop* interconnection-wide base case power flow and dynamics models for use by transmission planning regions and other entities (ERAG 2023).
- Transmission planning regions **consider and calculate different benefits from region-to-region and have inconsistent cost allocation methods**. Transmission planning regions

do not have consistent processes and standards for determining cost-effectiveness. Some may characterize the various benefits of interregional transmission differently than others and have different preferences for how to allocate costs across each region. For example, some regions, such as the Florida Reliability Coordinating Council, do not use production cost savings in benefits characterizations. For those that do, production cost modeling methods and datasets vary by region. Methods to quantify reliability, resource adequacy, and resilience benefits are harder to agree on than production cost savings, and they may be included or excluded for planning purposes. When regions do consider similar benefits, they use different methods to quantify these benefits. **Without a consistent approach to characterizing and quantifying the resilience value of transmission, important solutions may remain out of reach, including solutions that are important to address transmission needs that arise during extreme weather events**. FERC Order 1920 mandates that transmission planning regions consider a specific set of benefits as part of evaluation of potential long-term regional transmission projects, which may help establish increased standardization among transmission planning regions (FERC 2024a). FERC Order 1920 also requires planners to conduct extreme event sensitivities for regional plan scenarios. That said, the details of how the benefits are calculated are left to the regions, meaning that in practice, significant differences may remain even after implementation of FERC Order 1920 (FERC 2024a).

- For some regions and transmission planning entities, **generation capacity expansion and transmission expansion planning processes are siloed, preventing the ability to co-optimize between generation and regional transmission solutions.** The result of not integrating these processes is an inability to understand tradeoffs between generation and transmission decisions, including the most cost-effective mix of new generation builds and new transmission capacity (ESIG 2022). It may become more critical to solve this lack of integration as variable renewable energy contribution and extreme weather events increase. For example, it may be important to consider how to co-optimize between local generation capacity expansion and geographically diverse regional and interregional transmission investments that can extend beyond weather systems.
- Planners' perspectives greatly vary in how they perceive the value of interregional transmission for resource adequacy. In some instances, **value calculations may not account for the resource adequacy value of interregional transmission** (Pfeifenberger et al. 2021). Some regional transmission organizations (RTOs)/independent system operators (ISOs) and utilities are concerned about reliability, cost, and equity problems that can emerge if interregional resource adequacy is used as a substitute for regional resource adequacy. In other cases, such as in the Midcontinent Independent System Operator (MISO) Long Range Transmission Planning projects, resource adequacy is one of the project benefits considered. Challenges related to valuing the resource adequacy benefits of interregional transmission include the following:
  - RTO/ISO resource adequacy simulations may not capture the full resource adequacy value of interties (Brattle 2024).
  - Provisions in capacity market rules (e.g., capacity import limits) to achieve resource adequacy requirements that are adopted by some RTOs/ISOs can create barriers for interregional transmission delivery of resource adequacy resources across seams (Simeone and Rose 2024).

3.1.2 Development Challenges

- There is a **disincentive for incumbent utilities to build transmission outside their existing service territories**. In general, cost allocation is easier for projects located within a single transmission service territory. In addition, most lower voltage projects that do not significantly increase transmission capacity and are within a single incumbent utility's service territory are not subject to competition from nonincumbent developers. Prior to FERC Order 1920, if an incumbent utility wanted to update an aging transmission line in its territory in a manner that would significantly increase capacity, the project might be subject to a competitive process. One result is that utilities avoid making significant capacity increases in their existing system to avoid competition from outsiders, creating a potential missed opportunity to enhance the transmission network. Order 1920 potentially eliminates this disincentive by giving incumbent utilities the right-of-first refusal to build upgrades to their existing system when they agree to "right-size" these equipment replacements (FERC 2024a). This policy change is aimed at reducing one barrier to maximizing the transmission capacity value of the existing system by "right-sizing" equipment replacement in existing rights-of-ways within a utility's service territory. However, this change might further focus utility development within their service area instead of expanding to regional and interregional development. Controversies associated with cost allocation to support regional and interregional project development where project benefits and beneficiaries must be identified to recover project costs may be another factor prompting utilities to focus within their own territory where costs are recovered from their own customers. As a result of these and other factors, incumbent transmission providers, who have significant expertise and experience in transmission expansion and have ready access to needed information within their service territories, may be inclined to focus more on local projects. In turn, the incentive to focus on local transmission projects may divert incumbent transmission owner attention from regional and interregional transmission opportunities.
- **Financing and cost recovery are challenging** for new interregional transmission. Financing may be challenging for interregional projects because interregional transmission projects are higher dollar cost projects than local or regional projects with greater risks associated with multi-jurisdiction permits and rights of way. Projects conceived through regional planning and interregional coordination must navigate cost allocation decisions for cost recovery, which are increasingly complex and controversial as the project costs and number of beneficiaries expand even though the value and cost-effectiveness also may increase. In addition, the failure of existing planning processes to result in new interregional lines has yielded more interregional projects being merchant developer projects. Merchant developers rely on market-based mechanisms to recover costs through sales of capacity at negotiated rates rather than regulated cost-of-service rates. Merchant projects generally have less certainty because they cannot allocate costs to a predefined customer base like a public utility can. Merchant developers assume all financial risks for their projects.
- **Transmission siting and permitting are complex and challenging**. Siting and permitting infrastructure are always challenging but even more so for a transmission project that crosses multiple states and regions. Not only is there a multitude of potential authorities with jurisdiction to issue needed permits, but each of these authorities may be required to make a separate finding of need for the project to comply with the relevant authorizing statute. A single interstate transmission project may fulfill different needs or deliver different types or levels of benefits to each respective state or to the region overall. The result can be years of protracted siting and permitting proceedings, sometimes resulting in a patchwork of time-bound permits along an interregional project's route. DOE has a variety of programs to support transmission siting and permitting, including the Coordinated Interagency

Transmission Authorization and Permits Program, Transmission Siting and Economic Development (TSED) Grant Program, the National Interest Electric Transmission Corridor Program, and others (GDO n.d.-a).

3.1.3 Operational Challenges

- **Operational limitations for interregional transactions can inhibit realizing the value of both existing and potential future interregional transmission** (Simeone and Rose 2024). Different rules or procedures used between neighboring systems can cause trading barriers or inefficiencies. Reducing these issues can improve the efficiency of interregional transmission infrastructure and system-to-system trading. Examples of operational barriers and inefficiencies include uneconomic flows (where power flows from areas of higher prices to areas of lower prices), problems with market-to-market scheduling rules (high transaction fees, inaccurate price forecasts), differences between physical and pricing interchange points, and operation of market-to-market flowgates (jointly operated transmission facilities). Maximizing the value of interregional transmission for both existing and potential new lines—as identified in the NTP Study—requires minimizing inefficiencies potentially caused by these operational issues. To learn more about these issues, refer to the NTP Study companion report, *Barriers and Opportunities to Realize the System Value of Interregional Transmission* (Barriers; Simeone and Rose 2024).

3.1.4 Merchant-Related Challenges

- **Merchant projects face different benefits and challenges associated with project development**. Most of the interregional transmission projects that have advanced to date have come not from traditional regulated utilities or the regional planning and interregional coordination processes, but from merchant transmission developers. The merchant development model differs from the incumbent utility model in that it relies on obtaining individual customer commitments (from generation resources or load-serving utilities) to take capacity on the line rather than inclusion in a local or regional transmission plan, and it is thus typically a step removed from the ongoing system planning and cost allocation conducted by utilities and transmission planning regions, including RTOs and ISOs (FERC 2011). Consequently, the inception stage for merchant transmission projects can bypass the conventional transmission planning process challenges, such as establishing transmission needs noted above, allowing them to emerge independently. At the same time, merchant transmission development comes with its own set of challenges, including complications associated with not being afforded public utility status, potential inefficiencies of being planned outside a more comprehensive planning process, and potential conflicts with regional projects selected by transmission planning regions. While many merchant transmission projects appear to align with underlying economic trends described in the NTP Study and previous studies, nearly all interregional merchant transmission projects have experienced delay, and many have been canceled altogether due to obstacles in permitting or transmission development. While all transmission projects can encounter delays with siting and permitting, merchant developers may face additional obstacles because they are not public utilities (Eto 2016, FERC 2022, Hale 2023, and Reed 2021). State public utility commissions or other state siting authorities often require designation as a public utility under state law before awarding a certificate of public convenience or necessity to a project, which is required to operate within the state or to exercise eminent domain (Hoecker and Smith 2014). These certificates are only awarded to projects that are deemed to be in the public interest. However, restricting private non-public-utility developers from receiving award of these certificates can prevent many projects in the public interest from being realized.

- There is a **lack of merchant HVDC transmission interconnection processes**. Some merchant transmission developers point out that many transmission providers simply do not have tariffs and interconnection processes specifically for connecting merchant HVDC interregional transmission projects (Invenergy 2022). Some developers report that as new HVDC projects have been proposed to regional transmission planners, new processes have to be developed. Without interconnection processes these new merchant HVDC projects have to navigate the generation interconnection queue process, which may result in significant development delays if backlogged. To complicate matters further, there are many different types and configurations of merchant HVDC transmission, and the lack of an HVDC transmission interconnection process disproportionately harms merchant HVDC transmission that does not have associated generation but may still be required to use the generation interconnection queue. Interconnection queue backlog motivated FERC to issue Order 2023 (FERC 2023)[3] to reduce the delays associated with generator interconnection. Meanwhile, if realized, new merchant HVDC transmission capacity can facilitate new generation supply into congested areas and facilitate the interconnection of new resources. Merchant developers have pushed for a technical conference at FERC on merchant transmission, but to date, this has not happened (Invenergy 2022). There are also unique issues with HVDC interconnection, such as single-source contingency or injection limits established by system operators. These limits may prevent multiple offshore projects from sharing transmission that injects into the grid at a single point of interconnection or otherwise limit the size of HVDC projects if they are determined to be the most severe single contingency to the AC grid (DOE BOEM 2024; Pfeifenberger et al. 2023).
- **Gaps in how market operators use and value merchant interregional transmission can reduce the system value of these resources**, creating an opportunity cost and making these projects harder to develop. Some merchant transmission facilities are financially supported by subscriber-customers—typically interconnected generation projects that need transmission to deliver electricity to load—who are charged negotiated, market-based rates and afforded priority access. These projects are required to make unused capacity available at owner-determined rates but are not required to provide open access or to make unused capacity available to market operators for co-optimization (Pfeifenberger et al. 2023). Allowing market operators to operate merchant lines and optimizing unused capacity can be complicated under existing compensation structures (e.g., transmission access charges), because these charges are used to recover costs for projects developed through regional planning.

Table 1 provides a summary of the key challenges identified in this section.

[3] FERC Order 2023 was issued in July 2023 (with rehearing issued in May 2024) and seeks to improve the process for new generators to connect to the grid.

Table 1 Summary of challenges to interregional transmission development

Challenge category	Challenge
Planning Challenges	• Lack of multi-value interregional planning that compares interregional solutions to potential regional and local projects • Lack of organization or authority responsible for interregional planning • Lack of common methods and assumptions across planning regions for determining interregional transmission needs • Inconsistent benefits consideration, benefits calculation, and cost allocation methods between regions • Lack of generation and transmission co-optimized expansion planning
Operational Challenges	• Lack of co-optimization of interties along seams, leading to inefficient outcomes
Development Challenges	• Lack of incentives for incumbent utilities to build transmission outside their service territories • Complex and challenging siting and permitting requirements • Challenging financing and cost recovery
Merchant Challenges	• Different benefits and challenges associated with merchant project development • Lack of merchant HVDC interconnection process • Gap in how market operators value merchant interregional transmission

Although many challenges to developing interregional transmission exist, the next section describes potential strategies available to states, federal entities, RTOs/ISOs, and industry actors that wish to advance interregional transmission development to capture benefits associated with interregional transmission, such as reliability and cost savings.

4.0 Potential Considerations for Advancing Interregional Transmission Development

The NTP Study showed that interregional transmission can be an effective way to meet new reliability challenges, address cost and resource constraints, and achieve clean energy goals. Importantly, there is a wide range of actors that can contribute to advancing its deployment. In preparing this report, **the authors encountered three high-level perspectives** on how to overcome the challenges of the lack of interregional transmission planning and development. These perspectives are listed below.

- **States can take a leadership role:** Some experts argue that the potential benefits to states and the public warrant enhanced multistate collaboration and leadership on interregional transmission planning and cost allocation.
- **The federal government can play more of a role:** Others suggest the potential benefits to the Nation justify the creation of new federal institutions and/or rules for interregional transmission planning, oversight, and cost allocation, going beyond FERC's current rules and requirements.
- **RTOs/ISOs and industry players can do more, but in general, existing processes are sufficient with a few modifications:** Some believe the current regional planning and interregional coordination paradigm might not be perfect, but it is working well enough and can work better with voluntary actions by RTOs and utilities and active engagement by all relevant parties.

The following sections outline potential actions that can be taken by states, the federal government, RTO/ISOs and utilities, and other industry players such as project developers. Information presented in this section was informed by interviews with or views expressed by industry experts, published reports and articles, and public comments in various regulatory proceedings. The actions described below are grouped by state-led solutions, federal actions, RTO/ISO and utility actions, and potential industry-led actions. Some of these actions are addressed in part by FERC Order 1920 (FERC 2024a) and are included here for completeness and given implementation uncertainty.

This report presents multiple pathways available to decision makers to potentially advance interregional transmission without specifically endorsing any of these views.

4.1 State-Led Actions to Advance Interregional Transmission

States play a key role in transmission development and can play an important role in advancing interregional transmission expansion. They are uniquely positioned to find infrastructure solutions that work for their citizens and advance state policies, and they are largely in control of siting and permitting. For many state agencies, however, **limited staffing and budgetary resources are constraints that inhibit active participation in transmission planning processes** and require careful prioritization between transmission and other energy issues. In addition, because state utility regulators are required to look out for the public interest of their state, they may be reluctant to support interregional transmission solutions where benefits are shared across states in varying degrees, for fear that customers in their state would be subsidizing benefits accruing to customers in other states. This is often referred to as the "free rider problem," and it's a consistent concern with interregional transmission projects.

While interregional transmission planning is generally within the purview of the federal government, due to interstate commerce, state jurisdiction includes siting and permitting on non-federal land, and may include resource planning. Thus, it is important that state and federal organizations coordinate on interregional transmission planning and development. State–federal collaboration can be a practical path for both levels of government to meet new policy and reliability challenges. FERC and the National Association of Regulatory Utility Commissioners (NARUC) acknowledged the potential benefits of coordinated federalism when they created the Joint Federal-State Task Force on Electric Transmission in 2021.[4] As FERC explained,

> Federal and state regulators each have authority over transmission-related issues, meaning that transmission developers must successfully navigate different federal and state regulatory processes. In addition, the development of new transmission infrastructure often affects numerous different priorities of federal and state regulators (e.g., reliability, customer protection, environmental considerations). As a result, the area is ripe for greater federal-state coordination and cooperation (FERC 2021b).

Studying and determining the state public interest in interregional transmission can involve state utility regulators as well as governors, legislators, and state energy offices. Utility regulators and other state decision-makers can play a role in requiring or encouraging local utilities and relevant RTOs/ISOs to explore new infrastructure strategies, including coordination across jurisdictional lines.

Below is an overview of potential state leadership actions to encourage regional and interregional transmission development through planning and policy, and transparency and capacity building:

4.1.1 Planning and Policy Options

- **Implement or encourage state-to-state collaboration.** State officials, including governors, state energy offices, and public utility commissions, can coordinate with counterparts in other states in their region and beyond on planning, resource adequacy, innovative cost recovery agreements, and standardizing siting and permitting information requirements to enable better information sharing and improved efficiencies. This can help address capacity and staffing challenges. States can also utilize multistate coordination committees. States can create or participate in cross-state regulatory/policy organizations and work with neighboring states' public utility commissions and state energy offices on transmission planning, options analysis, and decision-making. These collaborations, sustained over time, can help build trust between organizations and staff, and states can work together to understand issues and tradeoffs. In addition to the information, coordination, and planning options, there is a need for a collaborative framework for decision-making and cost allocation. Some examples of states coordinating around both general energy policy and specific issues of concern include the following:
  - **MISO Multi-Value Projects (MVPs) and Long-Range Transmission Planning (LRTP)** – The MISO LRTP process and the associated cost allocation methodology was spurred by a collaboration of governors of Midwest states interested in meeting state's renewable portfolio standards and addressing delays in connecting new renewable energy to the grid (UMTDI 2010). In 2007, the Midwest Governors Association called for increasing collaborative regional transmission planning and siting to enable future

[4] The Joint Federal-State Task Force on Electric Transmission has been disbanded and replaced by a Federal-State Current Issues Collaborative between NARUC and FERC.

development of renewable electricity generation. This action was a catalyst for expanded regional transmission planning in MISO. MISO developed a new type of project, the MVP, and associated project criteria through a process initiated in 2007 and culminated in an MVP transmission plan consisting of 17 projects that the MISO Board of Directors approved in 2011. In July 2022, MISO approved a second set of 18 projects spanning nine states, referred to as Tranche 1. In December 2024, MISO's Board is scheduled to finalize the LRTP tranche 2.1, which as of September 2024 included 24 projects totaling $21.8 billion and a new 765 kilovolt (kV) backbone across the Midwest (MISO 2024a). MISO also published a business case metrics methodology whitepaper with tranche 2 to show how the projects were evaluated (MISO 2024b). The support from the Organization of MISO States (OMS) for regional coordination and long-range transmission planning has been critical in the recent progress made on the MISO MVP and LRTP processes and associated projects. OMS developed a set of cost allocation principles for projects developed through MISO LRTP, for example (MISO n.d.[a]).

- **The Northeast States Collaborative on Interregional Transmission** – In June 2023, a collection of eight Northeastern states proposed a new model of interregional planning supported by DOE technical expertise. The Northeastern States Collaborative on Interregional Transmission has since grown to 10 states, including state officials from Massachusetts, Connecticut, Maine, Vermont, New York, New Jersey, Rhode Island, New Hampshire, Maryland, and Delaware. In July 2024, these states formalized their collaboration through a memorandum of understanding to explore regional and interregional transmission facilities, including both on- and offshore options. The Northeast States Collaborative is a forum convened outside existing processes and across FERC Order 1000 interregional coordination transmission planning regions to assist with planning and increase interconnectivity. In this collaboration model, the three RTOs representing the regions (i.e., PJM Interconnection, L.L.C. [PJM]; ISO New England, Inc.; and New York Independent System Operator, Inc. [NYISO]) have been invited to participate as technical support.
- **The Western Resource Adequacy Program and Western Transmission Expansion Coalition** – The Western Resource Adequacy Program (WRAP) is an example of a multistate, interregional collaboration on resource adequacy. Although WRAP is primarily a mechanism for generation resource sharing between regions, its modeling protocols include transmission-constrained zones to help determine the degree to which interzonal transfers can help meet planning reserve margins (Western Power Pool 2023b). The Western Transmission Expansion Coalition (WestTEC) was established with the goal of providing holistic transmission planning across the Western United States and hopes to develop an actionable transmission plan to address regional and interregional needs. The group grew out of a request from the Bonneville Power Administration and released a concept paper in October 2023 (Western Power Pool 2023a). DOE's Grid Deployment Office funded the Western Power Pool to complete a planning analysis for WestTEC through the Wholesale Electricity Market Studies and Engagement Program (GDO n.d.-b).
- **Committee on Regional Electric Power Cooperation (CREPC)** – CREPC comprises a state energy office official and a state utility regulatory commissioner from each of the western states and Canadian provinces. CREPC was established in 1982 as a joint committee between the Western Interstate Energy Board and the Western Conference of Public Service Commissioners. CREPC focuses on electric power system policy issues that require regional cooperation in the West. CREPC engages with the regional

energy institutions in the West and provides an education forum on the issues involving regional cooperation (CREPC 2022).

- **Create state transmission planning entities.** A state may create its own transmission authority to evaluate options and help identify, fund, and/or develop both in-state and interregional transmission. For example, Colorado created the Colorado Electric Transmission Authority (CETA) to establish intrastate transmission corridors and operate storage and transmission infrastructure to enable state utilities to connect to and participate in regional markets (Colorado General Assembly 2021). CETA explored in-state and interstate projects to meet the state's transmission needs in its 2024 transmission capacity expansion study (CETA 2024a). State transmission planning entities can look beyond individual utility plans to identify and implement options that benefit the state. They can also collaborate with transmission authorities in other states. State transmission planning entities also offer a state governmental body that can apply for certain types of federal funding to advance transmission without concern about prejudging eventual siting and permitting applications from specific transmission projects. States that have created energy infrastructure entities include Colorado, Idaho, New Mexico, North Dakota, and Wyoming. New Mexico created its Renewable Energy Transmission Authority to plan, finance, develop, and acquire high-voltage transmission lines and storage projects to promote economic development. In January 2023, the New Mexico Renewable Energy Transmission Authority entered into a joint agreement with Invenergy Transmission to advance a new 400-mile transmission line to move up to 4 gigawatts (GW) of energy from New Mexico to the Four Corners region (Invenergy 2023).
- **Conduct state strategic planning.** States can conduct strategic electricity planning, including transmission planning, at the state level. States that are home to two or more large transmission utilities can require coordinated long-term resource and transmission development plans. These studies can identify in-state resources, projected demand at major load centers, preferred corridors for transmission within the state, and transmission connections with neighboring states and regions. The Arizona Corporation Commission staff members conduct a biennial transmission assessment that combines and reviews the 10-year plans of every transmission utility in the state (ACCS and ESTA 2021). In collaboration with the California Public Utilities Commission and the California Energy Commission, CAISO developed California's first 20-year transmission outlook in May 2022 to provide a longer-term view of transmission needed to reliably meet the state's clean energy goals (CAISO 2022a). Figure 2 shows the resource areas and interregional transmission CAISO studied. State outlooks can provide a basis for coordination between states and can provide a framework from which to explore and develop projects in an organized rather than piecemeal way. NTP Study results, including the HOT interfaces shown in Figure 1, can help inform long-term state plans or outlooks.



Figure 3 Resource areas and interregional connections in CAISO's 20-year plan (CAISO 2022a)

- **Institute regulatory directives and expectations.** In states with vertically integrated and regulated utilities, state regulators can require utilities to collaborate on interstate transmission or to consider interregional options. For example, this can occur through a state regulatory directive in an integrated resource plan (IRP) filing. Information from large-scale studies, including the HOT interfaces and other aspects of the NTP Study, can provide a foundation for state utility regulators to understand interregional options and the potential benefits of those options. Regulators can require utilities to meaningfully consider interstate, interregional, and collaborative transmission solutions and compare costs and benefits to local solutions.
- **Reevaluate transmission value through market participation.** In some states, state regulators can indicate support for interstate transmission through IRP dockets. Often transmission approved by state regulatory utility commissions for cost recovery is developed in response to direct reliability needs or to meet a policy objective in their state. However, with greater integration of regional wholesale energy markets, regulators may consider criteria for approving transmission projects that enable lower-cost transactions and other economic benefits to states. Insofar as nonmarket areas begin to incorporate greater coordination—for example, through imbalance markets, day-ahead markets, etc.—the market efficiency benefits of interregional transmission may deserve greater attention. For

instance, at a recent 2022 CAISO stakeholder symposium, a panel of Western regional transmission experts opined that the role of markets needs to become a much more robust part of transmission discussions and planning in the West (CAISO 2022b). In some cases, states can study transmission coordination in the context of larger questions, as Oregon and Colorado did in their studies of the benefits and challenges of RTO membership (Oregon State Legislature 2021).

- **Institute Competitive Renewable Energy Zones.** Texas pioneered the Competitive Renewable Energy Zone (CREZ) approach in 2005. ERCOT and the Public Utility Commission of Texas designated competitive renewable energy zones, which are geographic areas with a high concentration of cost-effective renewable energy potential and strong interest from developers. Then a transmission plan was developed to deliver renewable power from the CREZ to customers. This propelled Texas to become the Nation's leading state for wind power. Several states have since adapted the CREZ model, and a companion effort in the NTP Study applies lessons from Texas to several potential interregional renewable energy zones throughout the United States (Hurlbut et al. 2024).

4.1.2 Transparency and Capacity Building

- **Initiate state-led efforts to improve transparency in the transmission planning process and increase early-stage stakeholder engagement**. States can take a leadership role in implementing efforts to identify and engage stakeholders early in the planning phase, rather than waiting until the siting phase. States can develop principles of engagement as the Colorado Electric Transmission Authority has done (CETA 2024b). States can identify and engage affected communities (e.g., Tribal, energy communities, environmental justice communities, etc.) to ensure their inclusion in both the planning and site selection processes. States can also assist with plain language and multilingual communications targeted to reach specific communities that may be important because of potential benefits/impacts or historical/cultural concerns. This increased stakeholder engagement may be further aided by FERC Order 1920 (FERC 2024a) requirements for enhanced transparency and greater stakeholder engagement in the local transmission planning portion of the regional transmission planning process. This issue of engagement by the public and interested parties is described in greater detail in Section 5.
- **Ensure adequate staffing and resources**. Increasing transmission-specific funding and staffing levels for state public utility commissions, state energy offices, and other state energy decision-making bodies can enable them to move more efficiently and engage more actively in transmission planning. Some states have begun to ramp up the staffing and resources needed to exert a more active influence within transmission planning processes and in related forums. Massachusetts, for example, recently established a new executive office called the Federal and Regional Energy Affairs office within the Executive Office of Energy and Environmental Affairs to engage with regional and federal energy issues (Commonwealth of Massachusetts n.d.).
- **Augment state research capabilities.** Many public utility commissions and state energy offices are resource-constrained in terms of workforce, as noted above. States can engage DOE and the national labs or consultants to provide analysis to support evaluating transmission alternatives. For example, grants for siting and permitting activities, including support for analysis of alternatives and enhanced public and community engagement, have been awarded through DOE's Transmission Siting and Economic Development Grant Program (GDO n.d.-c). DOE's Transmission Acceleration Grants Program assists states and

Tribal entities with planning, siting, or permitting process reforms and capacity building (GDO n.d.-c). DOE provided support to Western states to study the impacts of regional coordination models ranging from expanded day-ahead energy markets to a West-wide RTO, including sensitivities on the effect of transmission expansion (Energy Strategies 2021). The body of relevant research is well-developed and captures a wide geographic perspective, such that it can support state analysis and decision-making. For example, the intent of the NTP Study is to provide objective analysis to support state collaboration on regional and interregional transmission planning strategies.

The examples above comprise a non-exhaustive list that states can use to lead in advancing interregional transmission solutions.

4.2 Federal Actions to Support Interregional Transmission

Different parts of the federal government are making significant strides to support new transmission development in the country. FERC has taken many actions related to transmission planning. See the call-out box in Section 3 for summaries of key FERC orders. The following are some of the many actions taken by DOE in addition to the DOE-led NTP Study already described:

- 2023 National Transmission Needs Study (GDO n.d.-d), which is an assessment of current and near-term transmission needs in the United States through 2040 based on publicly available information, existing data, and reports.
- DOE financial programs, including the Transmission Facilitation Program (GDO n.d.-e), the Transmission Facility Financing direct loan program (GDO n.d.-f), the Grid Resilience and Innovation Partnerships competitive grant program (GDO n.d.-g), and the Title 17 Innovative Clean Energy Financing Program (Loan Programs Office n.d.).
- DOE programs on transmission siting and permitting, including the Transmission Siting and Economic Development competitive grant program (GDO n.d.-c), the Transmission Acceleration Grants program (GDO n.d.-c), the Coordinated Interagency Transmission Authorizations and Permits (CITAP) program (GDO n.d.-h), and the National Interest Electric Transmission Corridor program (GDO n.d.-i).
- Multi-regional offshore wind studies, including the Atlantic Offshore Wind Transmission Study (GDO n.d.-j) and the West Coast Offshore Wind Transmission Study (GDO n.d.-k), which seek to inform planners of value, cost, and challenges that are likely to be seen in the emergence of the offshore transmission opportunity.

This section describes actions that federal entities can initiate to help overcome barriers to interregional transmission development. **These options are not recommendations by the authors of this paper**, but rather, they are options that have been identified by others based on interviews, literature, and comments in public forums, and they are put forward to advance the discussion. These options are generally related to planning and policy actions.

4.2.1 Planning and policy actions

- **Improve Interregional Transmission Coordination and Planning.** Interregional transmission coordination requirements currently lack the same rigor as regional transmission planning. Commenters in FERC dockets and in other contexts have put forward suggestions to move beyond or expand on existing requirements. Some of these suggestions are enumerated here:

  - **Institute interregional transmission planning requirements or frameworks** and clearly specify conditions and circumstances that would trigger joint planning efforts. Planning regions can be required to conduct joint assessments of proposed interregional transmission facilities from the perspective of their joint footprint or from an interconnection-wide perspective. They can also be required to develop or adapt planning models for consistency and comparability to facilitate interregional planning. Development of interregional planning models that can accurately and consistently represent neighboring systems and system interactions has proven important in recent interregional planning efforts. The MISO-Southwest Power Pool (SPP) Joint Targeted Interconnection Queue (JTIQ) study process led to the JTIQ portfolio of five transmission projects across seven Midwest states (Iowa, Kansas, North Dakota, Nebraska, Minnesota, Michigan, South Dakota) meant to relieve interconnection queue delays associated with system needs that were preventing interconnection of new generation. SPP, MISO, and their stakeholders worked together to develop the study and approach to cost allocation. SPP and MISO used their own generation and transmission planning processes and models, but they coordinated closely with each other (MISO and SPP 2022).
  - **Identify interregional planning principles** that transmission planners in neighboring transmission planning regions can consider, and encourage planners to develop their own processes based on those principles tailored to meet regional needs.
  - **Increase focus on processes for merchant interregional transmission developers**. Hold technical conferences to explore challenges and opportunities associated with HVDC merchant transmission development and pursue avenues for more formal consideration of merchant projects in RTO and ISO processes.
  - Consider a **cap-and-floor mechanism** for HVDC grid connections between regions to provide minimum revenue certainty to developers and a pathway for customers to benefit from revenue in excess of the cap. In a cap-and-floor mechanism, developer revenues are subject to minimum and maximum thresholds. If developers earn revenues above a threshold, returns above the threshold accrue to customers according to established cost allocation methods. If revenues are below the lower threshold, revenues are 'topped up' to the floor level by utilities via a pass-through to customers (Ofgem 2021). The Office of Gas and Electricity Markets (Ofgem), the energy regulator for Great Britain, rolled out a cap-and-floor mechanism to new electricity interconnectors in April 2014 to incentivize the timely delivery of more interconnections, which led to a significant increase in interconnections (Ofgem 2021).

- **Consider Developing Broader and Standardized Cost-Benefit Metrics.** DOE can develop improved methods for evaluating the benefits and costs of large-scale transmission, as well as other technologies, such as grid-enhancing technologies and non-wires alternatives. The methodology could embody a multi-value approach with clear methods, metrics, and definitions. In Europe, the European Network of Transmission System Operators for Electricity (ENTSO-e), an association of 39 transmission system operators from 35 countries that develops a pan-European, 10-year network development plan, developed a comprehensive, uniform benefit-cost analysis framework, which greatly facilitates interregional planning (ENTSO-E 2024a). FERC Order 1920 requires the consideration of seven different types of potential benefits categories from transmission facilities planned through long-term regional transmission planning: avoided reliability facilities, reduced loss of load probability or reduced planning reserve margin, production cost savings, reduced transmission losses, reduced congestion due to transmission outages, mitigation of extreme weather events or unexpected system conditions, and

capacity cost benefit from reduced peak energy losses (FERC 2024a). While the benefits categories will be consistent across regions to comply with Order 1920, the methods that regions use to quantify these benefits may not be consistent. Moreover, FERC did not require regions to consider these same benefits categories for transmission facilities planned through nearer-term Order 1000 regional planning for reliability, market efficiency, and public policy projects. Last, many of the benefits categories only look at system-related benefits, whereas transmission facilities may also deliver non-system benefits (e.g., avoided emissions, job creation) that can be considered.

For example, MISO LRTP tranche 1 projects used the MVP methodology and criteria and considered eight different benefit category metrics (Gramlich 2022). The primary benefits of the LRTP tranche 1 projects were congestion and fuel savings and avoided capital cost of local resources, but additional benefits considered include avoided investment in transmission, resource adequacy savings, avoided risk of load shedding, and decarbonization benefits (MISO 2022). The MISO MVP tranche 1 process also includes an ex-post review process to determine whether benefits are realized. With extensive transmission value metrics, coordination of methodologies is necessary to avoid disagreements on the calculations. In conversations and filings, some parties caution against overly stringent and burdensome cost-benefit thresholds that can bog down planning.

- **Consider a National/Multiregional Planning Organization.** Under one suggested approach, the federal government could create or require the creation of a new national or multiregional planning organization to conduct national or multiregional transmission planning. This could be similar to the European Network of Transmission System Operators for Electricity (ENTSO-E) in Europe, which is an association of 39 transmission system operators from 35 countries required to develop a pan-European, 10-year network development plan that serves to identify transmission projects of common interest that qualify for expedited permitting, enhanced stakeholder engagement, and project development funding (European Commission n.d.). This new entity could develop new standards for interregional planning and cost allocation and then identify least regrets and maximum net benefit projects, which RTOs/ISOs would implement. Organizations such as the Energy Systems Integration Group (ESIG) have proposed developing a National Transmission Planning Authority (ESIG n.d.). The current extent of national planning is limited to the triennial National Transmission Needs Study required under Section 216(a) of the Federal Power Act. The Needs Study evaluates current and future national transmission capacity constraints and congestion, but it does not identify specific transmission solutions to address those needs (FERC 2024c). See the National Planning Box for national planning examples from Australia and Great Britan.
- **Continue to Explore Minimum Interregional Transfer Capability Requirements** for emerging grid needs. Many commenters suggested in response to FERC's Notice of Proposed Rulemaking that preceded issuance of Order 1920 (FERC 2022b) that the federal government develop a standard methodology to determine minimum interregional transfer capability between regions (CAISO 2022c). In December 2022, in Docket AD23-3, FERC staff convened a two-day workshop to consider how to establish minimum requirements for interregional transfer capability for grid operators (FERC 2022a). In response to direction from Congress in the Fiscal Responsibility Act (U.S. Congress 2023), NERC conducted a study of the total transfer capability between transmission planning regions, and provided recommendations for additions to strengthen reliability (NERC 2023a). NERC's analysis found that transfer capability is not a static metric; rather it varies by season, system conditions, and by region, and can vary widely across the United States, ranging from 1% to

92% of peak load (NERC 2024). In the November 2024 report, NERC recommends adding 35,000 MW of interregional transfer capacity to address grid resilience needs and enable electrification and load growth (Walton 2024). The NTP Study also identifies opportunities to expand interregional transfer capability to achieve economic gains, above and beyond the reliability focus of the NERC study (GDO 2024a).

- **Engage Power Marketing Administrations (PMAs).** Many of the possible federal actions catalogued in this section would involve FERC, but other potential federal actors can be the PMAs, such as the Western Area Power Administration (WAPA) or the Bonneville Power Administration (BPA). According to their statutory authorities, PMAs market the power from federal hydropower facilities to certain customers. Three of the four PMAs also own and operate high-voltage transmission lines: BPA, WAPA, and the Southwestern Power Administration. PMA statutory authority, in some cases, allows for partnerships with other transmission owners, such as BPA's agreement with NorthWestern Energy and other utilities on the 500 kV Colstrip line in Montana and WAPA's partnership with five other utilities on the 500 kV Navajo Transmission System in Arizona. In addition, WAPA has $3.25 billion in borrowing authority to support strategic transmission development across its service territory through its Transmission Infrastructure Program. PMAs may be able to use their authority and funding mechanisms to advance beneficial interregional transmission across their service territories.
- **Continue to Support Siting and Permitting Efficiencies**. Through its CITAP Program, DOE acts as the lead agency to coordinate required federal authorizations and related environmental reviews for qualifying electric transmission facilities. Whereas each federal agency historically led its own permitting processes and procedures for these facilities, DOE will now function as the lead point of contact and coordinate between developers and participating federal agencies. Federal agencies will still make their own statutorily required decisions, but DOE's coordination will accelerate the permitting process where federal agencies are involved. Through the Transmission Siting and Economic Development grant program, DOE can help facilitate siting and permitting of transmission projects at the state and local level with grants to support siting and permitting authorities as well as economic development activities in communities hosting transmission projects.

NATIONAL PLANNING APPROACHES

The **Australian Energy Market Operator** operates a national energy market comprising five regions in south and southeastern Australia (AEMC n.d.). A rapid transition from coal-fired power plants toward variable renewable energy has increased focus on transmission, with the introduction in 2021 of a "whole-of-system" integrated (transmission) system plan (ISP) (AEMO 2023). The ISP includes both a 20- and 50-year planning horizon and incorporates renewable energy zones. The plan includes five different plausible future scenarios and identifies technical power system requirements stemming from new generation and grid technologies. Plans also evaluate the impacts of coupled sectors (e.g., natural gas, transportation, hydrogen). The ISP modeling starts with inputs, assumptions, and scenario(s) data, then runs a capacity expansion model that co-optimizes transmission and generation. The results of a capacity expansion model are run through a time sequential model to optimize for hourly and 30-minute dispatch before being rerun through the capacity expansion and time sequence models in an iterative process. These results are tested against technical engineering and power system requirements before a final collection of candidate development plans are produced. Candidate development plans are scored considering a host of cost-benefit tests (AER 2020) including:

- An expansive set of net market benefits—meaning the difference between total system costs with and without the candidate plan—weighted by the perceived likelihood of the future scenario occurring.
- A least–worst regrets test that measures regrets defined as excess investment in unneeded assets or underinvestment in needed assets through forgone net market benefits.
- The insurance and option value achieved through flexibility, for example, by staging the overall size or timing of projects.
- A sensitivity analysis of key variables (e.g., discount rates, natural gas prices).
- The highest-scoring candidate plan becomes the Optimal Development Path. To implement the plan, local transmission network providers explore potential variations to projects identified in the Optimal Development Path, then submit project development plans to the Australian Energy Market Operator for review to confirm alignment with the ISP (AEMO 2024). Then, the transmission providers apply to the Australian Energy Regulator for prudence review and approval to develop.

In **Great Britain**, the Office of Gas and Electricity Markets (Ofgem) is moving toward whole transmission system planning at the regional and national level by requiring the development of a new Centralized Strategic Network Plan (CSNP) (Ofgem 2023). In a December 2023 decision, Ofgem established that the first CSNP will be an independently developed, coordinated transmission plan initially focused on onshore, offshore, and cross-border transmission needs to achieve the government's net-zero carbon goal by 2050 (Ofgem 2023). The first CSNP must be filed in 2026 (Ofgem 2023). The CSNP will be informed by a strategic spatial energy plan that maps government policy goals and forecasts supply and demand by location and includes Future Energy Scenarios. The CSNP will include both short- and long-term plans. The short-term (10-year) plan is updated annually and must identify baseline needs projects for near-term development. The long-term plan (25-year) must be updated every 5 years and will be used to encourage transmission owner engagement with supply chain companies and capital investment planning (Ofgem 2023). Ofgem is establishing a new entity to produce the Future Energy Scenarios, strategic spatial energy plan, and CSNP, called the Future System Operator (Ofgem 2022). The Future System Operator will be a publicly owned, expert, impartial system operator and planner with responsibilities across both the natural gas and power systems. The Future System Operator will be regulated by the government with the goals of balancing the tradeoffs between achieving net-zero carbon; maintaining the security of the energy supply; and ensuring an efficient, coordinated, and economical power and gas system (Ofgem n.d.)

4.3 RTO/ISO and Utility Voluntary Actions to Support Interregional Transmission

RTOs/ISOs, non-RTO/ISO transmission planning regions, and utility transmission planners (referred to in this section as transmission planners) can take voluntary actions—either on their own or in response to requests from states and stakeholders—to enable more interregional transmission. While it is possible for transmission planners to pursue these actions, in some cases, there may be financial, political, or other factors that discourage pursuing modified planning practices without a regulatory mandate. Nonetheless, some potential voluntary actions at the transmission planner level can include, for example, the following:

4.3.1 Planning and Policy Options

- **Go beyond the minimum interregional coordination required by FERC**. Transmission planners are not bound to limit themselves to the minimum interregional coordination requirements of FERC. Some regional planning entities may be reluctant to participate in interregional planning because interregional planning is not part of their tariffs; only coordination is required. However, FERC Order 1000 sets a floor rather than a ceiling, and FERC encourages planning organizations to go beyond minimum requirements. Transmission planners can proactively work with neighboring systems or regions to develop an analytical interregional transmission planning framework and conduct exploratory long-range interregional transmission planning. Transmission planners can work together and consider combinations of generation and regional and interregional transmission solutions.
- **Voluntarily establish a national or multiregional planning organization or process**. Transmission planners could voluntarily establish a national planning organization or national planning process. In the European Union (EU), ENTSO-E is a professional organization of regulated entities—with 39 transmission system operator members—with certain legal mandates that include coordinating the planning and development of infrastructure at the EU level, including the 10-year network development plan (ENTSO-E 2024b). Although ENTSO-E's 10-year, EU-wide network development plan is mandatory, it demonstrates a collaborative model that is carried out by the transmission system operators. Transmission planners can work together to fill this role in the United States. Transmission planners would still be required to comply with FERC requirements and would need FERC approval to deviate from existing requirements.
- **Work more closely with other regional planners to explore projects** that provide benefits to all regions. Examples of proactive coordination within and across regions include the MISO LRTP and MVP processes; the MISO and SPP JTIQ projects (MISO and SPP 2023) described in Section 4.2.1 of this report; and the Boardman to Hemingway transmission line, which is a multistate project and partnership between PacifiCorp and Idaho Power. In November 2018, the OMS and SPP Regional State Committee (RSC) Liaison Committee performed a study and released a white paper identifying the barriers to more efficient seam operations and transmission planning between SPP and MISO (MISO and SPP 2022). This report was released in advance of the formal JTIQ effort, from which specific regional and interregional transmission projects were identified.
- Work with neighboring systems and regions to **develop detailed operational and planning models** that demonstrate the value of interregional transmission under a variety of conditions. Transmission planners can work together proactively to develop joint models that evaluate interregional projects. The November 2018 OMS and SPP RSC Liaison Committee white paper identified modeling issues as "one of the main complications that arose when

performing a Coordinated System Plan" (MISO and SPP 2018). Modeling challenges included differences in the SPP and MISO regional models, agreeing to joint modeling assumptions, and inconsistent results between the combined model and regional-specific models due to the different assumptions (MISO and SPP 2018). With time and attention, transmission planners can overcome these challenges, as MISO and SPP have done with the JTIQ projects.

- Work with other systems or regions to gather data and develop common benefit metrics to **inform potential cost allocation approaches**. As part of coordination, transmission planners can work together on common cost allocation approaches and, where appropriate, make methodology proposals to FERC and to affected states. FERC Order 1920 developed a common set of benefits categories that must be considered for transmission facilities planned through long-term regional transmission planning, but there is no requirement for consistency in methods for calculating those benefits across planning regions or transmission providers (FERC 2024a). Instead, the rule requires transmission providers to include in their tariffs a general description of how they will measure each of the seven benefits. The rule also requires transmission providers to file one or more *ex ante* cost allocation methods—established in the tariff prior to conducting long-term transmission planning—for long-term regional transmission facilities. But the rule also allows transmission providers to include in their tariffs a "State Agreement Process," through which states in the region can determine a cost allocation method for a specific long-term regional transmission facility that differs from the *ex ante* cost allocation method in their tariffs.
- As described above under state-led solutions, transmission planners can **engage in more geographic partnerships to maximize the quantity and reliability of time-diversified renewable energy** opportunities. Transmission planners can work together and with states to identify renewable energy zones and then work to develop new transmission to deliver power from identified zones to customers, similar to the Texas CREZ approach. The IREZ companion report to the NTP Study seeks to apply lessons from Texas to a number of interregional renewable energy zones throughout the country (Hurlbut et al. 2024). Transmission planners can work together and build on the IREZ analysis from the NTP Study.
- **Develop pathways to optimize the value of merchant transmission facilities in RTO/ISOs.** Although NYISO and MISO are taking steps in this direction, CAISO is the only RTO/ISO in the United States that co-optimizes merchant transmission and generation dispatch in nodal day-ahead and real-time markets (Pfeifenberger, et al. 2023a; Brattle Group 2020). Some states like California forecast increased reliance on imported variable energy resources to meet public policy goals while maintaining reliability. Often, these variable energy generation resources can be delivered by merchant HVDC lines. However, the traditional CAISO transmission planning process was proving to be a barrier to these merchant lines. To address this, CAISO developed the subscriber participating transmission owner (PTO) model that, among other things, allows merchant interregional transmission facilities to be operationally controlled by CAISO and facilitates the delivery of external resources. TransWest Express is now a subscriber PTO in CAISO, with the subscriber PTO model approved by FERC in 2023 (FERC 2023c). TransWest Express is a merchant project that is currently under construction and will bring energy from Wyoming to California, Nevada, and Arizona (Transwest 2024). It was proposed to realize the economic and clean energy benefits demonstrated in previous analyses conducted by WECC (2011) and NREL (Corbus et al. 2014). Project developers worked closely with the Bureau of Land Management and WAPA on the project. Stakeholders could work with RTOs/ISOs to

develop similar participation models that allow for optimization of available merchant transmission capacity.

- **Improve trading across existing interties**. To realize the full benefit of potential new transmission lines that may result from activities mentioned in the previous bullets, it may be necessary for system operators like utilities and RTO/ISOs to improve trading and the use of existing interties. Doing so would allow transmission operators to increase the economic efficiency of existing transmission and realize greater economic benefits of potential future lines. An October 2023 Brattle Group report points out that, per market monitors in PJM and MISO, power flows were inconsistent with price differences 48 percent of the year in PJM and 40 percent of the year in MISO (Pfeifenberger et al. 2023b). This means that, in each case, power is flowing from higher-price markets to lower-priced markets nearly half the time. RTOs/ISOs can address this by following recommendations of market monitors (where applicable), by improving coordinated transaction scheduling and market-to-market congestion coordination programs, or by exploring intertie optimization. A companion paper to this report, the Barriers report, focuses on improving the efficiency and utilization of existing interregional transmission assets (Simeone and Rose 2024).
- **Work to quantify the resource adequacy contribution of interregional transmission** and improve interregional transmission operations or contracts to optimize use of transmission during stressful grid conditions. Interties can provide resource adequacy benefits via geographically diverse generation profiles, peak load diversity, and enhanced transfer capacity between regions. By calculating the effective load-carrying capability of interregional transmission and giving it access to capacity markets, RTOs/ISOs can help incentivize interregional transmission development, ensure revenue adequacy for interregional transmission, and help their member utilities manage risk. Improving the efficiency of interregional transmission operations can increase confidence in the ability of interregional transmission to deliver resource adequacy benefits during extreme events.

4.3.2 Engagement and Coordination

- Transmission planners can **increase public engagement in the early stages of project development**. For example, transmission planners can proactively seek greater consumer advocate representation in transmission planning processes, as consumer advocates are often the only stakeholders representing residential customer interests at this stage. Transmission planners can also require transmission project developers to perform minimum public outreach activities to potentially affected communities prior to including projects in the regional or interregional transmission plans. This subject is addressed further in Section 5 of this report.
- **Work more closely with state regulators and policymakers** to explore the connections between policy-related transmission needs and other related opportunities. FERC Order 1920 requires transmission planning regions to incorporate specific factors into long-term future scenarios that are related to current and potential future policies and to solicit input on these policy-based factors from states and stakeholders (FERC 2024a). An example of how state input has been incorporated in the past is PJM's agreement with the New Jersey Board of Public Utilities through a State Agreement Approach (SAA). New Jersey increased its state offshore wind goal from 7.6 GW by 2035 to 11 GW by 2040 (NJ DEP 2024). To facilitate meeting this goal, New Jersey asked PJM to incorporate New Jersey's offshore wind goals into PJM's regional transmission planning process as part of an SAA. PJM agreed to include policy-related transmission in its plan based on the SAA agreement with the New Jersey Board of Public Utilities. The costs of the proposed public policy projects

under the SAA are recovered from the customers in the states proposing the projects (State of New Jersey 2020).

There are many voluntary actions that transmission planners can take to advance enhanced regional and interregional transmission planning. States and stakeholders can encourage transmission planners to take these actions, and where necessary, seek FERC approval for new approaches.

4.4 Industry Actions That Can Advance Interregional Transmission

Project developers and other industry stakeholders can take several actions to help advance interregional transmission planning and development. Developers can consider the actions listed below. In addition, state decision-makers can encourage project developers and other industry actors to take such steps through incentives, requirements, and other measures.

- **Increase public engagement and awareness in advance of new projects.** Consult with potentially affected stakeholders, including Tribes and communities earlier in the planning and development processes, rather than waiting until transmission routes have been selected and siting and permitting are underway.
- Load-serving entities and transmission developers can **establish tangible evidence of commercial interest in energy and capacity** from interregional transmission projects. This is consistent with the Texas CREZ approach. Tangible evidence of commercial interest can support regional planners and state and federal regulators as they consider and advance transmission projects, including interregional transmission.
- **Consider public–private partnerships for interregional transmission projects.** Project developers can explore public–private partnerships between industry; federal, Tribal, and state governments; and other interested entities. Through the Transmission Facilitation Program, DOE operates a revolving fund program that can support such initiatives. Through the Transmission Facilitation Program, DOE can serve as an "anchor customer" for up to 50 percent of the capacity of a new large-scale transmission line. Transmission developers can repurchase the capacity from DOE later when the financial risk has been reduced. DOE can also enter into public–private partnerships for transmission development needed to accommodate electricity demand across states or planning regions. In establishing the Transmission Facilitation Program, Congress directed DOE to prioritize projects that contribute to interregional transmission capacity, when evaluating proposals (GDO n.d.-a).
- **Develop studies and models showing multiple benefits across regions or proposed new projects**. Just as the NTP Study demonstrated the benefits of scenarios that included increased interregional transmission, industry participants, including the Brattle Group (Hagerty, Pfeifenberger, and Bennett 2021), ESIG (n.d.), and Power from the Prairie (2023), are developing models or aggregating results from past studies that demonstrate the benefits of interregional transmission projects. In some cases, developers share this information in RTO/ISO proceedings, comments at FERC, and other public forums. Access to data and system models and lack of established methodologies may be limiting factors to modeling benefits in sufficient detail to be considered alongside incumbent utility proposed projects.

5.0 Opportunities to Increase and Broaden Engagement by the Public and Interested Parties

Increased and improved public engagement is one approach that can advance the development of transmission, including interregional transmission, because engagement has the potential to result in increased public buy-in that can help a project move forward. Public participation and engagement vary by jurisdiction; however, in most instances, nonexpert public participation in transmission planning has been compartmentalized into specific siting issues after a project has been identified. Planning and origination activities are typically less accessible to Tribes, local communities, public interest groups, and public representatives. Additional barriers to participation exist due to lack of awareness of the planning processes; membership costs and requirements to participate in planning forums; insufficient technical knowledge; lack of public materials in nonexpert language; as well as time and/or bandwidth for an individual, Tribe, or organization to dedicate to the process. Interregional transmission is not unique in facing the challenge of robust public engagement, but the challenge is amplified for large projects that cross multiple jurisdictions and regions. As a result, public engagement for interregional transmission may require more concerted efforts by a larger range of parties.

While certain stakeholder bodies and circumscribed processes exist in all FERC Order 1000 transmission planning regions for stakeholder engagement (FERC 2011), many additional opportunities exist to increase and diversify engagement in transmission planning processes. FERC Order 1920 increases opportunities for improved oversight of local transmission planning and enhanced engagement in long-term regional planning processes (FERC 2024a). Many of these enhanced transparency, oversight, and engagement opportunities focus on increasing state involvement in the planning process. The rule also recognized that energy equity and environmental justice laws and regulations that impact long-term planning can be potential factors considered in the development of long-term future planning scenarios. Planners and developers can include more types of interested parties—such as potentially affected Tribes/communities or advocates representing the electricity customers who are charged for the projects—early on in planning processes and in preparation for choosing site locations. Doing so may inform site selection, reduce impacts, and identify more benefits that can be provided cost-effectively. FERC Order 1977, issued in May 2024, updates FERC's existing regulations governing permit applications for siting transmission. It includes a voluntary code of conduct to demonstrate good faith efforts to engage with affected landowners and a requirement to develop an Environmental Justice Public Engagement Plan and Tribal Engagement Plan as part of a Project Participation Plan (FERC 2024b).

The following list of potential options can increase stakeholder engagement while seeking to address environmental justice and energy equity.

- Transmission planners can **go beyond minimum requirements and proactively solicit input during early planning phases**, subject to confidentiality requirements that may apply, for example, to commercially sensitive business proposals. Tribes can be included in this early outreach. Input from such parties can potentially inform planning scenarios. This can help achieve buy-in on the results of the study and ultimately help avoid siting pitfalls. Interested parties can help identify risk scenarios and least-regrets options.
- Transmission planners **can seek input from stakeholders and other interested parties in developing a more inclusive set of benefit metrics**, perhaps beyond the new metrics required in FERC Order 1920 (FERC 2024a), and expanding benefits metrics applicable to

projects in shorter-term planning cycles. This can include those that recognize and respect the policies and needs of multiple states.

- Transmission planners can **more proactively engage traditionally disadvantaged and marginalized communities and those who have disproportionately borne the brunt of impacts from past energy infrastructure.** These and similar community concerns are not current considerations in many transmission planning processes, though they may be considered in siting and permitting processes, which comes long after planning and therefore can create a disjunction that is hard to remedy. In addition, FERC Order 1920 allows for energy equity and environmental justice laws and regulations to potentially be incorporated into long-term planning scenarios (FERC 2024a). Additional actions to facilitate early involvement are beyond the scope of this report, but it is a common theme that emerges in the literature.
- Transmission planners and state and federal regulators can **learn from and adapt participant engagement best practices**. For example, in Europe, the market regulator requires utilities to adopt the AA1000 Stakeholder Engagement Standard, which is an internationally recognized framework for stakeholder engagement excellence. The market regulator also allows for financial incentives for planners who conduct robust stakeholder engagement (Ofgem 2018).
- **Improve compensation packages and community benefits approaches** to encourage and compensate Tribes, individuals, community organizations, and public interest groups with varying perspectives to participate in transmission planning proceedings, including coordinated interregional transmission planning. Improve compensation packages and community benefits offered to landowners and communities affected by the siting of lines, beyond values typically established via eminent domain proceedings (Haugen 2013). Examples of compensation include direct bonus payments, per pole or per mile, with additional compensation to vulnerable communities affected by the line (Berry 2013). A programmatic example is DOE's Transmission Siting and Economic Development grant program, which can provide tangible economic development benefits to communities that host or are affected by transmission. Strengthening other community benefits and stakeholder engagement processes can also play an important role, particularly stakeholder engagement that results in community benefits agreements that are directly responsive to the needs of the relevant community. DOE, GridWorks, the Midwestern Governors Association, and other energy experts across the country are developing tools and best practices to improve stakeholder engagement and to strengthen community benefits plans (GDO n.d.-b; Gridworks.org 2024; Pfeifenberger 2023). These can be a resource for developers, state regulators, and others.
- **States can initiate their own engagement processes,** initially outside the formal transmission planning forums, to identify needs and coordinate on goals and approaches. CETA developed principles of community engagement to foster a transparent, credible, and open public engagement process in Colorado. The principles address the following categories: information sharing, communication, community benefits, and accountability (CETA 2024b). The principles of community engagement were adopted by the CETA board of directors. For interregional transmission projects, states may find additional benefit from coordination and communication across jurisdictions. States may benefit from sharing plain language and multilingual public informational materials.

Because of the scale of interregional transmission, early and comprehensive public engagement by transmission planners and developers may be necessary. Planners and developers can

make targeted efforts to engage parties who will be affected but who may not traditionally be involved in planning and development processes.

6.0 Conclusion

The NTP Study revealed there are many benefits to increasing interregional transmission across the United States. For example, improving interregional transmission can enhance grid reliability, particularly in response to extreme weather events, as it allows more resources to be shared across regions and energy to be moved from where it is available to where it is needed. However, in practice, there are many barriers to realizing new interregional transmission projects.

Critically, the lack of a regulatory requirement to plan for interregional transmission serves as a barrier to transmission system operators being able to identify beneficial projects to potentially support. Merchant transmission projects conceived outside the utility planning processes face unique barriers as non-utility developers with assets that system operators may undervalue. The developers of new interregional transmission facilities face many of the same barriers as those encountered by developers of regional or local transmission projects, only these challenges are exacerbated as interregional projects tend to span greater distances over multiple jurisdictions and have higher overall costs (and benefits). Interregional transmission projects also face unique technical challenges associated with dual-transmission system modeling, system-to-system operations, and lack of standardization of data and analysis methods.

FERC Order 1920 will advance regional transmission planning processes by requiring long-term planning with multiple future scenarios and with expanded benefits categories (FERC 2024a). Even with this recent reform, many opportunities remain to improve upon the processes for planning, permitting, and funding the development of interregional transmission to increase project success rates. This report identifies a non-exhaustive list of these potential opportunities through literature review and interviews with industry experts. These opportunities are presented for educational purposes without endorsement from PNNL or NREL. These opportunities are presented by category, including actions that can be taken by states, federal regulators, RTOs/ISOs, or members of the utility industry interested in advancing interregional transmission. These actions are summarized in the table below.

Table 2 Potential interregional transmission facilitation strategies

Category	Strategies
State-Led Options	• Collaborate with neighboring states on major projects that can benefit each state • Participate in (or create) multistate coordinating committees on energy policy • Create a state-specific transmission planning authority • Conduct state-level strategic transmission planning • Ensure adequate staffing and resources specific to transmission issues, including augmenting state research capabilities • Develop regulatory directives and expectations, including criteria for transmission projects intended to increase market access and provide additional economic benefits • Lead efforts to improve transmission planning transparency and early-stage stakeholder involvement • Institute competitive renewable energy zones
Federal Options	• Develop an interregional transmission planning framework • Identify interregional transmission planning principles • Explore opportunities to improve the integration of merchant projects • Develop broader and standardized cost-benefit metrics • Consider creating new entities, such as a national transmission planning organization • Continue to explore minimum interregional transfer capability requirements • Engage federal power market administrations • Continue to support siting and permitting activities
RTO/ISO* and Utility-Led Options	• Go beyond minimum interregional coordination required by FERC • Develop joint operational and planning models with neighboring regions • Form national or multi-region planning organizations to conduct exploratory planning • Inform potential cost allocation approaches through joint regional data collection and common benefits metrics • Explore geographic partnerships that maximize the quantity and reliability of time-diversified renewable energy options • Increase the value of merchant interregional transmission by allowing excess capacity to be optimized by the RTO/ISO • Improve trading and address operational inefficiencies across existing interties • Work to quantify the resource adequacy value of interregional transmission
Industry Options	• Increase public engagement and awareness in advance of new projects • Establish tangible evidence of commercial interest • Consider public-private partnerships for interregional transmission projects • Develop studies and models showing multiple benefits across regions or proposed new projects

Some of the options identified to advance interregional transmission development may require changes to existing laws or regulations, but voluntary actions are also available and may avoid the need to establish new requirements. We acknowledge that all actions may still be complex undertakings. Development of new research, models, methods, data, and other technical requirements may be resource-intensive to support; however, the effort may be justified given the compelling reliability, resilience, cost savings, and other benefits made possible through interregional transmission, as presented by the NTP Study.

References

ACCS and ESTA. 2021.*Eleventh Biennial Transmission Assessment 2020-2029*. Arizona Corporation Commission Staff and ESTA International, Herndon, VA. https://www.azcc.gov/docs/default-source/utilities-files/electric/biennial-transmission-assessment/11th-bta-report.pdf?sfvrsn=b8c6278_3.

AEMC. n.d. "National Electricity Market." Australian Energy Market Commission. Accessed June 26, 2024. https://www.aemc.gov.au/energy-system/electricity/electricity-system/NEM.

AEMO. 2023. *ISP Methodology: For the Integrated System Plan (ISP)*. Australian Energy Market Operator. https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/isp-methodology-2023/isp-methodology_june-2023.pdf?la=enOf.

AEMO. 2024. *Integrated System Plan for the National Electricity Market: A Roadmap for the Energy Transition.* Accessed June 26, 2024. https://aemo.com.au/-/media/files/major-publications/isp/2024/2024-integrated-system-plan-isp.pdf?la=en.

AER. 2020. *Cost Benefit Analysis Guidelines: Guidelines To Make the Integrated System Plan Actionable.* Australian Energy Regulator. https://www.aer.gov.au/system/files/AER%20-%20Cost%20benefit%20analysis%20guidelines%20-%2025%20August%202020.pdf.

Berry, A. 2013. *Getting Right-of-Way Right: Landowner Compensation for Electric Power Transmission Rights-of-Way*. Lincoln Institute of Land Policy (working paper). https://www.lincolninst.edu/sites/default/files/pubfiles/2335_1675_Berry_WP13AB1.pdf.

Brattle Group. 2020. *Transmission Cost Allocation: Principles, Methodologies, and Recommendations*. Presented by J. Pfeifenberger. https://www.brattle.com/wp-content/uploads/2021/05/20508_transmission_cost_allocation_-_principles_methodologies_and_recommendations.pdf

Brattle Group. 2024. Intertie Optimization: Efficient Use of Interregional Transmission (Update). https://www.brattle.com/wp-content/uploads/2024/04/Intertie-Optimization-Efficient-Use-of-Interregional-Transmission-Update.pdf.

CAISO. 2022a. *20-Year Transmission Outlook*. California ISO/I&OP. http://www.caiso.com/InitiativeDocuments/Draft20-YearTransmissionOutlook.pdf.

CAISO. 2022b. "CAISO Sympo 2022 – Session 3 – Solution to the Transmission Impasse and Untangling the Wires." YouTube, stakeholder symposium video, 0:02 to 56:39, https://www.youtube.com/watch?v=uAhHykAads8.

CAISO. 2022c. "*Building for the Future Through Electric Regional Transmission Planning and Cost allocations and Generator Interconnection.*" Reply Comments of the California Independent System Operator Corporation. Federal Energy Regulatory Commission. http://www.caiso.com/Documents/Sep19-2022-ReplyComments-TransmissionPlanningNOPR-RM21-17.pdf.

CAISO. 2024. "INITIATIVE: Subscriber participating transmission owner model." https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/Subscriber-participating-transmission-owner-model.

Colorado Electric Transmission Authority. 2024a. *Transmission Capacity Expansion Study for Colorado – Initial Report*. October 7, 2024. Accessed November 12, 2024 at https://www.cotransmissionauthority.com/s/CETA-Transmission-Study-Initial-Report-final-to-client-241007.

Colorado Electric Transmission Authority. 2024b. *Principles of Community Engagement*. October 10, 2024. Accessed November 12, 2024 at https://www.cotransmissionauthority.com/s/CETA-Principles-of-Engagement-APPROVED.pdf.

Colorado General Assembly. 2021. *Public Utilities Commission Modernize Electric Transmission Infrastructure*. SB21-072, Second Regular Session, 74th General Assembly, Denver, CO. https://leg.colorado.gov/bills/sb21-072.

Commonwealth of Massachusetts. n.d. "Federal and Regional Energy Affairs (FREA)." Accessed June 25, 2024. https://www.mass.gov/orgs/federal-and-regional-energy-affairs-frea.

Corbus, D., D. Hurlbut, P. Schwabe, E. Ibanez, M. Milligan, G. Brinkman, A. Paduru, V. Diakov, and M. Hand. 2014. *California-Wyoming Grid Integration Study Phase 1—Economic Analysis*. Golden, CO, NREL/TP-6A20-61192. https://www.nrel.gov/docs/fy14osti/61192.pdf.

CREPC. 2022. *Committee on Regional Electric Power Cooperation (CREPC) Charter*. https://www.westernenergyboard.org/wp-content/uploads/CREPC-Charter_FINAL_11032022.pdf.Az

DOE & BOEM. 2024. *Offshore Wind Transmission Development in the U.S. Atlantic Region*. U.S. Department of Energy, Bureau of Ocean Energy Management. https://www.energy.gov/sites/default/files/2024-04/Atlantic_Offshore_Wind_Transmission_Plan_Report_v16_RELEASE_508C.pdf.

Energy Strategies. 2021. *The State-Led Market Study: Exploring Western Organized Market Configurations: A Western States' Study of Coordinated Market Options to Advance State Energy Policies*. Salt Lake City, UT: Energy Strategies, LLC. https://static1.squarespace.com/static/59b97b188fd4d2645224448b/t/6148a012aa210300cbc4b863/1632149526416/Final+Roadmap+-+Technical+Report+210730.pdf.

ENTSO-E. 2024a. "4th ENTSO-E Guideline for cost-benefit analysis of grid development projects. Accessed November 14, 2024 at https://eepublicdownloads.blob.core.windows.net/public-cdn-container/clean-documents/news/2024/entso-e_4th_CBA_Guideline_240409.pdf

ENTSO-E. 2024b. "The reference for the future European electricity system." Accessed May 25, 2024. https://tyndp.entsoe.eu/.

ENTSO-E. 2024b. *ENTSO-E Annual Work Programme: ENTSO-E's work on legal mandates*. https://eepublicdownloads.blob.core.windows.net/public-cdn-container/clean-documents/General%20ENTSO-E%20documents/ENTSO-E%20Work%20Programme/ENTSO-E_AWP2024_231106.pdf.

ERAG. 2023. *Eastern Interconnection Reliability Assessment Group (ERAG)*. Accessed December 13, 2023. https://rfirst.org/eastern-interconnection-reliability-assessment-group.

ESIG. 2022. *Capacity Expansion Modeling for Transmission Planning: Summary of an ESIG Workshop.* Energy Systems Integration Group. ESIG-CEM-workshop-summary-112922.pdf.

ESIG. n.d. *Transmission Planning for 100% Clean Electricity.* Reston, VA: Energy Systems Integration Group. https://www.esig.energy/wp-content/uploads/2021/02/Transmission-Planning-White-Paper.pdf.

Eto, J. H. 2016. *Building Electric Transmission Lines: A Review of Recent Transmission Projects.* Lawrence Berkeley National Laboratory, Energy Analysis and Impacts Division. LBNL-1006330. Berkeley, CA. https://eta-publications.lbl.gov/sites/default/files/lbnl-1006330.pdf.

European Commission. n.d. "Key cross-border infrastructure projects." Accessed June 25, 2024. https://energy.ec.europa.eu/topics/infrastructure/projects-common-interest-and-projects-mutual-interest/key-cross-border-infrastructure-projects_en.

FERC. 2007. Order 890-A, *Summary of Compliance Filing Requirements: Order on Rehearing and Clarification.* Federal Regulatory Commission. https://www.ferc.gov/industries-data/electric/industry-activities/open-access-transmission-tariff-oatt-reform/summary-compliance-filing-requirements-order-no-890.

FERC. 2011. Order 1000, *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities.* 136 FERC ¶ 61,051, Federal Energy Regulatory Commission, 18 CFR 35, Docket No. RM10-23-000. Issued July 21, 2011. https://www.ferc.gov/sites/default/files/2020-04/OrderNo.1000.pdf.

FERC. 2020. Order 888, *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities.* Federal Regulatory Commission. https://www.ferc.gov/industries-data/electric/industry-activities/open-access-transmission-tariff-oatt-reform/history-oatt-reform/order-no-888.

FERC. 2021a. "Transmission Planning Regions Map, Order No. 1000." Federal Energy Regulatory Commission. https://www.ferc.gov/media/regions-map-printable-version-order-no-1000.

FERC. 2021b. *Order Establishing Task Force and Soliciting Nominations.* 175 FERC ¶ 61,224, Federal Energy Regulatory Commission, Docket No. AD21-15-000. Issued June 17, 2021. https://ferc.gov/libraries/pdf.js/web/viewer.html?file=https%3A%2F%2Fferc.gov%2Fsites%2Fdefault%2Ffiles%2F2021-06%2FAD21-15-000.pdf.

FERC. 2022. Invenergy Transmission LLC Request for Technical Conference. Federal Energy Regulatory Commission. https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20221110-5252&optimized=false.

FERC. 2023. Order 2023, *Improvements to Generator Interconnection Procedures and Agreements.* 184 FERC ¶ 61,054, Federal Energy Regulatory Commission, 18 CFR 35, Docket

No. RM22-14-000. Issued July 28, 2023. https://www.ferc.gov/media/e-1-order-2023-rm22-14-000.

FERC. 2024a. Order 1920, *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation*. 187 FERC ¶ 61,068, Federal Energy Regulatory Commission, 18 CFR 35, Docket No. RM21-17-000. Issued May 13, 2024. https://www.ferc.gov/media/e1-rm21-17-000.

FERC. 2024b. "Commission Takes Final Action on Transmission Siting Rule." Federal Energy Regulation Commission. https://www.ferc.gov/news-events/news/commission-takes-final-action-transmission-siting-rule.

FERC. 2024c. Order 1977, *Applications for Permits to Site Interstate Electric Transmission Facilities*. 187 FERC ¶ 61,069, Federal Energy Regulatory Commission, 18 CFR Parts 50 and 380, Docket No. RM22-7-000. Issued May 13, 2024. https://www.ferc.gov/media/e-1-order-2023-rm22-14-000.

GDO. 2024a. *The National Transmission Planning Study*. Washington, D.C.: U.S. Department of Energy. https://www.energy.gov/gdo/national-transmission-planning-study.

GDO. 2024b. "National Interest Electric Transmission Corridor Designation Process." Grid Deployment Office, Department of Energy, Washington, D.C. https://www.energy.gov/gdo/national-interest-electric-transmission-corridor-designation-process.

GDO. n.d.-a. "Transmission Siting and Permitting Efforts." U.S. Department of Energy, Grid Deployment Office. https://www.energy.gov/gdo/transmission-siting-and-permitting-efforts.

GDO. n.d.-b. "Wholesale Electricity Market Studies and Engagement Program." U.S. Department of Energy, Grid Deployment Energy. https://www.energy.gov/gdo/wholesale-electricity-market-studies-and-engagement-program.

GDO. n.d.-c. "Transmission Siting and Economic Development Grants Program." U.S. Department of Energy, Grid Deployment Office. Accessed June 21, 2024 at https://www.energy.gov/gdo/TSED.

GDO. n.d.-d. "National Transmission Needs Study." U.S. Department of Energy, Grid Deployment Office. https://www.energy.gov/gdo/national-transmission-needs-study.

GDO. n.d.-e "Transmission Facilitation Program." Grid Deployment Office, Department of Energy, Washington, D.C. https://www.energy.gov/gdo/transmission-facilitation-program.

GDO. n.d.-f. "Transmission Facility Financing Program." U.S. Department of Energy, Grid Deployment Office. https://www.energy.gov/gdo/transmission-facility-financing-program.

GDO. n.d.-g. "Grid Resilience and Innovation Partnerships (GRIP) Program." U.S. Department of Energy, Grid Deployment Office. https://www.energy.gov/gdo/grid-resilience-and-innovation-partnerships-grip-program.

GDO. n.d.-h. "Coordinated Interagency Transmission Authorizations and Permits Program." U.S. Department of Energy, Grid Deployment Office. https://www.energy.gov/gdo/coordinated-interagency-transmission-authorizations-and-permits-program.

GDO. n.d.-i. "National Interest Electric Transmission Corridor Designation Process." https://www.energy.gov/gdo/national-interest-electric-transmission-corridor-designation-process.

GDO. n.d.-j. "Atlantic Coast Offshore Wind Transmission Planning." https://www.energy.gov/gdo/atlantic-coast-offshore-wind-transmission-planning.

GDO. n.d.-k. "West Coast Offshore Wind Transmission Planning." U.S. Department of Energy, Grid Deployment Office. https://www.energy.gov/gdo/west-coast-offshore-wind-transmission-planning.

Gridworks.org. 2024. "Electric Transmission Development and Community Engagement Literature Review and Best Practices." https://gridworks.org/wp-content/uploads/2024/04/CETA-Community-Engagement-Toolkit-Lit-Review.pdf.

Gramlich, R., and J. Caspary. 2021. *Planning for the Future: FERC's Opportunity to Spur More Cost-Effective Transmission Infrastructure*. Americans for a Clean Energy Grid. https://cleanenergygrid.org/wp-content/uploads/2021/01/ACEG_Planning-for-the-Future1.pdf.

Gramlich, R. 2022. *Enabling Low-Cost Clean Energy and Reliable Service Through Better Transmission Benefits Analysis: A Case Study of Miso's Long Range Transmission Planning*. Prepared by Rob Gramlich for ACORE and the Macro Grid Initiative. August 9, 2022. https://acore.org/wp-content/uploads/2022/08/ACORE-Enabling-Low-Cost-Clean-Energy-and-Reliable-Service-Through-Better-Transmission-Analysis.pdf.

Hagerty, M., J. Pfeifenberger, and E. Bennett. 2021. *SWIP-North Benefits Analysis*. Boston, MA: Brattle. https://www.brattle.com/wp-content/uploads/2021/06/21438_swip-north_benefits_analysis.pdf.

Hale, Z. 2023. "Merchant developers fill 'void' in US interregional grid build-out." S&P Global. https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/merchant-developers-fill-void-in-us-interregional-grid-build-out-76447354.

Haugen, D. 2013. *If landowners get annual payments for wind turbines, why not transmission lines?* Americans for a Clean Energy Grid, Arlington, VA. https://www.cleanenergygrid.org/if-landowners-get-annual-payments-for-wind-turbines-why-not-transmission-lines.

Hoecker, J., and D. Smith. 2014. Regulatory Federalism and Development of Electric Transmission: A Brewing Storm?, 35 *ENERGY* L.J. 71, 84 (2014) https://www.eba-net.org/wp-content/uploads/2023/02/5-16-71-Hoecker-Smith_Final-5.13.14.pdf

Hurlbut, D. J., J. Gu, S. Sundar, A. Pham, B. O'Neill, H. Buchanan, D. Heimiller, M. Weimar, and K. Wilson. 2024. *Interregional Renewable Energy Zones*. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-88228. https://www.nrel.gov/docs/fy24osti/88228.pdf

Invenergy. 2022. Invenergy Transmission LLC Request for Technical Conference. United States of American Before the Federal Energy Regulatory Commission. https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20221110-5252&optimized=false.

Invenergy. 2023. "Invenergy Transmission, New Mexico Renewable Energy Transmission Authority Announce Development Partnership to Bring Clean Energy to Four Corners Region." https://invenergy.com/news/invenergy-transmission-new-mexico-renewable-energy-

transmission-authority-announce-development-partnership-to-bring-clean-energy-to-four-corners-region.

Loan Programs Office. n.d. "Title 17 Clean Energy Financing." U.S. Department of Energy, Loan Programs Office. https://www.energy.gov/lpo/title-17-clean-energy-financing.

MISO. n.d.-a. Organization of MISO States Statement of Principles: Cost Allocation for Long Range Transmission Planning Project. Midcontinent Independent System Operator, Inc. https://cdn.misoenergy.org/20210211%20RECBWG%20Item%2003a%20CAPCom%20Cost%20Allocation%20Principles520802.pdf.

MISO. 2022. LRTP Tranche 1 Portfolio Detailed Business Case. https://cdn.misoenergy.org/LRTP%20Tranche%201%20Detailed%20Business%20Case625789.pdf.

MISO. 2024a. LRTP Tranche 2.1 Portfolio Update. https://cdn.misoenergy.org/20240924%20LRTP%20Workshop%20Item%2002%20Tranche%202.1%20Final%20Portfolio%20Overview649676.pdf.

MISO 2024b.*LRTP Tranche 2 Business Case Metrics Methodology Whitepaper.* https://cdn.misoenergy.org/LRTP%20Tranche%202%20Business%20Case%20Metrics%20Methodology%20Whitepaper633738.pdf.

MISO and SPP. 2022. *Joint Targeted Interconnection Queue Study: Executive Summary*. https://www.spp.org/documents/66725/jtiq%20report.pdf.

MISO and SPP. 2023. "Joint Targeted Interconnection Queue Study (JTIQ): Mission Statement." https://www.misoenergy.org/engage/committees/miso-spp-joint-targeted-interconnection-queue-study/.

MISO and SPP. 2018. *Seams White Paper for Organization of MISO States (OMS) and SPP Regional State Committee (RSC) Liaison Committee*. November 2, 2018. Https://Www.Spp.Org/Documents/59006/Spp-Miso_Rsc_Oms_Response_Spp_Miso_Final_V3.Pdf.

NERC. 2023. "US Reliability Standards." North American Reliability Corporation. https://www.nerc.com/pa/Stand/Pages/USRelStand.aspx.

NERC. 2024. *Interregional Transfer Capability Study (ITCS)*. North American Electric Reliability Corporation. https://www.nerc.com/pa/RAPA/Documents/ITCS_Part_1_Results.pdf.

NJ DEP. 2024. "Offshore Wind." New Jersey Department of Environmental Protection. https://dep.nj.gov/offshorewind/.

Ofgem. n.d. "Future System Operation (FSO)." Accessed June 25, 2024. https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/future-system-operation-fso.

Ofgem. 2018. "Stakeholder Engagement Incentive Guidance." Accessed June 11, 2024. https://www.ofgem.gov.uk/sites/default/files/docs/2018/12/sei_guidance.pdf.

Ofgem. 2021. *Guidance – Interconnector Cap and Floor Regime Handbook.* Office of Gas and Electric Markets Government Office, Great Britain. https://www.ofgem.gov.uk/sites/default/files/2021-09/Regime%20Handbook.pdf.

Ofgem. 2022. *Future System Operator: Government and Ofgem's Response to Consultation.* April 2022. https://assets.publishing.service.gov.uk/media/624c840ce90e075f1120592f/future-system-operator-consultation-govt-response.pdf.

Ofgem. 2023. *Decision on the framework for the Future System Operator's Centralised Strategic Network Plan.* Office of Gas and Electric Markets, Great Britain. https://www.ofgem.gov.uk/sites/default/files/2023-12/Decision%20on%20the%20framework%20for%20the%20Future%20System%20Operators%20Centralised%20Strategic%20Network%20Plan.pdf.

Oikonomou, K., B. Vyakaranam, T. B., Nguyen, K. Harris, E. Schweitzer, N. Samaan, C. Qin, F. B. dos Reis, M. M. Abdelmalak, M. Kintner-Meyer, and J. Dagle. 2024. *Western Interconnection Baseline Study.* PNNL-36452. Pacific Northwest National Laboratory. https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-36452.pdf.

Pfeifenberger, J. 2023. "The Value of Interregional Transmission: Grid Planning for the 21st Century." Midwestern Governors Association, MID-GRID 2023 Meeting, Little Rock, AR, September 27-28, 2023. https://www.brattle.com/wp-content/uploads/2023/09/The-Value-of-Interregional-Transmission-Grid-Planning-for-the-21st-Century.pdf.

Pfeifenberger, J. P., L. Bai, A. Levitt, C. A. Plet, and C. M. Sonnathi. 2023. *The Operational and Market Benefits of HVDC To System Operators.* September 2023. https://www.brattle.com/wp-content/uploads/2023/09/The-Operational-and-Market-Benefits-of-HVDC-to-System-Operators-Full-Report.pdf.

Pfeifenberger, J., K. Spokas, J. M. Hagerty, J. Tsoulakis, R. Gramlich, M. Goggin, J. Caspary, and J. Schneider. 2021. *Transmission Planning for the 21st Century: Proven Practices that Increase Value and Reduce Costs.* The Brattle Group and Grid Strategies LLC. https://www.brattle.com/wp-content/uploads/2021/10/2021-10-12-Brattle-GridStrategies-Transmission-Planning-Report_v2.pdf.

Pfeifenberger, J. P., J. DeLosa III, J. Gonzalez, N. C. Bay, and V. W. Chum. 2023. *The Need for Intertie Optimization – Reducing Customer Costs, Improving Grid Resilience, and Encouraging Interregional Transmission.* https://acore.org/wp-content/uploads/2023/10/The-Need-for-Intertie-Optimization.pdf.

PJM Inside Lines. 2024. "FERC Approves Second PJM and NJBPU OSW Transmission Study Agreement." https://insidelines.pjm.com/ferc-approves-second-pjm-and-njbpu-osw-transmission-study-agreement/.

Power from the Prairie. 2023. *Concept Development Study (CDS), Volume 1: Summary Public Edition.* Raleigh, NC. https://www.powerfromtheprairie.com/_files/ugd/19e772_8c387855fdd446049a7ab44e208b0c9b.pdf.

Reed, L. 2021. *Transmission Stalled: Siting Challenges for Interregional Transmission*. Niskanen Center. Washington, D.C. https://www.niskanencenter.org/wp-content/uploads/2021/04/Reed-Transmission-Brief-April-2021-2.pdf.

Simeone and Rose. 2024. *Barriers and Opportunities To Realize the System Value of Interregional Transmission*. NREL/TP-6A40-89363. Golden, CO: National Renewable Energy Laboratory. Accessed June 11, 2024. https://www.nrel.gov/docs/fy24osti/89363.pdf.

State of New Jersey. 2020. "In the Matter of Offshore Wind Transmission." Agenda: 11/18/2020. Clean Energy: Order, Docket No. QO20100630. https://www.nj.gov/bpu/pdf/boardorders/2020/20201118/8D%20-%20ORDER%20Offshore%20Wind%20Transmission.pdf.

TransWest Express. 2024. "Critical Grid Infrastructure to Connect the West." Accessed February 27, 2024. https://www.transwestexpress.net.

UMTDI. 2010. *Upper Midwest Transmission Development Initiative*. umtdisummaryreportfinal-9-30-10.pdf.

U.S. Congress. 2023. HR 3746, 118-5 Congress *Fiscal Responsibility Act of 2023*. Introduced 05/29/2023. Title III – Permitting Reform, 322, Interregional Transfer Capability Determination Study. Accessed September 21, 2023. Available at https://www.congress.gov/bill/118th-congress/house-bill/3746/text.

Walton, R. 2024. "US should add 35 GW of interregional power transfer capacity to boost energy adequacy: NERC". Utility Dive. Accessed November 5, 2024 at https://www.utilitydive.com/news/nerc-recommends-adding-35-gigawatts-interregional-power-transfer-capability/731966/.

WECC. 2011. "2011 Transmission Plan." Western Electricity Coordinating Council. https://www.wecc.org/SystemAdequacyPlanning/Pages/Transmission-Plans-2011.aspx.

Western Power Pool. 2023a. *Western Transmission Expansion Coalition Concept Paper for a West-Wide Transmission Plan*. https://www.westernpowerpool.org/private-media/documents/Western_Transmission_Planning_Concept_Paper_October_2023.pdf.

Western Power Pool 2023b. *Western Resource Adequacy Program: Detailed Design*. https://www.westernpowerpool.org/private-media/documents/2023-03-10_WRAP_Draft_Design_Document_FINAL.pdf

Pacific Northwest
National Laboratory

902 Battelle Boulevard
P.O. Box 999
Richland, WA 99354
1-888-375-PNNL (7665)

www.pnnl.gov

February 27, 2025

The Honorable Shelley Moore Capito, Chairman
U.S. Senate Committee on Environment & Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse, Ranking Member
U.S. Senate Committee on Environment & Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Capito and Ranking Member Whitehouse:

Thank you for holding a Hearing on "Improving the Federal Environmental Review and Permitting Process." This is an important topic regarding America's ability to build the energy infrastructure necessary to ensure low energy prices, national security, and economic growth.

Williams is a trusted energy industry leader committed to safely, reliably, and responsibly meeting growing energy demand. We use our 33,000-mile pipeline infrastructure to serve 12 key supply areas and handle about one-third of the nation's natural gas. We operate Transco, the country's largest interstate natural gas network, with more than 40 percent more volume than the next largest natural gas pipeline.

Pipelines are Essential, Pipelines Power America
Pipelines are the safest, cleanest, and most cost-efficient means of transporting energy. The U.S. Department of Transportation recognizes that pipelines are essential infrastructure capable of moving greater volumes of energy resources than any other mode of transportation.

Oil and natural gas account for 74 percent of our nation's energy mix – nearly all of that product is transported via pipeline.[i]

Regions of the country where pipelines are more abundant see lower energy costs, and it is no coincidence that regions with higher energy costs are known for overly aggressive permitting regimes or abuses of the permitting process to block or cancel interstate natural gas pipeline projects.

During peak demand, New England experiences extremely high price spikes compared to other areas of the country. For example, gas prices have spiked numerous times during winter months in New England (as high as $75 per MMBtu) in the past decade, while prices have remained moderate and more stable in Southwest Pennsylvania (consistently under $5 per MMBtu), where abundant supplies have adequate pipeline outlets to serve peak demand.

Growth in U.S. natural gas is driven by LNG exports, data center growth, electrification, and a general increase in energy consumption. Lower-48 gas demand growth driven by LNG exports is expected to more than double by 2030, with an additional 13.2 Bcf/d of growth expected from 2024-2030.[ii]

Electricity demand is also experiencing 10 times faster growth per year this decade than what was seen in previous decades, driven by the energy needs of artificial intelligence and the emergence of new, large-load data centers. U.S. data center power demand is expected to more than double from about 22 GW in 2023 to 45 GW in 2030 per S&P base case, requiring as much as 4 Bcf/d of incremental gas demand. It is notable, however, that this new technology's demand needs could be underestimated. If combined-cycle gas-fired generation provided 100 percent of the electricity for the range of forecasts already presented, it could translate into incremental U.S. demand for power as high as 12 Bcf/day.

This growing demand cannot be met by intermittent resources such as wind and solar. In fact, excluding this forecasted growth, to replace the energy supplied by natural gas to New York's homes and businesses in February 2023 alone, New York would need 285 times more utility scale solar installations than the state had in 2022 and enough solar panels to cover 549,000 football fields. And it would require $1 trillion in solar construction costs.[iii]

Additionally, Americans cannot rely on intermittent wind and solar to meet demand during peak hours or extended weather events. The U.S. saw record high power demand in 2023, averaging 35.2 Bcf/d (2.1 Bcf/d higher than in 2022), even as wind and solar grew. And peak day demand for natural gas hit a record high of 54.8 Bcf/d in August of 2024, highlighting the continued need for reliable natural gas to meet peak day needs and back up intermittent resources.

Peak day gas demand for power generation is expected to increase across all major Independent System Operators (ISO), due to the growth in electrification, artificial intelligence (AI), and data center growth.

America Needs More Pipelines to Meet Growing Demands and Ensure National Security
Data centers driving advancements in artificial intelligence will be built overseas if we do not build the critical energy infrastructure required to support their operations here. The U.S. has the abundant energy resources to meet this need, but a byzantine permitting system coupled with fervent opposition to human advancement from activist groups makes building infrastructure unnecessarily challenging. To ensure America's long-term competitiveness, Congress must prioritize permitting reform.

Demand for natural gas has increased 43 percent since 2013, while the capacity of infrastructure to support the demand has only grown 25 percent. Without action, the gap between demand and physical infrastructure will grow as AI tools become more critical to the U.S. in a competitive world marketplace. This gap will continue to impact reliability and affordability and harm American consumers.

It generally takes our industry about nine months to build a large natural gas pipeline safely and in a way that has little environmental footprint, but it can take years to get a project approved by government agencies. America's permitting system is labyrinthian by any reasonable measure, requiring projects to receive duplicative approvals from dozens of federal and state agencies.

Beyond the permitting process, there are also significant litigation risks from groups weaponizing regulatory loopholes and misusing environmental statutes to delay and cancel projects. Virtually every pipeline project encounters these costly and time-consuming delays. It has become a feature of the system.

There are three key steps to streamlining the regulatory process that Congress can take to help ensure that we have the infrastructure needed to meet growing energy demands:

1. **Policymakers need to empower the Federal Energy Regulatory Commission (FERC).** Currently, a single activist state can block a proposed interstate natural gas project, regardless of the benefits it would bring, through an abuse of the Clean Water Act's section 401 review process. FERC already considers water quality issues as a part of its National Environmental Policy Act (NEPA) analysis, so bringing the section 401 review process under FERC would create efficiencies and prevent any one state from obstructing interstate commerce.

2. **Congress needs to reform judicial review, providing for the courts to fairly review the actions and decisions of government agencies**, such as the Bureau of Land Management (BLM), the Environmental Protection Agency (EPA), and FERC, to cut back on lawfare that leaves good projects languishing for months, if not years. The best way to accomplish this reform is to alter the evidentiary standard to provide greater durability for federal authorizations and principled guard rails to ensure challenges of the authorization are based on evidence, not harmless gaps in the administrative process. A challenge should only be successful if its proponent is able to present evidence that establishes clearly and convincingly that a permit authorization was improper. Otherwise, the authorization should stand.

3. **Lastly, but equally as important, is fixing the remedy allowed under the NEPA**, the procedural statute that is wrongly being used to delay, deny, and cancel energy infrastructure. NEPA litigation should be limited to the purpose of the statute – to inform the public. Defects in a NEPA analysis should only result in further disclosures, not in unduly delaying or cancelling a project.

These reforms would allow interstate natural gas pipelines, as well as other energy infrastructure, to be built to meet demand. We must come together to ensure the Clean Water Act, NEPA, and judicial review of agency decisions are working for the American people – not preventing progress and competitiveness in the name of politics.

Weaponization of Clean Water Act Section 401
Section 401 of the Clean Water Act applies to all energy and infrastructure projects that require a federal permit and which may cause a discharge to a water of the United States. Pursuant to section 401, states and tribes are required to either certify that a project is protective of water quality or waive the certification requirement. Section 401 allows state and tribal participation in federal permitting procedures that may otherwise exclude or preempt such input. The certification process must be completed before a federal permit may be issued.

Each year, thousands of federal permit applications are submitted for projects that will require section 401 certifications, including traditional energy projects and new critical infrastructure that will drive the deployment of lower carbon emission energy sources. For example, an energy infrastructure project that impacts a federal wetland or water requires authorization from the Army Corps of Engineers under CWA section 404 or the Rivers and Harbors Act section 9 or 10. Annually, the Army Corps issues nearly 3,500 individual permits and authorizes more than 50,000 projects under general permits. Every single Army Corps individual permit, and many general permits, require a section 401 certification. Army Corps-permitted projects include large wind and solar generation, new transmission lines to bring remote renewable generation to load centers, and critical minerals exploration and mining that is essential to support the burgeoning battery storage and electric vehicle economies.

Additionally, the Federal Energy Regulatory Commission issues 44 federal licenses, and EPA issues 125 federal discharge permits annually. Most, if not all, of these permits also require a section 401 certification.

Ambiguous language in the statute, along with a lack of federal oversight, has led to confusion over the scope, timing, and procedures that are applicable to section 401 certifications. These circumstances have also led some states to interpret the section 401 authority very broadly and to delay certification decisions for years or even decades. While most states focus their section 401 review on potential water quality impacts, as the Clean Water Act requires, some states have used the section 401 program to veto projects that do not align with, for example, state energy policy. Similarly, while most states act on a certification request within the statutory one-year period, some states have adopted practices, like withdraw-and-resubmit procedures, and denials without prejudice, that result in a years-long or decades-long certification process. These ambiguities create opportunities for bad faith project delay and veto of interstate projects.

As The Wall Street Journal reported, "pipeline projects have been blocked that would deliver gas from prolific shale-gas fields in Pennsylvania, Ohio, and West Virginia." Williams has some specific examples of how CWA section 401 has been weaponized against pipeline projects.

Constitution and NESE Pipeline Delays Resulted in Higher Costs, Lost Economic Output in the Northeast
The Cuomo administration's denial of the water quality permits needed for the Constitution pipeline project blocked jobs, decreased tax revenue, and increased emissions in economically challenged areas. In addition, this denial has placed the region's grid reliability at risk.

The $683 million Constitution project was to bring natural gas from the Marcellus Shale in Susquehanna County, Pennsylvania, to Schoharie County, New York, where it would have connected to two existing interstate natural gas pipelines (Iroquois Gas Transmission and Tennessee Gas Pipeline) that directly serve New York and New England. The U.S. Chamber of Commerce found that the delay of the Constitution Pipeline had resulted in $3.9 billion in loss economic output and over 23,000 job-years of work for the region.

Water quality permits are to be granted or denied within one year, but the Constitution Pipeline endured New York's repeated delays of its Clean Water Act Section 401 certificate application based on meritless claims related to the "completeness of the application." These delays were compounded by New York's efforts to restart the one-year shot clock every time a new submission was made.

Specifically, in 2014, New York requested that Constitution rescind, update, and resubmit its application. In 2015, the New York State Department of Environmental Conservation (NYDEC) requested the company do so again. In 2016, two years after its initial receipt, New York denied the application claiming it lacked "sufficient information to enable the Department to determine if the Application demonstrates compliance" with New York water quality standards. In the wake of Hoopa Valley and associated precedents around Millennium Pipeline, on August 28, 2019 the Federal Energy Regulatory Commission (FERC) confirmed that New York had waived its CWA section 401 authorities through its dilatory requests for more information.

Unfortunately, eight years of arbitrary regulatory and litigation delays, along with changing market conditions, prompted the project sponsors to pull the plug on the project on February 21, 2020.

Northeast Supply Enhancement (NESE), another project killed by New York based on meritless water quality grounds, serves as another example. New York first denied NESE's water quality permit on May 15, 2019, and then did so again on May 16, 2020, after a resubmittal. New Jersey followed suit. Though the Cuomo Administration previously expressed concerns over climate impacts, Governor Andrew Cuomo sent a letter to National Grid saying that it should pursue more emissions-intensive and less safe means of delivering natural gas like trucks, barges, and ships, rather than pipelines. Despite his administration blocking a pipeline meant to expand service to New York customers and reduce reliance on higher emitting energy sources, he demanded that National Grid find alternatives or lose its franchise in the New York City metropolitan area. Without pipelines, New York state and local officials need to "grapple with the potential need for new trucked gas supplies and associated infrastructure, as well as the risk for supply disruptions and moratoriums in coming years." – Politico, 2020[xiii]

Without changes to section 401 that provide greater clarity and regulatory certainty, the literally thousands of energy infrastructure projects subject to section 401 each year could also be subject to the weaponization of section 401.

Conclusion: Congress can Provide Much-Needed Certainty for Permitting Projects
Congress can instill certainty and spur increased investment of capital in American energy infrastructure, unleashing a renaissance in American manufacturing and an advancement of national security, all with American energy resources.

Pipelines power America, and our country and its citizens have received the benefits of this large-scale infrastructure for years. We should not take this historical benefit for granted and let competing countries rapidly build out their own infrastructure, while our permitting system continues to stifle ours. The timing is perfect for meaningful permitting reform that includes pipelines.

Real permitting reform will put the U.S. on a path to meet the ever-growing need for energy and a path to achieve human flourishing. The changes will cost taxpayers nothing while paying a world of dividends.

Sincerely,

THE WILLIAMS COMPANIES, INC.

T. Lane Wilson
Sr. Vice President and General Counsel

---

[i] https://www.eia.gov/energyexplained/us-energy-facts/
[ii] Source: Wood Mackenzie North America Gas, Investment Horizon Outlook, November 2024.
[iii] Williams' analysis utilizing data from S&P Global Platts, US Energy Information Administration, Environmental Protection Agency and National Renewable Energy Laboratory. 1To replace the natural gas Btus that NY state's residential/commercial customers used on 02/3/2023, it would take 285x more utility scale solar installations than the state had in 2022.



Ian N. Jefferies
President & CEO
ijefferies@aar.org
(202) 639-2400

February 26, 2025

The Honorable Shelley Moore Capito
Chairman
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sam Graves
Chairman
House Committee on Transportation and Infrastructure
2165 Rayburn House Office Building
Washington, DC 20515

The Honorable Rick Larsen
Ranking Member
House Committee on Transportation and Infrastructure
2165 Rayburn House Office Building
Washington, DC 20515

The Honorable Bruce Westerman
Chairman
House Committee on Natural Resources
13234 Longworth House Office Building
Washington, DC 20515

The Honorable Jared Huffman
Ranking Member
House Committee on Natural Resources
13234 Longworth House Office Building
Washington, DC 20515

Dear Chairmen Capito, Graves, and Westerman and Ranking Members Whitehouse, Larsen, and Huffman,

On behalf of the Association of American Railroads (AAR), and its member companies, I write to urge your support for permitting reforms that are critical to the continued growth, safety, and sustainability of our nation's freight rail system. As Congress considers legislative reforms to bedrock environmental statutes, the freight rail industry believes it is imperative to address inefficiencies in the permitting process that are hindering the rail industry's ability to invest in and build the infrastructure necessary to meet growing demand, without compromising appropriate environmental protections.

Over the past 15 years, freight railroads have invested an average of $24.2 billion annually to improve and maintain their networks, including critical projects such as upgrades to bridges, terminals, and track. However, the current permitting processes often lead to significant delays, resulting in costly setbacks that stretch projects over several unnecessary years. The fragmented and inconsistent regulatory framework that shifts based on which political party currently occupies the White House further complicates this process, making it difficult for railroads to operate with the certainty and efficiency needed to meet the nation's freight transportation needs.

To address these challenges and support vital railroad infrastructure projects, AAR urges Congress to enact the following reforms:

Rail-Specific Reforms:

- **NEPA & Clean Water Act Permitting:** Ensure that the scope of review for freight rail project permits under NEPA and the Clean Water Act is narrowly tailored, recognizing that railroads, as

common carriers, cannot choose the commodities they transport and therefore should not be required to account for the upstream and downstream impacts of those commodities in their permit applications.

- **Historic Preservation Compliance:** Enforce the Advisory Council on Historic Preservation's compliance with Section 11504 of the FAST Act to grant railroads the same exemption for Section 106 historic preservation reviews as is provided for interstate highways.

National Environmental Policy Act (NEPA) Reforms:

- **Rulemaking Authority:** Clarify the Council on Environmental Quality's authority to issue binding regulations and enhance NEPA's deadlines to ensure timely federal agency responses.
- **One Federal Decision Expansion:** Extend the One Federal Decision framework to cover reviews of infrastructure projects under NEPA for all federal agencies, including those led by the Army Corps of Engineers for rail projects.

Clean Water Act (CWA) Reforms:

- **Section 401 Timelines:** Modify Section 401 of the CWA to impose clear timelines for water quality certification decisions and limit state reviews to direct impacts on water quality.
- **Clarify "Waters of the U.S." Definition:** Codify a statutory definition of "Waters of the U.S." that reflects the U.S. Supreme Court's recent decision in *Sackett v. EPA* and explicitly excludes man-made ditches.
- **Jurisdictional Determination (JD) Process:** Standardize and expedite the jurisdictional determination process with clear timelines and transparent procedures for review and decisions on applications.
- **Nationwide Permits:** Require that the Army Corps of Engineers reissue their nationwide permits prior to their expiration next year while also streamlining the process so the program is administered uniformly across the country.

These legislative reforms are essential not only to reduce delays and costs but also to help ensure that the rail industry can continue to invest in the infrastructure needed to accommodate a projected 27% growth in freight transportation demand by 2040. We believe that by streamlining permitting processes and providing clear, consistent guidelines, Congress can create a regulatory system that supports job creation, economic growth, and a safer, more sustainable transportation system.

We urge your leadership in advancing these reforms this Congress and look forward to working with you to ensure that our nation's railroads remain strong and capable of meeting future demand.

Thank you for your attention to this critical issue.

Sincerely,



Ian Jefferies
President and CEO



NATIONAL ENDANGERED SPECIES ACT
REFORM COALITION
2000 Pennsylvania Avenue, NW, Suite 6000
Washington, DC 20006
Tel. 202.333.7481
www.nesarc.org

March 3, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Chairman Capito and Ranking Member Whitehouse:

On behalf of the National Endangered Species Act Reform Coalition (NESARC), we thank you for convening a Senate Environment and Public Works Committee hearing on February 19, 2025 regarding Improving the Federal Environmental Review and Permitting Processes. NESARC believes that permitting reform is long overdue, and is critical to better implementation of the Endangered Species Act (ESA).

As the only broad-based coalition dedicated to improving the ESA and its implementation, NESARC and its members are committed to promoting effective and balanced legislative and administrative improvements to the law that support the protection of fish, wildlife, and plant populations as well as responsible land, water, and resource management.

The concerns raised with the current federal environmental review and permitting processes highlighted by each of you and other members of the Committee are consistent with those experienced by many of NESARC's members. In particular, interagency consultations under Section 7 of the ESA have proven to be unwieldly, with statutory deadlines routinely missed by the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) (collectively, the Services), or avoided by procedural maneuvers. Key elements of the consultation process are so vaguely drafted that they have been the subject of a never-ending stream of litigation, including the scope of effects of the action to be evaluated, definitions for "jeopardy" and "adverse modification," and the establishment of environmental baselines to allow for evaluation of potential impacts. Further, the consultation process has proven to be too cumbersome for simple permits and inadequate for application to more complicated federal permitting actions.

The process for consultation on the effects of federal actions on listed species and critical habitat must be thoroughly reshaped in a manner that avoids consultations for agency actions with only incremental beneficial effects, limits consultations to the footprint of the action proposed, requires consultations to be consistent with the scope of proposed agency actions, takes the current environment and existing facilities as the baseline, ensures the Services' timely and consistent performance of their consultation obligations, and provides greater certainty and reasonableness regarding the end-result.

On behalf of the agricultural interests, cities and counties, commercial real estate developers, conservationists, electric utilities, energy producers, farmers, forest product companies, home builders, landowners, oil and gas companies, ranchers, water and irrigation districts, and other businesses and individuals throughout the United States that NESARC represents, we appreciate the bipartisan commitment among Committee members to work "together" to advance reforms to federal environmental review and permitting. NESARC and its members look forward to supporting efforts to simplify and streamline such processes to allow for better implementation of the ESA.

Please do not hesitate to contact me at shelbyh@fb.org or NESARC Executive Director Jordan Smith at jas@vnf.com if we can provide additional information or be of assistance.

Sincerely,

Shelby Hagenauer
NESARC Chair


ppi
radically
pragmatic
Building The World's Most Advanced Energy Economy:
A More Ambitious Approach to American Energy Permitting Reform
ELAN SYKES
AND PAUL BLEDSOE
JULY 2023
@ppi | @progressivepolicyinstitute | /progressive-policy-institute



INTRODUCTION AND EXECUTIVE SUMMARY

America needs to build bigger and cleaner. Facing economic and regulatory headwinds that affect our ability to grow the economy, channel investment into clean energy, and scale up the technologies needed to prevent climate change, we can no longer accept the burden of a regulatory framework designed for different problems and offering then-current solutions half a century ago that now penalizes and delays cleaner projects in the name of environmental protection. Reforming this system of environmental reviews under the National Environmental Policy Act (NEPA) and the many types of permits issued by federal agencies that require a prerequisite NEPA review is a necessary shift in economic and climate policy that remains unfinished.

In 2021 and 2022, Congress passed a trio of much-needed laws designed to grow and update U.S. infrastructure, clean energy technology, and research and development. Allocating over a trillion dollars in funding across a wide range of policy tools, the bills included tax credits, grants, and loans; a wide range of technologies, including not just technology-specific boosts like the hydrogen tax credits or grants for port modernization but also technology-neutral incentives for clean energy generation; and a wide distribution of benefits, both in geographic and socioeconomic terms.[1]

Yet this funding cannot manifest as meaningful real-world construction under the current policy structure: According to data from the Federal Permitting Improvement Steering Council, the average time from formal start to final decision for projects under NEPA review averaged 4.3 years for transmission lines, 3.5 for natural gas pipelines, and 2.7 years for renewable energy generation projects.[2] In order to maximize the public return on investment and build public confidence in this program, projects will need to move out of the theoretical realm and into the ground to start providing people with tangible results in the form of cheaper, cleaner power, bigger and better factories producing clean new cars and appliances, and also new facilities to produce the materials and components needed for all of this new technology.

Policymakers on both sides of the aisle have an interest in fixing this issue. A deal between Senator Joe Manchin and Majority Leader Senator Chuck Schumer in the fall of

2022 secured support from nearly all Senate Democrats for permitting reform modeled on existing programs for transportation and other infrastructure. PPI endorsed that effort and issued a major report with further policy recommendations at the time, but the measure fell short for lack of Republican support. This spring, in addition to several new Democratic proposals from President Biden, Senator Tom Carper, and Representatives Sean Casten and Mike Levin, Republicans introduced several iterations of their own reforms.[3] As part of an agreement to raise the debt ceiling reached between President Biden and the Republican-majority House in May, Congress passed a series of fiscal measures and included parts of Rep. Garret Graves' BUILDER Act as a first-pass set of permitting reforms. Specifically, these include:

- Streamlined interagency review process with a lead agency and coordinated timetables;
- 1-2 year "Shot clocks" to encourage faster environmental reviews;
- Sharing Categorical Exclusions across federal agencies;
- Minor changes to NEPA (National Environmental Policy Act) changes: Programmatic NEPA reviews are authorized for use in subsequent documents for five years without further study, Page limits are imposed for NEPA documents (not including citations or appendices), clear standards for levels of review for different actions, narrow changes for the consideration of project alternatives and impacts, including considering the environmental benefits of a project, and authorizing a study on E-NEPA (improvements to the law's administrative technology suite);
- Other changes: giving energy storage projects eligibility for the FAST-41[4] permit streamlining process, approving the Mountain Valley Pipeline, and authorizing a study on interregional transfer capacity for U.S. electric grids.[5]

These reforms, which line up with PPI's September 2022 recommendations, were negotiated under the severe pressure of default, and will unlock small but meaningful gains in permitting timelines and costs. They did not, however, include appropriately the ambitious changes required to fully modernize the sorely outdated American regulatory process and unleash clean energy deployment that can outcompete the rest of the world.

> **"Policymakers on both sides of the aisle have proposed crucial pieces of an even more ambitious reform package, and both need the other's support to accomplish their own self-defined goals."**

The imperative to deploy clean energy as quickly and cheaply as possible has not changed, but with Congress split and only part of the task complete, the political calculus has. Policymakers on both sides of the aisle have proposed crucial pieces of an even more ambitious reform package, and both need the other's support to accomplish their own self-defined goals. While many progressive Democrats opposed reform last September,

even their stance may be shifting as stalwart environmentalists like Bill McKibben, previously a dedicated activist focused on stringent supply-side fossil fuel restrictions, have come out in favor of shaking up the permitting system at least for the cleanest and most urgent projects for climate progress.[6] The Republican-led House and Democratic-majority Senate will need to avoid polarizing themselves out of a deal that would bring substantial, meaningful wins to both their base constituencies on their own terms. Both sides must realize that a permitting and transmission deal will provide huge benefits to all major constituencies and stakeholders such that policy compromises will be rewarded politically rather than punished.

> **"NEPA reforms and transmission expansions — will be necessary for legislation to bring about a true renaissance in the U.S. energy economy..."**

Agreement is not yet assured, but it is possible if a deal contains both broader reforms of permitting under NEPA than the debt ceiling deal, along with better coordination of compliance with other relevant environmental laws and appropriately scaled changes to the process of planning, siting, and paying for crucial electricity transmission. Both elements — NEPA reforms and transmission expansions — will be necessary for legislation to bring about a true renaissance in the U.S. energy economy that will provide unprecedented economic benefits to consumers, workers, and businesses while boosting U.S. competitiveness and reducing emissions.

SUMMARY OF POLICY RECOMMENDATIONS

We argue that Democrats and Republicans alike should be able to reach a pragmatic and ambitious agreement to adopt the following reforms:

- Structural changes to the administration of NEPA reviews by federal agencies that include improvements for all forms of energy:
  - » Programmatic Reviews Over Project Reviews: Instead of lengthy case-by-case single-project reviews, agencies should increasingly use Programmatic Reviews (that study groups of projects) across wide geographic or technological scope to proactively identify and map places with significant clean energy potential and known issues that may require mitigation measures.
    - Produce publicly available and technologically up-to-date maps that will enable faster reviews for agencies and create transparency for all stakeholders by identifying low-income and energy communities, known habitats for vulnerable wildlife, climate resilience risk, and other statutory requirements.
    - Coordinate between these programmatic and technologically modernized reviews and transparent

mitigation standards for statutory obligations regarding clean air and water, endangered species, historic preservation, and other permits.

- » Automatic, by-right approvals for low-impact technologies such as utility-scale solar panel facilities, wind turbines, and geothermal test wells in qualifying areas;
- » Proactive development of general permits and NEPA Categorical Exclusions with clear, objective criteria for projects with known low-impact characteristics;
- » Earlier, more representative forms of public engagement along with a streamlined process for judicial review.

- Federal authority equivalence under FERC for gas pipelines and interstate high-voltage electric transmission lines, hydrogen, and carbon dioxide pipelines;
- Parallel State and local reforms for respective "Mini-NEPAs" and improved coordination across levels of government.

NEW REGULATORY REFORMS FOR A NEW ENERGY ERA

Our current environmental regulations were established in an era when we lacked the industrial and technological capability to build much of today's clean and affordable infrastructure and machinery at scale and understand its interaction with the natural environment. As a consequence of that historical moment in the late 1960s and early 1970s when air, water, and chemical pollution was rampant and undermining public health and quality of life for most Americans, the U.S. regulatory system oriented itself toward evaluating and preventing negative external impacts from energy development; a generation of activists, bolstered by the courts, organized around these regulations to slow or stop developments where they could.[7]

Now, the priority environmental problem is preventing the externalities of *inaction* if we fail to deploy sufficient clean energy technologies that have been invented and commercialized in the intervening half-century. Adapting this incumbent system to meet new environmental goals will require acknowledging both the newly available and affordable clean energy technologies that are vital for mitigating greenhouse gas emissions and new scientific and regulatory tools that can assess and map out potential concerns of energy project development in a more systematic way. Leveraging these modern technologies and regulatory procedures can help the clean energy transition avoid the mistakes of deployments past, whether stakeholders are concerned about health and economic impacts on minority communities, damage to natural environments and wildlife, or high economic costs to society as a whole.

> **"The major environmental challenge of our time is that we need to build many new technologies and projects to prevent catastrophic climate change, and to do so rapidly, at low cost."**

Indeed, the major environmental challenge of our time is that we need to build many

new technologies and projects to prevent catastrophic climate change, and to do so rapidly, at low cost. While certainty and precision in such a complex endeavor can be elusive, the National Academies report *Accelerating Decarbonization of the U.S. Energy System* lays out the current consensus among scientists for the required deployment between now and 2030 in order to set ourselves on track for a net-zero economy by 2050:

Clean Energy Technology	Net-Zero Target New Buildout by 2030
Utility-Scale Solar	280-360 Gigawatts
Wind	250-300 Gigawatts
Transmission Capacity	120,000 Gigawatt-Miles (60% increase from current system)
Storage	10-60 Gigawatts
EV Chargers	2-3 million Level 2 Chargers

Source: "Accelerating Decarbonization of the U.S. Energy System," National Academies of Sciences, Engineering, and Medicine, 2021, https://doi.org/10.17226/25932.

The scale of deployment required is large, and expands when taking into account not just the new zero-carbon generation technologies we will need in the form of wind turbines, solar panels, the transmission upgrades required to bring their power to users, and other forms of generation including geothermal wells and advanced nuclear reactors, but also the new end-use technologies like electric vehicles and bikes, home appliances like heat pumps and induction stoves, and changes in other systems including carbon capture, utilization, and storage, direct-air capture, decarbonized hydrogen production and transportation, and refactored industrial heat processes. Upstream from all of these new machines lie their supply chains, the expansion of which will require hefty investments in raw materials like copper and lithium, newly decarbonized production methods for basic materials like steel, aluminum, and cement, the technological inputs like semiconductor chips required to operate increasingly complex machinery, and the facilities to produce all of the above.

The good news is we now have the technical capacity to make these things happen. However, this new energy innovation, investment, commercialization, and deployment must also occur at a rapid and accelerating pace to prevent the worst of climate impacts. The fact that today large-scale inter-regional electricity transmission takes years to review at the federal level — longer than gas pipelines, and must wait for independent permits from each state (and

occasionally from counties and cities) that cannot weigh the total public benefits a project will bring — and that renewable energy projects vital for mitigating emissions take nearly three years to receive approval, demonstrates that deploying hundreds of gigawatts of clean new generation and over a hundred thousand gigawatt-miles of transmission over the next seven years simply will not be possible unless we undertake major regulatory and administrative overhaul. Even the debt ceiling deal's review deadlines, while faster than current practice, do not rise to this challenge.

We argue that major progress speeding up the processes of environmental review, siting, and permitting can be achieved without sacrificing meaningful environmental protection, but only by investing sufficient resources and power in a new, substantially reorganized system of compliance that is also committed to rapid processing of new applications. Yet the gains for energy consumers, energy producers, and the climate from an ambitious deal to modernize the administration of environmental reviews at federal agencies are so large and broadly distributed that, rather than bickering over non-starters, both parties should be working to construct a productive deal and claim joint credit for their accomplishments.

Faster and more certain review and permit processes are crucial for connecting the cheapest new sources of energy to growing sources of demand, lowering the costs of uncertainty and delay that prevent projects from getting built or even from being proposed in the first place, channeling investment into a sector that brings numerous public benefits, and creating opportunities for people of all levels of income and education. To forfeit so much potential economic growth, consumer cost reduction, and decarbonization progress because of bureaucratic inertia or blind adherence to yesterday's regulatory status quo would be tragic.

NEXT STEPS FOR NEPA REFORM

Adding a More Systematic Approach for Programmatic Reviews

Building up the administrative capacity to conduct programmatic, system-level reviews of locations and energy technologies will allow agencies, project developers, and community members to coordinate in advance on any known issues that require mitigation. Then, individual projects can be approved either automatically or with very quick individual studies depending on the level of impact and existing information base. This transition from only a case-by-case adjudication approach to a comprehensive system for some locations and project types is the shift that can make a huge volume of much faster project approvals feasible to enable a major new energy technology buildout. Such a comprehensive programmatic review process would allow agencies to conduct a sort of triage by naturally dedicating their resources to the broad goal of deployment and spending additional time only on the most pressing issues for follow-up studies.

This systemic approach would not be built entirely anew. Programmatic reviews have been recommended by the Council on Environmental Quality (CEQ) for use where applicable for 20 years, with subsequent legislation like the MAP-21 Act and WARDA-2014 reinforcing support for the method.[8] The debt ceiling agreement

included a small section clarifying the timeline and procedure for the use of programmatic reviews, but it missed the opportunity to establish them as the method of choice for large-scale, repetitive technology deployments and clarifying that they can serve as a sufficient replacement for many case-by-case reviews for low-impact projects like utility-scale renewable generation.[9]

Other existing programs like the FAST-41-based Federal Permitting Improvement Steering Council (FPISC or the "Permitting Council") help larger infrastructure projects coordinate simultaneous reviews under a designated lead agency and provide additional assistance to shepherd reviews through the process. FPISC-hosted tools like the Permitting Dashboard, Review Inventory, and developer-aid technologies like the RAPID Toolkit have helped move in this direction.[10] So have other agency and interagency programs like the EPA's RE-Power program,[11] the Bureau of Land Management's (BLM) Solar Energy Zone program,[12] and the interagency working groups on geothermal and minerals permitting — all of these have helped create the building blocks for a more comprehensive, technology-fluent process across the whole federal government. The Solar Energy Zone (SEZ) program's first iteration encountered difficulties in identifying sites with adequate resources and transmission infrastructure that developers could actually use, so more projects ended up getting built in "variance" areas than greenlit SEZ sites; the programmatic review is currently undergoing a promising update, so learning from past experience and allowing solar developers to contribute their practical knowledge to the process will be important for ensuring future success with this method.[13]

Taking the E-NEPA component of the Fiscal Responsibility Act to the next level will involve synthesizing the lessons learned from all of these initiatives into a comprehensive system to map out all of the known, studied features of technologies and places to make them transparently navigable for developers and the public. Because of the variety of information types included in such a massive enterprise, a variety of formats will be needed to compile all of it, but documents should be supplemented with technological tools like GIS mapping and data dashboards. Issues of concern should be extended to include information regarding compliance not just with NEPA but with the whole suite of laws for which agencies issue permits: endangered species habitats, bird migration patterns, national historic sites, and clean air and water issues among others. As discussed below, state and local governments should be given a voluntary pathway to add information to the E-NEPA platform as well.

In addition to this new high-level systemic approach for some qualifying projects, there are many smaller changes that the federal government can make to speed up reviews. Existing proposals to share Categorical Exclusions (CEs) across federal agencies and actively develop new CEs will ensure that projects well understood by one arm of the administration are not being held up by the other. Bringing tools like a system of general permits, already used for many water-related requirements like stormwater discharge from construction sites, to clean energy projects in built-up areas, brownfields, and pre-studied areas can help establish objective criteria for compliance to relatively standard project types that could then be approved by-right.

MAKING SHOT CLOCKS WORK

Firm deadlines for permit decisions can play a helpful role in reducing uncertainty and ensuring that decisions are made one way or the other, allowing construction to commence or scarce resources to be deployed elsewhere. Deadlines have helped spur progress in the context of other rapid technology deployments such as the telecommunications sector, so applying them to the clean energy transition where speed is paramount is a sensible extension of this strategy. Declaring by fiat, however, that a decision must be reached by a certain time does not guarantee that agencies will be able to fulfill all of their statutory obligations and work out thorny technical questions in that window. The success of the permitting deadlines enacted in the debt ceiling deal will depend instead on the innovative development of the tools discussed in the above sections: identifying high-potential sites, known issues, and options for mitigation.

REFORMS FOR THE GRID, HYDROGEN, AND CO2 INFRASTRUCTURE

Upgrading the electricity grids of the United States is an absolutely critical task for achieving decarbonization, improving reliability in the face of increasingly extreme weather impacts made worse by climate change, changing generation mixes, and connecting consumers with the cheapest new sources of power. Studies of the IRA's impact on emissions have estimated that up to 80% of the bill's emissions reductions, and large parts of its cost reductions, could be forfeited by a failure to deploy new transmission lines at an accelerating rate.[14]

But the regulatory system for planning and permitting the types of high-voltage, long-distance transmission lines needed to solve these issues is grievously unsuited to the task.

Similar roadblocks await the new infrastructure needed to build out nascent clean hydrogen and carbon capture industries, because both will require new pipeline networks to transport their products from where they are made to where they can be safely used or stored.

Innovative clean energy projects that take a linear form are more challenging to fit into the streamlined permitting framework laid out in the last section. Because pipelines and transmission lines cross long distances to connect different markets, they often traverse multiple states and other political jurisdictions that may have different requirements. Faster reviews, more staff, and interagency coordination can all help, but the true difference maker for interstate linear clean energy projects would be to place them on par with natural gas. Interstate natural gas pipelines are sited and permitted at the federal level by the Federal Energy Regulatory Commission (FERC), so while states are consulted, the projects do not fall prey to interminable conflicts in the same way. Proposals to level this disparity, like Senator Sheldon Whitehouse's SITE Act[15] and the more recently introduced FASTER Act[16] from Senator Martin Heinrich, have also included strategically welcome changes to the transparency and compensation process for eminent domain landowners and community benefit agreements, helping fix a frequent complaint with the siting process.

An additional wrinkle for transmission deployment is not in the permitting and paying steps of the process but rather in the planning phase. Regional and interregional planning look quite different across the country depending on state-level regulations and electricity market structure, but the BIG WIRES Act sponsored by

Senator John Hickenlooper and Representative Scott Peters would help ensure robust transfer capacity between existing regional grids to ensure reliability and better connectivity which can help bring cheap new power sources to customers in congested service areas.[17]

On the regulatory front, the executive branch has two efforts underway to advance transmission permitting under existing authority in Section 216 of the Federal Power Act (as amended by the Energy Policy Act of 2005 and the IIJA), one being a Notice of Proposed Rulemaking at FERC over backstop siting authority and the other a recently announced new interagency Memorandum of Understanding for the Department of Energy (DOE) to serve as a lead agency coordinating other non-FERC permits for transmission facilities, coordinating NEPA review, federal permits, and publishing timelines on the Permitting Dashboard.[18] PPI supports these steps, but DOE and FERC should coordinate on implementing them in complementary ways rather than on separate tracks and, in any case, the speed of deployment required to achieve our climate and economic goals depend on an even faster pace that calls for developing stronger tools.

In September 2022, PPI endorsed Senator Joe Manchin's plan to empower FERC in this regard and called for the inclusion of the SITE Act in a comprehensive permitting deal. Sen. Manchin's transmission proposals were cited by Republicans as a major point of disagreement in last year's negotiations and the debt ceiling debate, but we believe that refusing to modernize our transmission regulations while the EU and China outpace our deployment by tens and hundreds of gigawatts respectively, is an untenable position.[19] If Democrats have shown themselves willing to explore major changes to NEPA, even beyond those agreed to in the Fiscal Responsibility Act, Republicans should be willing to adopt sensible pro-market reforms to transmission policy. This is the essence of the political and policy compromise — and both policies are needed to bring full economic and environmental benefits.

BETTER COMMUNITY ENGAGEMENT AND FASTER JUDICIAL REVIEW

One major concern expressed during the permitting reform debate in 2022 was Environmental Justice: how could faster reviews square against the need to empower communities hosting new energy projects? We argue that the supposed tradeoff between speed and engagement is a false binary. Just like earlier, proactive identification of high-resource and low-impact locations can leverage new administrative capacity to map issues early, so too can earlier, better-equipped community outreach and technical assistance programs already in place or newly funded by the IRA[20] to help the public and especially low-resource communities register their input during pre-filing procedures, or before project designs or environmental review documents are finalized. Encouragement for project sponsors to engage early and negotiate community benefit agreements with good-faith community representatives will help ensure that problems are identified and resolved, and host communities can secure tangible benefits in exchange for their role hosting vital infrastructure.

Litigation, by contrast, can only begin after these decisions are made and can run the risk of exacerbating existing inequalities because of the expense required to sustain it. Maintaining the rights of the public to access the courts is an important goal — thankfully we can make meaningful changes to help energy projects reach legal decisions and any affected parties secure remedies faster without abrogating those rights. First, requiring the submission of meaningful, substantive comments in the newly enhanced public engagement process will help potential plaintiffs demonstrate good-faith concern and crucially will notify agencies of issues early in the process so that they can be fixed before final decisions are made without court intervention. Establishing a clear and time-limited process for judicially mandated solutions to fix agency documents and reassess final decisions, and ensuring that lawsuits get sent to one designated appellate hub for review, like the DC circuit court, can also help to strike the appropriate balance. These changes build on existing reforms from the FAST-41 process, so they should not be viewed as anathema to those interested in a broad and ambitious bipartisan agreement.

CRITICAL MINERALS AND OTHER SUPPLY CHAIN BOTTLENECKS

The shift to clean energy is a shift in the materials required to maintain and expand our energy systems.[21] Where critical mineral resources crucial to the energy transition are available domestically, we should attempt to develop them responsibly and provide ample community benefits while maintaining stringent substantive protections for the rights of Tribal nations, the natural environment, and other stakeholders including members of the public. Global supply chains for transition materials will continue to play a crucial role in meeting U.S. demand, but to the extent that U.S. policy can help diversify and expand worldwide capacity of these materials, it should be reformed to do so. In a country where we can implement these policies responsibly, we will be able to expand the available supply of cutting-edge energy technologies with lower carbon intensity, more ecological protection and remediation, and stronger labor and human rights protections than many currently available suppliers of these minerals. We cannot meet the objectives of climate or environmental justice policy by offshoring these harms when we have the opportunity to build transparent, environmentally friendly supply chains domestically and in partnership with global allies to meet growing global demand.

Mining is much more complex and impactful than other clean energy projects, so reforms in those sectors can play a complementary role for critical mineral projects by ensuring that agency resources are dedicated to analyzing the most important and impactful issues at hand. Thankfully, the trio of IIJA, IRA, and CHIPS also created several mining-specific programs including funding for programs across many areas of the sector including workforce, research and demonstration funding, and resource mapping updates.[21] The permitting process is treated directly by IIJA Section 40206, which created an Interagency Working Group (IWG) on Mining Regulations, Laws, and Permitting now operating, but that section also required adoption of an efficient permitting process with clear standards, coordination, and timelines and a report on the current mining permit processes and suggestions for further reform which is now more than a year overdue.[22] Any of these

programs in need of further appropriations should be fully funded, and the IWG should release its report and recommendations.

Issues in the supply chains crucial for decarbonizing and growing U.S. energy systems are not limited to raw materials. Affordable and reliable electricity is crucial for all forms of manufacturing but especially for decarbonizing energy-intensive manufacturing. New energy technologies will require more semiconductors, more complex grid components like inverters and transformers, and more processed materials from mature sectors like concrete, steel, aluminum, and copper in addition to transition minerals like lithium and cobalt. Nor should we limit supply chain policies to their upstream segment: recycling, still an expensive and complex type of operation but one that looks increasingly promising for certain high-value battery materials, and efficiency of material use across all applications, will also help manage demand in the context of rapidly growing, resource-constrained markets. Only certain manufacturing facilities will ever need federal permits and a NEPA review, but ensuring that the clean energy manufacturing boom is not bogged down by especially stringent requirements[23] to serve unrelated policy areas but instead prioritized for deployment (and supported by generally applicable regulations like labor market protections) will be crucial. States and localities eager to host clean manufacturing booms should also ensure that their permitting process for manufacturers is aligned with their economic and climate goals.

STATE AND LOCAL POLICY REFORMS

Permitting reform is not an exclusively federal problem. Because so many key clean energy projects either require state or local permits in addition to federal permits, or fall solely under state or local jurisdiction with no federal role at all, these sub-federal reforms will be especially important when the federal bottleneck eases following successful reform. Across the U.S., state and local governments should adopt reforms that parallel our recommendations for the federal government: streamlining the requirements for known low-impact projects, proactively studying places ripe for development or with known areas of concern, and bolstering the administrative capacity to process applications efficiently. State and local governments should also be given a way to contribute information to the federal government's E-NEPA knowledge base about their permitting process, requirements, and geographic information about potential resources and conflicts in their jurisdictions.

At the state and local levels, different jurisdictions take quite different approaches to environmental review requirements, siting procedures, permits, and standards. This patchwork multiplicity creates an additional set of challenges for continental-scale clean energy deployment. The latest research from Columbia Law School's Sabin Center for Climate Change Law compiled a rapidly growing list of restrictive regulations on renewables development that includes 9 state-level restrictions and 228 local rules across 35 states, along with 293 specific projects that have aroused major opposition.[25] This problem, worsening just as federal incentives should be driving deployment across the country, requires major reforms in state legislatures and beyond.

First, variation in rules between states, and especially America's fragmented local jurisdictions, adds complexity for project developers trying to comply with all the requirements imposed in each location and level of government. Secondly, making decisions at a hyperlocal level can cut out the more geographically diffuse effects, whether beneficial or costly, that large-scale energy and infrastructure projects often bring to the public. By failing to consider projects at the geographic scope where all of the full costs and benefits can be tallied up, this type of decision-making process proliferates the opportunity to say no while excluding constituencies that stand to benefit from these projects.

Two states, New York and Washington, have recently adopted exciting reforms that should serve as models for other states eager to deploy clean energy and benefit from its investment and job creation. In New York, a new Office of Renewable Energy Siting was established in 2020 to serve as a "one-stop shop" for green projects, coordinating and expediting their reviews and allowing the State to overrule "unreasonably burdensome" local restrictions.[26] The main implementation rule created by ORES was sued under SEQRA, New York's NEPA equivalent, highlighting the conflict between the incumbent environmental legal system and the reforms needed to unleash the new energy technologies needed to solve the most pressing current environmental problems; thankfully, the lawsuit failed and ORES has approved 13 projects across New York so far.[27]

In Washington HB 1216, supported on a bipartisan basis by a majority of both Democratic and Republican legislators in the state, was signed into law on May 3, 2023, and created multiple new avenues for more efficient reviews and permits.[28] Most promising is the process established for a series of statewide programmatic reviews for solar, wind, green hydrogen, and associated battery storage projects. Under this provision, state regulators will proactively identify and study potential sites for deployment statewide, noting any possible negative impacts and suggesting mitigation measures where necessary. Individual projects will be able to adopt those reviews or cite them and study only additional impacts of concern, saving much time, effort, and duplication while maintaining high standards and giving project developers and communities transparency and clear objectives upfront.

Community input, especially for federally recognized Tribal Nations and overburdened Environmental Justice Communities, is given added prominence in the process by requiring meaningful early engagement (a forum for agricultural and rural stakeholder input is also established under a separate section of the bill). On top of these changes, a new permit coordinating council parallel to FPISC will help coordinate and expedite complex reviews, serve as a liaison for local and federal reviews, and support reviews for streamlined clean energy projects of statewide importance.

Washington's framework represents the cutting edge of pro-deployment regulation and should be adopted by other ambitious state governments across the country looking to grow their clean energy sector. Not all states have embraced this shift. In wind-wealthy Kansas and Iowa, stringent restrictions on wind energy imposed by many local governments risk barring further development in large swathes of their respective states.[29] Texas, long known as an eager hands-

off host to all types of energy development and praised as an early pioneer of wind deployment, is exploring imposing a new NEPA-style environmental review process on all renewable energy in the state — including retroactively on existing renewable facilities, a step backward.[30]

This problem is not restricted to red or purple states. In California, the California Environmental Quality Act has stopped or slowed good green projects for years, from a major high-speed rail line to urban bike lanes and infill housing.[31] The California legislature recently passed a set of incremental permitting reforms for clean energy, water, transportation, and semiconductor projects that include a shortened window for CEQA litigation proposed by Governor Gavin Newsom, passing over the opposition of a coalition of the Sierra Club of California and over one hundred other environmental organizations (though environmental opposition was not unanimous, as the NRDC supported the final package).[32] Hopefully, this set of bills will serve as the beginning of a more thorough review along the lines of the Washington or New York models.

A similar dense housing reform in the city of Minneapolis was sued under the Minnesota Environmental Rights Act (MERA).[33] The Council on Environmental Quality lists at least 20 sub-federal equivalents to NEPA and includes a memorandum comparing each to the federal law.[34]

Encouragingly, the National Governors Association's Energy and Infrastructure Working Group has called for a bipartisan agreement at the federal level to spur growth and speed up project delivery in addition to reforms in the states.[35] The National League of Cities also endorses federal permitting reform in its 2023 policy platform, demonstrating additional support for reform at the local level that should be extended to address permitting requirements within their own jurisdictions (especially for city-specific climate and growth investments like dense housing and pedestrian, bike and bus infrastructure).[36] As place-based policies like funding for Hydrogen and Carbon Management hubs are taking off, partnerships between neighboring states to submit applications could pave the way for tighter cooperation at the regional level to establish coordinated schedules and standards for environmental reviews.[37] With models like Washington and New York, all states can take meaningful action to improve their own permitting process and engagement with federal agencies on projects they host. Indeed, many crucial clean energy projects will never reach a federal nexus, so a race to the top among eager host states and localities will be key to achieving our goals.

> **"As a singular basis for an international standard to compel emissions reductions from other nations, both the U.S. and EU emissions reduction policies have serious challenges."**

CONCLUSION

Following the passage of the 2009 American Recovery and Reinvestment Act, President Barack Obama lamented that "there's no such thing as shovel-ready projects."[38] As we exit the COVID-19 pandemic and look to the future of the American economy, we should take concrete steps to ensure that we do not weigh ourselves down with burdensome bureaucracy

but instead leverage innovative technologies and administrative methods to build back not only better, but faster too.

After all, even our national pastime, Major League Baseball — which has been played largely unchanged for almost a century and a half — this year recognized the need for a pitch clock to speed up play with great success. Can't Congress help America do the same for the energy system that is the lifeblood of our economy and quality of life?

The clean energy transition offers a promise of renewed growth, the reduction of climate change, and a chance to bring new economic opportunities to communities across the country, from cities to rural areas, for all workers and families alike. Congress, the president, and all states must do everything they can to help quickly build the energy projects and remarkable new technologies that will bring tremendous economic and environmental benefits to all Americans.

ABOUT THE AUTHORS

Elan Sykes is an Energy Policy Analyst at PPI. Elan works on energy deployment, innovation, and decarbonization. Prior to joining PPI, Elan served as a researcher at the Climate Leadership Council where he focused on carbon pricing, global climate policy, and the intersection of climate and trade policies. Before that, Elan served as an intern at the Taub Center for Social Policy Studies in Israel. Elan received an AB cum laude from Princeton University's School of Public and International Affairs in 2018, where he wrote a thesis examining Eastern Mediterranean energy and security politics.

Paul Bledsoe is strategic adviser for PPI, working on intersection of U.S. and global energy, climate, and economic policy. He is also a professorial lecturer at American University's Center for Environmental Policy. Paul served as communications director of the White House Climate Change Task Force under President Clinton, as special assistant to U.S. Interior Secretary Bruce Babbitt, and communications director of the U.S. Senate Committee on Finance under former Chairman Daniel Patrick Moynihan. He was formerly senior policy advisor to the Presidential Commission on the BP Oil Spill, director of strategy for the National Commission on Energy Policy, and a teaching fellow at Oxford University's School of Geography and the Environment. Paul has been a leading figure in shaping two major climate agreements — the Paris Climate Agreement of 2015 and the Kigali Agreement to phase out HFCs of 2016. He writes often on climate, energy, policy and politics in the *New York Times, Washington Post, Financial Times, Politico, USA Today, LA Times, The Hill, Real Clear Politics* and other leading publications. Paul received a B.A. with honors and a M.A from Ohio State University.

References

1 "Investing in America," The White House, June 6, 2023, www.whitehouse.gov/invest/; Jay Turner, "US and Canada Electric Vehicle Supply Chain Map," Charged, www.charged-the-book.com/na-ev-supply-chain-map, accessed June 23, 2023.

2 "Recommended Performance Schedules," Permitting Dashboard (Federal Permitting Improvement Steering Council), April 6, 2020, https://www.permits.performance.gov/fpisc-content/recommended-performance-schedules. "Baseline Performance Schedules for Environmental Reviews and Authorizations," Federal Permitting Improvement Steering Council, April 8, 2020, https://www.permits.performance.gov/sites/permits.dot.gov/files/2020-04/FPISCRecommendedPerformanceSchedules2020_04062020.pdf.

3 "Fact Sheet: Biden-Harris Administration Outlines Priorities for Building America's Energy Infrastructure Faster, Safer, and Cleaner," The White House, May 12 2023, www.whitehouse.gov/briefing-room/statements-releases/2023/05/10/fact-sheet-biden-harris-administration-outlines-priorities-for-building-americas-energy-infrastructure-faster-safer-and-cleaner/.

4 "Title 41 of the Fixing America's Surface Transport (FAST) Act," United States Code, Title 42, https://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter55/subchapter4&edition=prelim. A Fact Sheet Summarizing the law is available here: https://www.permits.performance.gov/sites/permits.dot.gov/files/2022-09/FPISC_090922.pdf

5 U.S. Congress, House, *Fiscal Responsibility Act of 2023*, HR 3746, 118th Cong., Became law June 3, 2023, www.congress.gov/bill/118th-congress/house-bill/3746/text.

6 Bill McKibben, "Yes in Our Backyards," *Mother Jones*, April 18, 2023, www.motherjones.com/environment/2023/04/yimby-nimby-progressives-clean-energy-infrastructure-housing-development-wind-solar-bill-mckibben/.

7 Paul Sabin, Public Citizens (W.W. Norton & Company, 2021); George Hoberg, *The Resistance Dilemma: Place-Based Movements and the Climate Crisis* (MIT Press, 2021).

8 "Effective Use of Programmatic NEPA Reviews," *Council on Environmental Quality*, December 18, 2014, ceq.doe.gov/docs/ceq-regulations-and-guidance/Effective_Use_of_Programmatic_NEPA_Reviews_Final_Dec2014_searchable.pdf.

9 *Fiscal Responsibility Act of 2023*.

10 "RAPID Toolkit," Open Energy Information, accessed June 2023, https://openei.org/wiki/RAPID.

11 "RE-Powering America's Land," Environmental Protection Agency, accessed June 2023, https://www.epa.gov/re-powering.

12 "2012 Solar Energy Development Programmatic EIS Information Center," Solar PEIS Project, accessed June 2023, https://solareis.anl.gov/.

13 Bureau of Land Management, Interior, "Notice of Intent to Prepare a Programmatic Environmental Impact Statement to Evaluate Utility-Scale Solar Energy Planning and Amend Resource Management Plans for Renewable Energy Development," *Federal Register* 87, No. 235 (December 8, 2022): 75284, 2022 https://www.federalregister.gov/documents/2022/12/08/2022-26659/notice-of-intent-to-prepare-a-programmatic-environmental-impact-statement-to-evaluate-utility-scale; Edward Boling, et al. "BLM to Accelerate Solar Energy Development on Public Lands in the West," JD Supra, December 22, 2022, www.jdsupra.com/legalnews/blm-to-accelerate-solar-energy-3687723/; "Industry Led Utility-Scale Solar Siting Principles," American Clean Power, accessed June 2023, cleanpower.org/wp-content/uploads/2022/05/Industry-Led-Utility-Scale-Solar-Siting-Principle_FINAL.pdf.

14 Jesse Jenkins et al., "Preliminary Report: The Climate and Energy Impacts of the Inflation Reduction Act of 2022," REPEAT Project (Princeton University ZERO Lab), August 2022, https://repeatproject.org/docs/REPEAT_IRA_Prelminary_Report_2022-08-04.pdf.

15 U.S. Congress, Senate, *SITE* Act, S 946, 118th Cong., Introduced March 22, 2023, https://www.congress.gov/bill/118th-congress/senate-bill/946/text.

16 U.S. Congress, Senate, *FASTER Act*, S 1804, 118th Cong., Introduced June 1, 2023, https://www.congress.gov/118/bills/s1804/BILLS-118s1804is.pdf.

17 "Hickenlooper-Peters Big Wires Act Would Speed Permitting Reform, Simplify Grid Upgrades," Senator John Hickenlooper, May 25, 2023, www.hickenlooper.senate.gov/press_releases/hickenlooper-peters-big-wires-act-would-speed-permitting-reform-simplify-grid-upgrades/.

18 "Biden Administration Takes Steps to Accelerate Transmission Permitting," Perkins Coie, May 12 2023, www.perkinscoie.com/en/news-insights/biden-administration-takes-steps-to-accelerate-transmission-permitting.html; Federal Energy Regulatory Commission, "Applications for Permits To Site Interstate Electric Transmission Facilities: A Proposed Rule by FERC," *Federal Register* 88, No. 10 (January 17, 2023): 2770, www.federalregister.gov/documents/2023/01/17/2022-27716/applications-for-permits-to-site-interstate-electric-transmission-facilities. Accessed 23 June 2023;
"Memorandum of Understanding Regarding Facilitating Federal Authorizations For Electric Transmission Facilities Regarding Facilitating Federal Authorizations For Electric Transmission Facilities," The White House, May 4, 2023, www.whitehouse.gov/wp-content/uploads/2023/05/Final-Transmission-MOU-with-signatures-5-04-2023.pdf.

19 James McCalley and Qian Zhang, "Macro Grids in the Mainstream: An International Survey of Plans and Progress," Americans for a Clean Energy Grid, November 2020, cleanenergygrid.org/wp-content/uploads/2020/11/Macro-Grids-in-the-Mainstream.pdf.

20 "Environmental Justice Grants, Funding and Technical Assistance," Environmental Protection Agency, last updated May 24, 2023, https://www.epa.gov/environmentaljustice/environmental-justice-grants-funding-and-technical-assistance.

21 "The Role of Critical Minerals in Clean Energy Transitions," International Energy Agency, May 2021, www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions.

22 Danny Broberg and John Jacobs, "Expanding Domestic Critical Mineral Supply Chains," Bipartisan Policy Center, March 15, 2023, bipartisanpolicy.org/blog/expanding-us-critical-mineral-supply/; "Infrastructure and Jobs Act: Critical Minerals Permitting and Information – Policies," IEA, last updated October 26, 2022, www.iea.org/policies/15701-infrastructure-and-jobs-act-critical-minerals-permitting-and-information.

23 "Section 40206," Public Law 117-58, U.S. Congress, November 15, 2021, https://www.energy.gov/sites/default/files/2022-09/IIJA-%20Pub%20Law%20117-58%20Nov%2015%202021.pdf.

24 Ezra Klein, "The Problem with Everything-Bagel Liberalism," *The New York Times*, April 2, 2023, https://www.nytimes.com/2023/04/02/opinion/democrats-liberalism.html.

25 Hillary Aidun et al., "Opposition to Renewable Energy Facilities in the United States: May 2023 Edition." Columbia Law School Sabin Center for Climate Change Law, May 2023, scholarship.law.columbia.edu/sabin_climate_change/200/.

26 Robert Walton, "New York Becomes First State to Establish Renewables Siting Office in an Effort to Speed up Deployment," Utility Dive, April 7, 2020, www.utilitydive.com/news/new-york-becomes-1st-state-to-establish-renewables-siting-office-in-an-effo/575591/; "About Us," New York Office of Renewable Energy Siting, accessed June 2023, ores.ny.gov/about-us.

27 "Permit Applications," New York Office of Renewable Energy Siting, accessed June 2023, ores.ny.gov/permit-applications; Kevin Rogers and Jennifer Coghlan, "Court Dismisses Challenge to Ores Regulations for Large-Scale Renewables," Sive Paget Riesel, November 5, 2021, sprlaw.com/court-dismisses-challenge-to-ores-regulations-for-large-scale-renewables/.

28 "Engrossed Second Substitute House Bill 1216." Washington Legislature, 4 May 2023, lawfilesext.leg.wa.gov/biennium/2023-24/pdf/Bills/; "Washington HB 1216: 2023-2024: Regular Session." *LegiScan*, legiscan.com/WA/rollcall/HB1216/id/1301840. Accessed 23 June 2023.

29 Casey Kelley et al., "Hawkeye State Headwinds," ClearPath, July 14 2022, clearpath.org/reports/hawkeye-state-headwinds/; Jennifer Hiller, "'Over Our Dead Bodies': Backlash Builds against $3 Trillion Clean-Energy Push," *The Wall Street Journal*, May 8, 2023, www.wsj.com/articles/inflation-reduction-act-backlash-clean-energy-wind-solar-f3d4d900.

30 "Texas as a National Model for Bringing Clean Energy to the Grid," Americans for a Clean Energy Grid, October 13, 2017, cleanenergygrid.org/texas-national-model-bringing-clean-energy-grid/; Anna Phillips, "Why Texas, a Clean Energy Powerhouse, is About to Hit the Brakes." *The Washington Post*, May 8, 2023, www.washingtonpost.com/climate-environment/2023/05/08/texas-solar-wind-power-legislation/.

31 Jeff Davis, "Court Rulings May Delay California High Speed Rail," Eno Center for Transportation, August 2, 2017, https://www.enotrans.org/article/california-supreme-court-ruling-may-delay-high-speed-rail/; Ralph Vartabedian, "California Bullet Train Authority Gets U.S. Permission to Handle Its Environmental Reviews," *Los Angeles Times*, July 27, 2019, https://www.latimes.com/california/story/2019-07-26/bullet-train-environmental-approvals; Matthew Roth, "SF Responds to Bike Injunction with 1,353 Page Enviro Review," Streetsblog San Francisco, December 11, 2008, https://sf.streetsblog.org/2008/11/28/sf-responds-to-bike-injunction-with-1m-1353-page-enviro-review/.

32 Ezra Klein, "'What the Hell Happened to the California of the '50s and '60s?,'" *The New York Times*, June 18, 2023, https://www.nytimes.com/2023/06/18/opinion/newsom-california-building-permitting-procurement.html?searchResultPosition=4; "Analyses: SB 145 through SB 150," California State Senate, accessed July 2023, https://www.senate.ca.gov/content/analyses; Ashley Zavala, "California Lawmakers OK Newsom's Push to Build Energy, Water and Transportation Projects Faster," KCRA, July 6, 2023, https://www.kcra.com/article/california-lawmakers-newsom-energy-water-transportation-projects/44451652; Rachel Becker, "How Will California's Infrastructure Deal Affect Protected Wildlife?," KCET, July 5, 2023, https://www.kcet.org/news-community/how-will-californias-infrastructure-deal-affect-protected-wildlife.

33 Susan Du and Liz Navratil, "Court Orders Minneapolis to Cease Implementation of 2040 Plan," *Star Tribune* June 15, 2022, https://www.startribune.com/court-minneapolis-ordered-to-cease-implementation-of-2040-plan/600182511/.

34 "States and Local Jurisdictions with NEPA-like Environmental Planning Requirements," Council on Environmental Quality, accessed June 2023, ceq.doe.gov/laws-regulations/states.html.

35 "Governors Call for Energy and Permitting Compromise," National Governors Association, 31 March 31, 2023, www.nga.org/news/press-releases/governors-call-for-energy-and-permitting-compromise/.

36 "2023 National Municipal Policy and Resolutions: Energy, Environment And Natural Resources." National League of Cities, November 19, 2022, https://www.nlc.org/wp-content/uploads/2023/01/2023-NMP.pdf#page=41.

37 For example, the Illinois-Indiana-Michigan hub application described here: Nara Schoenberg, "Illinois, Indiana, Michigan Partner for Clean Hydrogen Hub," Governing, April 17, 2023, https://www.governing.com/next/illinois-indiana-michigan-partner-for-clean-hydrogen-hub.

38 Stephanie Condon, "Obama: 'No Such Thing as Shovel-Ready Projects,'" *CBS News*, October 13, 2010, https://www.cbsnews.com/news/obama-no-such-thing-as-shovel-ready-projects/



The Progressive Policy Institute is a catalyst for policy innovation and political reform based in Washington, D.C. Its mission is to create radically pragmatic ideas for moving America beyond ideological and partisan deadlock.

Founded in 1989, PPI started as the intellectual home of the New Democrats and earned a reputation as President Bill Clinton's "idea mill." Many of its mold-breaking ideas have been translated into public policy and law and have influenced international efforts to modernize progressive politics.

Today, PPI is developing fresh proposals for stimulating U.S. economic innovation and growth; equipping all Americans with the skills and assets that social mobility in the knowledge economy requires; modernizing an overly bureaucratic and centralized public sector; and defending liberal democracy in a dangerous world.

© 2023
PROGRESSIVE POLICY INSTITUTE
ALL RIGHTS RESERVED.

PROGRESSIVE POLICY INSTITUTE
1156 15th Street NW
Ste 400
Washington, D.C. 20005

Tel 202.525.3926
Fax 202.525.3941

info@ppionline.org
progressivepolicy.org

COMPREHENSIVE REPORT
Report Date:06/11/2018

Facility Information

RBLC ID:	CA-1250 (final)	**Date Determination Last Updated:**	03/12/2018
Corporate/Company Name:	TAFT AMMONIA CO., LLC	**Permit Number:**	S-1163737
Facility Name:	TAFT AMMONIA COMPANY	**Permit Date:**	11/21/2017 (actual)
Facility Contact:	JAMES MERRITT 713-515-8679 KELLY@GRANNUSLLC.COM	**FRS Number:**	Not Found
Facility Description:	Ammonia Manufacturing; Hydrogen manufacturing is piped to ammonia manufacturing operation or offsite hydrogen use.	**SIC Code:**	2873
Permit Type:	A: New/Greenfield Facility	**NAICS Code:**	325311
Permit URL:	None		
EPA Region:	9	**COUNTRY:**	USA
Facility County:	KERN		
Facility State:	CA		
Facility ZIP Code:	93311		
Permit Issued By:	SAN JOAQUIN VALLEY APCD - SOUTHERN REGIONAL OFFICE, CA (Agency Name)		
Other Agency Contact Info:	Leonard Scandura, Permit Services Manager San Joaquin Valley APCD (661) 392-5500		
Permit Notes:	Daily emissions from Ammonia manufacturing operations are below the 2 lb/day per unit (0.365 tpy) permit exemption threshold. Therefore no permits were required for the actual ammonia manufacturing portion of the facility.		

Facility-wide Emissions:

Pollutant Name:	Facility-wide Emissions Increase:
Carbon Monoxide	0.5835 (Tons/Year)
Nitrogen Oxides (NOx)	0.0575 (Tons/Year)
Particulate Matter (PM)	0.0220 (Tons/Year)
Volatile Organic Compounds (VOC)	0.1970 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Ammonia Manufacturing - Grannus Process (TM)

Process Type: 61.012 (Fertilizer Production (except 61.009))

05/05/2016
13060007

09/05/2014
(actual)
110055568522
2873

325311

Primary Fuel: Natural Gas

Throughput: 0

Process Notes: Partial Oxidation w/out combustion byproducts, water gas shift and syngas purification to pure hydrogen, then manufacture of ammonia. A Scalable Patented Process. Ammonia production is 250 short tons per day. Emission units include: 1. Ammonia Loop Purge Vent 2. Ammonia Plant Stack Vent 3. Acid Gas Removal System 4. Flare

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: Y

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: N/A

Control Method: (P) New engineered manufacturing process for ammonia.

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0027 lbs/ton of ammonia produced.

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: N/A

USA



Control Method: (P) Process modification, therefore no add on controls.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0141 lbs/ton of ammonia produced.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements: N/A
Control Method: (P) Process modification, therefore no add on controls.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0056 lbs/ton of ammonia produced.

POLLUTANT NAME: Particulate matter, total < 10 μ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis:	OTHER CASE-BY-CASE
Other Applicable Requirements:	N/A
Control Method:	(P) Process modification, therefore no add on controls.
Est. % Efficiency:	
Cost Effectiveness:	0 $/ton
Incremental Cost Effectiveness:	0 $/ton
Compliance Verified:	Unknown
Pollutant/Compliance Notes:	Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0014 lbs/ton of ammonia produced.

Process/Pollutant Information

PROCESS NAME: Hydrogen Production

Process Type: 99.999 (Other Miscellaneous Sources)

Primary Fuel: Natural Gas

Throughput: 0

Process Notes: Partial Oxidation w/out combustion byproducts, water gas shift and syngas purification to pure hydrogen. A Scalable Patented Process. Hydrogen throughput is 44.6 short tons per day. Emission units include: 1. Purge Vent 2. Hydrogen Plant Stack Vent 3. Acid Gas Removal System 4. Flare

POLLUTANT NAME:	Carbon Monoxide
CAS Number:	630-08-0
Test Method:	Unspecified
Pollutant Group(s):	(InOrganic Compounds)
Emission Limit 1:	
Emission Limit 2:	
Standard Emission:	

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis:	OTHER CASE-BY-CASE
Other Applicable Requirements:	N/A
Control Method:	(P) Process modification, therefore no add on controls.
Est. % Efficiency:	
Cost Effectiveness:	0 $/ton
Incremental Cost Effectiveness:	0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0791 lbs/ton of hydrogen produced.

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: N/A

Control Method: (P) Process modification, therefore no add on controls.

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0153 lbs/ton of hydrogen produced.

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: N/A

Control Method: (P) Process modification, therefore no add on controls.

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0080 lbs/ton of hydrogen produced.

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1:

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: OTHER CASE-BY-CASE

Other Applicable Requirements: N/A

Control Method: (P) Process modification, therefore no add on controls.

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0317 lbs/ton of hydrogen produced.

Facility Information

RBLC ID:	ND-0033 (draft)	**Date Determination Last Updated:**	08/24/2015
Corporate/Company Name:	NORTHERN PLAINS NITROGEN	**Permit Number:**	PTC15052
Facility Name:	GRAND FORKS FERTILIZER PLANT	**Permit Date:**	08/10/2015 (actual)
Facility Contact:	LARRY MACKIE LARRYMACKIE@GMAIL.COM	**FRS Number:**	

Facility Description:	Fertilizer manufacturing plant designed to produce both feedstock and saleable products in the following nominal capacities: 2425 tpd ammonia, 2540 tpd ammonium nitrate solution, 300 tpd DEF, 3000 tpd urea solution, 3000 tpd granular urea, 2000 tpd nitric acid, 5620 tpd UAN, 441 tpd ammonium thiosulfate and 1080 tpd APP	**SIC Code:**	2873
Permit Type:	A: New/Greenfield Facility	**NAICS Code:**	325311
Permit URL:	http://www.ndhealth.gov/AQ/ActivePermits.aspx		
EPA Region:	8	**COUNTRY:**	USA
Facility County:	GRAND FORKS		
Facility State:	ND		
Facility ZIP Code:	58203		
Permit Issued By:	NORTH DAKOTA DEPARTMENT OF HEALTH (Agency Name) MR. CRAIG THORSTENSON(Agency Contact) 701-328-5188 CTHORSTENSON@ND.GOV		
Permit Notes:			

Facility-wide Emissions:

Pollutant Name:	Facility-wide Emissions Increase:
Carbon Monoxide	170.1000 (Tons/Year)
Nitrogen Oxides (NOx)	354.9000 (Tons/Year)
Particulate Matter (PM)	163.8000 (Tons/Year)
Sulfur Oxides (SOx)	30.1000 (Tons/Year)
Volatile Organic Compounds (VOC)	45.2000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Ammonia Plant Primary Reformer

Process Type: 11.310 (Natural Gas (includes propane and liquefied petroleum gas))

Primary Fuel: Natural gas

Throughput: 1006.00 MMBTU/H

Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1: 0.0120 LB/MM BTU 30 DAY ROLLING AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: N

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:
Control Method: (A) Low NOx burners and Selective Catalytic Reduction
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.0194 LB/MM BTU 30 DAY ROLLING AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Combustion Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 1.9000 LB/MM SCF COMBUSTED 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Combustion Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 5.3850 LB/MM SCF COMBUSTED 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Combustion Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 5.3850 LB/MM SCF COMBUSTED 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Good Combustion Practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: Unspecified

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 0.0014 LB/MM BTU 1-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Good Combustion Practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)

CAS Number: CO2e

Test Method: Unspecified

Pollutant Group(s): (Greenhouse Gasses (GHG))

Emission Limit 1: 515778.0000 TONS/YEAR CO2E 12-MONTH ROLLING TOTAL

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Energy Efficiency Measures

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Visible Emissions (VE)

CAS Number: VE

Test Method: Unspecified

Pollutant Group(s):

Emission Limit 1: 5.0000 PERCENT

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Good Combustion Practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Ammonia Plant CO2 Vent

Process Type: 61.012 (Fertilizer Production (except 61.009))

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)

CAS Number: CO2e

Test Method: Unspecified

Pollutant Group(s): (Greenhouse Gasses (GHG))

Emission Limit 1: 389809.0000 TONS/YEAR CO2E 12-MONTH ROLLING TOTAL

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) CO2 Recover and Reuse / Good Operating Practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1: 2.8300 LB/HR 1-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Good Operating Practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 14.5700 LB/HR 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Design and Operating Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Nitric Acid Plant
Process Type: 62.014 (Nitric Acid Plants)
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 0.3300 LB/TON NITRIC ACID 30 DAY ROLLING AVERAGE

Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Extended Absorption and Selective Catalytic Reduction
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrous Oxide (N2O)
CAS Number: 10024-97-2
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG) , InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 96.5000 PERCENT REDUCTION
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Catalytic Decomposition
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)
CAS Number: CO2e
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG))

Emission Limit 1: 29786.0000 TONS/YEAR CO2E 12-MONTH ROLLING TOTAL

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (A) Catalytic Decomposition

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Ammonium Nitrate / Urea Ammonium Nitrate Plants

Process Type: 61.012 (Fertilizer Production (except 61.009))

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0230 LB/TON SOLUTION 1-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (A) Wet scrubber and demister

Est. % Efficiency:

Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0230 LB/TON SOLUTION 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Wet scrubber and demister
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0230 LB/TON SOLUTION 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Wet scrubber and demister

Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Visible Emissions (VE)
CAS Number: VE
Test Method: Unspecified
Pollutant Group(s):
Emission Limit 1: 5.0000 PERCENT
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Combustion Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Boilers
Process Type: 11.310 (Natural Gas (includes propane and liquefied petroleum gas))
Primary Fuel: Natural gas
Throughput: 187.50 MMBTU/H
Process Notes: Facility includes 3 boilers of identical size (187.5 MM Btu/hr each)

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0067 LB/MM BTU 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0067 LB/MM BTU 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Combustion Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM

Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0067 LB/MM BTU 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Combustion Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 0.0180 LB/MM BTU 30 DAY ROLLING AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Ultra Low NOx Burners and Flue Gas Recirculation
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.0360 LB/MM BTU 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Combustion Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.0054 LB/MM BTU 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Combustion Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)

CAS Number: CO2e

Test Method: Unspecified

Pollutant Group(s): (Greenhouse Gasses (GHG))

Emission Limit 1: 59675.0000 TONS/YEAR CO2E 12-MONTH ROLLING TOTAL

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Fuel Efficiency Techniques

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Visible Emissions (VE)

CAS Number: VE

Test Method: Unspecified

Pollutant Group(s):

Emission Limit 1: 5.0000 PERCENT

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Good Combustion Practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Urea Plant
Process Type: 61.012 (Fertilizer Production (except 61.009))
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)
CAS Number: CO2e
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG))
Emission Limit 1: 2042.0000 TONS/YEAR CO2E 12-MONTH ROLLING TOTAL
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Good Operating Practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total (TPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 GR/DSCF 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (A) Wet Scrubber

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0050 GR/DSCF 1-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (A) Wet Scrubber

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0050 GR/DSCF 1-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (A) Wet Scrubber

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Visible Emissions (VE)

CAS Number: VE

Test Method: Unspecified

Pollutant Group(s):

Emission Limit 1: 5.0000 PERCENT

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (A) Wet Scrubber

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Ammonium Thiosulfate Plant

Process Type: 61.012 (Fertilizer Production (except 61.009))

Primary Fuel:

Throughput: 0

Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1: 5.1000 LB/HR 1-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Good Operating Practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total (TPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 5.7900 LB/HR 1-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (A) High Efficiency Filter

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 5.7900 LB/HR 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) High Efficiency Filter
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 1.9100 LB/HR 1-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) High Efficiency Filter
Est. % Efficiency:

Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Visible Emissions (VE)
CAS Number: VE
Test Method: Unspecified
Pollutant Group(s):
Emission Limit 1: 5.0000 PERCENT
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) High Efficiency Filter
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Facility Information

RBLC ID: IL-0114 (final)
Date Determination Last Updated:
Corporate/Company Name: CRONUS CHEMICALS, LLC
Permit Number:
Facility Name: CRONUS CHEMICALS, LLC
Permit Date:
Facility Contact: ERZIN ATAC 312-863-8638 ERZIN.ATAC@CRONUCHEM.COM
FRS Number:
Facility Description: Plant will produce urea and ammonia, but ammonia production will be limited to a maximum of 3 months of the year (4,880 tpd urea and 2,789 tpd ammonia).
SIC Code:
Permit Type: A: New/Greenfield Facility
NAICS Code:

Permit URL: http://yosemite.epa.gov/r5/in_permt.nsf/6f1ebc583aad45448625763f0053e08e/02fa71769b748f8886257da2004e4f4f!OpenDocument

EPA Region: 5 **COUNTRY:**

Facility County: DOUGLAS

Facility State: IL

Facility ZIP Code: 60601

Permit Issued By: ILLINOIS EPA, BUREAU OF AIR (Agency Name)
MR. RAY PILAPIL(Agency Contact) (217) 782-2113 ray.pilapil@illinois.gov

Other Agency Contact Info: Permit Writer:
Bob Smet
217-785-9250
robert.smet@illinois.gov

Permit Notes:

Facility-wide Emissions:

Pollutant Name:	Facility-wide Emissions Increase:
Carbon Monoxide	253.4000 (Tons/Year)
Nitrogen Oxides (NOx)	120.8000 (Tons/Year)
Particulate Matter (PM)	157.3000 (Tons/Year)
Sulfur Oxides (SOx)	5.0000 (Tons/Year)
Volatile Organic Compounds (VOC)	81.7000 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Ammonia Plant, CO2 Vents

Process Type: 61.012 (Fertilizer Production (except 61.009))

Primary Fuel: natural gas

Throughput: 2789.00 tpd

Process Notes:

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: Other

Other Test Method: sampling and analysis of process gas streams

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1: 3.1100 LB/H 3-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Other
Other Test Method: sampling and analysis of process gas streams
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 13.1000 LB/H 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Methane
CAS Number: 74-82-8
Test Method: Other
Other Test Method: sampling and analysis of process gas streams
Pollutant Group(s): (Greenhouse Gasses (GHG) , Organic Compounds (all) , Organic Non-HAP Compounds)
Emission Limit 1: 31.1000 LB/H 3-HOUR AVERAGE
Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Ammonia Plant, Flares

Process Type: 61.012 (Fertilizer Production (except 61.009))

Primary Fuel: natural gas

Throughput: 2789.00 tpd

Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1: 0.0700 LB/MMBTU PILOT

Emission Limit 2: 15.1000 TPY

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (N)

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.3700 LB/MMBTU PILOT
Emission Limit 2: 82.3000 TPY
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 11.6000 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Flare
Est. % Efficiency: 98.000
Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1500 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 μ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1500 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:

Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 μ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1500 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)
CAS Number: CO2e
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG))
Emission Limit 1: 25971.0000 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (N)

Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Reformer Furnace
Process Type: 61.012 (Fertilizer Production (except 61.009))
Primary Fuel: natural gas
Throughput: 955.00 MMBTU/H
Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 0.0109 LB/MMBTU 30-DAY AVERAGE ROLLED DAILY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) Low-NOx burners, SCR
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.0200 LB/MMBTU 30-DAY AVERAGE ROLLED DAILY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: EPA/OAR Mthd 5
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0019 LB/MMBTU 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM

Test Method: EPA/OAR Mthd 201 and 202
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0024 LB/MMBTU 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Other
Other Test Method: Method 5I or 201A and 202
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0024 LB/MMBTU 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25A

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 0.0054 LB/MMBTU 3-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) good combustion practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Boiler

Process Type: 11.310 (Natural Gas (includes propane and liquefied petroleum gas))

Primary Fuel: natural gas

Throughput: 864.00 MMBTU/H

Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1: 0.0120 LB/MMBTU 30-DAY AVERAGE ROLLED DAILY

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:
Control Method: (A) low-nox burners, scr (or equivalent)
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.0200 LB/MMBTU 30-DAY AVERAGE ROLLED DAILY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: EPA/OAR Mthd 5
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0019 LB/MMBTU 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM
Test Method: EPA/OAR Mthd 201 and 202
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0024 LB/MMBTU 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Other
Other Test Method: Method 5I or 201A and 202
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0010 LB/MMBTU 3-HOUR AVERAGE
Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) good combustion practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC

Test Method: EPA/OAR Mthd 25A

Pollutant Group(s): (Volatile Organic Compounds (VOC))

Emission Limit 1: 0.0054 LB/MMBTU 3-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) good combustion practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Startup Heater

Process Type: 12.310 (Natural Gas (includes propane and liquefied petroleum gas))

Primary Fuel: natural gas

Throughput: 104.00 MMBTU/H

Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))

Emission Limit 1: 0.0800 LB/MMBTU

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (B) low-nox burners

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0

Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds)

Emission Limit 1: 0.0370 LB/MMBTU

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) good combustion practices

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: EPA/OAR Mthd 5
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0019 LB/MMBTU
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0075 LB/MMBTU
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:

Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0075 LB/MMBTU
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.0054 LB/MMBTU
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices

Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)
CAS Number: CO2e
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG))
Emission Limit 1: 871.0000 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) good combustion practices
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Ammonia Pressure Tanks
Process Type: 61.012 (Fertilizer Production (except 61.009))
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 0.0700 LB/MMBTU
Emission Limit 2: 12.8000 TPY
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) Flare; flare minimization; nitrogen as purge gas
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 0.3700 LB/MMBTU
Emission Limit 2: 1.5200 TPY
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) Flare; flare minimization
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM

Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1000 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) Flare; flare minimization
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.2500 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) Flare; flare minimization
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)

CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.2500 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) Flare; flare minimization
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.2100 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) Flare; flare minimization
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)

CAS Number: CO2e

Test Method: Unspecified

Pollutant Group(s): (Greenhouse Gasses (GHG))

Emission Limit 1: 479.0000 TPY

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (B) Flare; flare minimization

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Urea Plant

Process Type: 61.012 (Fertilizer Production (except 61.009))

Primary Fuel:

Throughput: 4880.00 tpd

Process Notes: while the urea granulator in the urea plant is the principal emitter, there are other units that contribute.

POLLUTANT NAME: Particulate matter, filterable (FPM)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.0050 GR/DSCF

Emission Limit 2: 0.1400 LB/TON UREA 3-HOUR AVERAGE

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (A) 2-stage scrubbing system with high efficiency venturi scrubber.

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.1210 LB/TON UREA 3-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (A) 2-stage scrubbing system with high efficiency venturi scrubber

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)

CAS Number: PM

Test Method: Unspecified

Pollutant Group(s): (Particulate Matter (PM))

Emission Limit 1: 0.1210 LB/TON UREA 3-HOUR AVERAGE

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (A) 2-stage scrubbing system with high efficiency venturi scrubber
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: EPA/OAR Mthd 25A
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.3600 LB/H 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) use of urea formaldehyde is specified as a required constituent of the product
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Cooling Tower
Process Type: 61.012 (Fertilizer Production (except 61.009))
Primary Fuel:
Throughput: 0

Process Notes:

POLLUTANT NAME:	Particulate matter, filterable (FPM)
CAS Number:	PM
Test Method:	Other
Other Test Method:	sampling and analysis of cooling water
Pollutant Group(s):	(Particulate Matter (PM))
Emission Limit 1:	0.0005 % LOSS FROM CIRC.
Emission Limit 2:	1.0000 LB/H 24-HOUR AVERAGE
Standard Emission:	4.4200 TPY
Did factors, other then air pollution technology considerations influence the BACT decisions:	U
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	
Control Method:	(B) drift eliminators; TDS of water not to exceed 2000 mg/l
Est. % Efficiency:	
Cost Effectiveness:	0 $/ton
Incremental Cost Effectiveness:	0 $/ton
Compliance Verified:	Unknown
Pollutant/Compliance Notes:	

POLLUTANT NAME:	Particulate matter, total < 10 μ (TPM10)
CAS Number:	PM
Test Method:	Unspecified
Pollutant Group(s):	(Particulate Matter (PM))
Emission Limit 1:	0.0005 % LOSS FROM CIRC.
Emission Limit 2:	0.6000 LB/H 24-HOUR AVERAGE
Standard Emission:	2.4700 TPY
Did factors, other then air pollution technology considerations influence the BACT decisions:	U
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	
Control Method:	(B) drift eliminators; TDS of water not to exceed 2000 mg/l
Est. % Efficiency:	
Cost Effectiveness:	0 $/ton

Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0005 % LOSS FROM CIRC.
Emission Limit 2: 0.6000 LB/H 24-HOUR AVERAGE
Standard Emission: 2.4700 TPY
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) drift eliminators; TDS of water not to exceed 2000 mg/l
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Components (valves, flanges, etc.)
Process Type: 61.012 (Fertilizer Production (except 61.009))
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1:

Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) LDAR; "leakless" component
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Methane
CAS Number: 74-82-8
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG) , Organic Compounds (all) , Organic Non-HAP Compounds)
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) LDAR; "leakless" component
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)
CAS Number: CO2e
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG))

Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) LDAR; "leakless" component
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Handling of Urea Product
Process Type: 61.012 (Fertilizer Production (except 61.009))
Primary Fuel:
Throughput: 0
Process Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0005 GR/DSCF 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) baghouse and enclosure; work practices to prevent visible emissions.
Est. % Efficiency: 99.990

Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 10 µ (FPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 GR/DSCF 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) baghouse and enclosure; work practices to prevent visible emissions.
Est. % Efficiency: 99.990
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable < 2.5 µ (FPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.0050 GR/DSCF 3-HOUR AVERAGE
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (B) baghouse and enclosure; work practices to prevent visible emissions.

Est. % Efficiency: 99.990
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Emergency Generator
Process Type: 17.110 (Fuel Oil (ASTM # 1,2, includes kerosene, aviation, diesel fuel))
Primary Fuel: distillate fuel oil
Throughput: 3755.00 HP
Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 0.6700 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified

Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 3.5000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM

Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)

CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.4000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)
CAS Number: CO2e
Test Method: Unspecified
Pollutant Group(s): (Greenhouse Gasses (GHG))
Emission Limit 1: 432.0000 TPY
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Firewater Pump Engine
Process Type: 17.210 (Fuel Oil (ASTM # 1,2, includes kerosene, aviation, diesel fuel))
Primary Fuel: distillate fuel oil
Throughput: 373.00 hp
Process Notes:

POLLUTANT NAME: Nitrogen Oxides (NOx)
CAS Number: 10102
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1: 3.5000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Monoxide
CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1: 3.5000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 10 µ (TPM10)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Particulate matter, total < 2.5 µ (TPM2.5)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1: 0.1000 G/KW-H
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes:

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1: 0.4000 G/KW-H
Emission Limit 2:
Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

POLLUTANT NAME: Carbon Dioxide Equivalent (CO2e)

CAS Number: CO2e

Test Method: Unspecified

Pollutant Group(s): (Greenhouse Gasses (GHG))

Emission Limit 1: 72.0000 TPY

Emission Limit 2:

Standard Emission:

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Control Method: (P) Tier IV standards for non-road engines at 40 CFR 1039.102, Table 7.

Est. % Efficiency:

Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton

Compliance Verified: Unknown

Pollutant/Compliance Notes:

Process/Pollutant Information

PROCESS NAME: Integrated Plant GHG Limit

Process Type: 61.012 (Fertilizer Production (except 61.009))

Primary Fuel: natural gas

Throughput: 2789.00 tpd

Process Notes: bact for ghg is based on emissions from the ammonia plant co2 vent, urea plant co2 vent, reformer furnace and boiler, since all these units are integrated in the production of ammonia.

POLLUTANT NAME:	Carbon Dioxide Equivalent (CO2e)
CAS Number:	CO2e
Test Method:	Unspecified
Pollutant Group(s):	(Greenhouse Gasses (GHG))
Emission Limit 1:	
Emission Limit 2:	
Standard Emission:	
Did factors, other then air pollution technology considerations influence the BACT decisions:	U
Case-by-Case Basis:	BACT-PSD
Other Applicable Requirements:	
Control Method:	(N)
Est. % Efficiency:	
Cost Effectiveness:	0 $/ton
Incremental Cost Effectiveness:	0 $/ton
Compliance Verified:	Unknown
Pollutant/Compliance Notes:	Variable Limit. E = {(Pu x Ru) + (Pa x Ra)} ÷ (Pu + Pa) Where E = Limit on GHG emissions, as CO2e, tons/ton ammonia produced, annual average, rolled monthly. Pu = Ammonia production sent to the urea plant (tons/year, rolled monthly). Pa = Ammonia production for direct sale (tons/year, rolled monthly), determined as ammonia sent to storage. Ru = 0.92 tons per ton of ammonia sent to the urea plant. Ra = 2.22 tons per ton of ammonia sent to storage.

Previous Page

Report Date: 06/11/2018 INDEX OF CONTROL TECHNOLOGIES DETERMINATIONS

NOTE: Draft determinations are marked with a " * " beside the RBLC ID.

Company Name	RBLC ID	Country	Permit Date(Est/Act)	Process Type	Process Description
TAFT AMMONIA COMPANY	CA-1250	USA	11/21/2017 ACT	99.999	Hydrogen Production
				61.012	Ammonia Manufacturing - Grannus Process (TM)
AMMONIA AND UREA PLANT	TX-0814	USA	01/05/2017 ACT	19.310	Ammonia Emergency Flare
				61.012	CO2 Stripper Vent
				11.310	Reformer Furnace 101-B
				12.310	Package Boiler 1
				19.310	Urea Emergency Flare
				19.310	Process Name Urea Emergency Flare (maintenance)
GRAND FORKS FERTILIZER PLANT	*ND-0033	USA	08/10/2015 ACT	61.012	Urea Plant
				61.012	Ammonium Thiosulfate Plant
				11.310	Ammonia Plant Primary Reformer
				11.310	Boilers
				61.012	Ammonium Nitrate / Urea Ammonium Nitrate Plants
				62.014	Nitric Acid Plant
				61.012	Ammonia Plant CO2 Vent
CRONUS CHEMICALS, LLC	IL-0114	USA	09/05/2014 ACT	11.310	Boiler
				61.012	Ammonia Plant, Flares
				61.012	Reformer Furnace
				61.012	Integrated Plant GHG Limit
				17.210	Firewater Pump Engine
				17.110	Emergency Generator
				61.012	Handling of Urea Product
				61.012	Components (valves, flanges, etc.)
				61.012	Cooling Tower
				61.012	Urea Plant
				61.012	Ammonia Pressure Tanks
				12.310	Startup Heater
				61.012	Ammonia Plant, CO2 Vents
PCS NITROGEN OHIO, L.P.	*OH-0361	USA	01/17/2014 ACT	61.012	Ammonia Unit - Boiler #3 (B509)
				61.012	Ammonia Unit - CO2 Stripper Section (P523)
				61.012	Ammonia Unit - Primary Reformer (B503)
EL DORADO CHEMICAL COMPANY	AR-0121	USA	11/18/2013 ACT	19.310	AMMONIA STORAGE FLARE
				62.014	DM WEATHERLY NITRIC ACID PLANT # 2
				12.310	AMMONIA PLANT START-UP HEATER
				61.999	AMMONIA PLANT CONDENSATE STEAM STRIPPER
				12.310	START-UP BOILER
				19.310	AMMONIA PLANT PROCESS SSM FLARE
				19.310	AMMONIA PLANT AMMONIA VENT FLARE
				61.012	AMMONIA PLANT CO2 REGENERATOR

61.012 AMMONIA PLANT PRIMARY REFORMER

Previous Page

San Joaquin Valley Air Pollution Control District

Best Available Control Technology (BACT) Guideline 1.8.Y

Emission Unit: Hydrogen Production - Steam Hydrocarbon Reformer: Process Heater

Industry Type: Hydrogen Production

Equipment Rating: Up to 60 tons of hydrogen production per day, 184 MMBtu/hr Process Heater

Last Update: March 1, 2024

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
NOx	Process heater meeting a limit of 2.7 ppmv @ 3% O2	Process Heater meeting 2.5 ppmv @ 3% O_2	1) Hydrogen production via electrolysis 2) Hydrogen production via partial oxidation process ([1]), autothermal reforming or gasification
SOx	Process heater firing on a fuel meeting the District Rule 4320 fuel sulfur requirement of 5 grains S/100 dscf		
PM10	Process heater meeting a limit of 0.0039 lb/MMBtu		

([1]) Partial oxidation includes the Grannus Process™ (2023)

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source – Permit Specific BACT Determinations on Next Page(s)**

New BACT ANALYSIS

Hydrogen Production – Steam Hydrocarbon Reformer: Process Heater

Facility Name: Aemetis Advanced Products Riverbank

Engineer: James Harader
Lead Engineer: Nick Peirce

Project #: N-9742, N-1224324

I. PROPOSAL

The proposed hydrogen production plant steam-naphtha reformer includes an 184 MMBtu/hr process heater fired on off-gas from the pressure swing adsorber. The process heater creates the steam uses in the steam-naphtha reformer. This new-BACT analysis will address the hydrogen production plant and the main emission unit associated with the hydrogen production process, the 184 MMBtu/hr process heater.

II. PROCESS DESCRIPTION

Hydrogen Production Background:

Hydrogen is a common raw material for many types of products. It is used in processes like energy storage, thermal heating, industrial processes (e.g., manufacture of polymers, methanol), transportation, electricity production, synthesis of synthetic fuels, upgrading oil, and ammonia/fertilizer production. However, to be of use in the proposed process, it first must be separated into pure H2 in order for it to be used as a building block for the proposed sustainable aviation fuel and renewable diesel products.

Proposed Hydrogen Production Method:

Most hydrogen produced today in the United States is performed via steam-methane reforming, a mature production process in which high-temperature steam (700°C–1,000°C) is used to produce hydrogen from a methane source, such as natural gas. In steam-methane reforming, methane reacts with steam in the presence of a catalyst to produce hydrogen, CO, and a relatively small amount of CO2. This method is endothermic (i.e., heat must be supplied to the process for the reaction to proceed).

In a subsequent process called the “water-gas shift reaction,” the carbon monoxide (CO) and steam are reacted using a catalyst to produce CO2 and more hydrogen. In a final process step called “pressure-swing adsorption” process, the CO2 and other impurities are removed from the gas stream leaving essentially pure hydrogen.

Steam-methane reforming reaction
$CH_4 + H_2O$ (+ heat) → $CO + 3H_2$ ΔHrx = 206.16 kJ/mol

Water-gas shift reaction
$CO + H_2O \rightarrow CO_2 + H_2$ (+ small amount of heat) ΔHrx = -41.15 kJ/mol

Net ΔHrx = 165 kJ/mol

Alternatively, other hydrocarbons, such as naphtha, may be used as feedstock rather than methane using a similar steam reforming process. For the proposed hydrogen plant, waste naphtha generated by the proposed HydroFlex fuel production operation will be reformed into hydrogen to be used to hydrogenate the feedstocks such as vegetable oils and animal fats.

Steam-hydrocarbon reforming is an endothermic process, meaning it requires heat to be input into the process. For this type of process, heat is input in the form of steam. The steam for the steam-hydrocarbon reforming reaction is generated by the 184 MMBtu/hr process heater that is fired on off-gas from the pressure swing adsorber. The "off gas" is a mixture of unreacted hydrocarbons (naptha, methane, etc.) from the Hydrogen production operation.

BACT is triggered for NOx, SOx and PM_{10} from the process heater that generates steam for the steam-hydrocarbon reforming process.

III. Top-Down BACT Analysis

BACT analysis for NOx Emissions

Step 1 - Identify All Possible NOx Control Technologies

The following BACT clearinghouse references were reviewed to determine the control technologies that have been required for NOx from hydrogen plant process heaters.

- EPA RACT/BACT/LAER (RBLC) clearinghouse
- CARB BACT clearinghouse
- South Coast AQMD (SCAQMD) BACT clearinghouse
- Bay Area AQMD (BAAQMD) BACT clearinghouse
- Sacramento Metro AQMD (SMAQMD) BACT clearinghouse
- San Joaquin Valley APCD (SJVAPCD) BACT clearinghouse
- Monterey Bay Air Resources District (MBARD) BACT clearinghouse
- Santa Barbara County APCD (SBAPCD) BACT clearinghouse

The following table shows the results of the search of the EPA RBLC:

Hydrogen Production – Process Heaters > 20 MMBtu/hr from EPA RBLC		
RBLC ID Facility Name	**Fuel** Equipment Rating	**NOx Limit**
TX-0865 Equistar Chemicals	**Natural Gas and Process Gas** 202 MMBtu/hr	5 ppmvd @ 3% O_2 (0.006 lb/MMBtu)
AR-0162 Energy Security Partners	**Fuel Gas** 391.5 MMBtu/hr	0.03 lb/MMBtu
TX-0933 Nacero Penwell	**Natural Gas and Fuel Gas** Not Provided	0.015 lb/MMBtu
LA-0346 IGP Methanol	**Not Identified** 522 MMBtu/hr	0.017 lb/MMBtu
SC-0182 Fiber Industries	**Not Identified** Not Provided	0.05 lb/MMBtu
LA-0291 Sasol Chemicals Unit #1	**Process Gas** 73.8 MMBtu/hr	0.038 lb/MMBtu
LA-0291 Sasol Chemicals Unit #2	**Process Gas** 424.8 MMBtu/hr	0.1 lb/MMBtu
AR-0173 Big River Steel LLC	**Process Gas** 75 MMBtu/hr	0.1 lb/MMBtu

The CARB BACT Clearinghouse was searched and applicable BACT Guidelines/Determinations were found from SCAQMD and BAAQMD. The requirements of these guidelines are discussed below.

South Coast BACT Requirements	
Category/Determination	**BACT Requirement for NOx**
Process Heater – Non Refinery BACT Guideline for Non-Major Pollution Facilities (page 104 of BACT Guidelines Part D)	Compliance with South Coast Rule 1146
Application #326118 Hydrogen Reforming Furnace	2.7 ppmv @ 3% O_2 (0.0032 lb/MMBtu)
Application #337979 Hydrogen Reforming Furnace	5 ppmv @ 3% O_2 (0.006 lb/MMBtu)
Application #411357 Hydrogen Reforming Furnace	5 ppmv @ 3% O_2 (0.006 lb/MMBtu)
Application #389926 Hydrogen Reforming Furnace	5 ppmv @ 3% O_2 (0.006 lb/MMBtu)

Bay Area AQMD BACT Requirements*	
Category/Determination	**BACT Requirement for NOx**
Heater – Refinery Process ≥ 50 MMBtu/hr	• 5 ppmvd NOx @ 3% O_2 (Achieved in Practice, 0.006 lb/MMBtu)
Heater – Refinery Process, Natural or Induced Draft 5 MMBtu/hr to < 50 MMBtu/hr	• 25 ppmvd NOx @ 3% O_2 (Achieved in Practice, 0.030 lb/MMbtu) • 10 ppmvd NOx @ 3% O_2 (Technologically Feasible, • 0.012 lb/MMBtu)
Heater – Refinery Process, Forced Draft 5 MMBtu/hr to < 50 MMBtu/hr	• 20 ppmvd NOx @ 3% O_2 (Achieved in Practice, 0.024 lb/MMBtu) • 10 ppmvd NOx @ 3% O_2 (Technologically Feasible, 0.012 lb/MMBtu)

*Bay Area AQMD only has BACT Guidelines listed for process heaters at Refineries. Although this BACT Guideline is not applicable to refinery units, refinery process heaters operate similarly to non-refinery process heaters. Therefore, the requirements have been included as a reference point for the emission levels that have been achieved in similar units to those being evaluated in this project.

Monterey Bay ARD, Sacramento Metro AQMD, Santa Barbara County APCD, and San Joaquin Valley APCD Clearinghouses do not include Guidelines that would apply to process heaters > 20 MMBtu/hr.

A review of District, State and Federal rules revealed the following requirements:

Rule	Requirements for NOx
SCAQMD Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters	**≥ 20 MMBtu/hr and ≤ 75 MMBtu/hr** 5 ppmvd @ 3% O_2 (0.006 lb/MMBtu) **> 75 MMBtu/hr** 5 ppmvd @ 3% O_2 (0.006 lb/MMBtu)
BAAQMD Regulation 9 Rule 7 Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters	**≥ 20 MMBtu/hr and ≤ 75 MMBtu/hr** 9 ppmvd @ 3% O_2 (0.011 lb/MMBtu) **> 75 MMBtu/hr** 5 ppmvd @ 3% O_2 (0.006 lb/MMBtu)
SMAQMD Rule 411	**≥ 20 MMBtu/hr**

NOx from Boilers, Process Heaters, and Steam Generators	30 ppmvd @ 3% O_2 (0.036 lb/MMBtu)
SBCAPCD Rule 342 Boilers, Steam Generators, and Process Heaters	**> 20 MMBtu/hr** 7 ppmvd @ 3% O_2 (0.0084 lb/MMBtu)
MBARD Rule 441 Boilers, Steam Generators, and Process Heaters	**≥ 20 MMBtu/hr** 9 ppmvd @ 3% O_2 (0.011 lb/MMBtu)
SJVAPCD Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3	**> 20 MMBtu/hr and ≤ 75 MMBtu/hr** 7 ppmvd @ 3% O_2 (0.0084 lb/MMBtu) **> 75 MMBtu/hr** 5 ppmvd @ 3% O_2 (0.006 lb/MMBtu)
SJVAPCD Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters	**> 20 MMBtu/hr and ≤ 75 MMBtu/hr** 2.5 ppmvd @ 3% O_2 (0.003 lb/MMBtu) or pay Fees Pursuant to Section 5.3 of Rule 4320 **> 75 MMBtu/hr** 2.5 ppmvd @ 3% O_2 (0.003 lb/MMBtu) or pay Fees Pursuant to Section 5.3 of Rule 4320

A review of District permits for process heaters equal to or greater than 20 MMBtu/hr revealed the following operations:

Facility Permit	**Permit Limit for NOx**
Alon Bakersfield Refining S-33-53-22 Two 65 MMBtu/hr process gas-fired heaters, a 34.7 MMBtu/hr process gas-fired heater, a 22.7 MMBtu/hr process gas-fired heater, and a 25 MMBtu/hr process gas-fired heater	30 ppmv @ 3% O_2 (0.036 lb/MMBtu)
Alon Bakersfield Refining S-33-55-23	5 ppmv @ 3% O_2 (0.006 lb/MMBtu)

233 MMBtu/hr process gas-fired heater	

The following control options were identified based on the above information:

Option 1: 2.7 ppmv NOx @ 3% O_2 for units rated > 20 MMBtu/hr

South Coast AQMD has permitted a unit with a NOx limit of 2.7 ppmvd @ 3% O_2 (Howe Baker Engineers, Application #326118). Furthermore, the heater was operated using pressure swing adsorber off-gas, similar to the proposed unit. This level of control is therefore considered to be achieved in practice.

Option 2: 5 ppmvd NOx @ 3% O_2 for units rated > 20 MMBtu/hr

This control option is based upon South Coast AQMD Rule 1146 Requirements. Additionally, multiple units were identified above, throughout the size range, that are currently limited to and have demonstrated compliance with 5 ppmvd NOx. However, this option is less stringent than option #1, which is achieved in practice; therefore, this option has been eliminated from consideration.

Option 3: 2.5 ppmvd NOx @ 3% O_2 for units rated > 20 MMBtu/hr

This control option is based upon San Joaquin Valley Air Pollution Control District Rule 4320 requirements. No units were identified that are currently limited to or complying with this emission level.

In addition to the above control options, alternate methods of hydrogen do not require the use of a process heater. These methods are considered to be alternate basic equipment. These options are described below:

Alternate Methods of Producing Hydrogen

- Autothermal Reforming (ATR): This process uses oxygen and CO2 or steam in a reaction with methane, or other hydrocarbons, to form synthetic gas, also known as syngas. The reaction takes place in a single chamber where the methane/hydrocarbon is partially oxidized. The reaction is exothermic (i.e., heat is released) due to the oxidation.

  The key difference between steam reforming and autothermal reforming is that steam reforming uses the reaction of hydrocarbons with water, whereas autothermal reforming uses the reaction of methane with oxygen and CO2 or steam to form synthetic gas. Moreover, steam reforming is an endothermic reaction while autothermal reforming is an exothermic reaction.

The reactions can be described in the following equations, using CO2:

$2\ CH_4 + O_2 + CO_2 \rightarrow 3\ H_2 + 3\ CO + H_2O$ ΔHrx = -31 kJ/mol

And using steam:

$4\ CH_4 + O_2 + 2\ H_2O \rightarrow 10\ H_2 + 4\ CO$ ΔHrx = 339 kJ/mol

$CO + H_2O \rightarrow CO_2 + H_2 + Heat$ ΔHrx = -41.15 kJ/mol

Since this process is exothermic, a process heater is not required. Therefore, combustion emissions are not generated by the autothermal reforming process.

Net ΔHrx = 267 kJ/mol

- Partial Oxidation: This method is a type of chemical reaction in which methane and other hydrocarbons in natural gas react with a limited amount of oxygen that is not enough to completely oxidize the hydrocarbons to CO2 and water. With less than the stoichiometric amount of oxygen available, the reaction products contain primarily hydrogen and CO (and nitrogen, if the reaction is carried out with air rather than pure oxygen), and a relatively small amount of CO2 and other compounds. In a subsequent water-gas shift reaction, the CO reacts with water to form CO2 and more hydrogen.

  Partial oxidation is an exothermic process that is typically much faster than steam reforming and requires a smaller reactor vessel. As can be seen in chemical reactions of partial oxidation, this process initially produces less hydrogen per unit of the input fuel than is obtained by steam reforming of the same fuel.

  Partial oxidation of methane reaction

  $CH_4 + \frac{1}{2}O_2 \rightarrow CO + 2H_2$ (+ heat) ΔHrx = -36 kJ/mol

  Water-gas shift reaction

  $CO + H_2O \rightarrow CO_2 + H_2$ (+ small amount of heat) ΔHrx = -41.15 kJ/mol

  Net ΔHrx = -77.15 kJ/mol

  This process is exothermic; therefore, a process heater is not required and combustion emissions are not expected from this process.

- Grannus Process: Another process to be considered is the Grannus Process™, a patented exothermic chemical process that integrates a partial oxidation gas boiler with the water gas shift process to make hydrogen synthetic gas as described in its website at: https://grannusllc.com/technology/ and in SJVAPCD project S-8943/S-1163737.

Although the above-mentioned SJVAPCD project issued only an Authority to Construct permit for the installation of a 7.9 MW (nominal ISO rating) electric power generation system (combined cycle configuration) consisting of a natural gas-fired gas turbine engine with heat recovery steam generator (HRSG), that same project determined that the other ammonia plant equipment did not require permits because the plant's emissions units qualified as Low-Emitting Units. The electric power generation system was to provide electrical power and steam to the proposed anhydrous ammonia manufacturing equipment located at the same site at the South Kern Industrial Center in Kern County. However, it should be noted that the facility was not built and the ATC has expired. As proposed in this project, the turbine listed above provided the power; however, the plant can be operated on standard industrial power supplied by the electrical grid.

The anhydrous ammonia fertilizer manufacturing facility that was proposed in that project would have had a capacity of producing 250 tons of anhydrous ammonia fertilizer per day (or the equivalent of approximately 46 tons of hydrogen per day). This plant would have been the first demonstration plant for the Grannus Process™, a process that makes anhydrous ammonia from pipeline natural gas (methane) and water. A detailed description and process flow diagrams are found in the file for project S-1163737. As proposed, the operation relies on certain streams being sent to a gas turbine's heat recovery steam generator for disposal as is explained in the project evaluation.

The Grannus Process includes additional equipment such as an Air Separation Unit and its storage. This equipment requires a footprint of one-half of an acre.

For this BACT Analysis, the Grannus Process will be included in the Partial Oxidation category, since the Grannus Process uses a nearly identical process to produce hydrogen.

- Gasification: This process produces a synthetic gas by reacting coal, petroleum coke, or biomass with high-temperature steam and oxygen in a pressurized gasifier. The resulting synthetic gas contains hydrogen and CO, which is reacted with steam to separate the hydrogen. Using coal gasification with a water gas shift approach produces a pure hydrogen fuel which can be combusted in gas turbines, in fuel cells, and in other applications.

In current practice, large-scale coal gasification installations are primarily for electricity generation, or for production of chemical feedstocks. The hydrogen obtained from coal gasification can be used for various purposes such as making ammonia, powering a hydrogen economy, or upgrading fossil fuels.

This process requires high-temperature steam, similar to the steam methane reforming process. Therefore, a reduction in combustion emissions is not expected.

- Electrolysis: An electric current splits water into hydrogen and oxygen. If the electricity is produced by renewable sources, such as solar or wind, the resulting hydrogen will be considered renewable as well, and has numerous emissions benefits. Power-to-hydrogen projects are becoming more common, using excess renewable electricity, when available, to make hydrogen through electrolysis.

  This process does not require high temperature steam and uses renewable energy, such as solar or wind, to generate the electricity necessary for the electrolysis process. Therefore, a process heater is not required and combustion emissions are not expected.

Several hydrogen production methods are in development, so their potential use in a large commercial project is still not known. Those methods include the following:

- High-Temperature Water Splitting: High temperatures generated by solar concentrators or nuclear reactors drive chemical reactions that split water to produce hydrogen.

- Photobiological Water Splitting: Microbes, such as green algae, consume water in the presence of sunlight and produce hydrogen as a byproduct.

- Photoelectrochemical Water Splitting: Photoelectrochemical systems produce hydrogen from water using special semiconductors and energy from sunlight.

- Pyrolysis: Pyrolysis of natural gas is an endothermic process that occurs in the absence of oxygen to form hydrogen and a solid carbon product. It is thought to be a good method for production of carbon black, but the potential as a source of hydrogen production with low CO2 emissions is still in the development stages. It is believed that more work is needed to better understand its market applications and limitations for commercial projects.

- Photolytic Processes: These processes use light energy to split water into H2 and O2. These processes are currently in the early stages of development and currently are not viable for large-scale production.

- Renewable Liquid Reforming: Renewable liquid fuels, such as ethanol, are reacted with high-temperature steam to produce hydrogen near the point of end use.

- Fermentation: Biomass is converted into sugar-rich feedstocks that can be fermented to produce hydrogen.

Step 2 - Eliminate Technologically Infeasible Options

In the second step, the technological feasibility of the control options identified in Step 1 is evaluated with respect to the source-specific or emissions unit-specific factors. To exclude a control option, a demonstration of technical infeasibility must be clearly documented and should show, based on physical, chemical, and engineering principles, the technical difficulties would preclude the successful use of the control option for the emissions unit under review.\

High-temperature Water Splitting, Photobiological Water Splitting, Photoelectrochemical Water Splitting, Pyrolysis, Photolytic Processes, Renewable Liquid Reforming, and Fermentation are experimental technologies that are not yet commercialized. Therefore, these technologies will be removed from consideration.

Gasification is a commercial technology; however, it would require coal feedstock to be delivered to the facility and will not displace the proposed feedstock used in the proposed production of the biofuels. Furthermore, gasification also requires high-temperature steam which would be generated from combustion; therefore, gasification isn't believed to currently reduce criteria pollutant emissions from the proposed levels for the steam-hydrocarbon reforming operation. Therefore, this technology will be removed from consideration.

Step 3 - Rank Remaining Control Technologies by Control effectiveness

Rank	Capture and Control Efficiency	Status
1. Electrolysis	N/A	Alternate Basic Equipment
2. Autothermal Reforming	N/A	Alternate Basic Equipment
3. Partial Oxidation/Grannis Process	N/A	Alternate Basic Equipment
4. 2.5 ppmvd NOx @ 3% O_2	N/A	Technologically Feasible
5. 2.7 ppmvd NOx @ 3% O_2	N/A	Achieved in Practice

Step 4 - Cost Effectiveness Analysis

Cost Analyses for Alternate Basic Equipment Options

Electrolysis, Autothermal Reforming, and Partial Oxidation are considered to be alternate basic equipment, since these are alternative processes for producing hydrogen. District Policy APR 1305, *Best Available Control Technology (BACT)*, provides guidance for determining whether alternate basic equipment or processes are cost effective. The following formula is typically used:

$CE_{alt} = (Cost_{alt} – Cost_{Basic}) / (Emission_{Basic} – Emission_{alt})$

Where,

CE_{alt} = cost effectiveness of alternate basic equipment expressed as dollars per ton of emission reduced.

$Cost_{alt}$ = The equivalent annual capital cost of the alternate basic equipment plus its annual operating cost

$Cost_{Basic}$ = The equivalent annual capital cost of the basic equipment, without BACT, plus its annual operating cost

$Emission_{Basic}$ = the emissions from the proposed basic equipment, without BACT

$Emission_{alt}$ = the emissions from the alternate basic equipment

The CE_{alt} ($/ton) is then compared to the cost effectiveness threshold for the pollutant to determine whether the alternate basic equipment is cost effective.

In cases where multiple pollutants are controlled, a traditional cost effectiveness threshold in $/ton is not typically used. Rather, a multi-pollutant cost effectiveness threshold (MCET) is calculated using the following formula

MCET = $\sum$(ton of emission reduction $pollutant_i$) x (cost effectiveness threshold $pollutant_i$),

Only pollutants that are triggered for BACT are included in calculations to determine the MCET. This method establishes a $/year cost effectiveness threshold, rather than a $/ton threshold.

While the District's BACT Policy doesn't specifically provide guidance on using the MCET for alternate basic equipment, use of the MCET is the most conservative approach; therefore, the MCET will be used to determine the cost effectiveness threshold, and the annual cost will be determined by subtracting $Cost_{Basic}$ from $Cost_{alt}$.

$Cost_{Basic}$ for Steam-hydrocarbon Reforming

The US Department of Energy National Energy Technology Laboratory publication, *Comparison of Commercial, State-of-the-Art, Fossil-Based Hydrogen Production Technologies (April 2022)*[1], includes a highly detailed cost analysis for steam-methane reforming. A levelized cost of hydrogen of $1.06 per kilogram of hydrogen was derived from the cost analysis. The levelized cost of hydrogen includes capital costs, maintenance costs, owners' costs, and operating costs. However, the levelized cost of hydrogen assumes that methane is purchased and then processed into hydrogen. The proposed hydrogen plant is nearly 100% fueled from naphtha and hydrocarbon waste gases generated by the proposed HydroFlex plant (N-9742-20-0). Therefore, the cost of methane, $0.77/kilogram of hydrogen, will be deducted from the total levelized cost of hydrogen. Additionally, electricity costs accounted for $0.04507/kilogram of hydrogen produced in the publication; however, that value was based on an electricity cost of $71.70/MWh of electricity used. The latest electricity cost for industrial usage in California is $207.2/MWh of

[1] https://www.netl.doe.gov/projects/files/ComparisonofCommercialStateofArtFossilBasedHydrogenProductionTechnologies_041222.pdf

electricity[2]; therefore, the electricity cost/kilogram of hydrogen produced was increased to $0.1302 ($0.04507/Kg H_2 x $207.2/MWh ÷ $71.70/MWh). Thus, the adjusted levelized cost of hydrogen (LCOH) is:
$LCOH_{adjusted}$ = $1.06/Kg H_2 - $0.77/Kg H_2 + ($0.1302 – $0.04507)/Kg H_2
$LCOH_{adjusted}$= $0.38/Kg H_2

The hydrogen production plant has a rated output of 61,422 Kg H_2/day. Thus, the annualized cost is:

$Cost_{Basic}$ = 61,422 Kg H_2/day x 365 days/year x $0.38/Kg H_2
$Cost_{Basic}$= $8,519,231/year

Emissions$_{Basic}$ for Steam Methane/Organic Reforming

Emissions$_{Basic}$ is the emissions from the proposed equipment, without BACT. Since the alternate basic equipment would potentially displace multiple emission units (process heater, process vents, and fugitive components), all of these emission units will be included in the analysis. However, only pollutants that trigger BACT from these emission units will be included.

The proposed basic equipment includes a process heater that triggers BACT for NOx, SOx, and PM_{10} emissions. The process heaters do not include add-on controls for SOx and PM_{10}; therefore, the proposed emission rates are "without BACT". The proposed NOx emission rate is based on the Rule 4320 emission limit; therefore, that emission rate is also "without BACT".

The plant also includes hydrogen vents that trigger BACT for VOC emissions. The hydrogen vents are controlled by a thermal oxidizer which is a BACT control. Therefore, the emission rate included below is based upon uncontrolled emissions from the hydrogen vents, without BACT controls.

Additionally, the steam reformer emits fugitive emissions that trigger BACT for VOC emissions. The proposed fugitive emission rate are without BACT.

Annual Emissions: Permit Unit N-9742-21					
Pollutant	**Process Heater W/O BACT (lb/year)**	**Process Vent W/O BACT (lb/year)**	**Fugitives (lb/year)**	**Total (lb/year)**	**Total (tons/year)**
NO_X	9,720	0	0	9,720	4.86
SO_X	20,470	0	0	20,470	10.24
PM_{10}	6,125	0	0	6,125	3.06

[2] https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a

VOC	0[3]	36,900[4]	3,030	39,930	19.97

ABE Option 1: Electrolysis Cost Effectiveness

Cost$_{alt}$ for Electrolysis

Pursuant to the DOE NETL website (https://netl.doe.gov/research/carbon-management/energy-systems/gasification/gasifipedia/technologies-hydrogen), the levelized cost of hydrogen from electrolysis ranges from $4.15 to $10.30 per kilogram of hydrogen produced. The $4.15/kg H_2 value will be conservatively used, without any adjustments.

Cost$_{alt}$ = 61,422 Kg H_2/day x 365 days/year x $4.15/Kg H_2
Cost$_{alt}$= $93,038,975/year

Emissions$_{alt}$ for Electrolysis

Emissions$_{alt}$ = 0 for all pollutants

MCET for Electrolysis

Electrolysis reduces all emissions to zero. Therefore, all emissions from the steam reforming process are reduced by this technology.

MCET = $\sum$(ton of emission reduction pollutant$_i$) x (cost effectiveness threshold pollutant$_i$),

MCET = 4.86 tons-NOx/year x $35,300/ton +10.24 tons-SOx/year x $20,400/ton + 3.06 tons-PM10 x $12,800/ton + 19.97 tons-VOC x $25,300/ton

MCET = $924,863/year

Cost Effectiveness for Electrolysis

Cost Effectiveness = Cost$_{alt}$ – Cost$_{Basic}$
Cost Effectiveness = $93,038,975/year –$ 8,519,231/year
Cost Effectiveness = $84,519,744/year

Since this value is greater than the MCET of $924,863/year, electrolysis is not cost effective.

[3] The process heater did not trigger BACT for VOC emissions. Therefore, process heater emissions are equal to zero in this analysis.
[4] District BACT Policy states that emission rates considered are prior to applying BACT. Thus, the control efficiency of the thermal oxidizer serving the hydrogen production vents was not considered when determining Emissions$_{Basic}$ for the process vent.

ABE Option 2: Autothermal Reforming Cost Effectiveness

Cost$_{alt}$ for Autothermal Reforming

The US Department of Energy National Energy Technology Laboratory publication, *Comparison of Commercial, State-of-the-Art, Fossil-Based Hydrogen Production Technologies (April 2022)*, includes a highly detailed cost analysis for autothermal reforming. A levelized cost of hydrogen of $1.51 per kilogram of hydrogen was derived from the cost analysis, with no carbon sequestration. The levelized cost of hydrogen includes capital costs, maintenance costs, owners' costs, and operating costs. However, the levelized cost of hydrogen assumes that methane is purchased and then processed into hydrogen. The proposed hydrogen plant is nearly 100% fueled from naphtha and hydrocarbon waste gases generated by the proposed HydroFlex plant. Therefore, the cost of methane, $0.77/kilogram of hydrogen, will be deducted from the total levelized cost of hydrogen. Additionally, electricity costs accounted for $0.2121/kilogram of hydrogen produced in the publication (after excluding 25% of the power that was allocated towards carbon sequestration); however, that value was based on an electricity cost of $71.70/MWh of electricity used. The latest electricity cost for industrial usage is $207.2/MWh of electricity; therefore, the electricity cost/kilogram of hydrogen produced (without carbon sequestration) was increased to $0.6129 ($0.2121/Kg H_2 x $207.2/MWh ÷ $71.70/MWh). Thus, the adjusted levelized cost of hydrogen (LCOH) is:

$LCOH_{adjusted}$ = $1.51/Kg H_2 - $0.77/Kg H_2 + ($0.6129 – $0.2121)/Kg H_2
$LCOH_{adjusted}$= $1.14/Kg H_2

The hydrogen production plant has a rated output of 61,422 Kg H_2/day. Thus, the annualized cost is:

$Cost_{alt}$ = 61,422 Kg H_2/day x 365 days/year x $1.14/Kg H_2
$Cost_{alt}$= $25,557,694/year

Emissions$_{alt}$ for Autothermal Reforming

Autothermal reforming is expected to eliminate combustion emissions and to significantly reduce process vent emissions; however, fugitive emissions are still expected. Thus, the emissions from the autothermal reforming process are conservatively calculated below using only the fugitive emission rate:

$Emissions_{alt}$ = 3,030 lb-VOC/year x ton/2000 lb = 1.515 tons-VOC/year

MCET for Autothermal Reforming

MCET = ∑(ton of emission reduction pollutant$_i$) x (cost effectiveness threshold pollutant$_i$),
MCET = 4.86 tons-NOx/year x $35,300/ton +10.24 tons-SOx/year x $20,400/ton + 3.06 tons-PM10 x $12,800/ton + (19.97 tons-VOC – 1.515 tons-VOC) x $25,300/ton

MCET = $886,534/year

Cost Effectiveness for Autothermal Reforming

Cost Effectiveness = $Cost_{alt} – Cost_{Basic}$
Cost Effectiveness = $25,557,694/year –$ 8,519,231/year
Cost Effectiveness = $17,038,463/year

Since this value is greater than the MCET of $886,534/year, autothermal reforming is not cost effective.

ABE Option 3: Partial Oxidation/Grannus Process Cost Effectiveness

$Cost_{alt}$ for Partial Oxidation/Grannus Process

The US Department of Energy National Energy Technology Laboratory publication, *Comparison of Commercial, State-of-the-Art, Fossil-Based Hydrogen Production Technologies (April 2022)*, includes a highly detailed cost analysis for autothermal reforming. While this analysis was performed for autothermal reforming, several components of a partial oxidation process are identical to the components in an autothermal reforming process. Specifically, an air separation unit is needed to produce oxygen for the both processes. In the DOE study, electricity costs accounted for $0.2121/kilogram of hydrogen produced in the publication (after excluding 25% of the power that was allocated towards carbon sequestration); however, that value was based on an electricity cost of $71.70/MWh of electricity used. The latest electricity cost for industrial usage is $207.2/MWh of electricity; therefore, the electricity cost/kilogram of hydrogen produced (without carbon sequestration) was increased to $0.6129. Thus, the adjusted levelized cost of hydrogen (LCOH) for partial oxidation, using only the cost of electricity for the air separation unit, is:

$-0.0431/kg-H2
($0.0431)/kg-H2 (Negative Number)

$LCOH_{adjusted}$ = $0.6129/Kg H2

The hydrogen production plant has a rated output of 61,422 Kg H_2/day. Thus, the annualized cost is:

(61,422 kg H2/day x 365 days x $-0.0431/kg = $-966,260)/yr (negative number)

$Cost_{alt}$ = 61,422 Kg H_2/day x 365 days/year x $0.6129/Kg H_2
$Cost_{alt}$= $13,740,623/year (Error in revenue comparison of $14,706,833yr)
Cost alt = -$966,260 - $8,519,231 = -$9,482,491 (negative number)
$Emissions_{alt}$ for Partial Oxidation/Grannus Process

Partial Oxidation eliminates combustion and significantly reduces process vent emissions; however, fugitive emissions are still expected. Therefore, only fugitive emissions are included for $Emissions_{alt}$ for partial oxidation.
Violates low emitting unit exemption declaration math on L/U table for hydrogen process
$Emissions_{alt}$ = 3,030 lb-VOC/year x ton/2000 lb = 1.515 tons-VOC/year
0.146 tons-VOC/yr

MCET for Partial Oxidation/Grannus Process

MCET = ∑(ton of emission reduction $pollutant_i$) x (cost effectiveness threshold $pollutant_i$),
Violates low emitting unit exemption declaration math on L/U table for hydrogen process
MCET = 4.86 tons-NOx/year x $35,300/ton +10.24 tons-SOx/year x $20,400/ton + 3.06 tons-PM10 x $12,800/ton + (19.97 tons-VOC – 1.515 tons-VOC) x $25,300/ton
(0.124 tons-Nox/yr x $35,300/ton) + 0 Sox + 0 PM + (0.114 ton-VOC/yr x $25,300/ton) =
~~MCET = $886,534/year~~ $7,261/yr NOX & VOC $2,884/yr VOC only

Cost Effectiveness for Partial Oxidation/Grannus Process

($966,260)/yr
Cost Effectiveness = $Cost_{alt}$ – $Cost_{Basic}$
Cost Effectiveness = $13,740,623/year –$ 8,519,231/year
Cost Effectiveness = $5,221,392year ($9,482,491)/yr (negative number)

~~Since this value is greater than the MCET of $886,534/year, partial oxidation/Grannus Process is not cost effective~~. Furthermore, this analysis does not include the capital costs and other costs associated with a partial oxidization hydrogen plant, which would only make partial oxidation processes less cost effective. Therefore, the result of this analysis is very conservative.

Cost Analysis for Technologically Feasible Control Options

Option 4: Process Heater Meeting 2.5 ppmv NOx @ 3 % O_2

A cost analysis is not required, since the applicant is proposing this level of control.

Step 5 - Select BACT

As shown above, alternate basic equipment hydrogen production technologies are not cost effective. BACT is a process heater meeting a NOx limit of 2.5 ppmv @ 3% O_2, which the applicant is proposing. Thus, BACT for NOx is satisfied.

BACT analysis for SOx Emissions

Step 1 - Identify All Possible SOx Control Technologies

The following BACT clearinghouse references were reviewed to determine the control technologies that have been required for SOx from hydrogen plant process heaters.

- EPA RACT/BACT/LAER (RBLC) clearinghouse
- CARB BACT clearinghouse
- South Coast AQMD (SCAQMD) BACT clearinghouse
- Bay Area AQMD (BAAQMD) BACT clearinghouse
- Sacramento Metro AQMD (SMAQMD) BACT clearinghouse
- San Joaquin Valley APCD (SJVAPCD) BACT clearinghouse
- Monterey Bay Air Resources District (MBARD) BACT clearinghouse
- Santa Barbara County APCD (SBAPCD) BACT clearinghouse

The following table shows the results of the search of the EPA RBLC for SOx emissions from similar process heaters:

Non-Refinery Units from EPA RBLC		
RBLC ID Facility Name	**Fuel** Equipment Rating	**SOx Limit**
AR-0162 Energy Security Partners	**Fuel Gas** 391.5 MMBtu/hr	0.0006 lb/MMBtu

The CARB BACT Clearinghouse was searched and applicable BACT Guidelines/Determinations were found from SCAQMD and BAAQMD. The requirements of these guidelines are discussed below.

South Coast BACT Requirements	
Category/Determination	**BACT Requirement for SOx**
Process Heater – Non Refinery BACT Guideline for Non-Major Pollution Facilities (page 104 of BACT Guidelines Part D)	Compliance with South Coast Rule 1146

Bay Area AQMD BACT Requirements*	
Category/Determination	**BACT Requirement for SOx**
Heater – Refinery Process ≥ 50 MMBtu/hr	• Natural Gas or Treated Refinery Gas Fuel with ≤ 100 ppmv Total Reduced Sulfur (Achieved in Practice) • Natural Gas or Treated Refinery Gas Fuel with ≤ 50 ppmv Hydrogen Sulfide and ≤ 100 ppmv Total Reduced Sulfur (Technologically Feasible)
Heater – Refinery Process, Natural or Induced Draft 5 MMBtu/hr to < 50 MMBtu/hr	• Natural Gas or Treated Refinery Gas Fuel with ≤ 100 ppmv Total Reduced Sulfur (Achieved in Practice) • Natural Gas or Treated Refinery Gas Fuel with ≤ 50 ppmv Hydrogen Sulfide and ≤ 100 ppmv Total Reduced Sulfur (Technologically Feasible)
Heater – Refinery Process, Forced Draft 5 MMBtu/hr to < 50 MMBtu/hr	• Natural Gas or Treated Refinery Gas Fuel with ≤ 100 ppmv Total Reduced Sulfur (Achieved in Practice) • Natural Gas or Treated Refinery Gas Fuel with ≤ 50 ppmv Hydrogen Sulfide and ≤ 100 ppmv Total Reduced Sulfur (Technologically Feasible)

*Bay Area AQMD only has BACT Guidelines listed for process heaters at Refineries. Although this BACT Guideline is not applicable to refinery units, refinery process heaters operate similarly to non-refinery process heaters. Therefore, the requirements have been included as a reference point for the emission levels that have been achieved in similar units to those being evaluated in this project.

Monterey Bay ARD, Sacramento Metro AQMD, Santa Barbara County APCD, and San Joaquin Valley APCD Clearinghouses do not include Guidelines that would apply to process heaters > 20 MMBtu/hr.

A review of District, State and Federal rules revealed the following requirements:

Rule	Requirements for SOx
South Coast Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters	None
BAAQMD Regulation 9 Rule 7 Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters	None
SMAQMD Rule 411 NOx from Boilers, Process Heaters, and Steam Generators	None
SBCAPCD Rule 342 Boilers, Steam Generators, and Process Heaters	None
MBARD Rule 441 Boilers, Steam Generators, and Process Heaters	None
SJVAPCD Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3	None
SJVAPCD Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters	• Fire exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases; or • Limit fuel sulfur content to no more than 5 grains of total sulfur per 100 scf; or • Install and properly operate an emission control system that reduces SO_2 emissions by at least 95% by weight or limits exhaust SO_2 to less than or equal to 9 ppmv @ 3% O_2

A review of District permits for hydrogen process heaters equal to or greater than 20 MMBtu/hr revealed the following operations:

Facility Permit	Permit Limit for SOx
Alon Bakersfield Refining S-33-53-22 Two 65 MMBtu/hr process gas-fired heaters, a 34.7 MMBtu/hr process gas-fired heater, a 22.7 MMBtu/hr process gas-fired heater, and a 25 MMBtu/hr process gas-fired heater	0.0286 lb/MMBtu
Alon Bakersfield Refining S-33-55-23 233 MMBtu/hr process gas-fired heater	0.0286 lb/MMBtu

The following control options were identified based on the above information:

Option 1: Fuel Sulfur Content Meeting District Rule 4320 Requirements

District Rule 4320 requires operations to meet a fuel sulfur content of 5 grains of total Sulfur per 100 scf of gas. This level is achieved in practice. Furthermore, this level of control is expected to be more stringent than a permit limit of 0.0286 lb-SOx/MMBtu or a fuel sulfur content permit limit of 100 ppm (as H_2S).

Alternate Methods of Producing Hydrogen

- Autothermal Reforming (ATR): This process uses oxygen and CO2 or steam in a reaction with methane, or other hydrocarbons, to form synthetic gas, also known as syngas. The reaction takes place in a single chamber where the methane/hydrocarbon is partially oxidized. The reaction is exothermic (i.e., heat is released) due to the oxidation.

  The key difference between steam reforming and autothermal reforming is that steam reforming uses the reaction of hydrocarbons with water, whereas autothermal reforming uses the reaction of methane with oxygen and CO2 or steam to form synthetic gas. Moreover, steam reforming is an endothermic reaction while autothermal reforming is an exothermic reaction.

The reactions can be described in the following equations, using CO2:

2 CH4 + O2 + CO2 → 3 H2 + 3 CO + H2O

And using steam:

4 CH4 + O2 + 2 H2O → 10 H2 + 4 CO

Since this process is exothermic, a process heater is not required. Therefore, combustion emissions are not generated by the autothermal reforming process.

- Partial Oxidation: This method is a type of chemical reaction in which methane and other hydrocarbons in natural gas react with a limited amount of oxygen that is not enough to completely oxidize the hydrocarbons to CO2 and water. With less than the stoichiometric amount of oxygen available, the reaction products contain primarily hydrogen and CO (and nitrogen, if the reaction is carried out with air rather than pure oxygen), and a relatively small amount of CO2 and other compounds. In a subsequent water-gas shift reaction, the CO reacts with water to form CO2 and more hydrogen.

  Partial oxidation is an exothermic process that is typically much faster than steam reforming and requires a smaller reactor vessel. As can be seen in chemical reactions of partial oxidation, this process initially produces less hydrogen per unit of the input fuel than is obtained by steam reforming of the same fuel.

  Partial oxidation of methane reaction

  CH4 + ½O2 → CO + 2H2 (+ heat)

  Water-gas shift reaction

  CO + H2O → CO2 + H2 (+ small amount of heat)

  This process is exothermic; therefore, a process heater is not required and combustion emissions are not expected from this process.

- Grannus Process: Another process to be considered is the Grannus Process™, a patented exothermic chemical process that integrates a partial oxidation gas boiler with the water gas shift process to make hydrogen synthetic gas as described in its website at: https://grannusllc.com/technology/ and in SJVAPCD project S-8943/S-1163737.

Although the above-mentioned SJVAPCD project issued only an Authority to Construct permit for the installation of a 7.9 MW (nominal ISO rating) electric power generation system (combined cycle configuration) consisting of a natural gas-fired gas turbine engine with heat recovery steam generator (HRSG), that same project determined that the other ammonia plant equipment did not require permits because the plant's emissions units qualified as Low-Emitting Units. The electric power generation system was to provide electrical power and steam to the proposed anhydrous ammonia manufacturing equipment located at the same site at the South Kern Industrial Center in Kern County. However, it should be noted that the facility was not built and the ATC has expired. As proposed in this project, the turbine listed above provided the power; however, the plant can be operated on standard industrial power supplied by the electrical grid.

The anhydrous ammonia fertilizer manufacturing facility that was proposed in that project would have had a capacity of producing 250 tons of anhydrous ammonia fertilizer per day (or the equivalent of approximately 46 tons of hydrogen per day). This plant would have been the first demonstration plant for the Grannus Process™, a process that makes anhydrous ammonia from pipeline natural gas (methane) and water. A detailed description and process flow diagrams are found in the file for project S-1163737. As proposed, the operation relies on certain streams being sent to a gas turbine's heat recovery steam generator for disposal as is explained in the project evaluation.

The Grannus Process includes additional equipment such as an Air Separation Unit and its storage. This equipment requires a footprint of one-half of an acre.

For this BACT Analysis, the Grannus Process will be included in the Partial Oxidation category, since the Grannus Process uses a nearly identical process to produce hydrogen.

- Gasification: This process produces a synthetic gas by reacting coal, petroleum coke, or biomass with high-temperature steam and oxygen in a pressurized gasifier. The resulting synthetic gas contains hydrogen and CO, which is reacted with steam to separate the hydrogen. Using coal gasification with a water gas shift approach produces a pure hydrogen fuel which can be combusted in gas turbines, in fuel cells, and in other applications.

  In current practice, large-scale coal gasification installations are primarily for electricity generation, or for production of chemical feedstocks. The

hydrogen obtained from coal gasification can be used for various purposes such as making ammonia, powering a hydrogen economy, or upgrading fossil fuels.

This process requires high-temperature steam, similar to the steam methane reforming process. Therefore, a reduction in combustion emissions is not expected.

- Electrolysis: An electric current splits water into hydrogen and oxygen. If the electricity is produced by renewable sources, such as solar or wind, the resulting hydrogen will be considered renewable as well, and has numerous emissions benefits. Power-to-hydrogen projects are becoming more common, using excess renewable electricity, when available, to make hydrogen through electrolysis.

  This process does not require high temperature steam and uses renewable energy, such as solar or wind, to generate the electricity necessary for the electrolysis process. Therefore, a process heater is not required and combustion emissions are not expected.

Several hydrogen production methods are in development, so their potential use in a large commercial project is still not known. Those methods include the following:

- High-Temperature Water Splitting: High temperatures generated by solar concentrators or nuclear reactors drive chemical reactions that split water to produce hydrogen.

- Photobiological Water Splitting: Microbes, such as green algae, consume water in the presence of sunlight and produce hydrogen as a byproduct.

- Photoelectrochemical Water Splitting: Photoelectrochemical systems produce hydrogen from water using special semiconductors and energy from sunlight.

- Pyrolysis: Pyrolysis of natural gas is an endothermic process that occurs in the absence of oxygen to form hydrogen and a solid carbon product. It is thought to be a good method for production of carbon black, but the potential as a source of hydrogen production with low CO2 emissions is still in the development stages. It is believed that more work is needed to better understand its market applications and limitations for commercial projects.

- Photolytic Processes: These processes use light energy to split water into H2 and O2. These processes are currently in the early stages of development and currently are not viable for large-scale production.

- Renewable Liquid Reforming: Renewable liquid fuels, such as ethanol, are reacted with high-temperature steam to produce hydrogen near the point of end use.

- Fermentation: Biomass is converted into sugar-rich feedstocks that can be fermented to produce hydrogen.

Step 2 - Eliminate Technologically Infeasible Options

In the second step, the technological feasibility of the control options identified in Step 1 is evaluated with respect to the source-specific or emissions unit-specific factors. To exclude a control option, a demonstration of technical infeasibility must be clearly documented and should show, based on physical, chemical, and engineering principles, the technical difficulties would preclude the successful use of the control option for the emissions unit under review.\

High-temperature Water Splitting, Photobiological Water Splitting, Photoelectrochemical Water Splitting, Pyrolysis, Photolytic Processes, Renewable Liquid Reforming, and Fermentation are experimental technologies that are not yet commercialized. Therefore, these technologies will be removed from consideration.

Gasification is a commercial technology; however, it would require coal feedstock to be delivered to the facility and will not displace any feedstock necessary for the production of the biofuels. Furthermore, gasification also requires high-temperature steam which would be generated from combustion; therefore, gasification isn't believed to currently reduce criteria pollutant emissions from the proposed levels for the steam-hydrocarbon reforming operation. Therefore, this technology will be removed from consideration.

Step 3 - Rank Remaining Control Technologies by Control effectiveness

Rank	Capture and Control Efficiency	Status
1. Electrolysis	N/A	Alternate Basic Equipment
2. Autothermal Reforming	N/A	Alternate Basic Equipment

3. Partial Oxidation/Grannus Process	N/A	Alternate Basic Equipment
4. Meet District Rule 4320 Fuel Sulfur Content Requirements	N/A	Achieved in Practice

Step 4 - Cost Effectiveness Analysis

Cost Analyses for Alternate Basic Equipment Options

The cost analysis for ABE options was conducted in the NOx portion of this analysis. The ABE options were determined to not be cost effective.

Step 5 - Select BACT

As shown above, alternate basic equipment hydrogen production technologies are not cost effective. BACT for SOx from the process heater is meeting District Rule 4320 fuel sulfur content requirements.

BACT analysis for PM_{10} Emissions

Step 1 - Identify All Possible PM_{10} Control Technologies

The following BACT clearinghouse references were reviewed to determine the control technologies that have been required for PM_{10} from hydrogen plant process heaters.

- EPA RACT/BACT/LAER (RBLC) clearinghouse
- CARB BACT clearinghouse
- South Coast AQMD (SCAQMD) BACT clearinghouse
- Bay Area AQMD (BAAQMD) BACT clearinghouse
- Sacramento Metro AQMD (SMAQMD) BACT clearinghouse
- San Joaquin Valley APCD (SJVAPCD) BACT clearinghouse
- Monterey Bay Air Resources District (MBARD) BACT clearinghouse
- Santa Barbara County APCD (SBAPCD) BACT clearinghouse

The following table shows the results of the search of the EPA RBLC:

Non-Refinery Units from EPA RBLC		
RBLC ID Facility Name	**Fuel** Equipment Rating	**PM_{10} Limit**
AR-0162 Energy Security Partners	**Fuel Gas** 391.5 MMBtu/hr	0.0039 lb/MMBtu
TX-0933 Nacero Penwell	**Natural Gas and Fuel Gas** Not Provided	0.0075 lb/MMBtu
LA-0346 IGP Methanol	**Not Identified** 522 MMBtu/hr	0.0075 lb/MMBtu
SC-0182 Fiber Industries	**Not Identified** Not Provided	0.0076 lb/MMBtu

The CARB BACT Clearinghouse was searched and applicable BACT Guidelines/Determinations were found from SCAQMD and BAAQMD. The requirements of these guidelines are discussed below.

South Coast AQMD BACT Requirements	
Category/Determination	**BACT Requirement for PM_{10}**
Process Heater – Non Refinery BACT Guideline for Non-Major Pollution Facilities (page 104 of BACT Guidelines Part D)	Natural Gas

Bay Area AQMD BACT Requirements*	
Category/Determination	**BACT Requirement for PM_{10}**
Heater – Refinery Process ≥ 50 MMBtu/hr	• Natural Gas or Treated Refinery Gas Fuel
Heater – Refinery Process, Natural or Induced Draft 5 MMBtu/hr to < 50 MMBtu/hr	• Natural Gas or Treated Refinery Gas Fuel
Heater – Refinery Process, Forced Draft 5 MMBtu/hr to < 50 MMBtu/hr	• Natural Gas or Treated Refinery Gas Fuel

*Bay Area AQMD only has BACT Guidelines listed for process heaters at Refineries. Although this BACT Guideline is not applicable to refinery units, refinery process heaters operate similarly to non-refinery process heaters. Therefore, the requirements have been included as a reference point for the emission levels that have been achieved in similar units to those being evaluated in this project.

Monterey Bay ARD, Sacramento Metro AQMD, Santa Barbara County APCD, and San Joaquin Valley APCD Clearinghouses do not include Guidelines that would apply to process heaters > 20 MMBtu/hr.

A review of District, State and Federal rules revealed the following requirements:

Rule	Requirements for PM_{10}
South Coast Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters	None
BAAQMD Regulation 9 Rule 7 Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters	None
SMAQMD Rule 411 NOx from Boilers, Process Heaters, and Steam Generators	None
SBCAPCD Rule 342 Boilers, Steam Generators, and Process Heaters	None
MBARD Rule 441 Boilers, Steam Generators, and Process Heaters	None
SJVAPCD Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3	None
SJVAPCD Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters	• Fire exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases; or • Limit fuel sulfur content to no more than 5 grains of total sulfur per 100 scf; or • Install and properly operate an emission control system that reduces SO_2 emissions by at least 95% by weight or limits exhaust SO_2 to less than or equal to 9 ppmv @ 3% O_2

ΔHrx = -31 kJ/mol
ΔHrx = 339 kJ/mol
CO + H2O → CO2 + H2 + Heat
ΔHrx = -41.15 kJ/mol
Net ΔHrx = 267 kJ/mol
ΔHrx = -36 kJ/mol
ΔHrx = -41.15 kJ/mol
Net ΔHrx = -77.15 kJ/mol

A review of District permits for process heaters (non-refinery) equal to or greater than 20 MMBtu/hr revealed the following operations:

Facility Permit	**Permit Limit for SOx**
Alon Bakersfield Refining S-33-53-22 Two 65 MMBtu/hr process gas-fired heaters, a 34.7 MMBtu/hr process gas-fired heater, a 22.7 MMBtu/hr process gas-fired heater, and a 25 MMBtu/hr process gas-fired heater	0.0076 lb/MMBtu
Alon Bakersfield Refining S-33-55-23 233 MMBtu/hr process gas-fired heater	0.003 lb/MMBtu*

*While this unit is permitted at 0.003 lb/MMBtu, no source testing was required for this permit unit. Therefore, this limit cannot be verified and will not be considered in establishing BACT for PM_{10}.

The following control options were identified based on the above information:

Option 1: 0.0039 lb-PM_{10}/MMBtu

This level of control has been achieved at Energy Security Partners, listed in the EPA RBLC. Therefore, this level of control is Achieved in Practice.

Option 2: 0.0076 lb-PM_{10}/MMBtu

This is the default AP-42 emission factor for natural gas. However, a lower level of control has been achieved; therefore, this option will be removed from consideration.

Alternate Methods of Producing Hydrogen

- Autothermal Reforming (ATR): This process uses oxygen and CO2 or steam in a reaction with methane, or other hydrocarbons, to form synthetic gas, also known as syngas. The reaction takes place in a single chamber where the methane/hydrocarbon is partially oxidized. The reaction is exothermic (i.e., heat is released) due to the oxidation.

The key difference between steam reforming and autothermal reforming is that steam reforming uses the reaction of hydrocarbons with water, whereas autothermal reforming uses the reaction of methane with oxygen and CO2 or steam to form synthetic gas. Moreover, steam reforming is an endothermic reaction while autothermal reforming is an exothermic reaction.

The reactions can be described in the following equations, using CO2:

$$2\ CH_4 + O_2 + CO_2 \rightarrow 3\ H_2 + 3\ CO + H_2O$$

And using steam:

$$4\ CH_4 + O_2 + 2\ H_2O \rightarrow 10\ H_2 + 4\ CO$$

Since this process is exothermic, a process heater is not required. Therefore, combustion emissions are not generated by the autothermal reforming process.

- Partial Oxidation: This method is a type of chemical reaction in which methane and other hydrocarbons in natural gas react with a limited amount of oxygen that is not enough to completely oxidize the hydrocarbons to CO2 and water. With less than the stoichiometric amount of oxygen available, the reaction products contain primarily hydrogen and CO (and nitrogen, if the reaction is carried out with air rather than pure oxygen), and a relatively small amount of CO2 and other compounds. In a subsequent water-gas shift reaction, the CO reacts with water to form CO2 and more hydrogen.

  Partial oxidation is an exothermic process that is typically much faster than steam reforming and requires a smaller reactor vessel. As can be seen in chemical reactions of partial oxidation, this process initially produces less hydrogen per unit of the input fuel than is obtained by steam reforming of the same fuel.

  Partial oxidation of methane reaction

  $$CH_4 + \tfrac{1}{2}O_2 \rightarrow CO + 2H_2 \text{ (+ heat)}$$

  Water-gas shift reaction

  $$CO + H_2O \rightarrow CO_2 + H_2 \text{ (+ small amount of heat)}$$

This process is exothermic; therefore, a process heater is not required and combustion emissions are not expected from this process.

- Grannus Process: Another process to be considered is the Grannus Process™, a patented exothermic chemical process that integrates a partial oxidation gas boiler with the water gas shift process to make hydrogen synthetic gas as described in its website at: https://grannusllc.com/technology/ and in SJVAPCD project S-8943/S-1163737.

  Although the above-mentioned SJVAPCD project issued only an Authority to Construct permit for the installation of a 7.9 MW (nominal ISO rating) electric power generation system (combined cycle configuration) consisting of a natural gas-fired gas turbine engine with heat recovery steam generator (HRSG), that same project determined that the other ammonia plant equipment did not require permits because the plant's emissions units qualified as Low-Emitting Units. The electric power generation system was to provide electrical power and steam to the proposed anhydrous ammonia manufacturing equipment located at the same site at the South Kern Industrial Center in Kern County. However, it should be noted that the facility was not built and the ATC has expired. As proposed in this project, the turbine listed above provided the power; however, the plant can be operated on standard industrial power supplied by the electrical grid.

  The anhydrous ammonia fertilizer manufacturing facility that was proposed in that project would have had a capacity of producing 250 tons of anhydrous ammonia fertilizer per day (or the equivalent of approximately 46 tons of hydrogen per day). This plant would have been the first demonstration plant for the Grannus Process™, a process that makes anhydrous ammonia from pipeline natural gas (methane) and water. A detailed description and process flow diagrams are found in the file for project S-1163737. As proposed, the operation relies on certain streams being sent to a gas turbine's heat recovery steam generator for disposal as is explained in the project evaluation.

  The Grannus Process includes additional equipment such as an Air Separation Unit and its storage. This equipment requires a footprint of one-half of an acre.

  For this BACT Analysis, the Grannus Process will be included in the Partial Oxidation category, since the Grannus Process uses a nearly identical process to produce hydrogen.

- Gasification: This process produces a synthetic gas by reacting coal, petroleum coke, or biomass with high-temperature steam and oxygen in a pressurized gasifier. The resulting synthetic gas contains hydrogen and CO, which is reacted with steam to separate the hydrogen. Using coal gasification with a water gas shift approach produces a pure hydrogen fuel which can be combusted in gas turbines, in fuel cells, and in other applications.

  In current practice, large-scale coal gasification installations are primarily for electricity generation, or for production of chemical feedstocks. The hydrogen obtained from coal gasification can be used for various purposes such as making ammonia, powering a hydrogen economy, or upgrading fossil fuels.

  This process requires high-temperature steam, similar to the steam methane reforming process. Therefore, a reduction in combustion emissions is not expected.

- Electrolysis: An electric current splits water into hydrogen and oxygen. If the electricity is produced by renewable sources, such as solar or wind, the resulting hydrogen will be considered renewable as well, and has numerous emissions benefits. Power-to-hydrogen projects are becoming more common, using excess renewable electricity, when available, to make hydrogen through electrolysis.

  This process does not require high temperature steam and uses renewable energy, such as solar or wind, to generate the electricity necessary for the electrolysis process. Therefore, a process heater is not required and combustion emissions are not expected.

Several hydrogen production methods are in development, so their potential use in a large commercial project is still not known. Those methods include the following:

- High-Temperature Water Splitting: High temperatures generated by solar concentrators or nuclear reactors drive chemical reactions that split water to produce hydrogen.

- Photobiological Water Splitting: Microbes, such as green algae, consume water in the presence of sunlight and produce hydrogen as a byproduct.

- Photoelectrochemical Water Splitting: Photoelectrochemical systems produce hydrogen from water using special semiconductors and energy from sunlight.

- Pyrolysis: Pyrolysis of natural gas is an endothermic process that occurs in the absence of oxygen to form hydrogen and a solid carbon product. It is thought to be a good method for production of carbon black, but the potential as a source of hydrogen production with low CO2 emissions is still in the development stages. It is believed that more work is needed to better understand its market applications and limitations for commercial projects.
- Photolytic Processes: These processes use light energy to split water into H2 and O2. These processes are currently in the early stages of development and currently are not viable for large-scale production.

- Renewable Liquid Reforming: Renewable liquid fuels, such as ethanol, are reacted with high-temperature steam to produce hydrogen near the point of end use.

- Fermentation: Biomass is converted into sugar-rich feedstocks that can be fermented to produce hydrogen.

Step 2 - Eliminate Technologically Infeasible Options

In the second step, the technological feasibility of the control options identified in Step 1 is evaluated with respect to the source-specific or emissions unit-specific factors. To exclude a control option, a demonstration of technical infeasibility must be clearly documented and should show, based on physical, chemical, and engineering principles, the technical difficulties would preclude the successful use of the control option for the emissions unit under review.\

High-temperature Water Splitting, Photobiological Water Splitting, Photoelectrochemical Water Splitting, Pyrolysis, Photolytic Processes, Renewable Liquid Reforming, and Fermentation are experimental technologies that are not yet commercialized. Therefore, these technologies will be removed from consideration.

Gasification is a commercial technology; however, it would require coal feedstock to be delivered to the facility and will not displace any feedstock necessary for the production of the biofuels. Furthermore, gasification also requires high-temperature steam which would be generated from combustion; therefore, gasification isn't believed to currently reduce criteria pollutant emissions from the proposed levels for the steam-hydrocarbon reforming operation. Therefore, this technology will be removed from consideration.

Step 3 - Rank Remaining Control Technologies by Control effectiveness

Rank	Capture and Control Efficiency	Status
1. Electrolysis	N/A	Alternate Basic Equipment
2. Autothermal Reforming	N/A	Alternate Basic Equipment
3. Partial Oxidation/Grannus Process	N/A	Alternate Basic Equipment
4. 0.0039 lb-PM_{10}/MMBtu	N/A	Achieved in Practice

Step 4 - Cost Effectiveness Analysis

Cost Analyses for Alternate Basic Equipment Options

The cost analysis for ABE options was conducted in the NOx portion of this analysis. The ABE options were determined to not be cost effective.

Step 5 - Select BACT

As shown above, alternate basic equipment hydrogen production technologies are not cost effective. BACT for PM_{10} from the process heater is 0.0039 lb-PM_{10}/MMBtu. The facility is proposing a limit slightly lower than 0.0039 lb-PM_{10}/MMBtu; therefore, BACT is satisfied.

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 1.8.7*

Last Update: 3/1/2024

Hydrogen Production - Steam Hydrocarbon Reformer: Process Heater

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
SOx	Process heater firing on a fuel meeting the District Rule 4320 fuel sulfur requirement of 5 grains		1) Hydrogen production via electrolysis 2) Hydrogen production via partial oxidation process**, autothermal reforming or gasification
PM10	Process heater meeting a limit of 0.0039 lb/MMBtu		1) Hydrogen production via electrolysis 2) Hydrogen production via partial oxidation process**, autothermal reforming or gasification
NOx	Process heater meeting a limit of 2.7 ppmv @ 3% O2	Process Heater meeting 2.5 ppmv @ 3% O2	1) Hydrogen production via electrolysis 2) Hydrogen production via partial oxidation process**, autothermal reforming or gasification

** Partial oxidation includes the Grannus Process™ (2023)

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

COMPREHENSIVE REPORT
Report Date:02/14/2024

Facility Information

RBLC ID:	CA-1252 (final)	**Date Determination Last Updated:**	05/06/2020
Corporate/Company Name:	TAFT AMMONIA CO., LLC	**Permit Number:**	S-1163737
Facility Name:	TAFT AMMONIA COMPANY	**Permit Date:**	11/21/2017 (actual)
Facility Contact:	JAMES MERRITT 713-5115-8679 KELLY@GRANNUSLLC.COM	**FRS Number:**	Not found
Facility Description:	Hydrogen and other industrial gas manufacturing.	**SIC Code:**	2813
Permit Type:	A: New/Greenfield Facility	**NAICS Code:**	325120
Permit URL:	None		
EPA Region:	9	**COUNTRY:**	USA
Facility County:	KERN		
Facility State:	CA		
Facility ZIP Code:	93311		
Permit Issued By:	SAN JOAQUIN VALLEY APCD, CA (Agency Name) MR. JIM SWANEY(Agency Contact) (559)230-6000 jim.swaney@valleyair.org		
Other Agency Contact Info:	Leonard Scandura, Permit Services Manager, San Joaquin Valley APCD, (661) 392-5500		
Permit Notes:	Daily emissions from Hydrogen manufacturing operations are below the 2 lb/day per unit (0.365) tpy) permit exemption threshold. Therefore no permit was required for the actual hydrogen manufacturing portion of the facility.		

Affected Boundaries:

Boundary Type:	Class 1 Area State:	Boundary:	Distance:
INTL BORDER		US/Mexico Border	> 250 km

Facility-wide Emissions:

Pollutant Name:	Facility-wide Emissions Increase:
Carbon Monoxide	0.5835 (Tons/Year)
Nitrogen Oxides (NOx)	0.0575 (Tons/Year)
Particulate Matter (PM)	0.0220 (Tons/Year)
Volatile Organic Compounds (VOC)	0.1970 (Tons/Year)

Process/Pollutant Information

PROCESS NAME: Hydrogen Production

Process Type: 99.999 (Other Miscellaneous Sources)

Primary Fuel: Natural Gas

Throughput: 0

Process Notes: Partial Oxidation w/out combustion byproducts, water gas shift and syngas purification to pure hydrogen. A Scalable Patented Process. Hydrogen throughput is 44.6 short tons per day. Emission units include: 1. Purge Vent 2. Hydrogen Plant Stack Vent 3. Acid Gas Removal System 4. Flare

POLLUTANT NAME: Nitrogen Oxides (NOx)

CAS Number: 10102
Test Method: EPA/OAR Mthd 7E
Pollutant Group(s): (InOrganic Compounds , Oxides of Nitrogen (NOx) , Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0153 lbs/ton of hydrogen.

POLLUTANT NAME: Carbon Monoxide

CAS Number: 630-08-0
Test Method: Unspecified
Pollutant Group(s): (InOrganic Compounds)
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 $/ton

Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0791 lbs/ton of hydrogen produced.

POLLUTANT NAME: Particulate matter, filterable (FPM)
CAS Number: PM
Test Method: Unspecified
Pollutant Group(s): (Particulate Matter (PM))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:
Cost Effectiveness: 0 $/ton
Incremental Cost Effectiveness: 0 $/ton
Compliance Verified: Unknown
Pollutant/Compliance Notes: Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0080 lbs/ton of hydrogen produced.

POLLUTANT NAME: Volatile Organic Compounds (VOC)
CAS Number: VOC
Test Method: Unspecified
Pollutant Group(s): (Volatile Organic Compounds (VOC))
Emission Limit 1:
Emission Limit 2:
Standard Emission:
Did factors, other then air pollution technology considerations influence the BACT decisions: U
Case-by-Case Basis: OTHER CASE-BY-CASE
Other Applicable Requirements:
Control Method: (N)
Est. % Efficiency:

Cost Effectiveness:	0 $/ton
Incremental Cost Effectiveness:	0 $/ton
Compliance Verified:	Unknown
Pollutant/Compliance Notes:	Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment. Emission rate is 0.0317 lbs/ton of hydrogen produced.

POLLUTANT NAME:	Sulfur Oxides (SOx)
CAS Number:	7446
Test Method:	Unspecified
Pollutant Group(s):	(InOrganic Compounds , Oxides of Sulfur (SOx))
Emission Limit 1:	
Emission Limit 2:	
Standard Emission:	

Did factors, other then air pollution technology considerations influence the BACT decisions: U

Case-by-Case Basis:	OTHER CASE-BY-CASE
Other Applicable Requirements:	
Control Method:	(N)
Est. % Efficiency:	
Cost Effectiveness:	0 $/ton
Incremental Cost Effectiveness:	0 $/ton
Compliance Verified:	Unknown
Pollutant/Compliance Notes:	Annual emissions are below permit requirement thresholds of 2 lbs/day, therefore there are no specific emission limits for this equipment.

AGC THE CONSTRUCTION ASSOCIATION

Thomas L. Brown, President
Todd Roberts, Senior Vice President
Rick Andritsch, Vice President
Ken Kubacki, Treasurer
Jeffrey D. Shoaf, Chief Executive Officer
James V. Christianson, Chief Operating Officer

March 10, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment & Public Works
U.S. Senate
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment & Public Works
U.S. Senate
Washington, D.C. 20510

RE: AGC Statement for the Record for Hearing Entitled, "Improving the Federal Environmental Review and Permitting Processes," on February 19, 2025.

Dear Chairman Capito and Ranking Member Whitehouse:

Thank you for this committee's long-standing bipartisan work to address regulatory barriers to infrastructure modernization and development. AGC is a national trade association whose members build all manner of public and private construction projects, from buildings to bridges. We write to you today to raise awareness of the unintentional negative impacts that federal policy addressing per- and polyfluoroalkyl substances (PFAS) has on infrastructure projects and the construction industry. To be clear, AGC is not wading into the debate about the science or safety of PFAS but is asking for protections for contractors who encounter (or have encountered) PFAS on projects and assist with PFAS cleanup efforts on public and private projects.

EPA's rule disincentivized owners from testing for PFAS

The U.S. Environmental Protection Agency's (EPA) April 2024 designation of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) exposes contractors to significant legal and financial risk without providing a clear compliance path. Since EPA did not provide guidance on managing PFAS, owners are choosing not to test materials for PFAS. As a result, contractors performing routine site work could be handling PFAS and could be liable for clean-up costs and personal injury/property damage suits for contamination they did not create and cannot reasonably detect.

The rule creates uncertainty in contract negotiations, insurance coverage, and lender requirements. It also puts AGC members at risk who may have unknowingly interacted with PFAS at some point in their companies' project portfolios throughout the decades. This uncertainty limits competition because contractors are concerned about the risk of liability with handling PFAS. As a result, it decreases the pool of qualified bidders for public and large infrastructure projects (such as airports and bases) and increases the cost of such projects. AGC urges Congress to help reduce liability for contractors engaged in modernizing our Nation's infrastructure and acting in good faith compliance with site remediation plans.

AGC has consistently advocated for a measured approach to environmental challenges such as PFOA and PFOS—or other emerging chemicals of concern. PFAS is commonly referred to as ubiquitous; and as such, its regulation under CERCLA raises equally ubiquitous liability concerns for public and private entities. Given the decades of historic uses of PFAS, as well as current uses, AGC has repeatedly shared

concerns that taking the right regulatory approach to the PFAS challenge is critical. The "direct-to-Superfund" approach taken by EPA drastically increases construction costs and risk and could overwhelm cleanup efforts. Not only will contractors encounter PFAS on everyday projects, AGC members will be at the front lines of any remediation efforts. Yet EPA refuses to acknowledge the significant impact its action has on the construction industry. The construction industry is poised to be part of the solution, but its response will be hampered if no one acknowledges there is a problem with risk.[1]

Contractors can encounter PFAS in soil, concrete or other paving materials, in beneficial use or recycling of materials, in some new materials, and in the demolition of structures, as well as in dewatering effluent (e.g., when removing groundwater to lay a foundation). While testing may be required in the future, owners have not been required to test for PFAS, and it is unlikely that any past testing as part of environmental site assessments would have included PFAS. Furthermore, owners may refuse to test for PFAS, putting contractors in a precarious position on projects.

Contractors face liability for handling PFAS

Strict, retroactive liability under CERCLA means a contractor could be held responsible for cleanup costs even if they did not cause the contamination. EPA's enforcement discretion will not protect contractors from third-party lawsuits (e.g., cost contribution actions or under common law for negligence, nuisance). For example, if a contractor arranges transport of clean fill to a landfill for daily cover (or as fill on other public, commercial, or residential construction projects) that decades later is determined to contribute to PFAS contamination. Contractors could even be at risk if the soil is moved to another area of the project site even if it does not leave the property.

It is important to understand that EPA has not provided meaningful guidance on background levels, management or disposal practices, or PFAS remediation standards—protective of human health and the environment—making it impossible for contractors to comply with the law. Contractors engaged in excavation, soil movement, or dewatering face enormous liability risks for unknowingly disturbing PFAS contamination. The uncertainty around disposal requirements forces contractors to choose between stopping work, taking on massive liability, or disposing of soil and water at hazardous waste facilities as a default—even when it may not be necessary—dramatically increasing costs for public and private projects. Excluding delay cost, encountering PFAS during construction could result in a 5,000 percent increase in soil management costs to dispose of the waste in a specialized (i.e., hazardous waste) landfill or an incinerator. Contractors, public and private owners will not have the funds to absorb the higher disposal costs. Furthermore, hazardous waste disposal capacity is inadequate to accommodate the millions of tons of impacted soil and other material that will be generated. None of this is sustainable.

In addition to higher disposal costs for public and private owners and limited space at hazardous waste landfills (which are few and far between), AGC is hearing from its contractor members a range of impacts to work on infrastructure projects.

- A delay in negotiating airport and federal Department of Defense (DoD) work due to liability concerns.
- Long-term liability risk from demolishing, restoring, and constructing airport hangers.
- Past remediation activity at a Superfund site could expose a contractor to future liability if/when those sites are reopened for PFAS.

[1] While most contracts that are explicitly for the removal of PFAS from things like drinking water and wastewater exempt "response action contractors" from liability, there are limits to this liability. Furthermore, this work makes up a small percentage of the overall construction market. PFAS removal as part of a larger construction project does not include these same protections.

- Reduced viability of markets for recycling and beneficial use, for example, reclaimed asphalt pavement (RAP).
- Increased consulting, transportation, and disposal costs for typical operations.
- Ten-fold increase in landfill costs.
- Increased trucking costs to transport materials to other facilities.
- Additional compliance and training costs under the Hazardous Materials Transportation Act.
- Increases risk for even minor property acquisitions to support projects (e.g., laydown yards and storage).
- Increased sampling fees and wait times.
- Lack of insurance coverage.

Owners shift PFAS liability to contractors

Another pressing concern that AGC is hearing from its members centers on the practice of shifting risks on a project to the contractor. Owners are increasingly transferring to the contractor all "risk" for "unknown" contamination, defined as any contamination not disclosed by owner or reasonably ascertainable by contractor due diligence (no provisions allowing contractor schedule and cost relief for managing site contamination).

1. Contamination risk is often unquantifiable (inadequate site investigation/testing data; testing inadequate to characterize contamination; disposal costs vary).
2. Agreements typically require the contractor to manage, treat, handle, store, remediate, remove, transport, and dispose of site contamination as required by law, creating exposure to long-term CERCLA liability.
3. Practice of assigning the contractor the risk for managing site contamination while providing no contractual relief forces contractors to add cost contingencies, often well exceeding actual costs, is driving up construction costs
4. The term hazardous waste in construction contracts is typically defined as any site contamination that requires special handling.

How can Congress help?

Contractors are encountering PFAS on everyday projects (public and private) across the country and need a clear path forward that protects them from assuming undue risk and costs.

- **Support a Commonsense Approach to Managing PFAS Contamination.** Contractors need clear disposal and handling requirements for PFAS-containing materials and waste to avoid exposure to legal and regulatory uncertainty. There is no clear federal law or guidance on what levels of PFAS in soil or surface/groundwater are safe or will trigger management or disposal requirements, leaving contractors in legal limbo. Given the ubiquity of PFAS, EPA must establish a background level for PFAS that is protective of human health and the environment.
- **Recognize Contractors as Passive Receivers and Protect Contractors from Frivolous Lawsuits.** Innocent contractors need "Passive Receiver" protections to ensure liability protections from CERCLA and third-party actions such as cost contribution actions and civil suits. Contractors can unknowingly encounter PFAS on project sites and may have done so for decades. Similar to farmers and the waste management industry, the construction industry does not produce or sell PFAS; it should not have to pay for cleanup.

AGC of America
March 10, 2025

Shifting the risk to the contractor is a significant concern, especially on public projects. Where the public owner is unwilling to compensate the contractor for encountering "unknown" hazardous materials, negative consequences follow: a limited universe of competitive bidders (because some will walk away from such extreme risk scenarios), the shut out of highly-qualified, environmentally-sophisticated firms, and inflated contract prices (because bidders are pricing risk into the contract that is going back to the owner and ultimately being borne by the taxpayer).

Government owners are in the best position to bear the following risks on federally-funded projects:

1. Environmental risk associated with "unknown" hazardous material that was not disclosed pre-bid.
2. Environmental risk associated with finding out after the contract has been awarded that a part of the project site, or any property or waterbody to which the project site drains runoff or disposes of construction materials, is a newly listed "Superfund" site.

<u>On all federally funded projects, Congress should:</u>

1) Prohibit transfer of CERCLA liability for pre-existing contamination to the contractor by requiring public owners to retain generator and arranger status.
2) Require public owners to provide contractual relief through cost-sharing mechanisms such as allowances and schedule relief through delay clauses that compensate the contractor for responding to known and unknown site contamination.
3) Require that prior to bidding for construction the public owner conducts the necessary testing to identify the presence and areal extent of PFAS contamination. The planning phase is more appropriate for detecting, avoiding, and minimizing impacts of PFAS. Detection during the construction phase increases unacceptable risk and costs associated with delay, potential redesign, and disposal.
4) Require the public owner of project sites with confirmed PFAS contamination to either store excess material on site or dispose of it at a facility designated by the owner that is permitted to accept it or designate a transporter and disposal facility.

Contractors stand ready to advance critical infrastructure and will be on the front lines of PFAS cleanup efforts. Yet under current CERCLA designations, contractors can be found liable and on the hook for the cleanup of contamination they did not cause. As such, liability protections should be considered to ensure contractors bid on projects and undertake important projects. Congress must consider a commonsense approach to PFAS contamination management that designates contractors as passive receivers and protects construction from expensive fees. If you have any questions, please reach out to us at leah.pilconis@agc.org or alex.etchen@agc.org.

Sincerely,

Leah Pilconis

Leah Pilconis
General Counsel

Alex Etchen
Vice President, Government Relations

CC: L. Zeldin, U.S. Environmental Protection Agency
Committee on Energy and Commerce, U.S. House of Representatives
Committee on Transportation and Infrastructure, U.S. House of Representatives

Attachments:
Protect Construction from PFAS Liability (Handout)
Increased Risk for Contractors Working with State Departments of Transportation on PFAS-Impacted Projects: Survey Summary (Handout)

Protect Construction from PFAS Liability

Per- and polyfluoroalkyl substances known commonly as PFAS, are long lasting chemicals that break down very slowly over time. There are over 5,000 types of PFAS found in common everyday products, such as cosmetics, apparel, carpeting, and fire retardants.

Contractors are on the front lines of mitigating PFAS pollution in all types of construction projects including drinking water, airport construction, and military base construction. In order to not hinder remediation efforts, PFAS policy needs a commonsense approach.

Superfund liability for construction companies

In April 2024, the U.S. Environmental Protection Agency (EPA) issued a final rule to regulate two types of PFAS, PFOA and PFOS, as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund as it is more commonly known).

- Superfund liability is triggered regardless of intent or fault. Liable parties could be on the hook for the entire cost of cleanup.
- Since there is retroactive and strict liability under the Superfund law, a contractor who interacted with contaminated construction media during a project could be held liable for cleanup, even if they had no knowledge that there was PFAS present, and it happened years ago.

Impacts to construction projects beyond liability

Although the construction industry does not manufacture PFAS, and PFOA and PFOS may already be present on project sites, contractors could be found liable, even when working to safely remove them. Specifically, this hazardous substance designation will:

- **Increase Trucking Costs –** Construction companies hauling away debris containing PFOA and PFOS will eventually need truck drivers that have a Commercial Driver's License (CDL) AND a Hazardous Materials Endorsement on their CDL. Since this requires more testing and training for CDL drivers it means the cost to haul away debris will increase significantly.
- **Create Longer Trips to Dispose of Materials –** Landfills are refusing waste, so construction companies may be forced to dispose of the PFAS containing debris at specially designated hazardous materials landfills which are limited and often further distances away than traditional landfills. Due to the stigma of CERCLA designation, some landfills are refusing waste, forcing some contractors to haul waste longer distances to specialty landfills, which are limited and often further distances than traditional landfills.
- **Limit the Use of Recycled Construction Materials** – Recycling of construction materials is a common practice in the construction industry that reduces construction costs and is environmentally friendly. For example, Reclaimed Asphalt Pavement (RAP) is when existing asphalt is removed through milling and recoated with new asphalt binder. However, with the increased PFAS liability, contractors will be limited in which asphalt they can recycle, including asphalt from airport runways and taxiways, military bases, and certain roadways.

PFAS remediation projects

While testing may be required in the future, contractors have not been required to test for PFAS and it is unlikely that any past testing as part of environmental site assessments would be included. While most contracts that are explicitly for the removal of PFAS from things like drinking water and wastewater exempt contractors from PFAS liability, this makes up a small percentage of the overall construction market. In addition, PFAS removal as part of a larger construction project does not include these same protections.

AGC wants legal protections for contractors

Contractors will be on the front lines of PFAS cleanup efforts and need protections to ensure they bid the work. Should PFAS be discovered on a worksite, any contractor performing work on the site could be held liable. Should PFAS be found in a landfill, any and all contractors who disposed of construction materials could be held liable for the cleanup.

Congress should pass "innocent contractor" or "passive receiver" protections to ensure that contractors who unknowingly encounter PFAS are not legally liable.

Increased Risk for Contractors Working with State DOTs on PFAS-Impacted Projects

Survey Summary
Iowa State University 2024

The survey results highlight several areas where contractors working on highway construction and maintenance projects for state DOTs may face **increased risk and liability** due to **PFAS contamination**. *All percentages based on respondent states, representing an 86% response rate overall. Responses to individual questions may be less.*

1. Lack of Uniform Policies and Guidance on PFAS

- **Only 39% of state DOTs** (17 states) have **formal or informal procedures, policies, or guidance** for identifying or mitigating PFAS contamination.
- **77% of state DOTs** (34 states) lack internal PFAS-specific policies.
- Without clear policies, contractors may face **uncertainty in project requirements** and **inconsistent enforcement** of environmental and disposal regulations.

2. PFAS-Contaminated Project Sites

- **Nine state DOTs** reported knowingly encountering PFAS on a project or within a right-of-way.
- **Three states (Alaska, Illinois, Maine)** indicated that the encounter **set a precedent** for handling future cases.
- Contractors working in these jurisdictions could be **held responsible for identifying and managing PFAS contamination**, increasing compliance costs and potential liability.

3. Special Handling and Disposal Requirements

- **Seven state DOTs** require special considerations for the **management and disposal of PFAS-contaminated soil or water** from construction and maintenance projects.
- **8 to 10 state DOTs** impose **restrictions** on environmental discharge, land application, or landfilling of PFAS-contaminated materials.
- Contractors could face **higher disposal costs**, delays in finding suitable disposal sites, and potential liability for improper handling.

4. Legal Liability for PFAS Contamination

- **35% of DOTs** (13 states) consider **liability** for PFAS contamination when acquiring, selling, maintaining, or disturbing rights-of-way.
- **30% of DOTs** (11 states) consider liability when **managing materials** that could contain PFAS.
- **30% of DOTs** (11 states) actively consider **remediation or removal of PFAS-containing materials**, potentially requiring contractors to implement costly remediation measures or face legal exposure.

5. Limited Screening and Testing Practices

- Only **4 state DOTs (11%)** (Alaska, Illinois, Minnesota, and New Hampshire) conduct PFAS testing on construction or maintenance project sites.
- **Lack of standardized testing requirements** increases the **risk of unexpected PFAS discovery**, which could lead to project delays, change orders, or unanticipated remediation costs for contractors.

Key Takeaways for Contractors

- **Unclear Regulations**: Many DOTs lack formal PFAS policies, meaning contractors must **navigate regulatory uncertainty** and anticipate evolving compliance requirements.
- **Higher Costs & Delays**: Contractors may face **increased costs** for waste disposal, remediation, and specialized testing if PFAS contamination is discovered.
- **Legal and Financial Risks**: State DOTs in some jurisdictions are already **considering contractor liability** for PFAS impacts, increasing potential legal exposure.
- **Project Disruptions**: If PFAS contamination is detected mid-project, contractors may face **unexpected site shutdowns, regulatory scrutiny, and financial penalties**.

Conclusion

Contractors working on **state DOT projects** must be aware of **PFAS-related risks**, including **regulatory uncertainty, liability for contamination, and increased costs for remediation and disposal**. Proactive **risk management strategies**, such as **contract provisions, insurance coverage, and pre-project environmental assessments**, will be critical to mitigating potential exposure.

HUNTON ANDREWS KURTH

HUNTON ANDREWS KURTH LLP
2200 PENNSYLVANIA AVENUE, NW
WASHINGTON, D.C. 20037-1701

TEL 202 • 955 • 1500
FAX 202 • 778 • 2201

JOSEPH C. STANKO, JR.
DIRECT DIAL: 202 • 955 • 1529
EMAIL: jstanko@HuntonAK.com

FILE NO: 122448.0000003

December 21, 2023

Environmental Protection Agency
EPA Docket Center
Office of Air and Radiation Docket
Mail Code 28221T
1200 Pennsylvania Ave., NW
Washington, DC 20460

ATTN: Docket No. EPA-HQ-OAR-2022-0872

Comments of the NAAQS Regulatory Review and Rulemaking ("NR3") Coalition on Proposed Rule on "Guideline on Air Quality Models; Enhancements to the AERMOD Dispersion Modeling System," 88 Fed. Reg. 72,826 (Oct. 23, 2023)

To Whom It May Concern:

The NAAQS Regulatory Review and Rulemaking ("NR3") Coalition offers the attached comments, prepared for us by ALL4 LLC, on EPA's proposed rule on the "Guideline on Air Quality Models; Enhancements to the AERMOD Dispersion Modeling System," 88 Fed. Reg. 72826 (Oct. 23, 2023).[1] Briefly, the NR3 Coalition supports the proposed enhancements to EPA's AERMOD model. The Coalition is concerned, however, that EPA's proposed revisions

[1] The NR3 Coalition is an ad hoc association of industry groups and companies supportive of NAAQS that provide the requisite protection of public health and welfare and that are implemented in ways that provide protection consistent with the economic health of the country. Members of the NR3 Coalition and their member companies are committed to reducing emissions, consistent with the requirements of the Act, so as to provide air quality protective of public health and welfare, while continuing to facilitate economic growth in the United States. Companies represent by NR3 Coalition members and NR3 Coalition members themselves have worked for many years with EPA, states, and local authorities to lower concentrations of criteria pollutants in the ambient air. NR3 Coalition members joining these comments include American Forest & Paper Association, American Wood Council, The Fertilizer Institute, National Mining Association, National Cotton Council, National Cotton Ginners's Association, National Oilseed Processors Association, Texas Cotton Ginners Association, and The Aluminum Association.

HUNTON
ANDREWS KURTH

to its Guideline on Air Quality Models ("Modeling Guideline") are insufficient to address excessive conservatism in EPA's currently recommended approaches to modeling for both air emissions permits and State Implementation Plans. As the NR3 Coalition previously explained,[2] reducing this conservatism will be of paramount importance should EPA finalize its proposal to significantly reduce the level of its annual primary NAAQS for $PM_{2.5}$. Thus, the NR3 Coalition urges EPA to issue a supplemental proposal that will address continuing issues with the overly-conservative treatment of emissions, background air quality, and combining predicted ambient concentrations of primary and secondary $PM_{2.5}$. In addition, EPA should rethink how it defines ambient air. Measures to address these issues should be finalized at the same time as those in the current proposal concerning AERMOD.

Please reach out if you have any questions concerning these comments.

Yours truly,



Joseph C. Stanko, Jr.
Counsel to the NR3 Coalition

[2] *See* https://www.regulations.gov/comment/EPA-HQ-OAR-2015-0072-2361.

477

ALL4 LLC COMMENTS ON EPA'S PROPOSED REVISIONS TO THE GUIDELINE ON AIR QUALITY MODELS

Prepared on behalf of the NAAQS Regulatory Review and Rulemaking Coalition

88 Fed. Reg. 72826

October 23, 2023

Submitted to Docket ID No. EPA-HQ-OAR-2022-0872

December 22, 2023

1. EXECUTIVE SUMMARY 1-1
1.1 INTRODUCTION 1-1
1.2 SUMMARY OF ALL4'S COMMENTS ON THE PROPOSED REVISIONS TO APPENDIX W AND UPDATES TO THE AERMOD MODELING SYSTEM 1-1
1.2.1 We generally support the proposed revisions to Appendix W and the AERMOD modeling system 1-1
1.2.2 The proposed revisions do not significantly mitigate modeling challenges related to increasingly stringent NAAQS 1-2
2. COMMENTS ON PROPOSED REVISIONS TO APPENDIX W AND THE AERMOD MODELING SYSTEM 2-1
2.1 GENERAL APPRECIATION OF PROPOSED REVISIONS TO APPENDIX W AND THE AERMOD MODELING SYSTEM 2-1
2.1.1 The incorporation of COARE algorithms into AERMET for use in over water marine boundary layer environments should improve scientific accuracy 2-1
2.1.2 The addition of GRSM as a third Tier 3 screening technique for NO_X to NO_2 conversion provides additional options 2-2
2.1.3 The addition of RLINE source as a mobile source type provides another option for handling on-road emissions 2-2
2.2 PROPOSED REVISIONS TO GUIDANCE ON SELECTION OF AMBIENT BACKGROUND AND INVENTORY SOURCES 2-3
3. ISSUES THAT SHOULD BE ADDRESSED IN REVISION TO APPENDIX W 3-1
3.1 LACK OF PROGRESS IN ADVANCING AERMOD / SUCCESSION PLANNING 3-1
3.2 ACCOMODATION OF STATISTICAL APPROACHES TO ADDRESS EMISSIONS VARIABILITY 3-2
3.3 ADDITIONAL MODELING CHALLENGES RELATED TO MULTIPLE LAYERS OF CONSERVATISM 3-4
4. CONCLUSION 4-1

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

ALL4 LLC (ALL4) submits these comments on the proposed revisions to the Guideline on Air Quality Models (the Guideline) (88 Fed. Reg. 72826, October 23, 2023) at the request of the National Ambient Air Quality Standard (NAAQS) Regulatory Review and Rulemaking Coalition (NR3). ALL4 acknowledges the substantial effort that the United States Environmental Protection Agency (EPA) has made over time to review model evaluation studies and develop, test, and implement changes to the AERMOD modeling system. The revisions EPA has made in the past and these proposed revisions continue to improve the scientific accuracy of the model in specific areas and provide modelers with more options to apply when performing modeling studies specific to those situations. The proposed additions to the regulatory non-default options available to modelers: COARE, GRSM, and RLINE, are helpful additions, if not likely to see widespread use. The proposed revisions to Appendix W Section 8, specifically the revised guidance addressing the selection of ambient monitors to apply representative ambient background concentrations and on the selection of offsite sources to be explicitly included in the modeling, is helpful, and moving the guidance to a document referenced by Appendix W rather than including it directly in Appendix W should facilitate more timely revisions in the future when updates are warranted.

1.2 SUMMARY OF ALL4'S COMMENTS ON THE PROPOSED REVISIONS TO APPENDIX W AND UPDATES TO THE AERMOD MODELING SYSTEM

1.2.1 We generally support the proposed revisions to Appendix W and the AERMOD modeling system

ALL4 generally supports the following proposed revisions to the AERMOD modeling system:

- Incorporation of the Coupled Ocean-Atmosphere Response experiment (COARE) algorithms into AERMET, the meteorological preprocessor to AERMOD, for use in overwater marine boundary layer environments;
- Addition of the Generic Reaction Set Method (GRSM) as a new regulatory non-default Tier 3 screening technique for the conversion of nitrogen oxides (NO_X) to nitrogen dioxide (NO_2);

- Addition of the RLINE source type to AERMOD as another option for users to characterize mobile sources in regulatory modeling, while retaining the use of the existing AREA, VOLUME, and LINE sources as options for characterizing mobile sources as well; and
- Inclusion of revisions and clarifications to Section 8 of Appendix W refining the recommendations regarding the determination of appropriate model input data, specifically background concentration and offsite inventory source selection, for use in NAAQS modeling demonstrations.

1.2.2 The proposed revisions do not significantly mitigate modeling challenges related to increasingly stringent NAAQS

While ALL4 generally supports the proposed revisions described in Section 1.2.1, we are concerned that these revisions are relatively minor and primarily focus on specific modeling scenarios that may not be useful or applicable in most modeling situations. Additionally, the proposed inclusion of COARE, GRSM, and RLINE into the AERMOD modeling system are as regulatory non-default options, meaning that while an alternative modeling demonstration as described in Section 3.2 of Appendix W is not required, additional justification and consultation with the EPA Regional Office and appropriate reviewing authority would still be necessary, and approval for their use required. As a result, it is unlikely that any of these options will find widespread use in regulatory modeling demonstrations or affect the more overarching issues described in these comments.

That said, the proposed revisions and clarifications to Section 8 are welcome, especially the specific reference to considering exceptional events when selecting appropriate design values to represent ambient background concentrations. But unfortunately, they are unlikely to change the existing methodologies that states and other regulating agencies are using to determine which monitored values to use and what sources must explicitly be included in modeling studies. Additionally, there appears to be no plan to address the future of AERMOD and its ultimate potential successor as the modeling system reaches its third decade as EPA's preferred short range air dispersion modeling system, nor any plan to identify a preferred regional model to replace the CALPUFF modeling system that was removed from the list of preferred models in Appendix A of the Guideline in 2017.

Finally, the proposed revisions fail to address the many layers of conservatism that exist in current air dispersion modeling approaches. While many of these approaches have existed for years, these

unrealistically conservative approaches are impractical as recent and anticipated upcoming revisions of the NAAQS approach levels close to the existing ambient background concentrations, as is expected to be the case if the annual fine particulate matter with a diameter of less than 2.5 microns ($PM_{2.5}$) NAAQS is revised. As the standards approach background levels it leaves a smaller amount of headroom for building new infrastructure and expanding manufacturing and the associated jobs. With these potential adverse impacts in mind, we urge EPA to provide a supplemental proposal to address these many unrealistic elements (outlined in Section 3 of these comments).

2. COMMENTS ON PROPOSED REVISIONS TO APPENDIX W AND THE AERMOD MODELING SYSTEM

2.1 GENERAL APPRECIATION OF PROPOSED REVISIONS TO APPENDIX W AND THE AERMOD MODELING SYSTEM

ALL4 appreciates EPA's efforts and generally supports the proposed revisions to Appendix W and the AERMOD modeling system discussed below. These revisions should increase the scientific accuracy of the AERMOD modeling system in certain specific areas.

Yet, while we support these proposed additions, we note that they are added only as regulatory non-default options in AERMOD, requiring further justification and approval before they can be used in a regulatory modeling setting. Because of the added time and effort required to garner that approval and the only slight improvement these options may provide, as well as their relatively limited application in modeling studies, these options are not likely to see widespread use, nor do they significantly improve on the many conservatisms present in the AERMOD modeling system. We encourage EPA to continue evaluating these options to facilitate their inclusion as regulatory default options in AERMOD as quickly as possible.

2.1.1 The incorporation of COARE algorithms into AERMET for use in over water marine boundary layer environments should improve scientific accuracy

The COARE algorithms are an improvement over the existing algorithms in AERMET for boundary layer scenarios over water as provided in "Evaluation of the Implementation of the Coupled Ocean Atmosphere Response Experiment (COARE) Algorithms into AERMET for Marine Boundary Layer Environments," as would be the case in the modeling for offshore wind and oil drilling facilities that are becoming increasingly more prevalent. At present, the use of the standalone program AERCOARE to include consideration of overwater boundary layer meteorology requires an alternative modeling demonstration to use in marine modeling scenarios. If COARE becomes a regulatory non-default option in AERMOD for these scenarios, it would be helpful for EPA to streamline the methodology approval process and improve the accuracy of the modeling results for over water modeling studies (offshore wind, etc.), though

consultation with the EPA Regional Office and appropriate reviewing authority would still be necessary for approved use.

2.1.2 The addition of GRSM as a third Tier 3 screening technique for NO_X to NO_2 conversion provides additional options

The GRSM option specifically addresses two areas not considered in the current Tier 3 NO_X to NO_2 conversion techniques used in NO_2 modeling, the Plume Volume Molar Ratio Method (PVMRM) and the Ozone Limiting Method (OLM):

- Photolytic conversion of NO_2 to nitric oxide (NO), which effectively reverses some of the NO_X to NO_2 conversion process; and
- The time to convert NO_X to NO_2 via titration and ozone entrainment and therefore the distance the plume travels before that conversion occurs.

The failure to consider these two aspects in the existing Tier 3 screening techniques can cause overprediction of NO_2 concentrations when using those techniques. GRSM has been shown to be more accurate than OLM in most situations and similar in performance to PVMRM as discussed in the report titled Evaluation of the Generic Reaction Set Method for NO_2 conversion in AERMOD. The modification of AERMOD to include ADMS chemistry. Cambridge Environmental Research Consultants (CERC) Technical Report. Because GRSM requires additional input (background NO concentration data) and is proposed to be available only as a regulatory-non default option, it is likely to be used only on occasions where the regulatory default Tier 2 Ambient Ratio Method (ARM2) does not produce the desired modeling results, as is the case with the existing Tier 3 screening techniques. ALL4 agrees with and supports EPA's proposal to include GRSM as a 3rd regulatory non-default Tier 3 screening technique available when modeling NO_2.

2.1.3 The addition of RLINE source as a mobile source type provides another option for handling on-road emissions

The proposed addition of RLINE to the AERMOD modeling system is a follow-on to the 2017 updates to Appendix W where the CALINE3 model was dropped from Appendix A of the Guideline, which contains EPA's list of preferred models, for mobile source modeling and was replaced by AERMOD. The RLINE source type is designed to model near-surface releases, is focused on evaluating the impacts of the source on or near the road itself, and is more accurate than using the existing source types available in the AERMOD system as discussed in Incorporation and Evaluation of the RLINE Source Type in AERMOD For

Mobile Source Applications. EPA is also proposing the use of the urban option in AERMOD and terrain when using this source type, although the proposal does not supersede EPA's existing hot-spot guidance that recommends the use of the FLAT terrain option for modeling applications. Additionally, the proposal still allows for the use of the existing AREA, VOLUME, and LINE source types commonly used to represent mobile sources in AERMOD. While we support the inclusion of the RLINE source type in the AERMOD system, we note that these additional considerations when using the RLINE source type, as well as the additional consultation requirements in a regulatory modeling application, make it unlikely that this source type will see extensive use.

2.2 PROPOSED REVISIONS TO GUIDANCE ON SELECTION OF AMBIENT BACKGROUND AND INVENTORY SOURCES

ALL4 appreciates the efforts of EPA to create the Draft Guidance on Developing Background Concentrations for Use in Modeling Demonstrations document towards clarifying the process for selecting representative ambient background monitors and offsite sources to include in modeling, as well as directly referencing it in the proposed revised Appendix W. The currently used term "significant concentration gradient," which is utilized to help determine which sources should be included in a modeling study, is poorly defined and has been a source of uncertainty since it was added to Appendix W, at times causing confusion in determining what sources to explicitly model. This confusion may have led many state agencies to their current practice of considering all sources out to 50 km from the study source for inclusion in the offsite inventory to be explicitly modeled, as described in the New Source Review (NSR) guidance of 1990. Replacing that term with a series of steps to be taken in selecting a representative ambient monitor and determining the offsite inventory simply formally documents the steps for these choices that have unofficially been in use by agencies and modelers for many years. Specific to this guidance, ALL4 provides the following comments:

1. We support the reference to guidance not directly included in the text of Appendix W. This should allow for revisions and additions to the guidance in a simpler and more timely manner than the process for formally updating Appendix W. At the same time, EPA should provide an opportunity for comments on any proposed revisions of the guidance.

2. We note that while the guidance document clarifies the decision-making process and removes the vague "significant concentration gradient" term, the new stepwise approach still does not have specific metrics or criteria to define which sources are suitably represented in the ambient background concentration and which should be explicitly modeled. Critically, there is nothing in this guidance that is likely to cause states to change their current behaviors in requiring which sources should be included in a cumulative modeling exercise. This is important for two reasons:
    a. While EPA often states that it has little or no control over what states require in developing an offsite inventory for modeling, the state agencies are the ones that determine those inventories, even for PSD projects. Therefore, those states need specific guidance as to what is and isn't appropriate to include in a cumulative modeling inventory and assurances that they will not be second guessed by EPA on those determinations.
    b. EPA, at a December 14, 2023 meeting with the forest products industry relating to the pending annual $PM_{2.5}$ NAAQS revision, stated that consultants are "including too many offsite sources in their modeling studies", yet the proposed guidance document includes nothing that would encourage state agencies to change the behaviors that are already in place under the previous Appendix W text. If EPA truly believes that too many sources are being included, more concrete language to encourage state and other regulating agencies to limit the extent of their offsite inventories is necessary.

    By way of example, the Oregon Department of Environmental Quality (ODEQ) requires permit applicants to explicitly model all facilities with Title V or minor permits within 20 kilometers of the study site as part of the cumulative inventory, which is clearly not the intention of the previous Appendix W Section 8 guidance or that of the proposed draft guidance. While the ODEQ guidance is primarily used for in-state modeling, there is little doubt that ODEQ would use that same guidance for a PSD project being proposed in Oregon, and that EPA Region 10 would not be involved in or comment on the selection of the inventory.

    Because of this reality, EPA should define in more concrete terms exactly what criteria are expected to be used when determining which offsite sources are to be explicitly included in a modeling demonstration in support of a permit action.

3. We support the general acknowledgement that using a less conservative background design value, (i.e., a value adjusted by excluding values that resulted from direct contribution of emission sources not representative of emissions in the modeling domain, selection of a background monitor based on representativeness and not proximity, etc.) is acceptable in regulatory modeling exercises. This is critical in the context of modeling exercises where all of the modeling inputs are typically worst-case scenarios and the statistical probability of all such worst-case events occurring at the same time as the worst-case ambient background concentration is near-zero or nonexistent. This includes the consideration that the use of diurnal or seasonal background values rather than a single value may produce more accurate and less overly conservative results.

4. We generally support the acknowledgment that "Data may also be modified or excluded from the ambient data record when the monitor is impacted by atypical activities (i.e., impacts that will not occur again in the future)," as referenced in EPA's 2019 guidance on Additional Methods, Determinations, and Analyses to Modify Air Quality Data Beyond Exceptional Events. The ability to review and potentially remove from consideration ambient background concentrations related to exceptional events, especially from events like wildfires, in the context of determining ambient background concentrations for ozone (O_3) and $PM_{2.5}$ modeling studies, is critical. However, while this guidance has been available for several years, most agencies have not been willing to use the guidance as it lacks clear and efficient steps that would aid agencies in making the determination of what constitutes an exceptional event. The process for submitting exceptional events information to EPA needs to be simplified as it is too costly and time consuming for states. For example, one state air agency evaluated 60 air events at a cost of $750,000 and devoted 7,500 hours of staff time only to have EPA accept just 20 submissions.[1] To that end, we recommend that EPA set forth a specific, stepwise process that agencies should follow to review these events and correct the ambient background data, to provide a clear path on how they should address these atypical events. State agencies whose primary responsibilities include collection, quality assurance, and certification of ambient concentration measurements should be consulted to develop systematic and consistent procedures and tools.

[1] Particulate Matter NAAQS: Perspectives and Challenges – Arizona, September 27, 2023, https://cleanairact.org/wp-content/uploads/2023/09/19_Brad-Busby-ADEQ-AAPCA-2023-Fall-Meeting-PM-Challenges_Final.pdf.

5. As a corollary, EPA should include in the guidance similar steps for the consideration and removal of impacts from emissions sources that directly affect the design concentration of an otherwise representative monitor and are not representative of conditions in the modeling domain.

6. Additionally, we recommend that EPA present a methodology for correcting known biases present in Federal Equivalent Method (FEM) monitors. These monitors are known to EPA to exhibit a conservative bias compared to more accurate co-located Federal Reference Method (FRM) monitors, often by as much as 15-20%[2]. EPA should either provide guidance as to how to make the correction and utilize the corrected data in regulatory modeling or correct the data themselves and make the corrected data available for use in modeling exercises. Correcting the historical record is critical because ambient monitoring data used for regulatory modeling relies on 3-year averages of certified measurements; biased measurements are prevalent in the current record from 2020-2022 (and soon 2021-2023) and should not be used without correction because they cannot provide an accurate estimate of the background concentration.

7. Section 5, "Additional Considerations" of the draft guidance document explains that determining appropriate ambient background concentrations may include consideration of at-risk communities in the context of environmental justice (EJ), and references the use of EPA's Environmental Justice Screening and Mapping Tool, EJScreen to help with that characterization. However, EPA does not have a formal definition of what constitutes an at-risk community or EJ community (also referred to at times as an overburdened community) even in the context of its own EJ initiatives, and EJScreen not only does not determine if a community is at-risk or EJ, but the data in the tool is often outdated and relies heavily on the use of surrogates (i.e., using a count of houses built prior to 1960 as the determinant for the lead paint environmental indicator) to determine EJ Index scores. In some cases, EJScreen may be reliant on outdated data related to the very criteria and non-criteria pollutants that are being modeled using more up-to-date data. Additionally, it is unclear whether consideration of EJ concerns in this context without any formal accommodation for EJ in the current permitting requirements is appropriate. Finally, EJScreen is

[2] Per "Assessment of PM2.5 Data Comparability between FRM and FEM Monitors" by Karen Mentz and Zach Emerson of NCASI, presented at 2023 NCASI Annual Conference.

only one of several tools and guidelines, including the Council on Environmental Quality's CEJST tool, EPA's recently issued Draft EJ Guidance for Regulatory Cost/Benefit Analysis, etc. that have differing guidelines on what constitutes an EJ community. EPA should include a specific definition of what constitutes an EJ community for modeling purposes, and the requirements around the consideration of EJ in the permitting context, if this reference is to be included in the final guidance document. Without such definition and direction, we recommend this section be removed from the guidance document altogether until such time as those requirements are formally defined.

3. ISSUES THAT SHOULD BE ADDRESSED IN REVISION TO APPENDIX W

While ALL4 appreciates the technical work behind the proposed revisions to Appendix W, we note that the revisions to AERMOD are incremental, only apply to a subset of modeling scenarios, and have only been proposed as regulatory non-default options. None of these changes are likely to have an impact on most regulatory modeling and they require additional effort and approval by the regulating agency to use. The periodic revisions to Appendix W provide an opportunity to address the numerous modeling related issues that have persisted for many years, either directly or through referenced guidance. EPA, in the currently proposed set of revisions, has not taken the opportunity to do this. We recommend a supplemental proposal from EPA to address the topics discussed below. These considerations are critical as the NAAQS become increasingly stringent and approach ambient background levels, leaving little margin for error amid overly conservative approaches in permitting and modeling decision making.

3.1 LACK OF PROGRESS IN ADVANCING AERMOD / SUCCESSION PLANNING

The AERMOD modeling system was the result of a collaborative effort between the American Meteorological Society and EPA. It took many years to develop and test and was supported by numerous field studies. Since 2005 when the model was formally adopted by EPA as the preferred model for most regulatory applications, AERMOD has been slowly improved and its capabilities expanded to enable it to cover a larger array of potential modeling scenarios. Many of the recent additions have involved integrating other older specialized models into the AERMOD system, with some integrations being more successful than others. At this point, AERMOD has been the preferred regulatory model for nearly 20 years and progress on improvements, notwithstanding the 2017 Appendix W revisions, and associated changes in the model, has slowed. At the public hearing on the Appendix W revisions held at EPA in Research Triangle Park, NC on November 14-15, 2023, there was no mention of what EPA's long-term plans for AERMOD are as the system increasingly shows its age. Indeed, the system of developing white papers to identify and promote improvements in model performance which was introduced with the 2017 revisions has come to a stop: There have been no updates to the white papers since the documents were originally uploaded on September 19, 2017. Additionally, the number of preferred and recommended models listed in Appendix A of the Guideline for regulatory use has fallen to an all-time low of 3: AERMOD, along with the rarely used CTDMPLUS and OCD models. And, since removing CALPUFF from the list with the 2017 revisions, no replacement for regional modeling scenarios has been recommended. EPA should chart out

and publish its plan for the future of AERMOD, including what and when significant revisions will be made, what models may be considered as its successor, and other planned changes, so that interested parties can participate and prepare. The current policy where known problems with the model are layered over by making conservative assumptions will not work as the NAAQS are lowered towards levels near existing ambient background values.

3.2 ACCOMODATION OF STATISTICAL APPROACHES TO ADDRESS EMISSIONS VARIABILITY

ALL4 is concerned that with the lowering of NAAQS to near background levels, the current policy outlined in Appendix W Section 8.0 of unrealistically assuming that a source always operates at its maximum potential-to-emit (PTE) emission rate is becoming less viable, especially for those sources with highly variable emission rates that rarely, if ever, reach PTE levels. As described in Table 8-1 (for State Implementation Plan [SIP] modeling) and Table 8-2 (for cumulative NAAQS compliance demonstrations for Prevention of Significant Deterioration [PSD] permits), mass emission rates are input to the model as a function of the **emission limit** (lb/MMBtu or lb/unit of production [UOP]), **operating level** (MMBtu/hr or UOP/hr), and **operating factor** (hr/yr or hr/day). To the extent the current prescription to simulate emission rates from new and modified emission units based on the maximum allowable emission limit at the maximum operating level and continuous operations overestimates actual emissions and resulting ambient concentrations, that overestimation is amplified by the number of emission units simulated that affect the modeled design concentration. For example, if the simulated emission limit, operating level, and operating factor of an emissions unit are each overestimated (regardless of cause) by merely 10%, the resulting estimate of the ambient concentration would be expected to be overestimated by approximately 33%, which equivalently suggests the actual concentration is 75% of what would be predicted by the model. In a typical annual average $PM_{2.5}$ analysis that quantifies the modeled design concentration to be on the order of 2.0 $\mu g/m^3$ attributable to one emission unit, this equates to 0.5 $\mu g/m^3$ for only a 10% overestimate in each component of the modeled emission rate. Larger overestimates of the emission rates compound to larger overestimates of ambient concentrations, emphasizing the importance of using unbiased estimates of the emission limit (based on available emissions source testing methods) and realistic representations of the operating level and operating factor. In the prior 2017 revision of Appendix W, EPA recognized the importance of this – the latter operating level and factor specifically – in Table 8-2 for nearby sources modeled as part of PSD analyses and in Table 8-1 for sources

subject to SIP demonstrations. This level of consideration should be extended to the sources that are the subject of the study themselves.

We recommend that EPA revise Section 8 of Appendix W, and specifically Table 8-2, to allow and promote alternative approaches that characterize variability in emissions for new and modified emission units as part of PSD analyses, including statistical evaluations of variable emissions rates at a given source. Statistical approaches and Monte Carlo-style randomization techniques, and post processing of modeling results using the Emissions Variability Processor (EMVAP) or other similar postprocessors can be used to generate many thousands of modeling scenarios representative of the true operating conditions of a source and show that none, or an extremely small percentage of those scenarios will result in exceedances of the NAAQS being considered. Such approaches can still include an appropriate amount of conservatism by, for example, assuming the maximum allowable emission limit for each scenario while simulating realistic operating levels and operating factors (potentially resulting in a permit limit to that effect) in each scenario to model a much more realistic array of emissions over each averaging period of interest. Four current examples of such studies or approaches allowed by regulatory agencies include:

1. The 1-hour SO_2 (SIP) submitted by the Texas Commission on Environmental Quality (TCEQ) for the Howard County, Texas nonattainment area. This SIP utilized a Monte Carlo randomization scheme for four flares with highly variable emissions operating at an oil refinery in the nonattainment area to generate millions of emissions scenarios. It showed that the impact in none of those scenarios exceeded the 1-hour sulfur dioxide (SO_2) NAAQS in millions of iterations of the modeling. This SIP is currently under review by EPA.
2. The Washington Department of Ecology (WAECY) allows for the use of a Monte Carlo statistical approach when estimating the potential NO_2 impacts from the intermittent use and testing of emergency engines located at data centers in the state. These data centers typically have many engines that are only occasionally used and tested (except in emergency conditions), requiring special accommodation for assessing their potential impacts. WAECY describes this approach in its January 2011 memorandum regarding "A statistical method for modeling the intermittent emissions and estimating the 98th percentile impacts".
3. Oregon Department of Environmental Quality also allows the use of the WAECY statistical approach when evaluating NO_X emissions from emergency engines at data centers in that state.

4. The Iowa Department of Natural Resources (IDNR) allows sources to limit themselves to operating multiple hours per day without specifying which hours and without having to include the full model-predicted impacts from every hour that the source may operate. This methodology is provided in the document titled DNR Suggested Methodology for Modeling Restricted Hours of Operation, specifically Option 3 of that guidance.

3.3 ADDITIONAL MODELING CHALLENGES RELATED TO MULTIPLE LAYERS OF CONSERVATISM

In addition to providing the ability to consider more realistic patterns of emissions from sources with variable emission rates as described above, EPA should address the multiple layers of conservatism that individually reflect highly unlikely scenarios but, when combined, create worst-case conditions that are unlikely to occur. Our suggestions in this regard are discussed below:

1. In Section 9.2.2 of Appendix W, EPA should address the issue of ambient air in a manner that accommodates the likelihood of a member of the public being exposed to a degree consistent with the modeling period. For example, accommodations should be made for the handling of receptors on public roads that pass through an industrial site where a member of the public would never be at the location of a receptor for a full hour, let alone for periods that are reflective of NAAQS with longer averaging times. Similar considerations should be made for fence line or other receptors near a facility where members of the public would have no reason to congregate. Additional considerations should be made for alternative ways to preclude public access, like signage, security patrols, etc.

2. EPA should continue and finalize work to update the PRIME building downwash model that has been shown to have many deficiencies and can lead to inaccurate, and often overly conservative, modeling results. While building downwash was an area of focus during the period around the proposed revisions to Appendix W in 2017, it appears that little progress has been made since then, and that EPA is giving less attention to the issue now.

3. EPA should address known issues with AERMOD's AREA and VOLUME source algorithms, especially when used for characterizing fugitive emissions. These algorithms often result in overly conservative results. We support the recent research on handling of AREA sources in low-wind

conditions that has been incorporated into AERMOD as an Alpha option for additional testing and propose additional review of the performance of these source types.

4. EPA should eliminate the overly conservative requirement to estimate and add secondary $PM_{2.5}$ concentrations to primary $PM_{2.5}$ impacts. Primary impacts usually occur at or near the fence line, while EPA's Modeled Emission Rates for Precursor (MERP) guidance shows that secondary formation peaks 7-10 kilometers downwind. EPA should revise the guidance to add secondary impacts only at a set distance from the source.

5. Specifically related to modeling of $PM_{2.5}$, we have concerns with the requirements for $PM_{2.5}$ modeling outlined in the Revised DRAFT Guidance for Ozone and Fine Particulate Matter Permit Modeling that required all components of $PM_{2.5}$ to be considered should any component, including NO_X, SO_2, or primary $PM_{2.5}$ trigger review under the Prevention of Significant Deterioration (PSD) program. Given the conservatisms built into current Appendix W modeling requirements as well as potential overpredicted modeling impacts from sources representing fugitive emissions near a facility fence line, this could create a scenario where a facility triggers PSD review for only SO_2 for a boiler modification, and thus must model primary $PM_{2.5}$ emissions, where even a very small emission increase near the fence line, given the various conservatisms built into present modeling methodology, could exceed the Significant Impact Level (SIL) and require a full cumulative modeling demonstration including all sources at the facility, all nearby offsite sources, and the addition of an ambient background concentration for comparison to the NAAQS. The implementation of this guidance more than 10 years after the $PM_{2.5}$ NAAQS was first implemented for PSD permitting, and only approximately 2 years before a more stringent revised $PM_{2.5}$ NAAQS is implemented, poses substantial challenges to permit applicants and regulatory agencies charged with issuing permits. The increased likelihood of triggering cumulative analyses – even for sources or modifications that are minor for direct $PM_{2.5}$ emissions, amplifies the urgency for EPA to address other issues identified in these comments related to biased ambient monitors, simulation of variable emissions, spatial and temporal correlation of secondary $PM_{2.5}$ formation, and selection of ambient air receptors, all of which can significantly affect the representativeness of a $PM_{2.5}$ cumulative analysis.

4. CONCLUSION

ALL4 appreciates the continued work and effort EPA has made to further the scientific accuracy of the AERMOD modeling system and clarify the process and procedures in Appendix W that are required to perform air dispersion modeling for regulatory analyses. We believe, however, that significant additional changes must be made to accommodate ever stricter NAAQS and increasingly complex modeling scenarios. Given the timeframe of Appendix W revisions, EPA must act now to address the issues outlined in this comment document. Waiting another 3 years to begin to address these issues could put large areas of the country in permitting gridlock and significantly impact the ability of communities to take advantage of the recent generational investments that Congress has enacted through the Bipartisan Infrastructure Bill for new transportation infrastructure, CHIPS and Science Act for semi-conductor facilities, and Inflation Reduction Act clean energy investments. Overly conservative modeling will impose highly costly permitting that may smother both public and private sector investments and their associated economic and employment opportunities. We are seeking review of these areas to reduce the many layers of overly conservative assumptions, not eliminate the protectiveness of the models, with the goal of allowing industry to continue to expand in the United States while continuing the trend of improving air quality throughout the country.

Oral Testimony of Paul Noe for American Forest & Paper Association and American Wood Council before House Energy and Commerce Committee, Environment, Manufacturing, and Critical Materials Subcommittee "Safeguarding American Prosperity, Air Quality, and People's Livelihoods: Legislation to Modernize Air Quality Standards." (Thurs. 2/15/24, 10:30am)

Chairs Carter and Rogers, Ranking Members Tonko and Pallone, and distinguished members of the Committee: My name is Paul Noe, and I am here today on behalf of the American Forest & Paper Association and American Wood Council. Thank you for the opportunity to speak about reforming EPA's air quality program.

AF&PA represents manufacturers of sustainable paper products, and AWC represents manufacturers of structural wood products. These products are sourced from sustainably managed forests and made in America.

The forest products industry employs about 925,000 hard-working Americans, producing 5% of our nation's GDP. I'm proud to say that already our industry has voluntarily reduced its greenhouse gas emissions by more than 24% - and we aim to cut them in half by 2030 - consistent with President Biden's goal.

Our members **care deeply** about the **health and well-being** of the **communities** in which they operate. And we'll **continue** to work toward reducing harmful pollutants, using the best available technology.

The EPA's NAAQS Program is Not Working

But there is no way to sugarcoat it - ***our regulatory process is not working***, and ***we need your help to fix it***.

Specific problems manufacturers face with the current NAAQS programs include:

- First: **Outdated tools and policies** require facilities use **multiple, worst-case assumptions** that overstate a project's true impacts on air quality.
- Second: A **perpetual cycle** of **litigation-driven reviews** creates **regulatory uncertainty** and **investment uncertainty**.
- And third: Our **regulatory system** does **not optimally address the most impactful emissions**.

PM NAAQS 2.5 is the most recent example
Last week's PM NAAQS rule vividly demonstrates why **common-sense reforms** are **urgently needed**. Under previous PM standards, our industry made substantial capital investments to modernize.

But last week's PM NAAQS rule will **no longer permit** similarly beneficial projects. That means a **net loss** for the mills, employees, and the environment.

Furthermore, communities won't benefit until EPA addresses the **84% of particulate matter emissions** -- that it did **not address** -- from other sources, such as wildfires and road dust. Pulp, paper and wood product mills account for **less than 1%** of particulate matter. We can't meet the nation's air quality objectives simply by focusing on stationary sources yet again – especially when our **air permit program** is **so challenged**.

Let me be **clear**.
- This new PM standard is a **perfect storm** for **permit gridlock**, making it much harder to modernize our facilities and continue reducing emissions.
- EPA rushed to tighten the PM NAAQS **close to background levels**, ahead of schedule – and **without a workable implementation plan**.
- And, the rulemaking sets an unrealistic 60-day effective date setting a course for **gridlock** to commence **right away**.

It is frustrating that EPA and the White House ignored concerns raised – by industry, **labor** and **elected leaders**. As a result, many current and future modernization projects are now in question.

Draft Committee legislation is a positive step forward
Where do we go from here? The proposed legislation you are considering today would **greatly improve** the NAAQS program. We support:
- Requiring a **workable implementation plan** **when** standards are lowered so they can be **successfully attained**;
- Establishing a 10-year review cycle to **increase certainty** and **reduce wasteful litigation**;

- And reforming the Exceptional Events program to **prevent wildfires** – the largest source of particulate matter.

But this legislation can go further in reforming NAAQS
We applaud the committee for developing this important legislation. We also urge you to cover the recent PM NAAQS rulemaking to ensure a **workable implementation plan** is developed **before** the rule takes effect.

We also believe it is important to ensure:

- **Clarity** on what an **acceptable implementation plan should include**;
- **Realistic modeling** of where people actually live and work and the variability of emissions; and
- Allowing exceptional events to be accounted for in modeling and permitting.

Unfortunately, the PM NAAQS rule is only part of a cumulative regulatory challenge. Many recent and pending rulemakings have not considered evidence of unintended outcomes.

If we don't change our trajectory now, we believe **American jobs in many of your districts are at stake**. We stand ready to work with you to strengthen and support this effort.

Thank you for your consideration. And to **Chair Rodgers**, **thanks can't be said enough** for your **tireless leadership** over the last two decades to support sustainable manufacturing in America.

I look forward to your questions.





Written Testimony of Paul Noe for
American Forest & Paper Association and American Wood Council,
Hearing before U.S. House Committee on Energy and Commerce,
Subcommittee on Environment, Manufacturing, and Critical Materials,
"Safeguarding American Prosperity and People's Livelihoods:
Legislation to Modernize Air Quality Standards"
(February 15, 2024)

Chairs Rodgers and Carter, Ranking Members Pallone and Tonko, and distinguished members of the Committee, my name is Paul Noe, and I am representing the American Forest & Paper Association and the American Wood Council. Thank you for the opportunity to be heard on our concerns about the National Ambient Air Quality Standards (NAAQS) program. We appreciate the Committee's draft bill to modernize and improve the NAAQS program, which is urgently needed.

I. Background

Our forest products industry employs about 925,000 hard-working people, producing 5% of our nation's GDP.

The American Forest & Paper Association (AF&PA) represents manufacturers of paper products made in the USA. Paper products support sustainable living. Paper mills support the American workforce, produce carbon-neutral bioenergy, and support recycling.

The American Wood Council (AWC) represents 87 percent of the structural wood products industry. From dimension lumber to engineered wood products, we champion the development of data, technology, and standards to ensure the best use of wood products and recognition of their unique sustainability and carbon-reduction benefits.

AF&PA's sustainability initiative — *Better Practices, Better Planet 2030* — comprises one of the most extensive quantifiable sets of sustainability goals for a U.S. manufacturing

industry and is the latest example of our members' proactive commitment to the long-term success of our industry, our communities and our environment. We have long been responsible stewards of our planet's resources.

AF&PA is pleased to report that our members achieved most of our 2020 sustainability goals, including reducing greenhouse gas emissions 24.1 percent during 2005-2020 and improving purchased energy efficiency by 13.3 percent. Our 2030 goal to reduce greenhouse gas emissions by 50 percent is consistent with President Biden's 2030 economy-wide goal, and a leading example for the U.S. manufacturing sector. AF&PA recognizes the ongoing challenges of our changing climate, and our industry greenhouse gas (GHG) goals reflect our commitment to reducing emissions.

From the wood products side, our industry was the first to develop third-party verified Environmental Product Declarations (EPDs) describing the environmental performance of our products from cradle to grave. That data clearly demonstrates that wood products from our sustainably managed U.S. forests represent a proven pathway for decarbonizing the built environment, providing carbon storage benefits while displacing emissions from conventional carbon-intensive building materials. Moreover, wood products provide a host of other environmental and societal benefits, while providing critical, high-paying jobs in rural communities.

The environmental benefits of working forests and wood products have been recognized by this Administration, including most recently in the following COP 28 announcement by the Forests and Climate Leaders Partnership, which was co-chaired by U.S. Special Climate Envoy, John Kerry:

> *"Recognizing that wood from sustainably managed forests provides climate solutions within the construction sector, we commit to, by 2030, advancing policies and approaches that support low carbon construction and increase the use of wood from sustainably managed forests in the built environment. Such policies and approaches will result in reduced GHG emissions, and an increase in stored carbon."*[1]

[1] Available at: https://www.businesswire.com/news/home/20231206912774/en/.

This statement was signed by the U.S. and 16 other countries, including France, Germany, Japan, Korea, Canada, and Great Britain.

Forest products support sustainable living. Paper and wood products mills support the American workforce. And the paper and wood products industry works every day to be a good neighbor in communities large and small.

Our goal is sustainable regulation which stands the test of time. Sustainable regulations must satisfy legal requirements and support environmental and economic needs as well as social expectations. This is consistent with the dual purposes of the Clean Air Act to protect and enhance air quality so as to promote public health and welfare, as well as the productive capacity of our nation.[2]

II. The Compelling Need to Reform the NAAQS Rulemaking Process

Unfortunately, the NAAQS program is not working -- especially in its failure to align workable implementation plans with a new lowering of a NAAQS. As discussed in Section IV, there are two parts to the clean air programs that focus on criteria air pollutants subject to NAAQS. The process of setting the standard and the permitting program, which we have identified for decades as a barrier to innovation and accomplishing relatively little in the way of public health benefits. There are many other components of the Clean Air Act that set requirements to directly reduce emissions without throwing up complex procedural provisions like the Prevention of Significant Deterioration (PSD) and New Source Review (NSR) permit programs. PSD review is triggered when a project exceeds the significant emissions thresholds, which can be as small as 10 tons per year.

In the case of the $PM_{2.5}$ NAAQS, the Governors of Wisconsin, Kentucky, and Kansas have asked for reconsideration of the rule or its implementation (see pages 8 to 12 of the attachment). And our partners in labor, including the United Steelworkers, the Pulp and Paperworkers' Resource Council, and the Forest Products Industry National Labor Management Committee, also have sought sustainable regulations that do not put American jobs in peril (see pages 1 to 7 of the attachment).

[2] *See* Clean Air Act, Section 101(b)(1).

We must modernize the statute to continue the essential effort to protect public health while recognizing the huge progress the country has made in improving air quality over the decades. This can be accomplished through very limited adjustments to the law – and the discussion draft bill being considered by this Committee includes many improvements to the NAAQS program.

Section 2(e) of the bill ("Timely Issuance of Implementing Regulation and Guidance") appropriately links any change in the NAAQS with issuance of a workable plan for how it will be implemented by states, and as importantly, for obligations of regulated sources. As the standards have been lowered, and emission reductions have occurred, the "low hanging fruit" of easily controlled stationary sources are largely gone because most new and existing sources are already well-controlled. Non-traditional sources of pollution such as wildfires (the largest source of PM), dust, and even international transport have become larger percentages of the remaining emissions profile (see page 18 of the attachment) – and are harder to address and develop appropriate policy responses. As a result, EPA needs to develop not just a traditional implementation plan to guide the designation process for states, but also a plan that includes updated tools and policies for the broader permitting program to ensure that both public health is protected and economic viability is sustained to support U.S. manufacturing and the innovation and high-paying jobs it provides.

Section 2(b) of the bill states "The Administrator may, as a secondary consideration in establishing and revising the national ambient air quality standard for such air pollutant, consider likely attainability of the standard", which recognizes the importance of attainability when setting a NAAQS, especially in how it is implemented. For example, if modernization projects that would reduce emissions per ton of production are thwarted, and the public health objectives of the law are harmed, and carbon reduction targets set elsewhere compromised, then EPA should be able to adjust its policies and permitting tools to allow these types of win-win projects to proceed. These projects could be replacing older pulp mill process equipment nearing the end of their life with new modern equipment that is much more efficient, such as lime kilns or power boilers. A project may be a new lumber mill expanding the production of carbon-sequestering, wood construction materials that helps support affordable housing. And as markets change, converting a newsprint mill to make tissue paper or containerboard. Again, using more realistic assumptions as discussed below maintains health protection while embracing economic opportunities, innovation, and job growth.

Section 2 of the bill ("Facilitating State Implementation of National Ambient Air Quality Standards) includes a provision in Section 2(a) that adjusts the frequency of mandated NAAQS reviews from five to ten years. This would provide important regulatory certainty throughout the permitting process that helps with business planning and investment essential for both the competitiveness and environmental progress of U.S. manufacturing.

It is important to bear in mind that the NAAQS program is extremely complex and extensive -- there are six NAAQS standards that cover particulate matter, ozone, nitrogen oxides, sulfur dioxides, carbon monoxide and lead. And several standards have multiple forms to protect both short- and long-term exposures, as well as consideration of public welfare and environmental impacts. Under the current five-year cycle, at least one NAAQS is up for review each year on average. This makes it very hard for manufacturers, who must plan to be in compliance, to anticipate the regulatory landscape for operating our facilities across the country. In addition, this not only makes EPA's job very hard; it makes it very challenging for States who must implement the program.

Timeframes gives states and sources, including non-traditional sources, the time it will take to achieve further air quality improvements given the increasing costs and difficulty in finding the necessary reductions to get areas into attainment and further reduce background concentrations of the critical air pollutants. Some states have supported the ten-year timeframe in the past. (*See, e.g.*, testimony of Sean Alteri, Director of the Kentucky Division of Air Quality, before this Committee on March 22, 2016). EPA and interest groups agreed to a ten-year schedule for making sulfur dioxide designations when EPA reviewed that NAAQS in 2010.

And, of course, if significant new health evidence were to emerge before the 10-year review deadline, ***EPA could always start its review cycle sooner. The way the draft legislation appears in our reading indicates that nothing in the proposed legislation would prevent any earlier reviews deemed necessary***. If you look at the history of the PM NAAQS, EPA regulations have struggled to keep pace with the 5-year cycle and can extend closer to 10 years. Finally, this provision may mitigate the filing of lawsuits against EPA when it fails to meet a deadline for the review of a NAAQS and allow the Agency to control its regulatory workload in a more coherent manner. The end result

would still be improving air quality while growing our economy and enhancing our quality of life.

Section 2(i) of the Discussion Draft would provide clarity and legal certainty to EPA's Exceptional Events program. This would help prevent and reduce the growing risks of wildfires, which are the largest source of PM. EPA has acknowledged the trend in PM emissions from wildfires and the need for prescribed burns, an important part of healthy forest management. When it released its PM NAAQS rule on February 7, EPA stated in an accompanying Fact Sheet on "Wildland Fire, Air Quality, and Public Health Consideration":

> "Wildfires have been growing in size and severity, with millions of people at risk from wildfire and wildfire smoke. The wildfire crisis is a public health crisis, including significant impacts on air quality. As wildfires increase in size and severity, the related public health impacts, including from smoke exposure, will continue to grow. At the same time, increasing the application of prescribed fire in a strategic and coordinated manner is needed to mitigate the risk and adverse effects of high severity wildfire and future smoke exposure."

While Clean Air Act Section 319 addresses exceptional events, there have been concerns about whether the statute clearly protects actions to mitigate wildfire risk, i.e., prescribed burns (*See* letter to EPA from Standford Researchers commenting on the proposed PM NAAQS (March 28, 2023), and letter from the California Congressional Delegation to EPA Administrator Regan (June 13, 2023)). For example, Section 319 defines exceptional events as "not reasonably controllable or preventable." Section 2(i)(2)(E) of the Committee's draft bill would make clear that exceptional events include prescribed burns by adding a separate category of coverage ("Actions to Mitigate Wildfires"), undertaken in accordance with State approved practices.

III. **Suggestions for Additional NAAQS Reforms**

AF&PA, AWC and other industries have been working hard and presenting our ideas for modernizing EPA's permitting program for over a decade. For example, about a decade ago, in 2014, we assembled an extensive analysis highlighting problems with the PSD and NSR programs and, more importantly, outlined specific actions EPA could take to address the problems. Let us summarize just a few examples for permitting

improvements that we have presented to the Agency then, and as recently as December 21, 2023 in the comments of the NAAQS Regulatory Review and Rulemaking (NR3) Coalition[3] on EPA's proposed rule on "Guideline on Air Quality Models; Enhancements to the AERMOD Dispersion Modeling System"[4]. These documents highlight some of the key areas where the permitting program has diverged from reflecting real world conditions by ignoring true air quality impacts. We recommend that the bill language be amended to solve these key problems and ensure these solutions become part of any future NAAQS implementation plan.

A. Using Modern, Statistical Tools

First, for almost a decade, EPA has recognized that modern, statistical tools known as probabilistic risk assessment (or PRA)[5] are widely available to robustly account for variability and uncertainty in modeling and decision-making. This paradigm is used for other EPA programs, but not PSD permitting. Currently, projects must assume multiple worst-case scenarios that unrealistically estimate impacts beyond what would happen in the environment. For example, maximum emissions rates from multiple emission units operating simultaneously are assumed to occur continuously and added together. In addition, the public's likelihood and duration of exposure is not assessed, but rather, points near facility fence lines, where people do not reside or spend significant time, are simulated as receptors. These "receptors" for PSD modeling may be in a swamp or river, or on railroads or highways where exposures are very short, if they ever occur at all, and in the absence of other substantial risks to human health and welfare. We suggest this impact demonstration point to not be tied to the current interpretation of "ambient air" near facility fence lines but consider where people live and work rather than arbitrary points on a map that are not relevant to the purpose of protecting public health.

B. Improving Background Estimation and Monitors

Second, certain prevalent ambient air monitors using Federal Equivalent Methods (FEMs) measuring background concentrations, the starting point for assessing available "headroom," are known to over-estimate levels by as much as 2 $\mu g/m^3$ (Timothy Hunt's

[3] https://www.regulations.gov/comment/EPA-HQ-OAR-2022-0872-0034

[4] See 88 Fed. Reg. 72,826 (Oct. 23, 2023)

[5] Risk Assessment Forum White Paper: Probabilistic Risk Assessment Methods and Case Studies, EPA/100/R-14/004 July 2014; https://www.epa.gov/osa/risk-assessment-forum-white-paper-probabilistic-risk-assessment-methods-and-case-studies

September 19, 2023 written testimony has a sample bar chart with emissions relative to design value)). EPA acknowledges this FEM bias, and in fact today issued a "Notice of Availability" regarding the updating of monitoring data[6] which starts the process to allow states to make adjustment prior to non-attainment designations. Until this correction is implemented, facilities need to determine background when doing PSD modeling for the new NAAQS using a case-by-case analysis subject to additional, longer review. In addition, more monitors could be deployed in more areas to better measure background levels, especially in the rural areas where forest product mills are located. The IRA provides funds for new monitors, but it generally takes three years to get enough data to use the new information in PSD permitting. EPA has instead recommended siting of additional monitors in urban areas where high concentrations are expected.

C. Adjustments to Background Due to High Concentration Events

Third, separate from the need to expeditiously exclude wildfires and prescribed burns as exceptional events during nonattainment designations, states and permit applicants also should be able to exclude the added emissions from these events from background monitors used in PSD assessments. Some states are already doing this on a case-by-case basis, and EPA certainly could promote it much more, particularly with state permitting authorities. An explicit recognition in the bill would leave no doubt for states and permittees that this is an allowed and encouraged practice.

In section C ("Regional Analysis"), the bill also gives more responsibility to EPA to conduct modeling and analysis to support the case for identifying exceptional events that should be excluded. We support this language too, but the bill should make clear that these "exceptional events" or high concentration situations should also be excluded from background levels for PSD purposes. Even a few days (5 to 10) of high PM levels (>100 $\mu g/m^3$) as we saw earlier this year along the East Coast and in the Midwest or West, can raise the annual average for a monitor by 1 or 3 $\mu g/m^3$ and inappropriately shrink permit headroom. Allowing the use of better monitoring data that determine the all-important background starting point for PSD permitting, could help reduce permitting gridlock.

[6] https://www.epa.gov/aqs/aqs-memos-monitoring-and-policy

D. More Realistic Emissions Estimates

Finally, there is strong evidence that current methods are over-predicting PM emissions from wet stacks and condensables from sources with sulfur dioxide and ammonia. For example, the National Council for Air and Stream Improvement (NCASI) has a Cooperative Research And Development Agreement (CRADA) with EPA to explore measurement bias in EPA's Test Method 202. The research, which has been presented to EPA and subsequently independently confirmed by their own studies, has found that up to 80% of measured condensable PM can be attributed to measurement bias due to the formation of ammonium sulfate when running Method 202 on sources with sulfur dioxide and ammonia, common in combustion sources.[7] Unfortunately, EPA has not yet acted on this new scientific information. When small amounts of modeled PM can determine if a project will "pass" or "fail," EPA needs to move forward with an appropriate correction. Similarly, available technical information can be leveraged to estimate fine PM from wet stacks, rather than assuming all PM is fine PM, which can lead to gross overestimations of emissions and impacts.

Much of the PM2.5 emissions data for fugitive sources is suspect, either because there is little data, the test methods are challenging to implement, or available estimation techniques and/or emission factors are of limited applicability as they were developed for aggregate piles and are not directly applicable to many types of forest products industry sources. Air permits do not require testing of most area and fugitive sources (roads, woodyard operations, material handling, paper machines, or plywood presses for example). In addition, we are not aware of any work that has been done to validate the EPA dispersion model's performance modeling of fugitive emissions sources, especially in the near field. Where emissions are not released through a stack, they are not easily quantifiable. and assumptions must be made with respect to emission rates and release characteristics. Our experience indicates that often the modeled impact for fugitive sources is disproportionate to the expected emissions (their emissions are small but their impact on model results can be large, especially where PM2.5 emissions are assumed equal to PM10 emissions). Modeling PM2.5 emissions from offsite fugitive sources is often challenging because these sources are often grouped or otherwise not well described in the permit.

Until such time that EPA can complete AERMOD validation studies and emissions data are improved, EPA should issue guidance that indicates modeling analyses may exclude

[7] See NCASI Tech Bulletin 1079.

fugitive emission sources where PM2.5 emissions can reasonably be expected to be small based on available emission estimates and facilities have implemented best practices around road traffic and material handling and storage. Some states have this type of guidance already.

These and other improvements and implementation fixes should already have been in place before the recent NAAQS revision, and need to happen quickly now that the revised NAAQS is about to become effective for permitting.

IV. The Impending Permit Gridlock Crisis

A. Background

It is important to note that there are two inextricably linked programs that are particularly relevant when a NAAQS is changed. The first is setting the standard "requisite to protect the public health" with an adequate margin of safety considering the quality of the studies and scientific uncertainties. In a reconsideration of a standard (which includes the new PM NAAQS), as distinct from a normal statutorily-mandated five-year review, EPA can weigh implementation challenges and costs on whether it conducts such a review ahead of schedule. (see pages 33-34 of the attachment). The second program implicated when a NAAQS is lowered is permitting of new projects under EPA's air permit program, both for new "green field" facilities and for modifications to existing facilities (separate from the process of states and EPA designating areas for attainment or non-attainment). The PSD program is extraordinarily complex, requires installation of best available control technology, and especially relevant here, requires sources to conduct extensive assessments according to EPA policies and guidelines to determine if the project itself and the site's emissions combined with background concentrations exceed the NAAQS.

B. The Need for Reform

Without the type of improvements in the Committee' draft bill -- some of which we believe EPA can currently do under their existing Clean Air Act authority -- overly conservative modeling analysis can lead to unverifiable and nonexistent concentration estimates that cause costly changes or cancellations of beneficial projects, even though real-world exposure of the general public at these locations is minimal, improbable, or practically impossible. Public health is still protected with these reforms and improvements while allowing beneficial projects and economic growth to continue.

The new PM2.5 NAAQS continues to place the preponderance of the burden on a small portion (16%) of overall emissions (See page 18 of attachment, "PM2.5 Emissions in Thousands of Tons per Year (2017 NEI)) by focusing on traditional stationary sources, which have been regulated by the NAAQS program for decades. The program will not achieve its goals to protect public health unless efforts are made to look at all sources and come up with innovative and cost-effective ways to achieve the standards. For example, wildfires are more than 40% of the total PM emissions nationwide, and we all have experienced their impact on air quality in the West, and last year especially, in the East. The California Air Resource Board has quantified the amount of PM coming from wildfires, and the amounts are staggering – in California alone, CARB estimated 380,000 short tons of PM2.5 on average (1,181 thousand short tons of PM2.5 from the 2020 fires alone)[8][1]. To put that into context, these CA wildfires are equivalent to 10 times (or 1000% of) the forest product industry's total 2020 PM2.5 emissions[9]. ***And looking nationwide, wildfires resulted in 1,700,000 tons of PM2.5 in 2020, and compared to total forest product industry's emissions (40,672 tons), that is a ratio of 42 to 1 (or 4,200%) higher***. If emission reduction strategies can reduce just a few wildfires or reduce the number of acres burned on Federal lands, it would result in greater air quality improvements than focusing on sources that have already reduced emissions. The forest products industry already manages its private forestlands in a way that mitigates wildfire risks and avoids emissions of PM2.5 -- as well as greenhouse gases -- that might otherwise occur. Thus, simply issuing a new NAAQS without a workable, comprehensive implementation plan/strategy creates a false sense of progress when far larger sources remain unaddressed.

Furthermore, the potential economic impacts are very real and potentially staggering. The lost opportunity costs from cancelled projects are hard to measure because those projects do not see the light of day and end up on the cutting room floor when a company tries to model compliance with the new standard and fails. The hard truth is that the full impact is unknowable: We never see the jobs never created, the manufacturing facilities never built, the American products never made, or the innovative ideas drowned in a sea of red tape. In addition, for those projects that might theoretically proceed, we estimate that the capital costs would be on the order of $3 billion to $4 billion for the industry for installing measures to help lower modeling

[8]

[9] https://www.epa.gov/air-emissions-inventories/2020-national-emissions-inventory-nei-data

estimates that may in fact have small public health benefits[10]. With a standard at 9.0 ug/m^3, the permit challenges are widespread, as we estimate that 88% of pulp and paper mills will be in areas with less than 3 ug/m^3 of headroom; in other words, in areas with background concentration of 6 ug/m3 or more. For the wood products industry, 97% of wood products mills fall in areas with less than 3 μg/m^3 of headroom. The ultimate reality is that energy efficiency and modernization projects that could reduce actual emissions, including greenhouse gases, are thwarted by how PSD is implemented, and this will be amplified given the much lower standard.

C. Headroom is More Limited Today Than in the Past

Since the PM2.5 NAAQS was signed, many observers, including EPA, have countered industry's claim that the lower standard will have severe impacts are exaggerated. They note that industry has made claims of economic hardship in the past, yet the economy continues to grow. These comments miss a critical point of why the PM2.5 NAAQS rule, coupled with a permit program that is not working, will cause permit gridlock. Let's look at how the PM NAAQS evolved over time.

First, looking back to when the original 15.0 μg/m^3 PM2.5 NAAQS was established in 1997, headroom constraints were not an issue because EPA implemented the PM10 Surrogacy Policy in recognition of insufficient techniques for source testing and permit modeling, so applicants were not required to model relative to the PM2.5 NAAQS to get permits. And back then, and most of the time since then until recently, no one had to add secondary PM2.5 from precursor NOx and SO_2 emissions (which adds to a project's total) or model minor sources or modifications of direct PM2.5 emissions when NOx and/or SO2 emissions were major or increased significantly. Finally, at the urging of stakeholders, EPA improved the scientific basis of certain elements of the regulatory air dispersion model to be more realistic (e.g., the LOWWIND/ADJ_U* changes and the horizontal/obstructed point source plume rise algorithms). In a sense, that expanded the headroom since projects modeled with lower impacts.

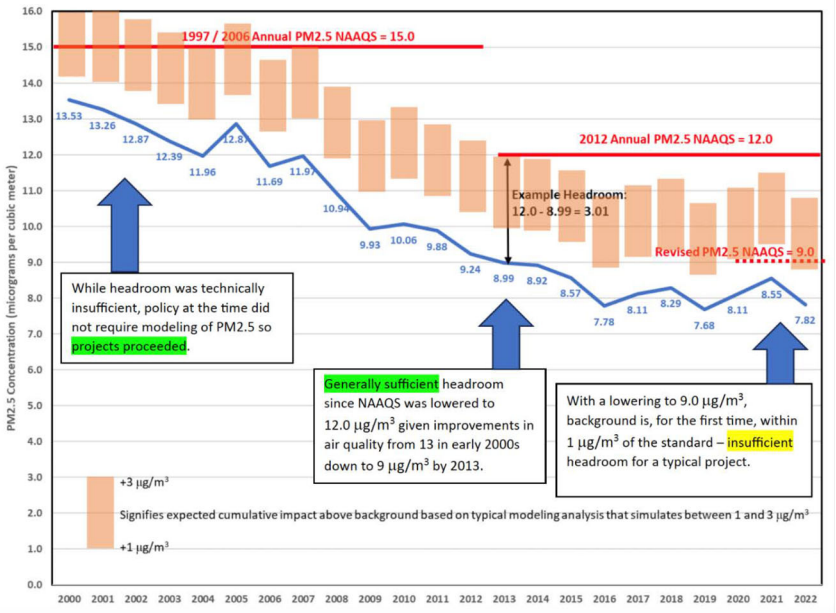
Second, in 2012-2013, when the PM standard was last lowered from 15.0 μg/m^3 to 12.0 ug/m^3, the mean U.S. background concentrations (based on EPA trends data) was above 9 ug/m^3, so the headroom shrank from greater than 5 μg/m^3 to about 3 μg/m^3. The

[10] See Attachment 2 to comments of the NAAQS regulatory Review & Rulemaking Coalition on EPA's Reconsideration of the National Ambient Air Quality Standard for Particulate Matter

lowering presented permitting challenges depending on location and size and type of project. Although the representative background concentration for any particular project is estimated based on local conditions, the average background concentration helps track air quality trends and whether typical projects will have enough headroom (i.e., difference between NAAQS and background) to get permitted. The typical modeled impact of a facility with a well-controlled project that triggers PSD review and a NAAQS analysis comes out between 1 and 3 $\mu g/m^3$, which is verified by a review of three dozen recent PSD projects that needed an average of 2.6 ug/m^3 of headroom. Since the PM2.5 NAAQS was last lowered, the headroom has improved only slightly (roughly 1 $\mu g/m^3$) as air quality improvements have leveled off (see figure 1 below on page 14); or even risen slightly, which coincides with the time more biased FEMs were deployed. While the 12.0 $\mu g/m^3$ standard posed challenges for permitting projects, it pales in comparison to what U.S. manufacturers face now.

On February 7, 2024, EPA lowered the PM NAAQS from 12.0 $\mu g/m^3$ to 9.0 $\mu g/m^3$, when average U.S. ambient background remains close to 8 $\mu g/m^3$. Thus, the average headroom is just 1 $\mu g/m^3$, which is far less than the 3 $\mu g/m^3$ needed for a typical facility with a PSD project. ***Headroom of 1 $\mu g/m^3$ is far less than ever before, and threatens many beneficial modernization projects of U.S. manufacturers***.

Figure 1. Depiction of U.S. nationwide annual average mean PM2.5 concentration as measured at 361 trends sites relative to effective annual NAAQS. EPA, Particulate Matter (PM2.5) Trends (https://www.epa.gov/air-trends/particulate-matter-pm25-trends).



D. Permit Gridlock From the New PM2.5 NAAQS Even in Attainment Areas

Since there is a general tendency to focus on non-attainment areas when a new NAAQS is set, it is important to focus instead on the cleaner areas that meet the NAAQS but still face significant permitting challenges. To understand the potential impacts of a tighter PM NAAQS, we hired Alpine Geophysics, experts in air quality modeling and very familiar with EPA's emissions databases, to analyze data from EPA's and state regulatory agencies' ambient monitoring networks to develop the maps on behalf of AF&PA, AWC and others. The maps used maximum $PM_{2.5}$ Design Values (DVs) from 2020-2022[11] (the most recent data) for each monitored county in the United States. Alpine calculated background PM2.5 concentrations in non-monitored counties using geospatial statistical

[11] https://www.afandpa.org/news/2023/why-epa-should-not-finalize-particulate-matter-naaqs-standard

interpolation ("kriging") that "fills-in" PM2.5 estimates for locations between monitors.[12] Kriging is a spatial interpolation method that is intended to take a series of points and create a continuous surface (i.e., interpolate the space between the points so that the user can obtain a value at any location). The method originated in the geological sciences as a way to interpolate soil/mining samples for mineral exploration. It is now broadly used in the spatial sciences across disciplines, such as interpolating groundwater contamination based on sample wells. EPA has acknowledged the value of kriging to reliably estimate air pollution concentrations in unmonitored locations for use in modeling PM2.5 attainment demonstrations.[13] Some states also allow kriging to estimate background design values for projects when monitors are not nearby.[14] [15]

In our maps, the five closest monitored values are used to estimate non-monitored county values using the inverse-distance weighted averaging method. Five monitors were used as a reasonable proxy for surrounding air quality. To validate these assumptions, we found 28 recent PSD projects that were permitted in 18 states across a dozen sectors where the facility's' modeled concentrations exceeded 9 ug/m^3 and found that the actual background levels used for those detailed modeling analyses generally align with the values projected by Alpine. Two thirds of the projects were within 1 μg/m^3 of the mapped background concentration, with 17 mapped values higher than the background used for the project, 10 lower than the background used for the project and one the same. For the purposes of this general analysis, counties were used as the relevant geographical parameter since finer scales were not needed.

Let's focus first on the pink areas on the map, which are the areas that will be in attainment but still have very limited headroom to allow new or expansion projects to proceed. Due to EPA's discretionary practice (and their choice to reject our plea for a longer effective date for the PM2.5 NAAQS rule), sources in attainment areas are immediately subject to use of the lower NAAQS in PSD permitting. While EPA has the legal authority to align the effective date for use of the lower NAAQS in permitting with the much longer timeframes for designating non-attainment areas and for states to

[12] Kriging is a method of statistical analysis that uses a limited set of sampled data points to estimate the value of a variable over a continuous spatial field.
[13] https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2005103146.xhtml)
[14] https://www.oregon.gov/deq/aq/cao/Documents/CAORP-AirQualityModeling.pdf
[15] https://idahodeq.maps.arcgis.com/apps/MapSeries/index.html?appid=0c8a006e11fe4ec5939804b873098dfe

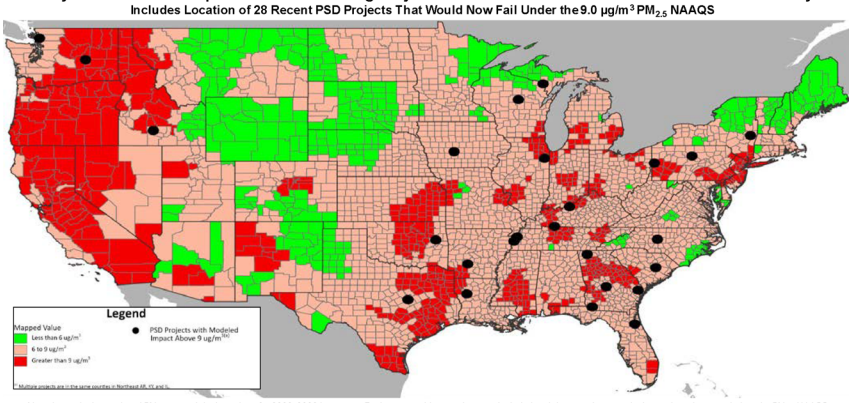
submit infrastructure SIPs, EPA chose not to set a more reasonable schedule of 3 years hence. And adjusting the effective date is not "grandfathering" so is consistent with current case law. A 3-year effective date would have provided time for EPA to reform its outdated and unrealistic permit program to avoid permit gridlock under the stringent new PM2.5 standard (see pages 14 to 16 of the attachment for papers on "Critical Need for 3-Year Effective Date for Any New PM NAAQS" and "To Avoid PSD Permitting Gridlock, EPA Should Align PM2.5 NAAQS Revision Effective Date With NAAQS Implementation Schedule" which outlines what EPA should do year by year if it gave itself time to develop new permitting tools and policies to avoid permitting gridlock and NR3 March 28, 2023 comments to EPA on the proposed PM NAAQS[16]).

All too many new or expanded manufacturing projects that trigger PSD will be blocked as it becomes economically infeasible or technically unachievable to build in the pink areas of our map. The average national background level for PM2.5 is around 8 $\mu g/m^3$. Accordingly, with the standard at 9.0 $\mu g/m^3$, even areas with background as low as 6 $\mu g/m^3$ will not have enough "headroom" to accommodate the ambient concentration conservatively simulated for the project and facility (typically, up to 3 $\mu g/m^3$). The number of projected non-attainment counties and those with insufficient headroom (less than 3 ug/m^3) are shown in the following table.

NAAQS Level	**Nonattainment Counties (Red)**	**Counties with < 3 $\mu g/m^3$ (Pink)**	**Counties with >= 3 $\mu g/m^3$ (Green)**
12	31 (1%)	553 (18%)	2,559 (81%)
11	82 (3%)	1,238 (39%)	1,823 (58%)
10	218 (7%)	2,001 (64%)	924 (29%)
9	584 (19%)	**2,204 (70%)**	355 (11%)
All	3,143	3,143	3,143

[16] https://www.regulations.gov/comment/EPA-HQ-OAR-2015-0072-2361

Many Future New or Expanded Manufacturing Projects Unachievable in Red and Pink Areas Immediately
Includes Location of 28 Recent PSD Projects That Would Now Fail Under the 9.0 µg/m³ $PM_{2.5}$ NAAQS



Map shows the interpolated $PM_{2.5}$ annual design values for 2020-2022 by county. Each county with a monitor was included and the counties were designated as above or below the $PM_{2.5}$ NAAQS of 9 ug/m³. If a design value was not available for a specific county, Alpine Geophysics used a kriging interpolation method to estimat e the $PM_{2.5}$ concentration in a county. Counties with values less than 6 ug/m³ are highlighted in green because a typical project needs 3 ug/m ³ of headroom between the background and the NAAQS to allow for a successful modeling demonstration.

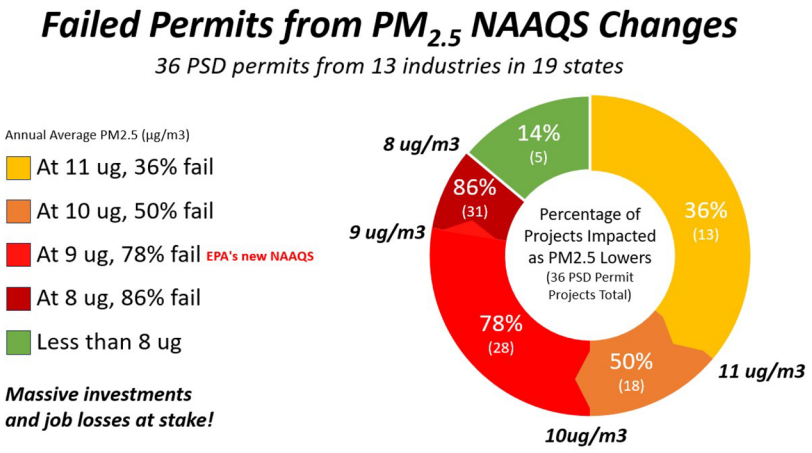
Lowering the NAAQS could stifle mill modernization projects -- projects that would otherwise reduce emissions while keeping the U.S. forest products industry globally competitive and supporting high-paying jobs, often in small, rural communities that particularly need economic opportunity.

E. Why does a typical PSD project need 3 µg/m³ of headroom?

To determine the headroom typically required by forest products facilities, AF&PA/AWC reviewed several recent permit applications for both greenfield facilities and modifications to existing facilities. For example, a permit application for a state of the art, greenfield pulp and paper mill was submitted in the southern U.S in 2018. The modeling submitted with the air permit application indicates that the facility's PM2.5 emissions consumed approximately 3 µg/m^3 of headroom. This mill ultimately was not constructed, but it was to be located on a large property in flat terrain, equipped with state-of-the-art PM emissions controls, and have exhaust stacks sized to optimize dispersion. Other recent air permit applications for eight pulp and paper mills that triggered PSD review required between 0.9 to 5.7 µg/m^3 of headroom, with an average of 3.5 µg/m^3 (six of the eight paper mill projects recently permitted are above 3.0 µg/m^3).

Recent air permit applications for wood products mills that triggered PSD review and modeling for $PM_{2.5}$ required up to 3 $\mu g/m^3$ of headroom to accommodate the mill's PM2.5 emissions.

More importantly, we analyzed three dozen recent PSD projects across a dozen manufacturing industries in nineteen states that were approved under the past standard of 12.0 ug/m3. ***We found that 78% of those manufacturing modernization projects would have failed at the new PM NAAQS standard of 9.0 $\mu g/m^3$***. In addition, we found that the average annual modeled design concentration (MDC) to be 2.6 $\mu g/m^3$. Half of the projects' MDCs reviewed fell between 1.5 and 3.6 ug/m^3. MDC is computed by AERMOD (i.e., the average 5-year annual mean concentration) to simulate cumulative impacts from the applicant facility and nearby sources. It includes secondary PM2.5 screening concentrations from PM precursor emissions of NOx and SO_2 estimated using EPA's Modelled Emission Rates for Precursors (MERPs) and related guidance. This supports the premise that an average PSD project would need about 3 $\mu g/m^3$ of headroom to get permitted using existing permitting techniques.



Even clean energy projects like the CS Wind plant in Pueblo, Colorado[17] can have a modeled annual average PM2.5 concentration of 1.9 ug/m^3, which is comparable to the modeling results of recent PSD applications. Given the consistent results of modeling analyses used for permitting new projects, it is evident that a lower PM2.5 NAAQS would stifle growth because well-controlled projects would not be able to demonstrate cumulative PM2.5 impacts using current permitting policies and modeling techniques. Despite EPA's claims that it was able to "ensure a smooth transition to the new permitting requirements and to enable NSR permitting to continue without significant disruption"[18] when the PM2.5 NAAQS was last lowered to 12.0 µg/m^3 in 2012, there remain deficiencies with key analytical tools (i.e., source testing methods) and opportunities to improve prescriptions for regulatory modeling that are amplified by the recent NAAQS revision. Because there are no changes to these permitting policies concurrent with the effective date just 60 days from the imminent final rule publication, there is every expectation that similar projects cannot be permitted.

F. EPA's Maps Understate the Real Impact of the PM NAAQS

1. EPA's Maps Undercount Potential Non-attainment Areas

The maps EPA released with the signing of the rule show 119 counties possibly being designated non-attainment in two years' time using the most recent air quality data (likely 2022-24 but perhaps just 2021 to 2023)- see below. First, EPA unrealistically estimates the number of counties that will be designated as non-attainment. As EPA just affirmed in the memorandum on Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard, the designations process, "After identifying each regulatory monitor or group of monitors that indicate a violation of the standard in an area, the EPA intends to begin its analysis of what nearby areas contribute to the violation(s) by considering those counties in the entire metropolitan area (i.e., Core Based Statistical Area (CBSA) or Combined Statistical Area (CSA)) in which

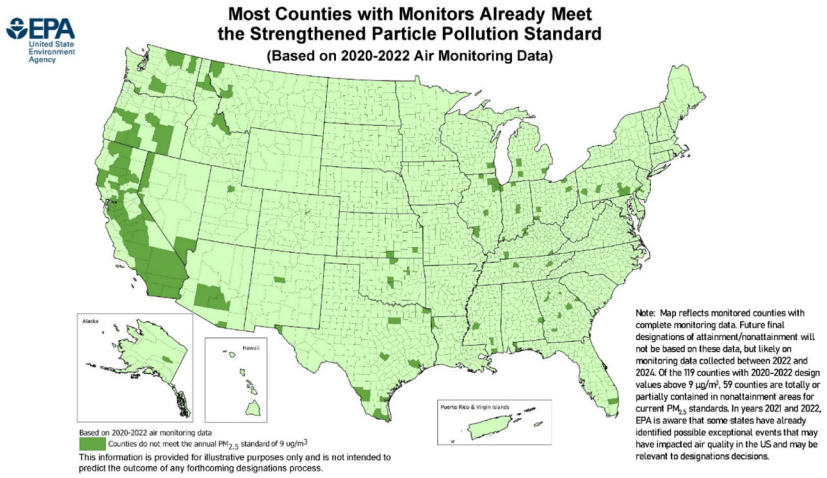
[17] https://www.burnsmcd.com/news/wind-turbine-tower-manufacturing-plant

[18] EPA Fact Sheet: "Implementing the Final Rule to Strengthen the National Air Quality Health Standard for Particulate Matter – Clean Air Act Permitting, Air Quality Designations, and State Planning Requirements," February 7, 2024. (https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-implementation-fact-sheet.pdf)

the violating monitor(s) is (are) located.[19] The EPA also intends to evaluate any adjacent counties to the CBSA or CSA that have the potential to contribute ... Violations of the annual PM2.5 NAAQS are usually the result of emissions from a broad variety of sources that are typically located across a metropolitan area." States and EPA "assess an evaluation of information relevant to five factors[20]: air quality data, emissions and emissions-related data, meteorology, geography/ topography, and jurisdictional boundaries." This rigorous analysis typically results in a nonattainment designation of several counties for each nonattainment area, including not only the county where the violation is monitors, but also surrounding counties that may even have monitors showing attainment, but that demonstrably contribute to nonattainment nearby. For example, prior nonattainment designations for ozone and PM2.5 in the Atlanta nonattainment area have ranged from seven counties for the 2015 ozone NAAQS to 22 counties for the 1997 PM2.5 NAAQS.

[19] The Office of Management and Budget (OMB) adopted standards for delineating metropolitan and micropolitan statistical areas on December 27, 2000 (65 FR 82229). These delineation standards established the terms CBSAs and CSAs. On July 16, 2021, OMB published their 2020 standards for delineating metropolitan and micropolitan statistical areas (86 FR 37770). The EPA intends to use the most recent list of CBSAs and CSAs in this designations process, published in March 2020.

[20] These factors are derived, in part, from the CAA's ozone pollution provisions identifying factors the Administrator is to consider in determining portions of metropolitan areas that may be excluded from an ozone nonattainment area. (CAA section 107(d)(4)(A)(v)). These CAA factors include population density, traffic congestion, commercial development, industrial development, meteorological conditions, and pollution transport. The EPA finds these factors, and other information as indicated in this memorandum, relevant to evaluating areas potentially contributing to NAAQS violations more generally, including in the context of $PM_{2.5}$ pollution.



The red areas on our maps (see above on page 17) are either currently in non-attainment or expected to be designated non-attainment areas for PM2.5. States are required to propose non-attainment areas based on monitored design values a year after a NAAQS is revised and then EPA reviews the state submissions to formally make the designations a year later (i.e., two years after the NAAQS is promulgated, early 2026). Once designations occur, states have 18 months to develop State Implementation Plans (SIPs) to identify ways to bring an area into attainment.[21] The schedule for attainment can last many years. Sources in non-attainment areas are subject to Lowest Achievable Emissions Rate (LAER) for new projects and possibly Reasonably Achievable Control Technologies (RACT) for specific existing sources. New or expanded manufacturing projects will be stopped as it becomes too costly or unachievable to build.

Our maps show 584 counties will be in non-attainment using a more comprehensive assessment of non-attainment areas based on both monitored and modeled data of counties, unlike the EPA maps which focus on monitored counties only, which

[21] https://www.epa.gov/system/files/documents/2023-01/PM%20NAAQS%20Reconsideration%20Proposal%20-%20Overview%20Presentation_0.pdf; see slide 17 for full timeline.

undercounts the areas to fall into nonattainment. Our approach represents a robust approach based on how EPA has, in the past, designated areas as non-attainment, based on state and local regulatory agency analyses of sources (stationary and mobile, natural and manmade) in surrounding areas that potentially affect non-attainment monitors due to meteorology, topography, commuting patterns, precursor sources, and other relevant factors. States like Georgia, Pennsylvania, Michigan, Ohio and North Carolina could have far more counties classified as non-attainment than EPA shows it is 2032 map, or its map of counties shown above that currently have monitored design values (2020-2022) above the revised standard. We are aware that the U.S. Chamber of Commerce issued a report in November 2023 that looked at 2023 wildfire data and how it might impact future non-attainment designations across the country. As stated previously in this testimony, the Committee's draft bill provides needed certainty for excluding exceptional events and prescribed burns that can inflate the number of non-attainment areas in the country -- and artificially increase background concentrations used for PSD permit assessments.

Note: EPA further claims that only 52 counties will be in nonattainment by 2032 (see page 13 of the attachment) which is misleading when sources in non-attainment areas face immediate impacts that could curtail projects given the lack of emission offsets in many areas.

2. EPA's Maps Imply Attainment Areas Will Not Suffer Permit Gridlock

Finally, as discussed in detail above, because our mills generally are located in attainment areas, the key point we must reemphasize is that serious challenges remain even for counties that will be in attainment. This is because the large majority of those attainment counties still would lack the permitting headroom for manufacturing modernization projects to go forward under the complex and outdated PSD permitting procedures.

V. How the PM NAAQS Experience Demonstrates the Need for Reform

A. The Urgent Need for Sustainable Regulation

Our goal is sustainable regulation that will stand the test of time. Sustainable regulation must satisfy legal requirements and meet environmental and economic needs as well as social expectations. This is consistent with the dual purposes of the Clean Air Act to protect and enhance air quality so as to promote public health and welfare and the productive capacity of our nation.[22] The paper industry has invested in important improvements to air quality and has reduced its SO_2 emissions by over 80% and nitrogen oxides (NOx) emissions by almost 50% since 2000[23]; both are precursors to fine particulate matter. Unfortunately, we do not think that the PM2.5 NAAQS meets the goal for sustainable regulation since EPA failed to include a workable permitting path to achieve better air quality and job creation.

Historically, AF&PA and AWC have had a very good working relationship with EPA. We appreciate when the Agency recognizes that, to achieve emissions reductions, EPA does the very important work to write the rules, but the regulated community does the important work to invest and achieve reduced the emissions. We appreciate and respect EPA's needs when developing new regulations.

We all benefit when EPA crafts achievable rules that are based on the best available evidence and can be successfully implemented. For example, during the Obama Administration, EPA proposed an unachievable Boiler MACT rule, but EPA engaged stakeholders and carefully considered the data we developed and shared. The final rule was stringent and cost our industry alone over a billion dollars, but we defended EPA's rule in court. Ultimately, our industry could comply and go on to compete in our highly competitive global marketplace. And among other things, the Boiler MACT rule led to major reductions in PM, NOx and SO_2 emissions, as well as hazardous air pollutants.

---

[22] *See* Clean Air Act, Section 101(b)(1).
[23] https://www.afandpa.org/priorities/energy-environment

B. **EPA's Air Permit Program is Not Working**

Unfortunately, EPA's PSD program is an outdated and inefficient regulatory approach that currently just doesn't work very well. For existing sources in areas meeting air quality standards, so-called attainment areas, EPA's policy[24] -- reflected yet again in the February 7 final PM2.5 NAAQS rule -- is that the NAAQS is effective for PSD permitting within 60 days of the effective date of a new or reviewed standard. EPA was quite clear on this point, stating in the PM2.5 NAAQS preamble: "At the effective date, all applicants for permits to construct a new major source or major modification of an existing stationary source will need to conduct an air quality analysis that considers the revised PM2.5 NAAQS." This means the new lower standard must be considered immediately when undertaking a major facility modification -- even before EPA has formally designated which areas are above or below the new or revised standard.

It wasn't enough that EPA lowered the standard close to average ambient background levels; the Agency without any notice also is lowering the Significant Impact Level (SIL).[25] Currently the SIL trigger for cumulative modeling is 0.3 $\mu g/m^3$, (or 0.2 $\mu g/m^3$ depending on the state), and if EPA lowers the SIL to 0.15 $\mu g/m^3$ or less, modeling for new projects would be more or less automatic. The PM2.5 SILs are very specifically NOT associated with the value of the NAAQS, unlike the other SILs. They were calculated by analyzing all of the monitor data in the U.S. to determine what change in ambient concentrations would be greater than the noise, or variability of measuring or monitoring natural background. Since changing the NAAQS doesn't change that evaluation, there are no statistical grounds for EPA to change the SIL.

One perverse outcome of the SIL change is that a major source will not be able to do even a small PSD project (or perhaps the project would be significantly delayed) that only has a 0.15 $\mu g/m^3$ impact if it is in a county that will become non-attainment under

---

[24] Page, Stephen (EPA OAQPS): "Applicability of the Federal Prevention of Significant Deterioration Permit Requirements to New and Revised National Ambient Air Quality Standards," April 1, 2010. https://www.epa.gov/sites/default/files/2015-07/documents/psdnaaqs.pdf.

[25] "*Additionally, in light of this NAAQS revision, the EPA is updating its guidance that provides recommended significant impact levels (SILs) for PM2.5 and expects that an updated SIL for the revised primary annual PM2.5 NAAQS will be available on or before the effective date of the final NAAQS.*" *See* page 598 of 715 of the signed rule at https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-final-frn-pre-publication.pdf

the new standard. They are subject to PSD because the attainment designations have not been made yet, so they are in a county designated attainment. However, since background is already greater than the revised standard, there is no headroom for the smallest of projects. Once the county is designated non-attainment, the project would be subject to the Non-attainment New Source Review program (NNSR), and only then might a permit be obtained so the project could proceed.

In addition, there will be a time period between when the NAAQS becomes effective and the designations are done where, barring new guidance, the only way to permit a project with a design value background of 9 $\mu g/m^3$ or more will be for the project to model less than the SIL. Further reducing the SIL makes permitting any project of any size that much more difficult. And to make matters worse, projects that trigger PSD review for SO_2 or NO_X are also required to model PM2.5 even if the project does not have a significant net emissions increase of PM2.5. With a further reduced SIL, the odds increase of even a small amount of fugitive PM2.5 near the fence line triggering cumulative PM2.5 modeling for sources, even when emission inventories are lacking or permits only include PM10 limits for such small sources of PM2.5 emissions. Finally, legal challenges often arise when the amount of headroom between the ambient background and the NAAQS is less than the SIL, leading to delays and unnecessary court costs.

Some states also require NAAQS modeling for minor NSR projects that increase emissions or for permit renewals. If a facility wants to permit a minor project with a PM2.5 emissions increase that is above modeling exemption levels but below the PSD significant emissions rate, it will be challenged to do so if the background value is greater than 9 μg/m3 but the area is designated as attainment. The only way the project will proceed is if the project emissions increases can model below the SIL, which will be even more difficult if EPA lowers the SIL.

American forest products companies are trying to modernize, grow, and produce products from renewable and recyclable products that our customers demand, but are impeded even in attainment areas with cleaner air. Meanwhile, non-attainment areas with dirtier air will not see significant restrictions for several more years -- and as much as a decade later. It doesn't make sense to discourage upgrading plants already subject to a myriad of other regulatory requirements, or to block beneficial projects already using best controls, simply due to unrealistic air quality modeling and assumptions. Our

country has made great strides in improving air quality, largely under other programs, and not PSD.

C. The Cumulative Regulatory Challenge Facing U.S. Manufacturers

Unfortunately, the regulatory challenges that U.S. manufacturers face today are not limited to EPA's NAAQS program. The recent PM NAAQS is only the beginning of a looming cumulative regulatory challenge now facing the U.S. manufacturing sector. Many rulemakings disregard costs and other tradeoffs and stray beyond the bounds of the law. We have been calling for the OMB's Office of Information and Regulatory Affairs to fulfill its responsibilities in reviewing mega-rules, including carefully considering tradeoffs and avoiding unintended outcomes, consistent with President Clinton's Executive Order 12866 and President Obama's Executive Order 13563. OIRA is needed now more than ever given the significant risks posed by poorly designed impending regulations that will produce serious unintended harm.

Here are just a sample of the problematic mega-rules that are imminent or already final:

- EPA's **final Good Neighbor Plan** to implement the Ozone NAAQS, among other things, would impose controls that have never been required by state permit authorities for existing paper mill boilers because they are neither proven nor cost-effective. This will not result in significant, downwind ozone air quality improvements, and it actually would significantly increase our GHG emissions. The U.S. Supreme Court will be hearing oral arguments on February 21 to determine whether the rule should be stayed nationwide; federal appellate courts already have stayed the rule in a dozen of its 23 covered states. **EPA should reconsider the Good Neighbor Plan.**
- EPA's **proposal to list PFOA/PFOS as CERCLA hazardous substances** claims Congress "prohibited" EPA from considering cost – contrary to the statutory standard that allows EPA to consider all factors "as may be appropriate."[26] We appreciate the importance of this issue, but respectfully, this is a rule where **EPA should carefully consider and avoid potential unintended outcomes**.
- EPA's **final Human Health Water Quality Criteria for Washington State** to our knowledge **cannot be attained by any regulated entity** in the state, whether industrial or municipal. This rule is being challenged in court.

[26] *See* CERCLA, Section 102(a).

- The **proposed greenhouse gas rule for federal contractors** by the Federal Acquisition Regulatory Council, if finalized as proposed, would trigger the major questions doctrine and be declared unlawful on many grounds, including that it would **violate the U.S. Constitution**. Among other things, the rule would violate the private nondelegation doctrine and raise serious due process problems because it would out-source U.S. regulatory authority to international non-governmental organizations. It also would violate the First Amendment.
- **The SEC's proposed climate-related disclosures rule**, as proposed, went too far in many respects, such as **mandating unworkable scope 3 GHG emissions disclosures, abandoning the Commission's long-standing "materiality" standard, raising unwarranted legal risks, and being unnecessarily burdensome**. We hope our concerns are addressed before the SEC issues a final rule.
- **EPA's risk evaluation of formaldehyde under the Toxic Controlled Substances Act** must under the reformed law use the best available science to establish Existing Chemical Exposure Limit, but we remain very concerned that all indicators suggest EPA's analysis will not meet this standard.
- EPA's **Tribal Reserved Rights rule** and **Baseline Water Quality Standards**, as proposed, could take the unsustainable approach from EPA's final Human Health Water Quality Criteria for Washington State (leading to unattainable standards) and apply it nationally in states with tribal waters, such as Michigan, Wisconsin, and many others.
- EPA's **Utility Greenhouse Gas rule**, as proposed, could **adversely impact the reliability and affordability of energy critical to competitiveness of U.S. manufacturers**, and could result in the displacement of U.S. jobs in energy-intensive, trade-exposed industries.

Our shared goal should be sustainable regulation – regulation that addresses environmental, health and economic needs. This requires bipartisan work. We must keep and create sustainable manufacturing jobs in America – they are critical now and for our country's future success. There is no better place for a robust manufacturing sector than the United States, which has highly productive workers, creative entrepreneurs and innovators, abundant resources, a strong free-market democracy, and regulatory agencies capable of leading the world on sustainable regulation.

Thank you for the opportunity to share our views.

125 E 11th St | Austin, Texas 78701
512.463.8588
txdot.gov

March 13, 2025

The Honorable Shelley Moore Capito
Chairman
The Honorable Sheldon Whitehouse
Ranking Member
Senate Committee on Environment and Public Works
Washington, DC 20510

Submitted via: permitting@epw.senate.gov

Re: Improving the Federal Environmental Review and Permitting Processes

Dear Chairman Capito and Ranking Member Whitehouse:

I am writing in response to your request for stakeholders to share their "experiences with the existing environmental review and permitting processes, identify challenges, and suggest potential solutions" with your Committee during its February 19, 2025 hearing on *Improving the Federal Environmental Review and Permitting Processes*. The Texas Department of Transportation appreciates the Committee's attention to this issue and welcomes the opportunity to provide responsive comments.

TxDOT designs, builds, operates, and maintains transportation infrastructure in Texas including over 50 thousand bridges and culverts, over 80 thousand centerline miles, and over 1.4 million acres of public land. As a state department of transportation participating in the Federal Highway Administration's (FHWA's) National Environmental Policy Act (NEPA) Assignment Program,[1] TxDOT has been authorized to conduct environmental reviews on FHWA's behalf for federally funded highway projects in Texas since 2014.[2] NEPA is just one of many environmental laws that apply to any given federally funded transportation project.[3] For TxDOT to meet its obligations to deliver safe and efficient transportation to the traveling public, it is critical that the environmental review and permitting process be as efficient as possible.

Below are ideas that TxDOT believes would substantially improve the Federal environmental review and permitting process. I appreciate the Committee's consideration of our perspective.

1. Instruct agencies to have flexible, informal NEPA-implementing <u>procedures</u> that closely track the statutory language of NEPA as opposed to rigid, formal regulations that add requirements not found in NEPA.

[1] The formal name for the NEPA Assignment Program is the "Surface Transportation Project Delivery Program," *see* 23 USC 327.
[2] TxDOT's NEPA Assignment MOU with FHWA is available at the following link: https://www.txdot.gov/about/programs/environmental/nepa-assignment-documentation.html
[3] Other examples include the Endangered Species Act; Sections 401, 402 and 404 of the Clean Water Act; Section 176 of the Clean Air Act; Section 4(f) the Department of Transportation Act; Section 106 of the National Preservation Act; the Farmland Protection Policy Act; Section 6(f) of the Land and Water Conservation Fund Act; Sections 9 and 10 of the Rivers and Harbors Act; the Wild and Scenic Rivers Act; the Coastal Barrier Resources Act; the Migratory Bird Treaty Act; the Fish and Wildlife Coordination Act; the Bald and Golden Eagle Act of 2007; the Magnuson-Stevens Fishery Conservation and Management Act, and the Marine Mammal Act.

NEPA and current Council on Environmental Quality (CEQ) guidance both instruct agencies to have NEPA-implementing "procedures".[4] Some agencies have chosen to write their procedures in the form of a memorandum or order,[5] while others have chosen to put their procedures in the form of legally binding regulations codified in the Code of Federal Regulations.[6]

Whether they take the form of an agency memorandum or binding regulations, these agency procedures include detailed procedural instructions that go far beyond the short and relatively straightforward directive in NEPA to prepare a "detailed statement" covering five subject areas for certain actions. For several decades, agency staff, permit applicants and federal funding recipients like TxDOT have spent too much time and too many resources sifting through agencies' NEPA regulations, parsing their meaning, and preparing paperwork solely to prove compliance with them — time and resources that could be better spent focusing on the environmental impacts of their actions.

Unlike other environmental laws, there is no substantive regulation of private actions under NEPA. Rather, NEPA is ultimately about Federal agencies taking a "hard look" at their *own* projects before implementing them. It is appropriate for agencies to have internal instructions to staff on how they will comply with NEPA. However, because such procedures fall within the Administrative Procedure Act with the exception for "interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice" (5 USC 553(b)(A)), they do not require notice-and-comment rulemaking. They should not be codified as regulations in the CFR.

TxDOT believes that agencies' instructions to staff should be in the form of informal procedures published on the agency's website. This allows them to be revised for efficiency or other reasons. Further, it reduces the opportunities for project opponents to bring legal challenges based on procedural violations of regulatory requirements. Additionally, in developing their procedures, agencies should be instructed to adhere closely to the NEPA statute itself and not add any procedures or requirements that have not been imposed by Congress.

2. Clarify that NEPA only applies when a Federal agency is funding or otherwise advancing a project, and there is no need for permitting agencies to join-in or adopt the NEPA document.

By statute, NEPA only applies to a "major Federal action," which is defined as "an action that the agency carrying out such action determines is subject to substantial Federal control and responsibility." 42 USC 4336e(10)(A). In general, this means that NEPA should only apply to projects that are funded by a federal agency or projects that are being advanced at the discretion of a Federal agency.

A project that is not funded or otherwise being advanced by a Federal agency but merely requires a permit or other authorization from a Federal agency, is generally not a "major

[4] 42 USC 4332(1)(A) and CEQ's February 19, 2025, Memorandum on Implementation of the National Environmental Policy Act.
[5] For example, the Federal Aviation Administration's Order 1050.1F regarding "Environmental Impacts: Policies and Procedures."
[6] See *e.g.*, the Federal Highway Administration's, Federal Rail Administration's, and Federal Transit Administration's regulations at 23 CFR 771.

Federal action" subject to NEPA. This is because, in most cases, permitting agencies do not have discretion over whether to grant a permit if the applicant has met all regulatory requirements for receiving a permit. *See* the exception from NEPA applicability for "activities or decisions that are non-discretionary and made by the agency's statutory authority" at 42 USC 4336e(10)(B)(vii).

This distinction is important. One of the problems that has overly complicated NEPA reviews in the past is the incorrect assumption that any agency that will have permitting authority over the project must participate in the NEPA review or even do its own NEPA review of the project. This can lead to projects being delayed for years as multiple agencies debate how to go about doing the NEPA review and what the content or even the classification of the NEPA document should be.

Since all agencies are "agents" of the same entity (i.e., the Federal Government) a single NEPA review by the funding agency is sufficient. Permitting agencies like the U.S. Army Corps of Engineers should not be required to join in or adopt the NEPA decision by the funding agency. Instead, permitting agencies should focus on ensuring that the project meets the statutory and regulatory requirements for receiving a permit. While the funding agency may find it beneficial to discuss the project with permitting agencies as it develops the NEPA document, there is no need for permitting agencies to be co-drafters of the NEPA document.

Therefore, in most cases, there should only be one Federal agency participating in the NEPA decision. Participation by multiple Federal agencies should be needed only if multiple Federal agencies are co-funding or otherwise jointly advancing the project. Further, if an agency is funding or advancing only one part of a larger private sector project without Federal funding, the NEPA review should focus on just the part that will be funded or advanced by the Federal agency.

3. Remove excessive "streamlining" administrative requirements.

For many years, Congress has made attempts to streamline the NEPA process through legislation (e.g., the Federal permitting dashboard, FAST-41 requirements, etc.). While this type of legislation is well-intentioned, some of it has had the unintended effect of *adding* to the agencies' administrative burden, further draining their limited resources, and slowing down the NEPA process as staff focuses on documenting compliance with new ancillary procedural requirements rather than the core requirements under the respective environmental laws. As the list of procedural requirements grows longer, so does the time needed to document compliance with them.

One example of this is 23 USC 139, "Efficient environmental reviews for project decision making and One Federal Decision". This Section is approximately 28 pages long and contains hundreds of statutory subsections, many of which relate to how Federal agencies should interact with other agencies while they are completing their NEPA analyses of Federally funded highway projects. However, as explained above, in TxDOT's opinion, there only needs to be one Federal agency participating in the NEPA decision, the agency that is funding or otherwise advancing the project.

TxDOT appreciates Congress's intent in enacting Section 139, but we believe that the instructions in it are excessive and overly complicated. Repealing most of these instructions would simply leave the NEPA process. However, a few of the provisions should remain:

- 23 USC 139(c)(5), allowing a Federal agency to adopt another agency's NEPA document,
- 23 USC 139(f)(4)(D), allowing the preferred alternative to be developed to a higher level of detail than other alternatives,
- 23 USC 139(j), allowing the use of Federal money for environmental reviews, and
- 23 USC 139(l), establishing a 150-day statute of limitations for lawsuits challenging environmental compliance on Federally funded highway projects.

The last provision noted above, 23 USC 139(l), is of critical importance to TxDOT as it allows for certainty in moving forward on a project after it has been environmentally cleared. However, a shorter statute of limitations would be welcomed.

4. Allow Federally funded transportation projects to proceed if the U.S. Fish and Wildlife Service (USFWS) and the U.S. Army Corps of Engineers (USACE) do not meet their respective deadlines.

The USFWS is supposed to issue its biological opinion to a Federal agency within 135 days after the initiation of consultation under Section 7 of the Endangered Species Act.[7] Similarly, the USACE is supposed to issue a permit under Section 404 of the Clean Water Act within 60 days after the applicant submits its application.[8] TxDOT appreciates the hard work of USFWS and USACE staff in processing the hundreds of projects that come to them, and it is not surprising that sometimes these agencies do not meet their respective deadlines. It would be helpful if there were a statute providing that, for Federally funded transportation projects specifically, if the USFWS or USACE do not meet their respective deadlines, they will be deemed to have approved the project, and no further action is needed.

5. Provide an exception from Section 6(f) of the Land and Water Conservation Fund Act for Federally funded transportation projects.

The Land and Water Conservation Fund Act ("the Act") was signed into law on September 3, 1964, and is codified at 54 USC Chapter 2003. The Act is administered by the National Park Service ("NPS"). The Act established the Land and Water Conservation Fund ("L&WCF"), which provides grants for planning, acquisition, and development of public outdoor recreation areas primarily to states and local governments like cities and counties.

Section 6(f) of the Act (54 USC 200305(f)(3)) provides that once an area has been funded with L&WCF assistance, it must be continually maintained in public recreation use unless NPS approves substitution property of reasonably equivalent usefulness and location and of at least equal fair market value. Changing the use of an area from public outdoor recreation to something else is called a "conversion."

Neither Section 6(f) nor the implementing regulations and guidance appear to have been written to account for Federally funded transportation projects. Rather, they appear to be

[7] 50 CFR 402.14(e) and (e)(3).
[8] 33 CFR 325.2(d)(3).

written for a scenario in which a local government uses L&WCF money to develop a park and then sometime later changes its mind and wants to use the land for something else. For example, NPS has explained that Section 6(f) "strongly discourages casual discards and conversions of state and local park and recreation facilities to other uses" and that the requirement to secure a replacement property "serves as a simple and effective deterrent."[9]

But when it comes to a Federally funded transportation project that requires a conversion of an L&WCF-assisted property, there is no change of mind or "casual discard or conversion," and there should not be any "deterrent" to such an action. The Federal government should not penalize or hamstring *itself* simply because it provided a grant to a local government for a particular property at some point in the past when it was likely, not foreseeable that the property would eventually be needed for a Federally funded transportation project.

Additionally, there is already a federal law governing a federally funded transportation project's impacts on a significant public park or recreation area: Section 4(f) of the Department of Transportation Act of 1966 (23 USC 138), which applies regardless of whether the park or recreation area was developed with L&WCF money. It prohibits a Federally funded transportation project from using a significant public park or recreation area unless (1) there is no feasible and prudent alternative to the use of the land and (2) the project includes all possible planning to minimize harm to the park or recreation area. Since federally funded transportation projects are already governed by Section 4(f), they should not also be subject to Section 6(f), which was not written specifically for Federally funded transportation projects.

A narrow exception to the applicability of Section 6(f) for Federally funded transportation projects would allow important infrastructure projects to proceed while maintaining the protections of Section 6(f) for the majority of L&WCF-assisted areas.

Again, thank you for the opportunity to provide these ideas for the Committee's consideration. Upon request, TxDOT will gladly assist the Committee in drafting legislative language to address the proposals. If you have any questions, please call me at (512) 305-9515 or you or your staff may contact Melanie Alvord, Director, Federal Affairs Section at Melanie.Alvord@txdot.gov or (512) 416-2663.

Sincerely,

Marc D. Williams, P.E.
Executive Director

cc: The Honorable Sam Graves, Chairman, House Committee on Transportation and Infrastructure
The Honorable Rick Larsen, Ranking Member, House Committee on Transportation and Infrastructure
Brian R. Barth, P.E., Deputy Executive Director for Program Delivery, TxDOT
Mo Bur, P.E., Director of Project Development, TxDOT
Doug Booher, Environmental Affairs Division Director, TxDOT
Melanie Alvord, Federal Affairs Section Director, TxDOT

[9] NPS "Protecting Places that Matter" brochure.

From: Edwards, Holt
To: Permitting@epw.senate.gov
Subject: AAR Letter on Permitting Reform Priorities
Date: Monday, March 3, 2025 8:56:52 AM
Attachments: image001.png
AAR Congressional Letter on Permitting Reform 2.26.25.pdf

As discussed, here is the letter. Please let me know if you need anything else.

Holt

Holt Edwards
Assistant Vice President, Government Affairs
Association of American Railroads
425 Third St., SW, Suite 1000 | Washington, DC 20024
(901) 573-4658 (c)|(202) 639-2538 (w)| hedwards@aar.org



From: Alex Etchen
To: Permitting@epw.senate.gov
Cc: Melinda Tomaino; Ayrea, Maggie (EPW); Brown, Joe (EPW)
Subject: AGC Statement for the Record
Date: Tuesday, March 11, 2025 10:19:40 AM
Attachments: image001.png
AGC Letter to EPW on PFAS_Final.pdf

All – Please see attached AGC's statement for the record on PFAS. Please let me know if you have any questions or need anything else.

Best,
Alex

Alex Etchen
Vice President, Government Relations
AGC of America
Direct: 202-547-1983
agc.org
53 D Street SE
Washington, DC 20003

From:	Britton Mullen
To:	Permitting@epw.senate.gov
Cc:	Britton Mullen; Garrick Taylor; Amanda Roberts
Subject:	Border Trade Alliance Comments re: Improving the Federal Environmental Review and Permitting Processes Hearing
Date:	Monday, February 24, 2025 3:29:46 PM
Attachments:	BTA letter Senate EPW presidential permitting.pdf

Good afternoon,

On behalf of the Border Trade Alliance, please find the attached letter with comments for the record for the hearing held February 19, 2025 entitled "Improving the Federal Environmental Review and Permitting Processes." Thank you for the opportunity to submit these comments. We believe improving the process around the issuance of presidential permits would enhance the trade and security of the United States and would facilitate important infrastructure development on both of the country's land borders. Best, Britton

Britton Mullen
President, Border Trade Alliance
Direct Dial: 202-302-6225
Border Trade Alliance (thebta.org)

From: Mark Limbaugh
To: Permitting@epw.senate.gov
Cc: Dan Keppen; Lane Dickson
Subject: Comments by Family Farm Alliance for the hearing record
Date: Friday, February 21, 2025 4:06:52 PM
Attachments: image002.png
image003.png
image004.png
February 2025 Family Farm Alliance EPW Permitting Comments FINAL 022125.pdf

---

To whom it may concern,
Please see the attached comments for the oversight hearing record on permitting and let us know if you have any questions.

Thank you,
Mark

Mark Limbaugh
202.261.3699 OFFICE
202.287.8887 MOBILE
1901 Pennsylvania Ave. NW, Suite 700, Washington, DC 20006
TheFergusonGroup.com
** TFG is an ICMA strategic partner*

From: Mark Limbaugh
To: Permitting@epw.senate.gov
Cc: Christopher B. Kearney; Mike Jensen
Subject: Comments from Merced Irrigation District, CA
Date: Friday, February 21, 2025 7:20:19 PM
Attachments: image002.png
image003.png
image004.png
Merced Testimony - Senate EPW Oversight Hearing Permitting 2-19-2025.docx

---

Please see the attached comments in the form of testimony for the hearing record for the February 19, 2025 oversight hearing on *"Improving the Federal Environmental Review and Permitting Processes"* . Please let us know if you have any questions.

Thank you,
Mark

Mark Limbaugh
202.261.3699 OFFICE
202.287.8887 MOBILE
1901 Pennsylvania Ave. NW, Suite 700, Washington, DC 20006
TheFergusonGroup.com
* *TFG is an ICMA strategic partner*

From: Meera Nguyen
To: Permitting@epw.senate.gov
Cc: Melanie Alvord
Subject: Comments on Federal Environmental Review and Permitting Process
Date: Thursday, March 13, 2025 1:41:35 PM
Attachments: image001.png
20250313-Senate Committee on EPW-out.pdf

Chairman Capito and Senate EPW Committee Members,

Please see the attached letter from the Texas Department of Transportation. These comments are in response to the Committee's February 19th hearing on permitting reform.

We appreciate the opportunity to share our comments.

Kind regards,

Meera Nguyen
Federal Affairs Liaison
Government Affairs Division

Office: 512-463-6836
Mobile: 512-962-6294
Email: Meera.Nguyen@txdot.gov

125 E. 11th Street
Austin, TX 78701

Website: TxDOT Government Affairs Division

From: Bill.Buchanan@parsons.us
To: Permitting@epw.senate.gov
Cc: John.McArthur@parsons.us
Subject: Comments on the EPW Committee"s February 19th Hearing on Permitting Reform
Date: Wednesday, March 5, 2025 8:27:23 AM

Good morning,

I am the Environmental Permitting Manager at the Blue Grass Chemical Agent-Destruction Pilot Plan (BGCAPP) facility in Richmond, KY. I would like to provide the following comments for your consideration:

1. The use of Permits by Rule would be a great idea to expedite federal permitting actions - use of these permits should be encouraged at the state level to ensure consistency between multiple regulators.
2. Expediting the Regulatory Time Frame (RTF) would be beneficial to the regulated community - decreasing review times would ensure projects can stay on schedule and within budget
3. Allowing (and encouraging) permit applicants to proceed at risk while applications are being considered by the applicable regulators should be facilitated by the regulatory agencies and encouraging regulators to approve requests that abide by the applicable regulations/statutes swiftly would also allow for projects to save valuable time
4. Removing duplicative approvals should be a major focus of the agencies - as an example, the BGCAPP project is regulated at the federal level for the TSCA program and at the state level by CAA, RCRA, HSWA and CWA. Having to submit seperate applications to multiple regulators makes for extra work at the project level and at the federal and state level. Removing duplication saves time and resources and federal agencies should work to ensure all states become authorized for all environmental programs within a set timeframe (e.g., 1 year from the promulgation of new regulations that direct this action, etc.).
5. The NEPA progress is overly burdensome on facilities - this is another area where facilities should be allowed to proceed at risk while applications are reviewed by regulators - any discrepancies can be addressed along the way while construction is proceeding.
6. Protections are absolutely necessary but there is a lot of opportunity for growth and expansion if unnecessary regulations are stripped away and duplicative requests for authorizations are consolidated.

Thank you for the opportunity to comment and please let me know if you have any questions or want to discuss further.

V/R,

Bill Buchanan

'NOTICE: This email message and all attachments transmitted with it may contain privileged and confidential information, and information that is protected by, and proprietary to, Parsons Corporation, and is intended solely for the use of the addressee for the specific purpose set forth in this communication. If the reader of this message is not the intended recipient, you are hereby notified that any reading, dissemination, distribution, copying, or other use of this message or its attachments is strictly prohibited, and you should delete this message and all copies and backups thereof. The recipient may not further distribute or use any of the information contained herein without the express written authorization of the sender. If you have received this message in error, or if you have any questions regarding the use of the proprietary information contained therein, please contact the sender of this message immediately, and the sender will provide you with further instructions.'

From: Buchholz, Abbey
To: Permitting@epw.senate.gov
Cc: Stanko, Joseph
Subject: Documents for the Hearing Record from NR3
Date: Wednesday, March 12, 2025 1:25:46 PM
Attachments: NR3 Comments on Proposed Rule on "Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System".pdf
Oral Testimony NAAQS Noe final 2-15-24.pdf
Written Testimony Noe NAAQS hrg 2-15-24.pdf

Good afternoon,

On behalf of the NAAQS Regulatory Review and Rulemaking ("NR3") Coalition, I've attached documents that we would like to submit for the Committee's February 19th hearing on permitting reform record.

Thank you,
Abbey

Abbey Buchholz
Government Affairs Assistant
abuchholz@hunton.com
p 202.419.2001

Hunton Andrews Kurth LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037

Hunton.com

From: Bonnie Angermeier
To: Permitting@epw.senate.gov
Subject: EPW permitting hearing record additions
Date: Tuesday, February 25, 2025 4:31:28 PM
Attachments: SELC Transmission Report Recommendations Summary.docx
NREL 2025 Interregional Tx Report.pdf

Good Afternoon,

I wanted to follow up on last week's permitting hearing with some resources for the record that we hope will be helpful.

The first is a summary of a transmission report prepared by the Niskanen Center (note that one of the primary authors is now a Senior Attorney at SELC, Megan Gibson) and Clean Air Task Force. The attached includes recommendations for Congress and federal agencies.

The second is the report itself, linked here.

Last, I'm sharing the attached study from NREL that discusses obstacles to interregional transmission and how to address them.

Please feel free to reach out with any questions. If you can help us ensure these materials are submitted to the record, we'd greatly appreciate it!

Thanks,

Bonnie Angermeier
Senior Legislative Associate
bangermeier@selcdc.org

Southern Environmental Law Center
122 C Street NW, Suite 325
Washington, DC 20001

Office (202) 828-8382
https://www.southernenvironment.org/

From: Bowman, Liz
To: Permitting@epw.senate.gov
Cc: Krekorian, Elise
Subject: For Consideration: Letter for the Record EPW Hearing
Date: Friday, February 28, 2025 2:07:34 PM
Attachments: 2025-02 Williams Statement for the Record Senate EPW.pdf

---

Good afternoon,

Attached, please find a statement from our Senior Vice President and General Counsel Lane Wilson that we would like to submit for the record in regard to the recent EPW Hearing on the improving the permitting process.

We appreciate you all considering submitting this for the record and are happy to answer any questions.

Thank you,
Liz

Liz Bowman
Vice President, Government Affairs
The Williams Companies, Inc.
202-213-8223 | liz.bowman@williams.com
555 13th Street NW, Suite 440 West, Washington, DC 20004
LinkedIn | YouTube | Instagram

From:	Permitting@epw.senate.gov
To:	Permitting@epw.senate.gov
Subject:	FW: ABC Letter for 2.19.2025 Hearing: Improving the Federal Environmental Review and Permitting Processes
Date:	Thursday, March 27, 2025 10:13:36 AM
Attachments:	ABC Letter on EPW Permitting Hearing.pdf

From: Joshua Leonard <leonard@abc.org>
Sent: Tuesday, February 18, 2025 12:40 PM
Cc: Vance Walter <walter@abc.org>; Christopher Vaughan <vaughan@abc.org>
Subject: ABC Letter for 2.19.2025 Hearing: Improving the Federal Environmental Review and Permitting Processes

Hi Caryn and Maggie,

I hope your week is going well! I've attached ABC's letter for tomorrow's hearing: Improving the Federal Environmental Review and Permitting Processes. Could it please be entered into the record? For ease of access, I've also linked the letter here.

Our team is still working to gather numerical data on how permitting delays impact project delivery. ABC is happy to see the hearing has strong construction industry representation!

Let me know if you have any questions regarding the letter.

Best,

ABC Associated Builders and Contractors

Josh Leonard
Senior Manager, Legislative Affairs
440 First St., N.W., Suite 200
Washington, DC 20001
C (240) 814-4084
leonard@abc.org

From:	Permitting@epw.senate.gov
To:	Permitting@epw.senate.gov
Subject:	FW: ASCE statement to Senate Environment and Public Works Committee for hearing on environmental review and permitting
Date:	Thursday, March 27, 2025 10:14:14 AM
Attachments:	image001.png 2025-02-19-asce-statement-senate-epw-committee-hearing-permitting-reform.pdf

From: Lamb, Eleanor <ELamb@asce.org>
Sent: Wednesday, February 19, 2025 9:10 AM
Subject: ASCE statement to Senate Environment and Public Works Committee for hearing on environmental review and permitting

Good morning, Caryn,

Eleanor Lamb with the American Society of Civil Engineers (ASCE) here. Thank you for addressing the Transportation Construction Coalition last week. ASCE is a member of that group, and hearing from you was helpful and informative.

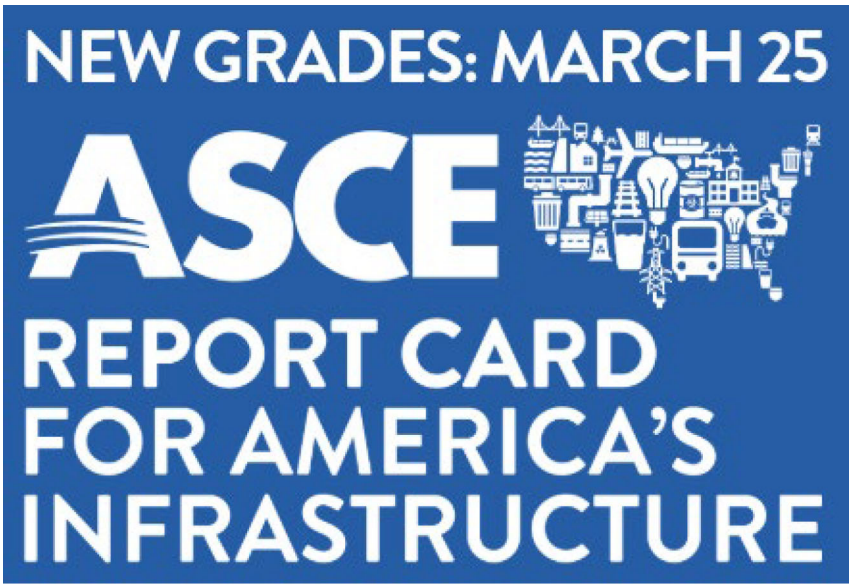
ASCE would like to submit the attached statement for the record ahead of the Senate Committee on Environment and Public Works' hearing this morning on the environmental review and permitting process.

Please let me know if we can answer any questions.

Thanks,

Eleanor

Eleanor Lamb, ENV SP
Senior Manager of Federal Government Relations
American Society of Civil Engineers (ASCE)
25 Massachusetts Ave. NW
Washington, DC
20001
Direct: 202-789-7847
elamb@asce.org


NEW GRADES: MARCH 25
ASCE
REPORT CARD
FOR AMERICA'S
INFRASTRUCTURE

From:	Permitting@epw.senate.gov
To:	Permitting@epw.senate.gov
Subject:	FW: NMA Testimony for the Record Submission for Tomorrow"s Hearing
Date:	Thursday, March 27, 2025 11:03:12 AM
Attachments:	Senate EPW Hearing on Permitting - NMA Testimony for the Record.pdf image002.png

---

From: Prosser, Justin <jprosser@nma.org>
Sent: Tuesday, February 18, 2025 5:33 PM
Cc: Young, James <jyoung@nma.org>
Subject: NMA Testimony for the Record Submission for Tomorrow's Hearing

Afternoon Maggie and Pierce,
Please find the attached Testimony for the Record from the National Mining Association ahead of tomorrow's hearing on *Improving the Federal Environmental Review and Permitting Processes*. In it, we discuss issues and recommendations related to NEPA, CAA, and the CWA. Please let me know if you have any questions.

Thanks and good luck with the hearing,

NMA
National Mining Association

Justin Prosser
Vice President, Government and Political Affairs
National Mining Association
101 Constitution Ave. NW, Suite 500 East
Washington, D.C. 20001
Cell: (202) 577-1936
Direct: (202) 463-2621
jprosser@nma.org

From:	Permitting@epw.senate.gov
To:	Permitting@epw.senate.gov
Subject:	FW: WAC letter for Permitting hearing
Date:	Thursday, March 27, 2025 10:13:12 AM
Attachments:	image002.png

From: Courtney Briggs <courtneyb@fb.org>
Sent: Wednesday, February 19, 2025 9:27 AM
Subject: WAC letter for Permitting hearing

Joe-

Here is our WAC letter re: Permitting hearing: Draft WAC Letter EPW Permitting Hearing.docx .
Can we add this to the record? Thanks!

Courtney Briggs
Senior Director, Government Affairs
American Farm Bureau Federation
(202)406-3667 (Office)
(202) 577-7294 (Cell)
CourtneyB@fb.org

From: Jack Waldorf
To: Dudis, Dan (EPW); Tomlinson, Adam (EPW)
Cc: Permitting@epw.senate.gov; Sara Amish
Subject: Improving the Federal Environmental Review and Permitting Processes, February 19 hearing
Date: Thursday, February 20, 2025 3:29:02 PM
Attachments: Senate EPW Permitting hearing WGA transmittal.pdf

Dear Chairman Capito and Ranking Member Whitehouse:

On behalf of the Western Governors, attached please find a letter regarding the Committee's February 19 hearing, Improving the Federal Environmental Review and Permitting Processes.

I request that this document be included in the permanent record of the hearing, as it articulates Western Governors' collective and bipartisan policy on this important issue.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Jack Waldorf

Jack Waldorf
Executive Director
1700 Broadway, Suite 500 | Denver, Colorado 80290 | c: 303.725.8913



***SAVE THE DATE*: WGA Annual Meeting | June 23-25, 2025 | Santa Fe, New Mexico**

From: Jordan Smith
To: Permitting@epw.senate.gov
Cc: Carr, Baxter (EPW); Shelby Hagenauer
Subject: NESARC Comments on Permitting Processes
Date: Monday, March 3, 2025 9:02:59 PM
Attachments: image001.png
NESARC Comments on Permitting Processes 03.03.25.pdf

Following up on the February 19, 2025, Senate Environment and Public Works Committee hearing on Improving the Federal Environmental Review and Permitting Processes, thank you for the opportunity to share input to identify challenges and suggest potential solutions to the Committee. On behalf of the National Endangered Species Act Reform Coalition (NESARC), attached please find a letter detailing permitting challenges that face the regulated community and private landowners related to the Endangered Species Act (ESA).

We welcome the opportunity to meet with Committee staff to further discuss the issues outlined in our comments and look forward to supporting efforts to promote effective and balanced legislative and administrative improvements to the ESA that support the protection of fish, wildlife, and plant populations as well as responsible land, water, and resource management.

Please consider us a resource as you move forward on these important matters, and do not hesitate to contact me with questions or for additional information.

Jordan Smith

Jordan A. Smith
Executive Director, NESARC
Van Ness Feldman LLP

(202) 298-1914 | jas@vnf.com | nesarc.org

NESARC
NATIONAL ENDANGERED SPECIES ACT REFORM COALITION

From:	Kelly Merritt
To:	Permitting@epw.senate.gov
Subject:	Permitting Reform - Enforcement of BACT Processes and Schedule Creation
Date:	Monday, March 10, 2025 2:12:15 PM
Attachments:	60.012 Ammonia Plant BACT Index Comprehensive Report.pdf 60.012 Ammonia Plant BACT Index.pdf approved-new-bact-for-steam-hydrocarbon-reformer_1.8.Y.8_26_24.pdf BACT Guideline 3_1_24 Page 73.pdf RBLC CA 1252 Report Hydrogen BACT v2.pdf

Chairman Capito,

I have the cleanest, fastest, and most efficient hydrogen and power production process with emissions so low (0.018 lbs/day due to a pilot light) it broke BACT process and is stuck in limbo of BACT determination for ten-years.

Thank you for addressing this major topic that has impacted me for 35 years. I have permitted some of the largest projects in the world and U.S., including one of the largest EISs that created case law. I've completed more than 110 projects and led their permitting, engineering, development, and construction. These were major NEPA events. My innovations changed the direction of power to enable clean energy, including my work on the CAA and RFS.

My projects in zero emission coal were stopped by the Obama Administration and delayed by the Bush Administration. This cost us $50M and stopped three zero emission coal projects and a 500 kV transmission line linking Texas and California back in 2003 to 2008. Total lost construction was $32B and all the associated coal jobs. My projects were cleaner than FutureGen and 20-years ahead of engineering. After meeting with DOE Secretary Chris Bodman, he shutdown FutureGen projects to support Desert Rock. After the Obam administration remanded our permits after passing the EAB with and ROD, I opted to never trigger another permit in my career. I had already brought about Best Available Control Technology in gas turbines, coal, hydrogen, and plasma.

In this effort to stop government interference in my projects, I reversed engineered the Clean Air Act to make a zero emission power plant that does not trigger any permit. I would establish a new BACT that could never be beat. I was so successful, my emissions were under 0.018 lbs/day to make 100 tonnes of hydrogen and 6MW of power as a scalable, modular design. I contacted the EPA and they said they did not have jurisdiction over me because I was not a categorical source and did not trigger PSD permitting. They directed me to California Air Resource Board that was delegated authority over our project site. This agency and California Energy Commission, and San Joaquin Valley Air Pollution Control District said we were exempt from permitting with a full engineering review signed by the APCO. We were then entered into the RBLC Clearinghouse by EPA Region 9 as "zero emissions" limit (no permit required) for production of hydrogen and derivatives (#CA-1252) and ammonia and derivatives (#CA-1250). However, they did not list us as BACT as required per the regulations stating we did not have a PSD Permit or permit number.

We broke BACT under New Source Review. The EPA Director assigned us a number enabling our entry into the RBLC. Under the New Source Review, any party now applying for conversion of carbon to hydrogen would have to do a BACT determination including Grannus Process technology which does not redefine the source (Case Law: Desert Rock v EAB). Dozens of projects filed for SMR, ATR, gasifiers, and Pyrolyzers air permits and

used alternative process codes and phrases other than “reformer”, “Hydrogen”, “ammonia”, or “fertilizer” too circumvent the BACT determination process. We have records from this activity across the U.S.

Even in SJVACPD, we were excluded at exactly our same location, from being included in a BACT top-down analysis. When we were included, they used false information not from our engineering analysis they performed, and later claimed their own BACT clearinghouse was not complete and circumvented our inclusion and completing a BACT Determination finally. This is a much longer discussion with complete records or the last ten years.

Grannus is now the largest hydrogen-carbon hub in the U.S. Synergy’s Columbia Carbon ECOHUB is the largest biomethane project in development. Both partial oxidation process companies await a BACT Determination completion. All laws say we should have been entered in 2015 as BACT.

We tried to get enforcement through EPA Regional, Wash D.C., California ARB, and SJVAPCD. EPA said there is not an enforcement branch or method to push compliance internally at EPA to do their job and not violate regulations such as BACT and NSR compliance. They said I would have to sue each company, division, and person in the process to get our technology BACT declared and then complied with.

Each of our projects is avoiding 4 to 8 million tonnes of emissions per year. Meanwhile, EPA is handing out SMR and ATR permits that emit the same amounts. We both use the same feedstock, but we are lower cost and don’t have an emissions stack.

I would offer to provide case and reference and be a part of the permitting reform process. I have documented the entire process of circumvention and choice of “weasel wording” and expulsion of processes/libraries necessary for compliance rather than comply within the regulatory agencies. Intentional action not to perform permitting and BACT determination.

What do you do as a permitting agency if permitting isn’t required?

Kind Regards,
Kelly Merritt

+001-713-515-8679

Kelly@grannusllc.com
CTO/Principal - Grannus, LLC

linkedin.com/in/jkellymerritt
www.grannusllc.com

CONFIDENTIALITY NOTICE:
This communication constitutes an electronic communication within the meaning of the Electronic Communications Privacy Act, 18 USC 2510, and its disclosure is strictly limited to the recipient intended by the sender of this message. This communication may contain confidential and privileged material for the sole use of the intended recipient and receipt by anyone other than the intended recipient does not constitute a loss of the confidential or privileged nature of the communications. Any review or distribution by others is strictly prohibited. If you are not the intended recipient please contact the sender by return electronic mail and delete all copies of this communication. To reply to this email directly, send an email to: kelly@grannusllc.com

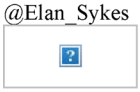
From: Elan Sykes
To: Permitting@epw.senate.gov
Subject: PPI Report on Permitting Reform
Date: Thursday, March 6, 2025 5:02:34 PM

Hello EPW Committee Staff,
I'm Elan Sykes, the Director of Energy and Climate Policy at the Progressive Policy Institute, where I've been following the Committee's work on permitting reform with interest. I've been developing pragmatic policy options for reforming the federal environmental review and permitting system to meet the changing needs of our economy and energy security goals for some time, and I'm including a link to my 2023 report, "Building The World's Most Advanced Energy Economy" below in case it is of use to you all: https://www.progressivepolicy.org/wp-content/uploads/2024/09/PPI_World-Energy.pdf

If you have any questions or would like to meet and discuss our work, please do not hesitate to reach out.

Best,
Elan Sykes

--
Elan Sykes
Director of Energy and Climate Policy
Progressive Policy Institute
@Elan_Sykes



Notwithstanding any other provision of law, regulation, or policy, when a private entity undertakes a project that impacts or affects natural resources and complies with federal and state reclamation requirements applicable to the project, and a governmental agency-designated special status species, including but not limited to (1) a listed, candidate, or proposed species under this Act, (2) a delisted species, or (3) agency-designated sensitive species, subsequently uses the reclaimed habitat, any direct or indirect effect to the species or its habitat on the reclaimed land or waters resulting from the project shall not be considered to be a violation of this Act or any other provision of law, regulation, or policy addressing effects to the species or its habitat, and no additional action under this Act, including consultation under Section 7(a)(2), or any other law, regulation, or policy, as applicable, shall be required from the private entity. This provision applies regardless of the landownership of the project area.

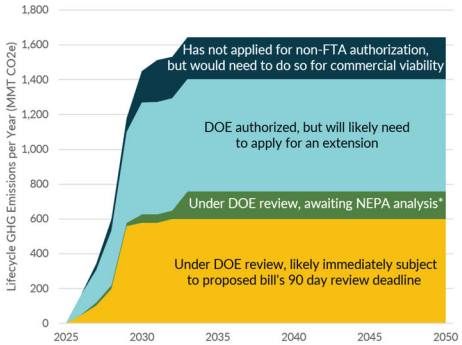
STOP THE DIRTY DEAL

Fast-tracked gas exports worsen the climate crisis and cause serious local health and economic harms

Senator Manchin and Senator Barrasso's Energy Permitting Reform Act of 2024 threatens to gut the process by which the Department of Energy (DOE) determines whether liquefied methane gas (LNG) exports to non-free trade agreement (FTA) countries are in the public's interest. The bill would limit the DOE's ability to conduct a thorough review of gas export terminal proposals, forcing the agency to automatically issue approvals if it cannot meet a 90 day time limit for review. We must not circumvent or shortchange the critical analysis that federal agencies provide, nor the ability of communities to challenge approval of these facilities that will pollute their homes for generations. While the bill includes provisions that may accelerate the deployment of clean energy and transmission infrastructure, they should not be paired with giveaways to the fossil fuel industry. **We need Members of Congress to protect our climate and communities by opposing this dirty deal. As demonstrated below, the harms from LNG unleashed by this bill are overwhelming and must be avoided.**

The US exports more LNG than any other country in the world. This supercooled gas spells big problems for the climate and causes air pollution in communities near the terminals and as far as hundreds of miles away. LNG is a fossil fuel composed of methane, a greenhouse gas (GHG) that is over 80 times more potent than carbon dioxide over 20 years – a timespan that is critical for meeting the US goal of net zero emissions by 2050. Methane and carbon emissions along every phase of the LNG lifecycle – extraction, transportation, liquefaction, shipping, regasification, and combustion – mean that LNG is a climate-intensive fuel, and the proposed LNG buildout would lock in decades of fossil fuel use, threatening to crowd out renewable energy buildout in importing countries.

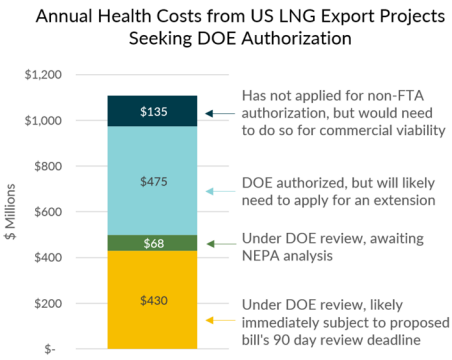
Lifecycle Emissions of US LNG Export Projects Seeking DOE Authorization



	Annual Lifecycle GHG Emissions, 2035 onward (MMT CO2e)	Annual Emissions Equivalent: Gasoline-Powered Cars	Annual Emissions Equivalent: Coal Plants
Has not applied for non-FTA authorization, but would need to do so for commercial viability	240	57 Million	62
DOE authorized, but will likely need to apply for an extension	644	153 Million	165
Under DOE review, awaiting NEPA analysis*	160	38 Million	41
Under DOE review, likely immediately subject to proposed bill's 90 day review deadline	599	143 Million	154

* These applications are not ready for DOE review until their relevant environmental review under the National Environmental Policy Act (NEPA) is completed.

The LNG projects that would likely be immediately subject to the 90 day review deadline if this bill passes would have climate-damaging emissions equivalent to 154 coal-fired power plants. For comparison, as of August 2024, there are 145 coal plants left in the entire US that don't have a retirement date by 2030. **When looking at all the projects that DOE is likely to review in the coming years, the climate toll goes up to that of 422 coal plants.**



In addition to producing immense amounts of climate pollution, these terminals are permitted to emit levels of air pollution that cause serious health harms. **If the projects considered here are built, they would cause over 70 premature deaths and health costs of $1.1 billion each year from their currently permitted air pollution.** There is a strong overlap between areas that are already environmentally overburdened and the areas that would experience the worst air pollution impacts from the full LNG buildout. This represents only a subset of the health harms from LNG, which also include air pollution from upstream and downstream infrastructure, hazardous emissions such as benzene, the impacts of explosions or other emergencies, and broader climate harms.

The LNG export projects whose permitting processes would be fast-tracked by this proposed bill also bring economic harm to local communities. LNG buildout threatens local tourism, fishing, and shrimping industries. Also, exporting US gas overseas links domestic gas prices to the volatile global gas market, resulting in higher gas prices for US consumers. This leaves low-income families with an unsustainable "energy burden" – the share of their income spent on energy. **Households in Louisiana and Texas have seen gas prices rise 44 and 50 percent, respectively, since the US started exporting LNG, and the lowest income households in those states already spend one in every five to seven dollars on energy bills.** Households in majority Black and Latino neighborhoods face a higher energy burden than those in majority white neighborhoods.

Methodology

This fact sheet considers US LNG projects that could be impacted by changes to DOE's approval process for exports to non-FTA countries as of August 2024. This is a subset of all US LNG export projects (see table below). Lifecycle GHG calculations are based on emissions estimates from a Carnegie Mellon study, using the 20 year global warming potential of methane, applied to the full capacity of LNG terminals. Health impacts values are sourced from Permit To Kill (Table 3), using the high estimate for premature mortalities and health costs for projects included in that study. Category key: (1) Under DOE review, likely immediately subject to proposed bill's 90 day review deadline; (2) Under DOE review, awaiting NEPA analysis; (3) DOE authorized, but will likely need to apply for an extension; (4) Has not applied for non-FTA authorization, but would need to do so for commercial viability.

Project	Category	Included in Health Impacts Values	Project	Category	Included in Health Impacts Values
Calcasieu Pass LNG Uprate	1	No	Cameron LNG Phase II	3	Yes
Commonwealth LNG	1	Yes	Driftwood LNG	3	Yes
Corpus Christi LNG Midscale 8-9	1	Yes	Eagle LNG Partners	3	Yes
CP2 LNG Phase I & II	1	Yes	Freeport LNG Expansion	3	Yes
Delfin LNG (extension request)	1	No	Golden Pass LNG	3	Yes
Lake Charles LNG	1	Yes	Gulf LNG Liquefaction	3	Yes
Magnolia LNG	1	Yes	Rio Grande LNG Phase I & II	3	Yes
Plaquemines LNG Uprate	1	No	Texas LNG Brownsville	3	Yes
Port Arthur LNG Expansion	1	Yes	Delta LNG Phase I & II	4	Yes
Elba Island LNG Uprate	2	No	Penn LNG	4	No
Gulfstream LNG	2	No	Power LNG	4	No
New Fortress Energy LA Fast LNG	2	No	Qilak LNG	4	No
Sabine Pass LNG Stage V	2	Yes	West Delta LNG	4	No

For more information, please contact Sierra Club Director of Beyond Fossil Fuels Policy Mahyar Sorour at mahyar.sorour@sierraclub.org.

STOP THE DIRTY DEAL

Fast-tracked gas exports are a giveaway to the Big Oil and Gas Industry and undermine clean energy gains

Senator Manchin and Senator Barrasso's Energy Permitting Reform Act of 2024 would mirror many of the goals outlined in Trump's Project 2025 plan -- it guts bedrock environmental protections, endangers public health, opens up federal lands and waters to further oil and gas leasing, and fast-tracks and may even eliminate review of proposed gas export projects that harm communities and perpetuate the climate crisis. While the bill includes provisions that may accelerate the deployment of clean energy and the transmission infrastructure that is needed to support it, they should not be paired with giveaways to the fossil fuel industry. **This is a dirty deal, and we need Members of Congress to pledge right now to protect our climate and communities by opposing this fossil fuel giveaway.**

Gas Exports Undermine Clean Energy Progress

The US exports more liquefied methane gas (LNG) than any other country in the world and this supercooled gas spells big problems for the climate and air pollution in communities near export terminals. The gas industry gets permission to expand gas exports through a license to ship LNG from the Department of Energy (DOE). Licenses to export to countries with a free trade agreement (FTA) with the US are quickly approved, while licenses to non-free trade agreement countries require the DOE to determine whether the exports are in the public's interest.

Gas exports are already set to double by 2028, when facilities currently under construction come online. This is more than enough capacity to supply our allies in Europe. At the same time, the need for a transition to renewable energy is clear, and gas exports are having negative economic impacts on domestic energy consumers. LNG projects take years to build and then are permitted to operate for decades. That all makes it critical that the agencies that permit the expansion of additional gas exports have full authority to conduct a thorough review of a project using up-to-date analysis in order to determine whether new projects are in the public's interest. That includes fully understanding the impacts that more LNG exports would have on communities, consumers, and the climate.

This fossil fuel giveaway legislation would gut the process, limiting the ability of agencies to conduct a thorough review of gas export terminal proposals and automatically issuing approvals if they cannot meet the 90 day time limits for their review. For projects that are each equivalent to the emissions of dozens of coal fired power plants and lock us into decades of fossil fuel extraction, we cannot short change the critical analysis that federal agencies provide, nor the ability of communities to challenge approval of these facilities that will pollute their homes for generations.

Current review process for LNG infrastructure and exports:

The primary permitting agencies for a proposed LNG export terminal are the Federal Energy Regulatory Commission (FERC), as the lead agency, and the Department of Energy (DOE). FERC is charged with conducting an environmental review, as required by the National Environmental Protection Act (NEPA), and authorizing the siting and construction of onshore export terminals, while the DOE determines whether the exports are in the public interest. The DOE waits to conduct its analysis until FERC prepares and releases the Final Environmental Impact Statement from the NEPA review. Approval of the license to export to FTA countries is automatic and is not subject to legal challenges. The review of an application to ship to non-FTA countries, however, requires in-depth analysis of the economic and climate impacts, as well as the potential harms to human health and the environment. If a project is found to not be counter to the public interest, the DOE will grant a license, which is subject to legal challenge.

In January 2024, White House and DOE officials announced that DOE would pause the review of current and future applications for licenses to export to non-FTA countries in order to update the analysis it uses to determine what is in the public's interest. Specifically, the DOE is updating its reports on the economic implications of more gas exports as well as the disparate impacts that LNG export terminals have on low-income communities of color, also known as Environmental Justice Communities. It is vital that the DOE take this time to update its own analysis and the criteria it uses in determining what is in the public's interest, and that DOE have the freedom to conduct such reviews when needed.

What the Energy Permitting Reform Act of 2024 would do:

- Require DOE to issue its decision on LNG export authorizations within 90 days of FERC issuing the FEIS. **Why is this a problem?**
  - These reviews typically require 6+ months to complete. Expecting DOE to fully digest the FEIS within 90 days is unreasonable. **This bill treats DOE non-FTA reviews that exceed 90 days post FEIS the same as we currently treat FTA approvals, automatically approving them if DOE has not come to a decision.**
  - Without enough time to assess the full scope of the environmental, community, and economic harms of exports, DOE could be forced to approve export applications. **For projects where DOE exceeds the 90-day timeline, the legislation's automatic approval provision also effectively removes the requirement that exports that are contrary to the public interest be rejected and does so in a manner that insulates all such approvals from judicial review.**
  - For some projects with applications pending at DOE that already have final NEPA analysis, the bill would force DOE to decide the permits **within 90 days of enactment**, including the controversial CP2 LNG project, this is the largest LNG facility ever proposed, as well as at least four other major LNG projects (Commonwealth LNG, Port Arthur Phase 2, Magnolia, and Lake Charles LNG). These facilities would be likely to be approved given current DOE analysis using the outdated studies.
- Require DOE to utilize outdated Trump-era studies to evaluate rushed export applications unless/until updated studies DOE has been working on are finished. **Why is this a problem?**
  - In January, the Biden DOE stated that it was temporarily pausing approvals of non-FTA authorizations because the studies that Trump's DOE pushed through in 2018 and 2019 are woefully inaccurate and obsolete, meaning DOE does not have the information it needs to make informed decisions about whether LNG exports are in the public interest using those studies.
  - In the meantime, DOE has been updating its studies on the impacts of LNG to inform whether or not new LNG exports are in the public interest. These studies are not expected to be released until the first quarter of 2025. If this bill was passed and signed into law prior to January 2025, it would force DOE to review at least 5 major new LNG export authorizations on a 90-day clock based on outdated studies.
  - These provisions alone could lock in new annual greenhouse gas emissions equivalent to 165 coal-fired power plants and the potential to lock in additional hundreds of millions of tons of climate pollution each year for decades to come.
  - Currently, DOE reviews applications on a rolling basis, moving on timelines that interact with other permitting agency reviews and allow for the necessary full analysis of the application rather than on an arbitrary timeline.

Does this bill matter if passed under a different administration?

- The impacts of this law would live beyond the current administration, changing the landscape of DOE's review for LNG exports completely. If, under a different administration, DOE refused to act to review an application, it would be deemed automatically approved after 90 days and without a record or basis on which to challenge an approval. This would effectively render the entire review process moot and rubber stamp the project.
- Being forced to use outdated studies within a 90-day window would make it exceptionally difficult for DOE to do an adequate analysis of an LNG export project to determine if it is in the public interest.

For more information, please contact Sierra Club Director of Beyond Fossil Fuels Policy Mahyar Sorour at mahyar.sorour@sierraclub.org.

CALIFORNIA ASSOCIATION of SANITATION AGENCIES
925 L Street, Suite 200 • Sacramento, CA 95814 • TEL: (916) 446-0388 • www.CASAweb.org

March 19, 2025

The Honorable Shelley Moore Capito
Chairwoman
Committee on Environment and Public Works
U.S. Senate
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and Public Works
U.S. Senate
Washington, D.C. 20510

Dear Chairwoman Capito and Ranking Member Whitehouse:

On behalf of the California Association of Sanitation Agencies (CASA), we write to provide our perspective related to the Committee's recent hearing entitled "Improving the Federal Environmental Review and Permitting Processes." CASA represents more than 135 local public agencies engaged in the collection, treatment and recycling of wastewater and biosolids to protect public health and the environment. Our mission is to provide trusted information and advocacy on behalf of California clean water agencies, and to be a leader in sustainability and utilization of renewable resources. We request that this letter be entered into the Committee's formal hearing record.

The hearing illustrated the overwhelming consensus that permit reform is long overdue and is vital to ensuring the timely and cost-effective construction of critical public health infrastructure projects like clean water facilities. CASA has worked for several years to advocate on behalf of a commonsense modernization of the Clean Water Act's National Pollution Discharge Elimination System (NPDES) permit process that would be protective of public health and the environment while minimizing administrative costs that impose burdens on ratepayers. Specifically, CASA and other public water sector stakeholders have advocated that NPDES permit terms should be allowed for a term of up to ten years. This is a commonsense approach to providing the U.S. Environmental Protection Agency or a delegated state with the discretionary authority to consider a longer NPDES permit term for specific entities such as public clean water agencies.

In light of the Committee's well documented examples of the costs imposed by antiquated permitting structures and the demonstrated need for timely construction of critical infrastructure, the concept of a ten year NPDES permit term would deliver meaningful cost savings for the water sector while preserving the guardrails of the Clean Water Act's authority to reopen a permit if new information necessitates a review and potential revision to a permit before the term expires.

Today's water quality needs have become more complex as public wastewater agencies continually face new challenges to ensuring improved water quality and a safe and reliable water supply. Meeting these challenges requires innovative approaches. Modern wastewater treatment often involves substantial investment of capital with construction terms that stretch out beyond the Clean Water Act's existing five-year permit term horizon. In some cases, a

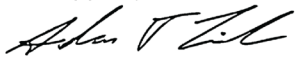
project construction timeline for clean water infrastructure can extend more than a decade as public agencies try to meet the requirements of extensive environmental reviews, project design, scheduling, and labor and construction agreements. The current NPDES permit term of five years simply does not align with today's clean water infrastructure lifecycles. Extending the NPDES permit terms to up to ten years would better reflect today's clean water infrastructure reality. Such a permit term modernization would:

- Enhance the planning and efficiency of facility permitting;
- Give agencies the necessary time to comply with existing regulatory requirements prior to the imposition of new mandates, allowing agencies to better plan and construct new technologies and facilities; and
- Allows states to direct more resources to nonpoint and watershed-based solutions.

It is vital to note that such a permit term change would be a voluntary authority for USEPA or a delegated state. Additionally, existing permit reopener provisions of the Clean Water Act and citizen petitions would allow for new conditions to be inserted where needed prior to permit expiration and protects the public's involvement in the permitting process.

We are grateful that the Committee has begun to address the overarching need for permit reform and look forward to working with you and your colleagues to ensure that any reforms include the proposed changes to NPDES permit timelines for entities such as clean water agencies. Thank you again for your commitment to address the urgent need to modernize our permitting process.

Sincerely yours,



Adam Link
Executive Director

cc: Senator Alex Padilla
Senator Adam Schiff

From: Ayrea, Maggie (EPW)
To: Permitting@epw.senate.gov
Subject: FW: CASA Letter for the Record - EPW Permitting Hearing
Date: Thursday, April 3, 2025 2:55:00 PM
Attachments: image002.png
CASA_NPDES.Permit.Term.EPW.Hearing.Record.pdf

From: Sarah Sapirstein <ssap@ensresources.com>
Sent: Tuesday, March 18, 2025 10:21 AM
Subject: CASA Letter for the Record - EPW Permitting Hearing

On behalf of CASA, please see the attached letter for the record for the committee's recent permitting hearing. A copy of the letter is also being sent to Ed Higgins on the minority staff. Let me know if you have any questions.

Thanks!

Best,
Sarah

--
Sarah Sapirstein
ENS Resources, Inc.
Suite 605
1990 K Street, N.W.
Washington, D.C. 20006
202.466.3755 (office)
202.441.9865 (cell)

WWW.ENSRESOURCES.COM

This email and any attachments thereto may contain private, confidential, and privileged material for the sole use of the intended recipient. Any review, copying, or distribution of this email (or any attachments thereto) by other than the ENS Resources, Inc. or the intended recipient is strictly prohibited. If you are not the intended recipient, please contact the sender immediately and permanently delete the original and any copies of this email and any attachments thereto.

NATIONAL GOVERNORS ASSOCIATION

RESOLUTION OF THE
NATIONAL GOVERNORS ASSOCIATION

The following resolution is proposed for adoption by the National Governors Association.

RESOLUTION:

WHEREAS, pursuant to Article 7.03 of the NGA Bylaws, the Executive Committee approved the creation of three bipartisan task forces to advance the mission of the Association, and

WHEREAS, Governors believe federal action should be limited to the powers expressly conveyed by the Constitution, preserving state sovereignty in legislative and regulatory matters the Executive Committee has added the following bipartisan priorities:

1) Enhancing emergency management;
2) Streamlining permitting processes;
3) Supporting flexibility and waiver opportunities and funding for state and territorial designed Medicaid, SNAP, and TANF;
4) Ensuring the federal government meets its already committed obligations for federally funded projects across states, territories and Commonwealths.

WHEREAS, the task forces have been meeting to discuss issues and policies that impact Governors of the states and territories of the United States, and

WHEREAS, the task forces have developed the following list of federal priorities to advance the mission of the Association:

Task Force on Economic Development and Revitalization

1) Accelerating infrastructure project delivery and streamlining permitting, while establishing Governors priorities for the next surface transportation reauthorization;
2) Advancing technology innovation and securing energy resilience to strengthen the country's economy and national security;
3) Working with Congress on the most impactful programs for states and territories contained in the Infrastructure Investment and Jobs Act (IIJA), and the CHIPS and Science Act;
4) Investing in state and territorial efforts to protect water resources and clean water.
5) Ensuring Governors have a voice as Congress considers tax reform and international trade agreements.

Task Force on Public Health and Disaster Response

1) Ensure Governors are consulted, and their gubernatorial authorities are maintained, in the areas of defense, homeland security, emergency management, health, and human services, including those outlined in U.S.C. Title 10 and 32 pertaining to National Guard readiness and structure;
2) Advocate for flexibility and support for a robust health and human service system including safety net programs, such as Medicaid and SNAP, and oppose shifting essential federal funding obligations to states and territories without adequate planning;
3) Ensure the National Guard is equipped with sufficient resources and capabilities to fully recruit and man a force ready to support domestic emergencies and fulfill its role as the operational reserve for national security missions;
4) Enhance emergency response and disaster recovery by ensuring federal programs, such as Disaster Relief Fund, National Flood Insurance, and Community Development Block Grant Disaster Recovery, are sufficient, adaptable, and streamlined to meet the diverse needs of states and territories, and easier to navigate for individuals, businesses, and all levels of governments;
5) Strengthen preparedness efforts by fostering both inter-state and federal-state collaborations to maintain resilient supply chains and stockpiles for critical infrastructure before, during, and after emergencies;
6) Support federal initiatives that provide tools and flexibility to states and territories to ensure safe communities for all Americans in areas such as malicious unmanned aircraft systems, cyberattacks, border security, trafficking, substance use disorder, justice-involved re-integration, crisis response systems, and comprehensive safety measures.

Task Force on Education, Workforce and Community Investment

1) Supporting reauthorization of the Farm Bill;
2) Supporting efforts to expand innovative educational experiences, apprenticeship opportunities and non-degree pathways including but not limited to the reauthorization of WIOA;
3) Working with the House and Senate bipartisan Paid Leave Working Groups as they consider a legislative framework around paid family leave;
4) Supporting continued investment in federal education programs that address workforce needs and efforts to improve state longitudinal data systems;
5) Increasing supply of housing by strengthening the Low-Income Housing Tax Credit (LIHTC) and giving states and territories the tools necessary to streamline burdensome zoning, permitting, and land use policies;

WHEREAS, the Executive Committee has reviewed and approved the list of NGA's 2025 federal priorities as advanced by the task forces and recommends that the federal priorities be approved by the general membership of the Association.

NOW, THEREFORE, BE IT RESOLVED that the Members of the National Governors Association hereby approve the federal priorities recommended by the Executive Committee and task forces and approved by the Executive Committee, as outlined above, and

BE IT FURTHER RESOLVED that upon approval of these federal priorities by the Members of the Association, that the NGA staff be directed to take such actions as are necessary to promote these priorities to the US Congress and the Administration.



February 22, 2025

LeAnne Wilson, NGA Secretary — Date

The National Hydropower Association, Inc.
200 Massachusetts Ave NW, Suite 320, Washington, DC 20001 • 202.805.5057 • www.hydro.org

March 18, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment and
Public Works
410 Dirksen Senate Office Building
United States Senate
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and
Public Works
410 Dirksen Senate Office Building
United States Senate
Washington, DC 20510

RE: Improving Federal Environmental Review and Permitting Process

Dear Chairman Capito and Ranking Member Whitehouse:

The National Hydropower Association (NHA) welcomes the Senate Committee on Environment & Public Works' (EPW) focus on improving federal environmental review and permitting in support of national energy goals. This letter identifies several critical issues concerning Clean Water Act (CWA) and the Endangered Species Act (ESA) implementation, as those statutes intersect with hydropower development and licensing under the Federal Power Act (FPA). NHA also provides recommendations on how Congress can improve the US Army Corps of Engineers (USACE) process in licensing non-federal hydropower projects. NHA offers the following solutions in response to the February 19, 2025, hearing titled "Improving the Federal Environmental Review and Permitting Process."

About the National Hydropower Association

NHA is a non-profit national association dedicated to securing hydropower as a baseload and reliable energy source that provides power to an estimated 30 million Americans and employs over 70,000 people. Its membership consists of more than 320 organizations, including public and investor-owned utilities, independent power producers, equipment manufacturers, and professional organizations that provide legal, environmental, and engineering services to the hydropower industry.

NHA looks forward to working with Congress to improve the permitting and regulatory processes for building and maintaining U.S. hydropower – a reliable, baseload, renewable energy resource. With accelerating load growth, including to support the surge in AI and data centers, and the need to build and expand upon our domestic electricity production, the time is now to modernize and finally resolve the complicated regulatory maze that is the licensing process for hydropower development in the United States. As detailed below, NHA offers the following proposals and recommendations to ensure the CWA and ESA continue to protect waters of the United States and endangered species, while also providing project developers and owners greater certainty, more timely decision making with fewer delays, and reduced process costs.

Improvements to Section 401 of the CWA

NHA has long prioritized proper implementation of Section 401 of the CWA (Section 401). For activities that may result in a discharge to waters of the United States. Section 401 requires the state in which the discharge originates to issue water quality certifications "within a reasonable period of time [which shall not exceed one year] after receipt" of a license or permit application. The federal license or permit may not be issued without the certification, and any conditions that the state places on its certification become conditions of the federal license or permit. Some states, however, have used their certification authority to delay, burden, or deny energy and other projects for reasons unrelated to the water quality effects of those projects' discharges. It is past time for Congress to modernize Section 401. Therefore, NHA recommends Congress adopt the following improvements:

- Clarify the law to reflect Congress' intent that the scope of Section 401 certifications and certification conditions are limited to the point source discharges that triggered the need for certification, not to the entire activity authorized by the federal license or permit. In addition, limit the laws and regulations for which certification of compliance is required, as Congress intended, to the CWA sections listed in Section 401; to federal, state, and tribal laws and regulations implementing those sections; and to other applicable state and tribal laws and regulations for point source discharges into waters of the United States.

- Make clear that the "request for certification," which initiates the maximum one-year agency response period, means only a simple written request to the certifying authority, not an "application" that they may reject as "incomplete" serving as a backdoor delay in order to secure additional time.

- Ensure that the term "water quality requirements" means only the applicable provisions of 33 U.S. Code § 1311, 1312, 1313, 1316, and 1317 and applicable State regulatory requirements for discharges.

- Clarify that the certifying authority, in response to a request for certification, can only: affirmatively waive certification; grant the request with or without conditions; or deny the request on the merits. Congress should mandate that the action taken by the certifying authority must be completed in one year or certification is waived.

- Direct that if the Administrator of the Environmental Protection Agency (EPA) determines such discharge is unlikely to affect the waters of any other jurisdiction, no notification to that jurisdiction or other action with respect to that jurisdiction is required.

- Require that certification conditions are enforceable only to the extent that they are incorporated into the federal license or permit pursuant to Section 401, and only by, in the case of non-federal hydropower licensing, the Federal Energy Regulatory Commission (FERC) in the same manner as other conditions of the federal license or permit.

- Prohibit certifying authorities from *unilaterally* (emphasis added) "reopening" or modifying certification conditions after the federal license or permit has been issued or waived. NHA believes that any modifications or additions to certification conditions must be independently approved by FERC and incorporated into the federal license or permit through a modification of the license or permit. Unilateral modifications or additions by the certifying authority circumvent Congress' clear intention that the certifying authority shall act within one-year and serve to transform a Section 401 certification into an open-ended permit.

Improvements to the Endangered Species Act

NHA's members are uniquely positioned to provide recommendations to modernize the ESA. Not only is consultation required under the ESA, but the National Marine Fisheries Service and U.S. Fish and Wildlife Service (Services) may also provide recommendations for protection, mitigation, and enhancement of species (PMEs) under Section 10(j) of the FPA (which FERC shall accept unless inconsistent with law). The Services can also require mandatory fishway prescriptions under Section 18 of the FPA. Both the PMEs and fishway prescriptions are then captured in the licensed issued by the FERC. There is significant overlap in these authorities. NHA recommends Congress adopt the following improvements:

- Require under Section 7 consultation, that the Services, define the past, present and future impacts from existing structures (e.g., dams) as part of the "environmental baseline." The question of whether a structure is part of the environmental baseline should not depend on the extent of the action agency's discretion to remove that structure, but rather on whether it in fact exists already. Further, Congress should clarify that reauthorization of operations or approval of structural repairs does not cause a structure to "exist" in the future or perpetuate its effects, and that the impacts to species and habitats from the structure's existence do not flow from the federal reauthorization or repair approval. Not only does the Services continued practice of not including existing structures as part of the environmental baseline fly in the face of both pragmatism and common sense, it also contradicts existing analogous caselaw that supports using the existing project baseline for relicensing hydropower projects under the FPA and evaluation of those impacts under the National Environmental Policy Act [*American Rivers v. Federal Energy Regulatory Commission*, 201 F.3d 1186, 1196 - 1201 (9th Cir. 2000)].

- Clarify that under existing law when providing Reasonable and Prudent Measures (RPMs) in a no-jeopardy biological opinion the Services *cannot* (emphasis added) impose offsets or compensatory mitigation measures. Consistent with the statute, RPMs should be limited to "minimizing" the effect of incidental take of a listed species. This clarification is needed due to the Services' final rule issued in 2024 allowing for the Services to unilaterally impose compensatory mitigation measures, including offsite mitigation banking requirements, when there is a no-jeopardy finding.

- The Services' recent critical habitat rule allows them to designate broad swaths of habitat outside a species' historic and current range, presumably in anticipation of

purported climate-related landscape changes, even if the habitat has never been used by that species and does not contain elements on which the species depends. Congress should mandate that when designating critical habitat, the Services ensure: such habitat is essential for, and reasonably certain to contribute to, the conservation of the species; contain one or more of those physical and biological features upon which the species depends; was historically occupied by the species; and currently occupied areas are inadequate to ensure the conservation of the species.

- Congress should codify the holding in *Maine Lobstermen's Association v. NMFS*, 70 F.4th 582 (D.C. Cir. 2023). The question in front of the court was whether it was lawful for the Services to apply a conservative or "worst case" analysis when presented with a range of potential outcomes. The court held that the ESA requires evaluation of likely, not worst case, outcomes. If the best available science does not allow the Services to make a reasonable prediction regarding the likely outcome, then the "Service lacks a clear and substantial basis for predicting an effect is reasonably certain to occur, and so, the effect must be disregarded in evaluating the agency action." The court made clear that its holding should be implemented broadly ["…we decide whether, in a biological opinion, the Service must, or even may, when faced with uncertainty, give the 'benefit of the doubt' to an endangered species by relying upon worst-case scenarios or pessimistic assumptions. We hold it may not." *Maine Lobstermen's Association v. NMFS*, 70 F.4th 586 (D.C. Cir. 2023)]. Unfortunately, the previous Administrator of NMFS testified in front of Congress that the agency's opinion is that the court's holding was narrowly tailored to the facts of that case, contradicting the plain language reading of the court's holding (Coit, Janet, Full Committee Hearing to Examine Federal Offshore Energy Strategy and Policies, Senate Committee on Energy & Natural Resources, Oct. 26, 2023, Video of Testimony, https://www.energy.senate.gov/hearings/2023/10/full-committee-hearing-to-examine-federal-offshore-energy-strategy-and-policies, Accessed March 17, 2025). Therefore, NHA believes it is imperative that the Congress codify the holding in statute.

- Currently, the ESA requires that a biological opinion's incidental take statement (ITS) specifies measures needed to comply with a Marine Mammal Protection Act (MMPA) authorization. However, MMPA authorizations are an agency action that trigger ESA section 7 consultation and typically take longer, and therefore often come after the biological opinion is issued. This has led to significant litigation and problematic legal precedent that creates a conflict between the statutes. To fix this issue, NHA recommends Congress revise the ESA's requirements for ITSs so that it simply specifies that the proposed action must comply with MMPA authorization measures that are separately issued and may be issued later in time.

- The ESA already requires the applicant's consent to extend the consultation beyond 195 days (i.e., 90 days for consultation, 45 days to prepare a written statement, and an initial 60-day extension with action agency consent). In practice, however, the Services rarely request such consent. Congress should reaffirm the requirement to obtain applicant consent beyond 195 days by requiring the Services to document in the biological opinion that such consent was received. Congress should require that the Services'

failure to obtain applicant consent for any such extension is evidence of an agency action unlawfully withheld or unreasonably delayed, and the applicant shall be entitled to relief pursuant to the Administrative Procedure Act.

- Currently, the ESA only allows for applicants to request review of a draft biological opinion from the federal action agency (i.e., FERC, who must then work with the Services to receive the draft biological opinion). However, the Services are not required to provide for that review. Nor are the Services subject to a time period by which they must respond to the request. Congress should provide: that the applicant has the right to request directly from the Services the draft biological opinion; that the Services shall provide the draft to the applicant 30 days prior to publication; and that the Services must address comments submitted by the applicant in the final biological opinion. Congress should also provide for a 14-day time limit by which the applicant shall provide comments to the Services to be considered in the final biological opinion.

Improvements to the USACE's Role in Non-Federal Hydropower Licensing

The vast majority of U.S. dams and water infrastructure were constructed for purposes other than hydropower generation, such as water supply, flood control, irrigation support, and navigation. These dams include structures and impoundments that provide opportunities to install hydropower generation. A study by the U.S. Department of Energy (DOE) concluded that the untapped power potential of these dams is anticipated to be upwards of 12,000 MWs, 8,000 MWs of which is concentrated into just 100 dams. Yet, of the top 100 USACE facilities identified with the most hydropower potential, only 6 have been developed in the past decade. This is a direct result of the USACE's continued inability to streamline and improve their permitting processes.

To speed up the development of new hydropower at existing dams, particularly those operated by the USACE, Congress should require the USACE to serve as a cooperating agency in all FERC licensing processes for building non-federal hydropower at USACE facilities. Additionally, the USACE should process all relevant permit applications concurrently with FERC's review process, rather than sequentially. The current sequential review structure has created significant inefficiencies that inhibits the development of hydropower resources at existing USACE facilities. These procedural barriers limit America's ability to fully utilize this existing infrastructure, and to maximize the public benefits of these dams, including for baseload energy production.

NHA specifically request that Congress enact the following improvements:

- Require USACE to serve as a cooperating agency in the FERC licensing process under the National Environmental Policy Act.

- Direct USACE to process a Clean Water Act Section 404 (Section 404) permit application concurrent with FERC's licensing process.

- Mandate USACE to issue Section 404 permits prior to any required authorization under the Rivers and Harbors Act Section 14 (Section 408).

Thank you for your consideration of these important matters critical to advancing America's energy interests for the hydropower sector. We are prepared to provide additional information or meet with appropriate staff to discuss these issues in greater detail. Please reach out to either Matthew Allen, NHA's Director of Legislative Affairs at matthew@hydro.org, or Michael Purdie, NHA's Director of Regulatory Affairs and Markets at michael@hydro.org, for any and all questions.

Sincerely,



Michael Purdie
Director of Regulatory Affairs and Markets
National Hydropower Association

Docusign Envelope ID: F1159C41-0DBA-45E9-8B5A-7AC0A4B843FA

Dr. Crystal Cavalier
5123 N NC HWY 119
Mebane, NC 27302
336-639-2454
crystal@crystalcavalier.com

Mar 19, 2025

The Honorable Shelley Moore Capito
Chairman, Senate Environment and Public Works Committee
170 Russell Senate Office Building
Washington, DC 20510
Phone: (202) 224-6472

Dear Chairman Capito,

I am writing to express my deep concerns regarding the proposed permitting reforms and their potential to weaken critical environmental laws such as the National Environmental Policy Act (NEPA). As an Indigenous person and a frontline community member, I have been fighting the Mountain Valley Pipeline (MVP) mainline and Southgate extension for over a decade, and I have personally witnessed the devastating impacts of corporate-driven decision-making on our land, water, and communities.

Government policies and legislative actions have favored corporate interests over the health, safety, and sovereignty of frontline communities like mine for far too long. Permitting reforms that prioritize fossil fuel infrastructure over environmental protections exacerbate the long history of environmental injustices disproportionately affecting Indigenous communities and communities of color. These projects do not go through the neighborhoods of those with political and economic privilege; instead, they are forced upon those of us who have already borne the brunt of environmental degradation for generations.

The panel's composition at your February 19th hearing is deeply troubling, as it primarily consists of representatives from corporate, construction, and pro-industry groups with a vested interest in weakening environmental protections. I do not see any real community representatives, environmental justice advocates, or Indigenous voices included. You have not called any of my allies, organizations, or individuals who have lived through the harmful impacts of unchecked industrial expansion. This one-sided approach is performative and fails to uphold a fair democratic process.

Docusign Envelope ID: F1159C41-0DBA-45E9-8B5A-7AC0A4B843FA

Only two testimonies—Senator Sheldon Whitehouse (D-RI) and Nicole Pavia, Director of Clean Energy Infrastructure Deployment at Clean Air Task Force—opposed weakening environmental protections in permitting reform. However, even Nicole Pavia's testimony raised concerns as she suggested consolidating permitting under FERC, which is a shortcut for project approvals rather than ensuring proper environmental scrutiny. This lack of genuine opposition voices demonstrates an improper, biased process that does not consider the interests of those most affected by these projects.

I hold a doctorate and have lived experiences and the education necessary to speak to this committee. I would welcome the opportunity to testify and present solutions that incorporate environmental justice, uphold community voices and ensure that permitting reform does not come at the expense of the health and well-being of frontline communities. Environmental experts have criticized the Energy Permitting Reform Act for enabling mining companies to claim vast public land for waste dumping and infrastructure expansion. Additionally, Earthjustice has noted that specific reforms could fast-track Liquefied Natural Gas (LNG) export projects, worsening climate change and harming frontline communities. The Climate Justice Alliance has also pointed out that some proposals could mandate annual offshore drilling lease sales, exacerbating extreme weather conditions and increasing climate-related disasters.

Proposed Solutions

Instead of weakening environmental protections, I urge the committee to consider the following solutions:

- **Strengthen, not weaken, NEPA** by improving interagency coordination rather than fast-tracking approvals.
- **Improve transmission infrastructure permitting** with transparency and oversight, ensuring clean energy deployment does not come at the cost of public input and environmental protections.
- **Reject FERC as the lead agency for permitting**, as it has a history of rubber-stamping fossil fuel projects without adequate review.
- **Ensure robust judicial review** instead of imposing arbitrary 150-day limits that weaken community rights to challenge harmful projects.
- **Prioritize investments in clean energy and resilient infrastructure** rather than further entrenching fossil fuel projects.

Furthermore, I want to address the deceptive language often used in discussions surrounding permitting reform. Terms such as "streamlining," "efficiency," "cloud-based solutions," and other seemingly neutral words mask the true consequences of rolling

Docusign Envelope ID: F1159C41-0DBA-45E9-8B5A-7AC0A4B843FA

back environmental protections. Words like "green," "eco-friendly," "sustainable," and "natural" are often used to give an impression of doing the best things for the climate, earth, or nature, yet they can be deceptive tools of "greenwashing." This manipulative language misleads the public into believing that harmful practices are beneficial. In reality, these terms are being co-opted to justify deregulation and accelerate fossil fuel extraction at the expense of frontline communities like mine.

It is disingenuous to frame permitting reforms as a way to promote environmental stewardship while simultaneously making it easier for corporations to extract and burn more fossil fuels. The continued expansion of fossil fuel projects only serves to deepen the climate crisis, increase pollution, and further marginalize those of us who are already fighting for basic environmental protections.

You and your colleagues in Congress are responsible for ensuring that environmental laws protect everyone, not just those with wealth and power. Instead of dismantling protections, we need real investment in clean energy solutions, community-led ecological justice initiatives, and policies that hold corporations accountable for the damage they inflict on our land and water.

I urge you to oppose any permitting reform that weakens environmental protections or prioritizes fossil fuel development at the expense of frontline communities. We demand policies that center on environmental justice, uphold tribal sovereignty, and move us toward a just and sustainable future for all.

Sincerely,

DocuSigned by:

AD637C8E1F7B483...

Dr. Crystal Cavalier 3/17/2025

Docusign Envelope ID: F1159C41-0DBA-45E9-8B5A-7AC0A4B843FA

Panel 1 - Largely Representing Corporate Interests and Weakening Protections:

- **Leah Pilconis** - General Counsel, The Associated General Contractors of America
- **Carl Harris** - Chairman of the Board, National Association of Home Builders
- **Jeremy Harrell** - CEO, ClearPath
- **Nicole Pavia** - Director, Clean Energy Infrastructure Deployment, Clean Air Task Force
- **Brent Booker** - General President, Laborers' International Union of North America (LIUNA)

This panel is largely composed of Republican-aligned and corporate representatives who have a vested interest in weakening regulations and steamrolling over true democratic processes. Where are the voices of impacted communities? Where are the environmental justice leaders who have spent decades fighting to protect their homes and natural resources? This lack of representation is a glaring omission and further demonstrates the bias inherent in this process.

Advocates *for* Climate Innovation

287 Park Avenue South
New York, NY 10010
www.advocatesforclimate.org

March 19, 2025

The Honorable Shelley Moore Capito
Chairman
U.S. Senate Committee on Environment and Public Works
304 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
U.S. Senate Committee on Environment and Public Works
304 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Capito and Ranking Member Whitehouse:

Congratulations on being chosen to serve as the Chairman and Ranking Member of the Senate Committee on Environment and Public Works.

For your background, Advocates for Climate Innovation (ACI) seeks to contribute to solving the climate change problem by identifying transformative solutions that lack the needed Federal policy support, and then securing that policy. We seek bipartisan approaches that create incentives to stimulate innovation. We are hopeful that each of your demonstrated records for seeking consensus on matters that have advanced bipartisan solutions that can solve for climate change will continue throughout the 119th Congress and beyond.

ACI is writing today in regard to the hearing held on February 21, 2025, entitled "Improving the Federal Environmental Review and Permitting Process." As you seek feedback from interested stakeholders on this subject, we seek to highlight the need for constructive legislative engagement on marine carbon dioxide removal.

In the 118th Congress, the subject of marine carbon dioxide removal began to receive attention from Congress including bipartisan legislation (H.R. 10471) introduced in the House of Representatives and a hearing in the House Science and Technology Committee on the potential of carbon dioxide removal approaches. ACI anticipates that marine carbon dioxide removal will continue to gain attention in Congress, but just as importantly, the topic and practice of trying to refine and deploy marine carbon dioxide removal approaches is widely expected to generate greater levels of attention in the academic and private sectors.

Advocates *for* Climate Innovation

287 Park Avenue South
New York, NY 10010
www.advocatesforclimate.org

These expected advances will test the ability of a range of federal agencies of meeting the challenge of evaluating the effectiveness, environmental risk, potential co-benefits, and scalability for a variety of carbon dioxide removal approaches. At present, within the jurisdiction of the Environment and Public Works Committee, ACI anticipates that the Army Corps of Engineers and Environmental Protection Agency will play major roles in environmental review and permitting of this emerging sector. As you consider your next steps, ACI strongly recommends reviewing the permitting laws for this sector to best determine where and how any legislative improvements could be warranted.

Thank you for your attention to this matter, your public service, and we wish you success in your leadership of the Environment and Public Works Committee.

Sincerely,

Roger T. Ullman

Roger Ullman
Executive Director

The Honorable Shelley Moore Capito
Chair
Committee on Environment and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, D.C. 20510

March 19, 2025

Dear Chair Capito and Ranking Member Whitehouse,

On behalf of the undersigned members and partners of the Clean Water for All Coalition, we write in response to the Committee's hearing "Improving the Federal Environmental Review and Permitting Processes." Thank you for an open comment docket to facilitate discussion of the invaluable public protections afforded to our country's environmental resources, and especially our waters.

Clean Water for All is a national coalition that brings together diverse organizations to advance equitable policies that promote and increase clean water protections, access, and affordability across the nation. Our members are from all across the country and include hunters and anglers, local waterkeepers, environmental justice advocates, and sustainable businesses.

The Clean Water Act was designed to protect our nation's lakes, rivers, streams, and wetlands and since its passage over fifty years ago, it has made our water cleaner and safer for our communities. Businesses ranging from restaurants to breweries to outdoors outfitters have been able to rely on clean water for their goods and services. Aquifers have been able to better retain water derived from ephemeral and seasonal streams that have remained undeveloped. Flood damages have been mitigated where wetlands are present, and exacerbated where they have been destroyed. The impacts of clean and abundant waters are felt from coast to coast.

At the core of the Clean Water Act is a prohibition of *unregulated* discharges of harmful pollutants into the waters our communities rely on. This prohibition is enforced through permitting systems. These systems require applicants – businesses or local governments, for example – who want to impact our waters through discharges, dredging, construction, and more to provide both the United States Environmental Protection Agency ("EPA") and their state level counterparts or the U.S. Army Corps of Engineers with information explaining impacts of the project in order to confirm they are within legally allowable limits. The system strikes a balance

that safeguards our shared waters from irresponsible and dangerous actions while also ensuring businesses and local governments can continue to build and develop – responsibly.

When members of Congress and members of communities alike support the Clean Water Act and defend these protective permitting systems, they are defending predictability for our water systems, reliability for our economic resources, and dependability for cultural practices. In contrast, proposals to weaken the Clean Water Act's system of permitting, like those contained in Project 2025 (and those articulated by the National Association of Home Builders ("NAHB") and the Associated General Contractors of America during the hearing on February 19th, 2025) would devastate communities, economies, and ecosystems alike and threaten the very safety of our drinking water.

Many of these proposals would be incredibly harmful policies and are based on unsupported claims:

A misleading study is behind claims of the CWA obstructing home construction

For example, during recent appearances before Congress, NAHB has often positioned these historically uncontroversial permitting systems as an obstacle to development. However, there is no credible evidence that complying with the Clean Water Act's requirements to assess, avoid, and mitigate harm to water bodies is a barrier to responsible development. The "study" cited by the NAHB witness does not contain any data, much less scientifically relevant analysis, showing that the Clean Water Act is a significant cost component of new home construction.

Data from polluters and developers on CWA permit timetables is wildly unrepresentative

Similarly, arguments that general permits under the Clean Water Act take too long to finalize and are too restrictive in scope are misguided. According to data provided to the House Transportation and Infrastructure Committee by federal agencies, the vast majority (94%) of Army Corps permitting is done by fast-track "general" permitting, like regional or nationwide permits, and the vast majority of those (75%) are processed in fewer than 60 days. Of the few projects that require individual permits rather than general permits, a majority are processed in less than 120 days. Arguments otherwise are a pretext to eliminate public safeguards critical to water security and safety.

Polluter claims that states abuse Section 401 of the CWA are factually wrong

Section 401 of the CWA establishes states and certain Tribes' ability to review, certify, and/or condition projects seeking federal permits to ensure that they do not undermine state water quality goals and priorities. It is a longstanding public protection for clean water, healthy communities, and vibrant economies. Arguments seeking to limit states' authority to review and mitigate the impact of federally-permitted projects on their waters, by using Section 401 of the Clean Water Act, do not pass muster.

Industry lobbyists and many allied politicians have claimed that states have abused section 401 by focusing on non-water quality impacts when reviewing proposed projects, but EPA has previously found that "the vast majority of certification decisions are based entirely on water quality considerations." Additionally, the EPA's regulations have always required that states must base certification decisions on water quality factors. This is why thousands of 401 certifications are issued every year, in a timely fashion, without issue – usage of certifications is business as usual and has been an uncontroversial part of the CWA for decades.

Permitting by the Army Corps and EPA in the wake of *Sackett* has gone as expected

Finally, lobbyists for developers and polluters have argued that EPA and the U.S. Army Corps of Engineers are gaming the Supreme Court's decision in *Sackett v. EPA* and taking advantage of their authority to unjustly pull waters and wetlands into EPA's permitting authority under the CWA. *Sackett* removed protections for tens of millions of acres of wetlands and millions of miles of streams. Federal agency determinations since *Sackett* clearly reflect that. Of more than 27,000 "jurisdictional determinations" posted on EPA's website implementing the Court's ruling in *Sackett*, 81.7% of the features considered by the Army Corps were found not to be protected waters.

People want their waters to be safe and ensuring everyone has clean water is a bipartisan, common sense issue. More than three in four people support stronger federal protections for our nation's waters. We all deserve clean water to drink, lakes where we can teach our children to swim, rivers where we can fish with family members, and assurances that our valuable wetlands and waters will flourish for generations to come. Undermining reliable safeguards for clean water is a recipe for disaster.

Members of Congress are trusted by the public to protect our precious, shared waters, and we call on members to not be swayed by misinformation and instead to ensure long standing public protections remain in place, and are strengthened, to ensure clean water for all.

Sincerely,

Alabama Rivers Alliance
American Public Health Association
American Whitewater
Amigos Bravos
Bayou City Waterkeeper
Black Warrior Riverkeeper
Cahaba River Society
Clean Water Action
Clean Wisconsin
Earthjustice
Endangered Habitats League
Environmental Law and Policy Center
For the Love of Water (FLOW)

Freshwater Future
League of Conservation Voters
Massachusetts Rivers Alliance
National Wildlife Federation
Natural Resources Defense Council
Ohio River Foundation
One Mississippi
Socially Responsible Agriculture Project
Waterkeeper Alliance
Waterkeepers Chesapeake

Georgia Department of Transportation

Russell R. McMurry, P.E., Commissioner
One Georgia Center
600 West Peachtree NW
Atlanta, GA 30308
(404) 631-1990 Main Office

March 18, 2025

Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

RE: Improving the Federal Environmental Review and Permitting Processes

Dear Chair Capito, Ranking Member Whitehouse, and Members of the Committee:

The Georgia Department of Transportation (GDOT) appreciates the opportunity to provide input on the Senate Committee on Environment and Public Works' efforts to improve the federal environmental review and permitting processes as discussed during the February 19, 2025 hearing, titled "Improving the Federal Environmental Review and Permitting Processes".

We have included recommendations related to the environmental review and permitting process in the accompanying document for the Committee's consideration. These recommendations are based on opportunities for improvement that GDOT has identified while delivering transportation projects for the State of Georgia. GDOT is responsible for the nation's tenth largest state transportation system and is committed to delivering a transportation system that enhances mobility and safety while protecting Georgia's natural and cultural resources.

GDOT is eager to collaborate with the Committee and other stakeholders to refine these processes, ensuring that infrastructure projects are both efficient and environmentally responsible. Thank you for considering our perspective.

Sincerely,

Russell R. McMurry, P.E.
Commissioner

CR:RM:fs:jw

Attachment

CC: Ann R. Purcell, Chair, Georgia State Transportation Board

Allow State DOTs to approve, on FHWA's behalf, all Categorical Exclusions (CEs): Current Federal Policy: 23 USC 326 (which should be eliminated)
Formal NEPA Assignment 23 USC 326 allows states to assume NEPA responsibilities for project level NEPA documents at the CE level; Formal NEPA Assignment 23 USC 327 (CEs, EAs, EIS') should be revised to include NEPA assignment for just EAs/EIS' (the most challenging projects).

Recommendation: State DOTs should be allowed to approve all CEs and bypass Formal Assignment of FHWA's NEPA responsibilities under 23 USC 326. CEs are actions that meet the definition contained in 40 CFR 1508.4, and based on FHWA's experience with similar actions, do not involve significant environmental impacts. They are actions that: Do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts. Most State DOTs have proactive Programmatic CE (PCEs) agreements with FHWA Division Offices that constitute the majority of their NEPA documents approved in any given year (90% +/-), leaving only a minimal number of CEs requiring FHWA approval (10% +/-). More specifically, at GDOT, over the last five fiscal years (FY 20-24), the number of CEs requiring FHWA approval has remained relatively constant, averaging 46 annually (includes both new CEs and CE reevaluations requiring FHWA review and approval). State DOTs could leverage their NEPA expertise to reduce FHWA workload and accelerate delivery of their work programs if State DOTs were allowed to approve all CE documents. Expanding 23 CFR 771.117 "C" and "D" lists to include additional actions that are predetermined to qualify as CEs would also streamline project delivery. This corresponds with FHWAs Permitting Dashboard focus where only EAs and EIS' are tracked (CEs are not included) and is especially critical since FHWA is expected to provide future NEPA oversight on discretionary grant approvals (without State DOT assistance), which is estimated to double their CE review/approval workload.

Streamline and Support Betterments Under Emergency Relief Program: Current Federal Policy: Public Law 117-58, Section 11106, 11107 and 11519; 23 USC 120(e) and 125; 23 USC 125(d)(2)
Issue: State DOTs are facing a greater need for funds authorized by Congress for the FHWA Emergency Relief (ER) Program. In the aftermath of disasters, rapid response and recovery is essential, which should include after-the-fact environmental compliance documentation. Traditional processes for environmental clearances and contract approvals can be time-consuming and cumbersome, often leading to delays that hinder timely restoration and rebuilding efforts. Time is of the essence.

Recommendation 1: Develop Programmatic Agreements for Emergency Projects
Agreements between federal agencies and State DOTs concerning the handling of environmental requirements for categories of project types often streamline the environmental process overall. The use of these Programmatic Agreements (PA) across the nation should be reviewed and applied in a consistent manner nationally to promote the most flexibility for emergency projects. Developing PAs for the Emergency Relief Program can significantly enhance the efficiency and effectiveness of disaster recovery efforts by expediting crucial processes. Implementing multi-

lateral programmatic agreements can facilitate faster approvals and streamline coordination among various agencies and stakeholders, thus accelerating project delivery.

Although PAs are more commonly initiated on a state level, natural disaster emergencies affect infrastructure facilities nationally. Similar to national and/or regional PAs executed by USDOT, NOAA/NMFS, and USFWS on various environmental issues (historic bridge programmatic 4(f), Section 7 PA, and range wide threatened species PA) emergency environmental compliance should be nationalized, not restricted by state borders or by different interagency interpretations. An example of a much-needed PA is with the US Army Corps of Engineers (USACE). It appears that there is little to no recognition by USACE of the emergency relief process and the need to provide immediate emergency actions to restore infrastructure facilities. During the recently declared disasters in Georgia, the USACE failed to recognize 33 CFR 323.4(a)(2), (Discharges not requiring permits) In short, the statute notes "Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design. Emergency reconstruction must occur within a reasonable period of time after damage occurs in order to qualify for this exemption". As noted above, Georgia was not allowed to use the CFR, while other states affected by the same natural disaster did per their specific USACE District interpretation; during a declared emergency, all states should be complying similarly with federal regulation, which should include seamless adoption of emergency processes between FHWA and FEMA.

Recommendation 2: Ensure Timely and Adequate Responses to Events

Ensure adequate responses to events while also developing consistent environmental protocols w/agency consensus for all State DOTs regarding environmental streamlining and methodologies that include after the fact compliance that extends beyond 30 days and/or the time needed for the repair. For example, 36 CFR 800 allows for cultural resource exemption if an emergency repair is completed within 30 days, but not if the project repair is still ongoing after 30 days. Traversing compliance with agencies that have different procedures during emergencies can be challenging, while the focus should be on immediate infrastructure repair (i.e., USACE requirements and definitions conflict with the Section 106 implementing regulations in 36 CFR 800 and create a great deal of confusion and unnecessary work. Eliminate USACE 33 CFR 325 Appendix C and have USACE follow 36 CFR Part 800.)

Recommendation 3: Allow Betterments on Emergency Projects

Consideration should be given to betterment repairs, replacements, or reconstructions of a comparable facility that are maintained within existing right-of-way (ROW) and should be allowable by State DOTs at their discretion, while still being eligible for reimbursement as part of the Emergency Relief Program. Example – under the relief program, betterments are not allowed, but straightforward betterments to improve existing deficiencies and to promote resilient solutions should be allowed without question when maintained within existing ROW.

Improve Process to Acquire ROW from Federal Government: Current Federal Policy: 23 USC 107(d) and 23 USC 317

State DOT projects often require the acquisition of ROW or easements from various federal agencies. Currently, statutes exist that define a process for the determination and ultimate acquisition of ROW from various federal agencies. This requires a determination by the Secretary of Transportation on the necessity of the taking, notification of the applicable department and a timeline for a potential decision, and ultimate transfer of the land to the DOT for the purposes of this project. However, the details of this process, the point of contact within the applicable federal agency and the expectations of all involved are not well defined. In addition, although there is a four-month timeline specified for the transfer of property following the Secretary's notice to the Federal Agency, the timeline of the entire process is longer and often exceeded. Inconsistency exists in the process and expectations among the various federal agencies involved.

Recommendation: Require USDOT to establish a detailed process and timeline for the acquisition of ROW from federal agencies. This process should include communication protocols, a tracking system, performance expectations for each federal agency, and a maximum amount of time from once a State DOT adequately provides notice to the Secretary for the land to be transferred to the State DOT. GDOT encourages the use of One Federal Decision – **Executive Order 13807/rescinded into 23 USC 139** – on all projects (not just major infrastructure projects as noted in the EO); currently, State DOTs and their Lead Federal Agency have to complete and approve NEPA for a proposed federal undertaking, only then to have the impacted Federal Agency be required to complete their own NEPA document for the project ROW transaction...which in most cases, can take as long as an additional 6-8 months to complete. The State DOT/Lead Federal Agency approved NEPA document should be adopted by all parties so that ROW acquisition can begin without a separate NEPA action being required by the Federal Agency entity where the ROW is being acquired (which is a duplication of efforts, documenting the same action).

Examples of the following include current projects that propose ROW from the National Park Service (NPS); a bridge project requiring ROW from the USACE, where GDOT had to wait many months for an approval from the Pentagon (United States Department of Defense) and the NPS; and the USACE's Section 408 process, which requires an approved FHWA NEPA document and a separate NEPA document with the same information for the USACE (duplicative information in both documents), Federal agencies must develop realistic timeframes for all document review and consultations; decisions must be adhered to, so long as no new information is presented (USACEs planning office currently has no defined review timelines for the Section 408 process).

Support and Encourage Maintenance Within Existing RW that will generate more PCEs and more streamlined Section 7 consultations under the Threatened and Endangered Species Act: Current Federal Policy: 23 USC 116

As defined in current law, a preventive maintenance activity shall be eligible for Federal assistance under this title if the state demonstrates to the satisfaction of the Secretary of Transportation that the activity is a cost-effective means of extending the useful life of a Federal-aid highway. Preventive maintenance has become a critical component of a State DOT program to provide a safe and reliable transportation system while meeting national performance measures on network asset conditions. Significant portions of State DOT investment are in the category of preventive maintenance. Maintenance activities and programs within State DOTs have evolved to include treatments on all asset classes, not just pavement and bridges, as a way to extend the useful life of the asset.

Recommendation: A comprehensive review of the definition and eligibility of preventive maintenance activities as well as the development of consistent guidance that clearly defines the range and limits of activities that are considered eligible. In addition, increased flexibility in the STIP process for inclusion of maintenance activities. As maintenance treatments are often time sensitive, this flexibility will provide State DOT's the ability to provide the "right treatment on the right asset at the right time." These activities should be eligible for PCE approval regardless of the environmental impact.

In addition, a national focus requesting federal agencies and Congress to modernize existing federal laws and their implementing regulations on State ROW (Transportation Infrastructure) that align with current maintenance treatments is paramount to reducing the environmental review process and ensuring predictability in project delivery. An example from Nebraska proposes revisions to legislation pertinent to the Endangered Species Act:

Proposed ESA Amendment Language - 16 USC 1532

"Transportation infrastructure and their associated operational rights-of-way (previously disturbed right-of-way)" shall not be considered habitat for purposes of the Endangered Species Act. Section 7 a (2) shall also be modified to exempt the transportation infrastructure right-of-way. Transportation infrastructure includes any:

A- Road, street, highway, or ROW of a road, street, or highway
B- Previously approved and utilized interdependent or interrelated contractor-use site that is identified on the website of the federal or State DOT, including any borrow, waste, plant, stockpile, or construction debris site
C- Actions permitted by a federal or state agency or political subdivision within any road, street, highway, or ROW of any road, street, or highway controlled by the federal or state agency or political subdivision
D- Pedestrian or bicycle trail, lane, or bridge
E- Technology with the primary purpose of benefiting the traveling public; and
F- Broadband infrastructure placed by the federal or State DOT.

GDOT recommends that maintenance without ground disturbing and/or minor projects with minimal ground disturbing activities should be exempt from all detailed environmental analysis and cleared programmatically without separate NEPA documents. Examples include purchases

of equipment that involve in-kind replacement (lighting), PHBs/Hawk signal installation (safety), signal cabinet upgrades, routine roadway resurfacing, maintenance projects with added safety features limited to the existing ROW, pedestrian enhancements, etc.

Advance 404 Permitting Assumption similar to NEPA Assignment

Recommendation: GDOT recommends that 404 Permitting Assumption mirror a similar program established for NEPA Assignment, allowing State DOTs to assume 404 permitting responsibilities for highway projects that require a General Permit. To assume a Section 404 permit program, State DOTs would be required to have in place an issued US Army Corps of Engineers Regional Permit (Regional Permits are a type of General Permit) authorizing impacts to waters of the United States for the construction of public transportation projects in their respective State pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. 404 Permitting Assumption would not include 1) Individual Permits; 2) tidal waters and their adjacent wetlands; and 3) waters used to transport interstate or foreign commerce and their adjacent wetlands. Allowing State DOTs to manage their 404 permitting responsibilities outside of the State being required to develop a Section 404 permit program, will streamline the 404 permitting process and save taxpayer dollars. Like NEPA Assignment, appropriate auditing can be put in place with EPA/US Army Corps of Engineers to ensure compliance with 40 CFR 233.

Overall Improve and Streamline National Environmental Protection Act (NEPA) and Permitting: Current Federal Policy: 23 USC 139

USDOT and FHWA improvements to NEPA have been an ongoing and long-term effort. NEPA is also commonly identified by State DOTs as being a significant source of complexity and delay in the project delivery process. As directed by the Infrastructure Investment and Jobs Act (IIJA), USDOT reviewed existing NEPA practices, procedures, rules, regulations, and applicable laws to identify project delays. USDOT also assessed best practices, programmatic agreements, and potential changes to internal procedures to facilitate improvements to the process. Subsequently, USDOT published the 2024 Infrastructure Permitting Improvement Center (IIPA) Surface Transportation NEPA Process Improvements Report to Congress. The report identified the following process improvements for reducing or eliminating project delivery delays:

1. Broaden the Liaison Program
2. Catalog, Update, and Implement More Programmatic Agreements
3. Encourage Interactive Web-Based Platforms for NEPA Documents
4. Consolidate NEPA Rules and Guidance in a Central Resources Page
5. Establish a Concierge Program
6. Encourage Robust Planning Efforts Prior to Initiating NEPA

Recommendations:

- GDOT provides a national Liaison Program model for State DOTs to replicate with the establishment of the Interagency Office of Environmental Quality, where liaisons from various state and federal agencies co-locate and work in unison with GDOT staff to deliver the environmental portion of the work program without conflict-of-interest issues. Since liaisons in the program focus entirely on State DOT work, consideration should be given to maximize true liaison success and make it a requirement that environmental review process timelines are reduced from traditional agency norms with other partners to ensure more timely decisions (beyond just prioritization of DOT documents above others). The Liaison Program allows states to fund positions for resource and regulatory staff to serve as a bridge between the State and the resource and regulatory partners. The Liaison Program has been instituted by several authorities but not implemented by many states (SAFETEA-LU 2005, FAST ACT 2015, 49 USC 307, and other authorities 33 USC 2352). Further, GDOT supports each Federal Agency to have a liaison assigned exclusively for infrastructure projects. Funding should be ensured for liaisons in areas of the country where the volume of project reviews exceeds current agency capacity.
- Catalog, update/amend, and develop programmatic agreements to streamline project delivery nationally for consistency, allowing flexibility for unique regional conditions. In these efforts, as well as traditional consultations, allow state agencies to coordinate on federal laws directly with federal agencies or agencies working on behalf of the federal government.
- Review and modify Section 6(f) of the Land and Water Conservation Fund Act so that Section 6(f) only applies to parks and areas where 6(f) funds have been utilized for enhancements/improvements for Parks. Impacts on parks that don't impact their current or planned operations should not be subject to 6(f) **(36, CFR 59 LWCF and 54 USC 2003)**. In addition, an alternative approach would be to amend the LWCF and add a de minimis exemption for certain Section 6(f) actions with self-determination by States (i.e., allow for funds to be used for park operations, improvement, etc. instead of only allowing for mitigation in the form of additional parkland). In addition, consideration should be given to allow state entities to purview over final approval of Section 6(f) determinations since the majority of parks that are impacted are local government or state parks; eliminate NPS final approval of Section 6(f) determinations.
- Authorize specific funding for USDOT to fully implement the strategies identified in the report to Congress from IIPC on Surface Transportation NEPA Process Improvements. As part of that funding, incentivize creative programs that streamline processes and synchronize activities for federal and state agencies related to the environmental review and authorization process, especially those agencies that don't currently participate in electronic review, etc. Make funding available for State DOTs to establish clear guidance, technical assistance, and tools (templates, training, etc.) to enhance their processes and increase consistency in environmental document development, to include acceptance of increased use of technology to improve quality and efficiency of NEPA.
- Use of Concurrent Reviews by Multiple Agencies. Federal streamlining laws and executive orders encourage concurrent reviews to avoid duplicating agency reviews. However,

concurrent reviews are not the norm in the current process, as both FHWA and USACE can take up to 21 days to months to initiate actions with resource agencies after State DOTs submits a complete report. **(23 USC 139)**.

- The "Reinitiation of the Transportation Rapid Response Team (TRRT)" designed to elevate and resolve issues with agency partners on large, complex, or significant transportation projects is not well known, and should be encouraged by lead federal agencies, but should be applicable to all projects, not just large, complex projects. Regardless, consideration of using a third-party neutral facilitator trained in environmental collaboration and resolution for disagreements between agencies or when conflicts occur that appear to be overburdensome to State DOTs when compared to similar projects across their agency purview is needed as an option to keep projects advancing. The proposal to establish a concierge program (similar to the TRRT) could also ensure timely training on best management practices and new/future national guidance updates and make them available to all State DOTs in a timely manner to increase consistency in interpretation and application. That should also include legislation changes pertinent to SME federal agencies with specialized environmental purview (for example, USFWS or the USACE). A home for the concierge program via the Interagency Infrastructure Permitting Improvement Center created by **the Infrastructure Investment and Jobs Act (IIJA)** or from US DOT Transportation agencies should be current with commensurate technologies as to bridge the digital divide and reduce costs for State DOTs (**23 USC 139**).
- The Federal Permitting Dashboard **(23 USC 139(o)** is intended to publicly track the environmental review and permit to promote transparency and accountability across agencies. GDOT interfaces with the dashboard primarily for scheduling and modifications thereof (i.e. if a schedule is delayed), it's updated on the dashboard. More effort should be given to correlate the root causes of delay across projects within Georgia or nationally. These are valuable data to analyze and use for improvements to meet expectations and streamline the environmental process on future projects, noting common speed bumps in delivery and determining best management practices to mitigate those challenges in advance.
- Consolidate NEPA rules and guidance on a central resources page. Agencies spend significant time trying to make their document litigation proof and often perform analyses that serve no purpose other than litigation defense. Clear national guidance that measures success from focused documentation and reference of environmental studies and appendices needs a thorough evaluation of best management practices at the national level for adoption by State DOTs. Consistency in developing guidance on a whole host of environmental issues for national consumption across State DOTs is needed to ensure a patchwork of different processes/interpretations to meet project delivery challenges do not occur across state lines, regionally, or from State DOT to State DOT.
- Allow NEPA documents to be signed based on a project being in the current STIP without the need to reevaluate in the case that a project is shifted slightly from one funding year to another within the STIP. Such a shift is not considered to be significant in accordance with **150.332a (https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450/subpart-C/section-450.332)**.

- NEPA documentation requirements should be reviewed for possible revisions for gained efficiencies. Some possible improvements include:
    - FONSI documentation should be allowed to eliminate redundant data previously presented in a draft EA.
    - CE checklists should be allowed for all CE documents and environmental analysis attachments should only be referenced.
    - Programmatic Categorical Exclusions (PCE) should be allowed to remove ROW take thresholds so long as environmental impacts are within the acceptable thresholds.
- Section 10 of the Endangered Species Act allows incidental take of a listed species for non-federal projects with an approved Habitat Conservation Plan (HCP). However, there has not been a successful HCP for any species in the State of Georgia (USFWS's expectations for HCP are unclear). This will be more achievable if Section 10 gives USFWS responsibility for providing a template for HCP, while defining review timelines for an incidental take permit (other sections of this law provide various review timelines, but none exist for processing a Section 10 permit).
- Amend the Endangered Species Act to allow activities taken under Section 7(a)(1) to be considered as the basis for meeting requirements under Section 7(a)(2). Section 7 of the Endangered Species Act contains two distinct requirements. Section 7(a) (1) requires federal agencies to "[carry] out programs for the conservation of endangered species and threatened species ....", while Section 7(a)(2) requires federal agencies to engage in consultation with the USFWS (or NOAA) to avoid jeopardizing any threatened or endangered species or adversely modifying or destroying critical habitat. As interpreted by USFWS, the obligations under Section 7(a)(1) and 7(a)(2) are separate and distinct. It is difficult to obtain "credit" for those obligations in consultation under Section 7(a)(2).
- Allow State DOT oversight of Section 106 and Section 7 determinations or at least, the ability to coordinate compliance with these statutes directly to the respective agencies. In a number of states, DOTs have assumed oversight of historic property eligibility and assessment evaluations from their respective SHPO (Vermont DOT and Penn DOT).
- NEPA documents should have a date specific to their development and/or finalization where new environmental regulations or specifically endangered species listings don't require reevaluations that add significant delay. For example, after the approval of a NEPA document or after all technical studies have been completed, a new proposed species listing should not require additional NEPA review and action related to the new listing.

Improvements to Nationwide Section 4(f) Programmatic Evaluations Recommendation: allow Programmatic Section 4(f) evaluation and approval for FHWA projects that necessitate the use of Historic Roads (similar to historic bridges and rails).

Revise Current Section 4(f) Federal Policy: 23 CFR 774.13(c)

Currently Section 4(f) consultation is required for archaeological sites that are discovered during construction including consideration of feasible and prudent avoidance alternatives

for the site. This consultation adds time to the construction activities should additional archaeological site be discovered during the construction of a project.

Recommendation: Remove the requirement for 4(f) evaluation and consultation for these sites discovered during construction by altering the current code as shown below:
Current:
(c) Designations of park and recreation lands, wildlife and waterfowl refuges, and historic sites that are made, or determinations of significance that are changed, late in the development of a proposed action. With the exception of the treatment of archeological resources in § 774.9(e), the Administration may permit a project to proceed without consideration under Section 4(f) if the property interest in the Section 4(f) land was acquired for transportation purposes prior to the designation or change in the determination of significance and if an adequate effort was made to identify properties protected by Section 4(f) prior to acquisition. However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the start of construction, then the property should be treated as a historic site for the purposes of this section.

Proposed:
(c) Designations of park and recreation lands, wildlife and waterfowl refuges, and historic sites that are made, or determinations of significance that are changed, late in the development of a proposed action. The Administration may permit a project to proceed without consideration under Section 4(f) if the property interest in the Section 4(f) land was acquired for transportation purposes prior to the designation or change in the determination of significance and if an adequate effort was made to identify properties protected by Section 4(f) prior to acquisition. However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the start of construction, then the property should be treated as a historic site for the purposes of this section.

Revise Section 4(f) Federal Policy: 23 CFR 774.9

Recommendations:

Delete (e)

- (e) Section 4(f) may apply to archeological sites discovered during construction, as set forth in § 774.11(f). In such cases, the Section 4(f) process will be expedited, and any required evaluation of feasible and prudent avoidance alternatives will take account of the level of investment already made. The review process, including the consultation with other agencies, will be shortened as appropriate.

- Remove DOI, DOA and HUD review for individual 4(f) evaluations. This removal would require amending 49 USC 303 and 23 CFR 774.5(a). This section allows for a 45-day notice and 15-day wait time for comments, which adds little value to the process, only additional wait time. In addition, an individual Section 4(f) evaluation is processed in two phases—a draft and a final—both of which must be submitted to the FHWA

Division Office or Federal Lands Division Office for review and approval. The final Section 4(f) evaluation is subject to a legal sufficiency review by FHWA's Office of Chief Counsel (HQ). These sequential reviews should be concurrent within FHWA's Division Offices and HQ for more efficient delivery of these reviews.

- Empower state and local historical resource/park or recreation managers to independently make the de-minimis call outside of the agency with jurisdiction (i.e., SHPO currently must acknowledge the use of de minimis on historic parks, not the park official with jurisdiction).



March 19, 2025

The Honorable Shelley Moore Capito
Chairwoman
Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairwoman Capito and Ranking Member Whitehouse,

Thank you for holding the hearing on February 19th on Improving the Federal Environmental Review and Permitting Processes to bring attention to the important topic of permitting reforms needed for critical infrastructure. I am writing to offer the views of the Interstate Natural Gas Association of America (INGAA) in response to the Committee's request as part of its hearing to identify challenges and offer potential policy recommendations.

INGAA's member companies, which remain integral to our collective efforts to expand energy infrastructure to strengthen America's economy and national security, transport most of the natural gas consumed in the United States through a network of approximately 200,000 miles of interstate transmission pipelines. Our large capacity, critical infrastructure systems span multiple states or regions and deliver natural gas to local distribution companies, electricity generators, industrial manufacturers, and LNG export facilities.

Bold meaningful permitting reform is critical to build the energy infrastructure necessary to meet America's growing energy demands and continue to meet global energy needs. INGAA recommends that the Committee advance legislation that would make statutory changes to the National Environmental Policy Act (NEPA), the Clean Water Act (CWA) and judicial review reforms so that critical infrastructure projects are not subjected to frivolous and prolonged litigation.

Policy Recommendations.

Although the enactment of the Fiscal Responsibility Act has improved incrementally NEPA permitting processes, additional modifications to the statute, broad reforms and changes to judicial review are needed to site and approve new and expanded natural gas infrastructure. To ensure that pipelines continue to transport North America's abundant natural gas affordably and reliably, we recommend that the following legislative recommendations, several of which are

contained in S. 1449, the Revitalizing the Economy by Simplifying Timelines and Assuring Regulatory Transparency (RESTART) Act of 2023, be advanced.

Reforms related to National Environmental Policy Act:

- Clarify that an agency is only to consider environmental effects that have a close causal relationship to the proposed action or alternative, that a "but for" relationship is insufficient, and that the federal agency must have the ability to prevent the effect.
- Require the alternatives analysis to reflect the goals served by the requested action based on the purpose and need of the project as well as the statutory authority governing the agency's action, including:
    - Within the jurisdiction of the federal agency.
    - Meeting the purpose and need of the proposed agency action.
- Change the definition of "major federal action" to encompass projects that significantly affect the quality of the human environment.
- Modify the categorical exclusion definition to encourage cross-agency usage, which would preclude an EA and EIS.
- Require:
    - Public comments on NEPA analyses be exhaustive and "as specific as possible" and timely.
    - Individuals challenging an EA or EIS must specifically indicate their concerns to allow the agency the opportunity to address them.
    - Claimants to have participated meaningfully in the NEPA process before filing suits and provide reasonable timelines:
        - 60-day statute of limitation to challenge final agency action.
        - 180-day deadline for agency to rule on NEPA challenges.

Reforms related to Section 401 of the Clean Water Act:

- Limit the State's scope of review to only potential water quality impacts directly occurring from the project's point source discharges and not the whole activity.
- Clarify that water quality certification (WQC) conditions must be necessary to assure that the discharge will comply with the certifying authority's WQC (certain states have interpreted 401's scope as reaching beyond water quality).
- Establish a timeline for action following a federal court's remand or vacatur.
- Require:
    - Environmental Protection Agency (EPA) to define certification requests using one, uniform set of conditions.
    - The lead federal permitting agency to establish the timeline for a project's review within or at the statutory one-year period from receipt of the certification request based on project complexity, and nature of potential point source discharge.
    - Preclusion of unilateral pausing/tolling by the certifying agency.
    - Applicant's approval for any modifications to a certification after its issuance.

Reforms related to Section 404 of the Clean Water Act:

- To issue general permits under CWA Section 404 for dredging or fill material:
    - Create a statutory definition of a "Single and Complete Project" that provides specific direction for "Linear Projects."

  - Clarify that the reissuance of a general permit on a nationwide basis does not require Endangered Species Act (ESA) consultation and preparation of an EA to satisfy NEPA (contained in H.R. 7023, Creating Confidence in Clean Water Permitting Act of 2024).
  - Require the Secretary of the Army to maintain a nationwide permit for the activities required for the construction, maintenance, repair, operation, and removal of oil and natural gas pipelines.
- Establish timelines for the judicial review process for issued individual and general permits.
- Confirm that the activities authorized under the current set of nationwide permits have minimal effects on the environment by retaining the half-acre limit on loss of jurisdictional waters.
  - Set permanent period of applicability so that nationwide permits, once issued, are not reexamined (contained in H.R. 7023, Creating Confidence in Clean Water Permitting Act of 2024).

Additional Background on NEPA and CWA.

National Environmental Policy Act. Enacted more than 50 years ago, the National Environmental Policy Act (NEPA) requires federal agencies to examine environmental effects in conjunction with their decision-making processes. As a procedural statute, NEPA also directs agencies to use interdisciplinary approaches in these processes and, for specified actions, to prepare a detailed statement about the actions' effects on the human environment.

The construction or operation of interstate natural gas pipelines and related infrastructure require that the Federal Energy Regulatory Commission (FERC) issue a certification pursuant to the Natural Gas Act (NGA). A pipeline project typically requires permits and reviews from the U.S. Army Corps of Engineers, the U.S. Fish & Wildlife Service, and other federal agencies.

As the lead federal agency that authorizes interstate natural gas transportation projects, FERC fulfills its NEPA obligations by issuing and applying a categorical exclusion or by preparing a project specific Environmental Assessment (EA) or Environmental Impact Statement (EIS). Typically, EISs are prepared for authorizations of major interstate natural gas pipeline construction projects. If FERC believes that a proposed action may not have significant environmental effects, then an EA will be prepared to determine whether an EIS, which involves a public review period, is required. FERC has also identified exclusions for certain actions within its authority that do not have significant environmental effects and, therefore, warrant a categorical exclusion from project-specific NEPA analysis.

Section 401 of the Clean Water Act. Section 401 of the Clean Water Act (CWA) adopts a "cooperative federalism" approach to regulation by giving each State or Tribe a significant, carefully defined role in regulating discharges into waters of the United States (WOTUS). If an activity authorized by a federal agency would result in a discharge into WOTUS, the State or Tribe where the discharge occurs must certify that the discharge complies with CWA Sections 301, 302, 303, and 307. The federal agency may not authorize the activity unless the State or Tribe certifies the discharge's compliance, certifies compliance subject to specific conditions, or

waives its right to certify. Section 401 requires the State or Tribe to determine compliance within a "reasonable period of time," not to exceed one year.

Interstate natural gas pipeline projects frequently cross WOTUS, so INGAA members' projects often require a Section 401 certification, which has broad applicability to a variety of infrastructure projects, including interstate natural gas pipelines, roads, electric transmission, hydroelectric transmission, and flood control. Based on our experience, Section 401 works well in most States. Certain States have misused Section 401, however, to frustrate, suspend, or outright veto critical energy infrastructure projects, namely natural gas pipelines. Consequently, those States disrupt the role of federal and state authorities, undermine the actions of other States and damage cooperative federalism.

Misuse of Section 401 has taken several forms. For example, States have denied certification for policy reasons other than protection of water quality. In addition, States have disregarded or circumvented the one-year time limit on review. Although pipelines can seek judicial review of a State's certification decision, projects cannot move forward while the pipeline appeals a denial, and the delay and uncertainty associated with litigation make it costly and time consuming. Indeed, judicial review of Section 401 certifications presents an additional obstacle to infrastructure development and in certain instances, led to cancellation of projects even when the project developer was successful in the courts.

INGAA members need regulatory certainty – consistent, legally sound "rules of the road" – to invest hundreds of millions of dollars in critical infrastructure projects. Persistent misuse of Section 401 and regulations that change wildly every few years undermine this certainty. We urge Congress to act to ensure that States adhere to their carefully defined role in the CWA's cooperative federalism framework and that a reasonable regulatory framework can survive longer than four years. Actions to clarify the scope of Section 401 review are of paramount importance. Additionally, judicial review of Section 401 certification decisions should be addressed to make certain that there is an effective, efficient, and predictable process for appealing State determinations.

Section 404 of the Clean Water Act. Section 404 of the Clean Water Act (CWA) prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, without authorization from the Secretary of the Army, acting through the Corps of Engineers. There are two types of authorization under Section 404.

First, Section 404 requires an individual permit for discharges with potentially significant impacts. The agency or a State or Tribe acting through a Corps-approved program – evaluates applications for an individual permit using a "public interest" standard and environmental criteria published by the EPA.

Second, Section 404 allows the Corps to establish a general permit that authorizes discharges that have minimal adverse environmental effects. The general permit reduces the length of review for discharges that have minimal effects and meet the strict set of conditions established in the permit.

The CWA provides an additional limit on the use of a general permit: a district or division commander can revoke the nationwide permit in a state or other geographic region. The Corps'

most recent set of general permits (Nationwide Permits (NWPs)) – became effective on February 25, 2022, and will expire on March 14, 2026. The NWPs authorize discharges associated with a variety of industrial projects so long as those discharges meet each NWP's stringent criteria. For example, developers must notify the Corps of certain planned projects prior to construction, which provides the Corps an opportunity to determine the project's eligibility for the NWP program.

Additionally, the Corps must maintain its NWP program to meet the United States' energy needs. To complete work on the pipeline network to deliver natural gas securely, reliably, and affordably, operators specifically rely on NWP 12, which authorizes discharges from utility lines crossing waters of the United States, including natural gas pipelines. Without NWP 12, it would be extremely difficult to complete myriad maintenance, repair, and modernization projects that must be conducted quickly to preserve the integrity and safety of our systems, including projects required by the Pipeline Safety Act and the Pipeline and Hazardous Materials Safety Administration.

Despite the agency's well-established, effective oversight process, the NWP program has been targeted in recent years with various stakeholders filing legal challenges and urging the prior Administration to revoke NWPs to hinder essential linear infrastructure projects. In 2022, the Administration launched an inquiry into whether "modifications or other future actions" with respect to NWP 12 were appropriate, creating significant uncertainty as to whether the Corps would maintain an effective NWP program moving forward.

Like planning under CWA Section 401, pipelines need to know the "rules of the road" when investing substantial time and capital into the planning and completion of critical work their networks. We cannot afford regulatory actions that cast doubt on the availability or legality of the NWP program, which burdens the agency by increasing the need for individual permits for activities that have only minimal impact, and delays service to the public. Congress should encourage the Corps to reissue all NWPs prior to their scheduled expiration in March 2026, and protect the NWP program and promote regulatory certainty.

INGAA and the companies we represent stand ready to work in a bipartisan manner to enact these permitting provisions. Modernizing current laws while preserving environmental protections would enable development of the energy infrastructure necessary to continue delivering the benefits of natural gas to the American people.

Sincerely,



Amy Andryszak
President and CEO

NRECA
America's Electric Cooperatives

NRECA Permitting Reform Priorities

Transmission Permitting & Siting Improvements

Ensure transmission permitting and siting improvements reflect co-op and community needs. The electric grid needs more electric grid transmission capacity to meet expected growth in the coming decades. But policies aimed at incentivizing additional transmission capacity need to adhere to several key principles. 1.) They must continue to recognize that co-ops and public power are different from other electric utilities 2.) They must not expand Federal Energy Regulatory Commission (FERC) authority over electric cooperatives, 3.) They must allocate the costs of building new transmission or modifying existing facilities only to those who receive tangible and quantifiable benefits. 4.) They must ultimately serve the national interest of maintaining the reliability and affordability of the electric grid.

National Environmental Policy Act

Limit unnecessary litigation of NEPA reviews. Attempts to litigation-proof NEPA reviews lead to unnecessarily expansive NEPA documents and lengthy permitting timelines. If a NEPA document is challenged, legal action can lead to further delays. To mitigate these issues, Congress should establish reasonable time limits for filing lawsuits after a final agency decision. Additionally, parties wishing to challenge a NEPA review should be required to have raised their concerns during the public comment period. This would ensure that agencies are notified of potential issues and have the opportunity to address them before any legal action is taken.

Ensure NEPA remains a procedural statute and project neutral. The fundamental goal of NEPA is to ensure that federal agencies carefully consider the significant environmental impacts of their decisions. Congress should ensure that NEPA, as a procedural statute, does not favor one particular outcome and that the NEPA process does not elevate certain environmental considerations above others inconsistent with NEPA's objective, project-specific approach.

Clarify the scope of NEPA reviews. The scope of NEPA reviews – which CEQ expanded through the NEPA Phase 2 rule – opens up new avenues for litigation challenges thus causing agencies to prepare more expansive, longer, and duplicative NEPA analyses in an attempt to reduce litigation risk. For example, requiring federal agencies to study environmental effects beyond their statutory authority and expertise increases litigation risk and results in permitting delays. Congress took meaningful steps to narrow the scope of NEPA reviews and should make further amendments to clarify that federal agencies must only analyze environmental impacts that are within their jurisdiction.

New Source Review

Remove New Source Review (NSR) barriers to power plant improvements. The Environmental Protection Agency (EPA) NSR permitting program requires EPA to review plans to build new power plants or make major modifications to existing plants and require the installation of advanced emission control equipment. Although routine maintenance, repair, and replacement are excluded from the definition of "major modifications," what qualifies as "routine" often changes due to shifting EPA interpretations. As a result,

EPA's NSR permitting requirements remain a significant obstacle for power plant operators exploring projects to improve efficiency or reduce pollution. Changes should be made to the NSR program to ensure that any projects undertaken to increase energy efficiency or reduce emissions would not trigger NSR requirements.

Clean Water Act

Reauthorize and streamline Nationwide Permits. The availability of Clean Water Act (CWA) Section 404 Nationwide Permits (NWPs) is critically important to electric co-ops as an environmentally protective means to streamline work on critical infrastructure while controlling unnecessary costs. Fifty-seven NWPs are set to expire in March of 2026. It is essential that the U.S. Army Corps of Engineers (USACE) prioritizes reauthorizing the expiring NWPs. NRECA also supports policies that would provide additional certainty regarding required Endangered Species Act (ESA) and NEPA reviews for Section 404 permits, prevent the Environmental Protection Agency (EPA) from vetoing a Section 404 permit before a permit application has been filed or after a permit has already been issued by USACE, set reasonable judicial review timelines for Section 404 permits, and other provisions that would ensure the continued use of NWPs for linear projects like transmission lines.

Prioritize timely review of Approved Jurisdictional Determinations (AJDs). Obtaining AJDs is an essential step in the CWA Section 404 permitting process for electric co-ops to determine whether aquatic resources in a given area are jurisdictional under the CWA and therefore must require CWA permits. Delays in AJD determinations directly impact electric co-op project costs and timelines. NRECA supports policies that would ensure that USACE prioritizes timely review of and response to AJD requests.

Improve the National Pollutant Discharge Elimination System (NPDES) permitting process. Electric co-ops build and maintain power plants, substations, and other infrastructure which usually need to obtain a National Pollutant Discharge Elimination System (NPDES) permit under section 402 of the CWA. NPDES permits regulate discharges of pollutants from a point source into "waters of the U.S." (WOTUS). NRECA supports policies that would make NPDES permitting more efficient and transparent, including requiring the EPA to seek public comment on new or revised water quality criteria and enhancing the NPDES permit shield.

Ensure that the definition of WOTUS complies with *Sackett v. EPA*. The definition of WOTUS under the CWA is significant because it determines which bodies of water are protected under the CWA, and therefore, whether certain activities that co-ops engage in that impact waterways will require a CWA permit. Broader CWA jurisdiction would increase costs associated with co-op activities in marginal areas, including construction and maintenance of transmission and distribution corridors, stormwater control, and plant construction, operation, maintenance, and decommissioning. Unfortunately, the Biden Administration EPA and Corps did not faithfully comply with or implement the *Sackett* decision in issuing a revised WOTUS regulation or determining which waterbodies require a CWA permit. Additional clarity is needed to ensure that the definition of WOTUS complies with the *Sackett* decision.

Endangered Species Act

Address challenges posed by the ESA that impact permitting. Electric co-ops support the underlying goals of the ESA, and we believe it can be improved to work better for both species and communities. We urge Congress to address the challenges posed by the ESA, and co-ops stand ready to help this important effort. The designation of critical habitat can have enormous impacts on communities. Because of this, it is imperative that habitat designations are well thought out and based on sound scientific data. Electric co-ops

support the ESA Amendments Act of 2025 because it retains the regulatory definition of habitat within ESA and provides clarity and certainty to communities where habitat is located.

With that in mind NRECA offers the following recommendations. Habitat should specify that only those areas that are actually habitable at the time of critical habitat designation are categorized as "habitat." In addition, we suggest the following key elements be considered when designating both occupied and unoccupied critical habitat: 1.) Habitat features must be present at the time the area is designated as critical habitat 2.) A proposed designation should focus on specific geographic areas. 3). Habitat features must be present for one or more relevant species' life stages; and 4.) An area must be sufficiently habitable for a species' long-term survival.

We also urge Congress to modernize the ESA and improve it by: 1.) Focusing on species recovery; 2.) Increasing transparency in how the Act is implemented; 3.) Utilizing data that is thorough, balanced, and based on scientific standards and impartial peer review; and 4.) Prioritizing proactive stakeholder collaboration, and state and local government engagement.

AASHTO

Garrett T. Eucalitto, *President*
Commissioner, Connecticut Department of Transportation
Jim Tymon, *Executive Director*

STATEMENT FOR THE RECORD FROM THE
American Association of State Highway and
Transportation Officials (AASHTO)

REGARDING

Improving the Federal Environmental Review and Permitting Process

BEFORE THE
Committee on Environment and Public Works
United States Senate

ON
Wednesday, February 19, 2025

555 12th Street NW | Suite 1000 | Washington, DC 20004 | 202-624-5800 Phone | **transportation.org**

American Association of State Highway and Transportation Officials

INTRODUCTION

The American Association of State Highway and Transportation Officials (AASHTO) appreciates the opportunity to submit this Statement for the Record to the Senate Environment and Public Works Committee (Committee). As the association that represents the transportation departments of all 50 States, Washington, DC, and Puerto Rico, AASHTO provides the perspective of the nation's state departments of transportation (state DOTs) on a wide range of transportation policy matters. AASHTO is pleased to provide our perspectives as part of the hearing titled "Improving the Federal Environmental Review and Permitting Process."

State DOTs are uniquely equipped to plan, design, construct, operate, and maintain a robust program of transportation investments. As leading practitioners, they possess the institutional capacity to speed up project delivery and improve environmental stewardship. When it comes to federal surface transportation programs, state DOTs continue to encounter obstacles in the environmental review and permitting process. AASHTO fully supports strategies and policies that can efficiently translate federal investment into transportation projects and programs that the American people expect and deserve—on time and on budget.

As each new environmental regulation with its own specific purpose has been intentionally or unintentionally layered upon each other for decades, the sum of these regulations would benefit from a holistic review that can improve both environmental outcomes and reduce process burdens. In turn, much-needed transportation benefits—including safety, mobility, and quality of life improvements—can become a reality more quickly in more communities.

AASHTO appreciates the Committee's common goal of demonstrating a strong bipartisan interest in comprehensive permitting reform and looks forward to working with the 119th Congress under your leadership.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

In the transportation sector, each federal dollar tends to be more "expensive" compared to each non-federal dollar due to regulations and permitting requirements associated with the federal program. We see a number of opportunities for federal executive branch agencies to reduce regulatory burdens wherever possible by removing prescriptive requirements under the National Environmental Policy Act (NEPA) and expanding state responsibility for environmental reviews.

First and foremost is modernizing the definition of "major federal action" that triggers a NEPA review. While Categorial Exclusions (CEs) can be utilized for routine and non-impactful action, realigning "major federal action" in a way that is commensurate with the amount of federal funding involved can significantly reduce the need for NEPA analysis in the first place for a large number of activities that receive *de minimis* federal funding.

Modernizing the definition of "major federal action" would ensure that the NEPA process only applies to actions that have a measurable impact on the environment or those with an unknown potential for substantial impact. This clarification wouldn't alter the NEPA process once triggered and wouldn't affect how controversial projects are reviewed. However, setting a minimum threshold would greatly streamline NEPA's governance over agency actions and free up staff to focus on reviews requiring thorough environmental review.

The aim of defining "major federal action" isn't to exempt environmentally impactful projects, but rather to ensure that only those actions that are sufficiently "major" and "federal" are subjected to the process. This would enable federal agencies to concentrate their efforts on projects that cause considerable environmental disruption.

When it comes to the existing NEPA process in the transportation space, according to a June 12, 2020, report by the White House Council on Environmental Quality, the average time for an Environmental Impact Statement (EIS) approval by the Federal Highway Administration (FHWA) was 7.37 years. The report also noted that the time for all federal agencies was 4 years and 6 months from Notice of Intent (NOI) to Record of Decision. This report does not address the time spent on pre-NOI activities which add even more time to the process before the lead federal agency allows moving forward. Pre-NOI activities include, but are not limited to:

- Early coordination with federal and state resource agencies;
- Development of the draft public involvement plan;
- Community conversations;
- Environmental resource identification;
- Scoping meetings;
- Preparation of purpose and need;
- Work with agencies and the public on the "range of alternatives";
- Establishment of the "reasonable" range of alternatives (using the above activities);
- Work on Section 4(f) avoidance process if the range of alternatives is unable to avoid resources;
- Work on the "no build" alternative effects (throughout as part of range of alternatives);
- Holding meetings with agencies to discuss the findings of the above activities for review and comment, and;
- Obtaining approvals of the draft NOI for review so that the lead federal agency may publish the NOI where the two-year clock finally begins.

While these activities are reasonable and necessary, many of the activities require multiple back-and-forth with environmental resource surveys and assessment of effects reviews, as well as commensurate communications with the lead federal agency based on their comments. The pre-NOI work may take one to three years, depending on the project.

<u>One Federal Decision</u>

AASHTO appreciates that the Infrastructure and Investment and Jobs Act (IIJA) included a key focus on environmental review and permitting improvements, thanks to the leadership of this Committee. The IIJA codified One Federal Decision (OFD) in section 11301, establishing a two-year time limit for completing the NEPA review and permitting processes for major infrastructure projects. It also requires the lead federal agency to develop a schedule for completing the environmental review process. The congressional intent expressed through the OFD represents an important step to streamline delivery of major projects throughout the country, though the OFD framework remains underutilized.

An area where OFD could be better utilized for transportation projects is in the acquisition of rights-of-way from various federal agencies. Under current statute, the process for the acquisition of right-of-way requires a determination by the U.S. Secretary of Transportation on the necessity of the taking, notification of the applicable department and a timeline for a potential decision, and ultimate transfer of the land to the state DOT for the purpose of the project. Although a four-month timeline is specified for the transfer of property following notice to the federal agency, that timeline is often exceeded with inconsistencies in the process leading to delays. AASHTO recommends that USDOT establish a detailed process and timeline for acquisition of right-of-way from federal agencies that includes communication protocols, a tracking system, performance expectations for each federal agency, and a set time limit for the transfer of land once the state DOT provides notice to USDOT.

Improved Federal Coordination

In order to speed up the sequential "hand-offs" of environmental decisions and documents across federal resource agencies, the Georgia Department of Transportation (GDOT) pioneered colocation of federal environmental regulatory and resource agencies through the state's Interagency Office of Environmental Quality (IOEQ). The IOEQ built upon previous coordination whereby GDOT had been funding positions in federal and state agencies to help expedite the review of GDOT's environmental documents. The new approach involved establishment of a single physical office, paid for by GDOT, for the various resource agencies to actively collaborate and perform concurrent reviews to help reduce the delays that often accompany the typical siloed and sequential review process. Soon after establishment, benefits of the IOEQ were realized as issues were addressed immediately when a question could be asked across the room as opposed to through the traditional bureaucratic process where each agency has their allotted time to respond in a linear way. GDOT has seen significant improvement in approval times for certain actions. AASHTO supports federal regulatory resource agencies being aligned and focused on improving delivery of transportation infrastructure projects.

NEPA Assignment

NEPA Assignment is a process (statutorily provided under 23 USC 327) states can choose to undertake where they assume federal responsibility for transportation projects in exchange for a timelier federal review process. The process eliminates the FHWA's project-specific review and approval, allowing for increased efficiencies. State DOTs that have taken advantage of NEPA Assignment report a more efficient process. However, NEPA Assignment is not a single solution

to project delays and budget uncertainty due to varying ability or willingness of a state to accept it, including waiver of sovereign immunity, availability of workforce and associated support resources at the state level, among others. There are opportunities to ease access to assignment of NEPA for interested states and streamlining its renewal process.

Categorical Exclusions (CEs)

Building on NEPA assignment and given the state DOTs' effective track record, we believe that state DOTs should be allowed to approve all CEs under NEPA. CEs are extremely common and routine actions that: do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts.

Most state DOTs have Programmatic Categorical Exclusions (PCEs) agreements with their FHWA Division Offices that constitute the majority of their NEPA documents approved each year. Allowing states with robust PCE agreements and a record of success to approve all CEs generated by their agency would streamline the environmental review process and save time and resources.

AASHTO recommends amending 49 USC 304 to allow any federal agency to apply a CE that had been adopted by any other federal agency, making CEs interchangeable among all federal agencies. For example, the US Army Corps of Engineers (USCAE) could apply a CE from FHWA's CE list. We also recommend that Congress at least amend 49 USC 304 to allow any USDOT agency to use any other USDOT agency's CE regardless of the project's "multimodal" designation.

We also request increased flexibility when it comes to preventative maintenance, where instances involving no or minimal ground disturbance could be made exempt from detailed environmental analysis and cleared programmatically without separate NEPA documentation. Alternatively, the utilization of Programmatic Categorical Exclusions for these activities would expedite project delivery.

Conformity and Fiscal Constraint

For projects located in air quality nonattainment and maintenance areas, FHWA must make an air quality conformity determination, a finding that the project conforms to the state's implementation plan for achieving federal air quality standards per 42 USC 7506(c). The conformity determination, in turn, requires a finding that the project is include in a "fiscally constrained" metropolitan transportation plan and transportation improvement program (TIP). These findings are required prior to completion of the NEPA process under current Environmental Assessment (EA) and FHWA regulations and guidance. This requirement creates a "Catch-22" for many large projects: without NEPA approval, it is difficult to confirm funding sources, but the NEPA process cannot be completed until funding sources are identified. The

timing of the fiscal constraint determination can be especially challenging for large public-private partnerships and other innovative-finance projects, where funding and financing plans are not (and cannot be) resolved until after the NEPA process is complete.

AASHTO recommends common-sense flexibility to complete the NEPA process with approval conditioned on making an air quality conformity and fiscal constraint determination before proceeding to construction. This approach would not change any substantive requirements related to fiscal constraint and project level conformity; it merely changes the timing of making these determinations. This change would require legislative language directing FHWA and the Federal Transit Administration (FTA) to update their joint environmental and planning regulations (23 CFR Part 771 and Part 450) and directing the Environmental Protection Agency (EPA) to make a corresponding change to its conformity regulations.

Additional Recommendations for 23 USC 139

- Authorize funding for USDOT to fully implement the strategies identified in the report to Congress from IIPC on Surface Transportation NEPA Process Improvements. As part of that funding, incentivize creative programs that streamline processes and synchronize activities for federal and state agencies related to the environmental review and authorization process, especially those agencies that don't currently participate in electronic review, etc. Make funding available for state DOTs to establish clear guidance, technical assistance, and tools (templates, training, etc.) to enhance their processes and increase consistency in environmental document development, to include acceptance of increased use of technology to improve quality and efficiency of NEPA.
- The "Reinitiation of the Transportation Rapid Response Team (TRRT)" designed to elevate and resolve issues with agency partners on large, complex, or significant transportation projects is not well known, and should be encouraged by lead federal agencies, but should be applicable to all projects, not just large, complex projects. Regardless, consideration of using a third-party neutral facilitator trained in environmental collaboration and resolution for disagreements between agencies or when conflicts occur that appear to be overburdensome to State DOTs when compared to similar projects across their agency purview is needed as an option to keep projects advancing. The proposal to establish concierge program (similar to the TRRT) could also ensure timely training on best management practices and new/future national guidance updates and make them available to all state DOTs in a timely manner to increase consistency in interpretation and application. That should also include legislation changes pertinent to SME federal agencies with specialized environmental purview (for example, US Fish and Wildlife or the US Corps of Engineers). A home for the concierge program via the IPIC or from USDOT agencies should be current with commensurate technologies as to bridge the digital divide and reduce costs for state DOTs.
- The Federal Permitting Dashboard is intended to publicly track the environmental review and permitting to promote transparency and accountability across agencies. More effort should be given to correlate the root causes of delay across projects within each state and nationally. These are valuable data to analyze and use for improvements to meet

expectations and streamline the environmental process on future projects, noting common speed bumps in delivery and determining best management practices to mitigate those challenges in advance.

- Consolidate NEPA rules and guidance on a central resources page. Environmental reviews that are rushed or abbreviated due to permitting schedules or page limits could be vulnerable to legal challenges, but agencies spend significant time to minimize litigation risk and often perform analyses that serve no purpose other than litigation defense. Clear national guidance that measures success from focused documentation and reference of environmental studies and appendices needs a thorough evaluation of best management practices at the national level for adoption by state DOTs. Consistency in developing guidance on a whole host of environmental issues for national consumption across state DOTs is needed to ensure a patchwork of different processes and interpretations to meet project delivery challenges that do not occur across state lines, regionally, or from state to state.

SUBSTANTIVE ENVIRONMENTAL LAWS

Land and Water Conservation Fund Act

AASHTO supports the review and modification of Section 6(f) of the Land and Water Conservation Fund Act (LWCFA) to better align with transportation projects. Section 6(f) prohibits the conversion of property acquired or developed with LWCFA grants to a non-recreational purpose without the approval of the National Park Service (NPS). Section 6(f) further directs NPS to assure that replacement lands of equal fair market value, location, and usefulness. As state and local governments often obtain grants through the LWCFA to acquire or make improvements to recreation areas, these grants convert the entire property into Section 6(f) land, even if the grant was used only for improvements to a small portion of the property.

Consequently, where conversions of Section 6(f) lands are proposed for highway projects, no matter how small the conversion, replacement lands are necessary. Often, local officials would prefer for the state to make improvements to the existing property rather than finding replacement property; however, LWCFA requires property replacement. The LWCFA should be amended to create a *de minimis* exception for certain 6(f) actions with self-determination by states, provide flexible mitigation measures rather than requiring land acquisition, and limit LWCFA coverage to only the actual investments made with LWCFA funds.

Endangered Species Act

Section 4(d) of the Endangered Species Act (ESA) allows the US Fish and Wildlife Service (USFS) to establish special rules that are more flexible and limit the burden associated with ESA Section 7 consultation—but only for threatened species. The ESA also requires recovery plans for all species listed as threatened or endangered; however for most listed species recovery plans are out of date or have not been developed. This creates numerous challenges for project sponsors

in addressing threatened or endangered species as there is no guidance regarding species recovery goals or acceptable mitigation tools.

In addition, it is paramount to state and local agencies to have the ability to maintain the operational right-of-way for the safety of the traveling public. These agencies perform simple maintenance such as mowing, repair of bridges and drainage structures, or reconstruction of aged pavement to updated safety standards. Requiring mitigation for continued maintenance and reconstruction of existing transportation infrastructure causes continuous purchase of land to mitigate for already disturbed land. AASHTO recommends these changes to the ESA to expedite project delivery:

- Adopt permanent exemptions to maintenance activities within the right-of-way in designated critical habitat;
- Amend 16 USC 1533 to Fish and Wildlife Services (FWS) and National Marine Fisheries Service (NMFS) to issue guidelines at the time of listing to assist the FWS, federal action agencies, and project sponsors in making effect determinations and in determining appropriate measures to avoid, minimize, and mitigate for impacts to the species; the guidelines should remain in effect until the full recovery plan is developed. Such guidance should include general species recovery goals and acceptable species survey protocols and mitigation.

Clean Air Act

As required by the Clean Air Act, the US Environmental Protection Act (EPA) periodically reviews and updates the National Ambient Air Quality Standards (NAAQS), typically by replacing an old standard with a new, more stringent standard. When a new NAAQS is adopted, EPA issues rules for transitioning to the new standard. In *South Coast v. EPA,* the US Court of Appeals struck down an EPA rule that provided for the transition from the 1997 ozone standard to the stricter 2008 standard. The court held that even though the 1997 standard had been revoked and replaced by a stricter standard, states and MPOs still were required to continue making conformity determinations for the revoked 1997 standard. This decision has resulted in wasteful effort of demonstrating conformity to plans for achieving an air quality standard that has already been met. AASHTO recommends requiring that when a new standard is established for a pollutant, transportation agencies only need to conform to the most recent standard for that pollutant.

Section 4(f) Streamlining

Section 4(f) of the Department of Transportation Act establishes requirements and considerations before USDOT may allow the use of land from a historic site, publicly owned park, recreation area, or wildlife and waterfowl refuge. Implementing regulations require USDOT to coordinate and seek comments from "officials of jurisdiction" prior to making a 4(f) determination. Depending upon the resource, this could include the State Historic Preservation Office, the Tribal Historic Preservation Office, the Advisory Council on Historic Preservation, the National Parks Service, and/or the US Fish and Wildlife Services. After coordination with these entities and public review, the evaluation is then required to be reviewed by the Department of

the Interior (DOI), and sometimes the Department of Agriculture (DOA) and/or the Department of Housing and Urban Development (HUD). This last level of review slows down project delivery and adds little value to the 4(f) determinations. AASHTO recommends the removal of DOI, DOA, and HUD review for individual 4(f) evaluations.

In addition, Section 4(f) consultation is currently required for archaeological sites that are discovered during construction including consideration of feasible and prudent avoidance alternatives for the site. This consultation adds time to the construction activities should additional archaeological site be discovered during the construction of a project. This requirement should be made flexible by permitting a project to proceed without consideration under Section 4(f) if the property interest in the Section 4(f) land was acquired for transportation purposes prior to the designation or change in the determination of significance and if an adequate effort was made to identify properties protected by Section 4(f) prior to acquisition. However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the start of construction, then the property should be treated as a historic site for the purposes of this section.

ADDITIONAL RECOMMENDATIONS

Advance 404 Permitting Assumption Similar to NEPA Assignment

AASHTO recommends that 404 Permitting Assumption mirror a similar program established for NEPA Assignment, allowing state DOTs to assume 404 permitting responsibilities for highway projects that require a general permit. To assume a Section 404 permit program, a state DOT would be required to have in place an issued US Army Corps of Engineers regional permit (regional permits are a type of general permit) authorizing impacts to Waters of United States for the construction of public transportation projects in their respective state pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. 404 Permitting Assumption would not include 1) individual permits; 2) tidal waters and their adjacent wetlands; and 3) waters used to transport interstate or foreign commerce and their adjacent wetlands. Allowing state DOTs to manage their 404 permitting responsibilities outside of the state being required to develop a Section 404 permit program will streamline the 404 permitting process and save taxpayer dollars. Like NEPA Assignment, appropriate auditing can be put in place with EPA/US Army Corps of Engineers to ensure compliance with 40 CFR 233.

Emergency Relief Program

State DOTs are experiencing greater needs for funds authorized by Congress for the FHWA Emergency Relief (ER) Program due to the increasing severity of events and the backlog of funding requests. Streamlined Programmatic Agreements (PAs) can significantly enhance the efficiency and effectiveness of disaster recovery efforts by expediting crucial processes. In the aftermath of disasters, rapid response and recovery are essential. Traditional processes for environmental clearances and contract approvals can be time-consuming and cumbersome, often leading to delays that hinder timely restoration and rebuilding efforts. Implementing multi-lateral programmatic agreements can facilitate faster approvals and streamline coordination

among various agencies and stakeholders, thus accelerating project delivery. An example of the need for an agreement of this type is with the US Army Corps of Engineers (USACE). There is little to no recognition by USACE of the emergency relief process and the need to provide immediate emergency actions to restore a facility. This also applies to other agencies including the US Fish and Wildlife Service and National Marine Fisheries Service.

We also seek Congress's assistance in providing states with increased flexibility under FHWA's ER Program to provide economically justifiable project solutions that increase resiliency. This includes betterments that can reduce the risk of future and repeated damage while improving the ability to proactively address risks more broadly.

Railroad Coordination

Railroads are an important part of an integrated transportation system, and a better coordination between state DOTs and railroad owners and operators are just as integral. AASHTO recommends that Congress directs USDOT to establish consistent requirements, commitments, and timeframes across all public and private railroad owners to facilitate transportation work within and across railroad rights of way and provide USDOT the authority to enforce those provisions with the railroads.

We believe all state DOT staff should be allowed access to railroad rights-of-way to conduct environmental analysis on Federal-aid Highway Program projects that is programmatically agreed upon between USDOT and railroad entities for traditional environmental studies that do not have potential to undermine safety of railroad crossing infrastructure. USDOT should also be required to establish model agreements for standard activities conducted by the state DOTs in railroad right-of-way (and vice versa) and provide guidance on the establishment of agreements for special or more complex activities.

CONCLUSION

State DOTs experience obstacles in the environmental review and permitting process. There can, however, be Congressionally-directed strategies and policies to reduce burdens that enable state DOTs to leverage better outcomes—delivering transportation projects quicker and more cost effectively for the American people. AASHTO looks forward to supporting Congress to advance these and many more common-sense reforms to make the delivery of our transportation system as efficient as possible.

Recommendation to Fix Permitting Uncertainty for Plastics Recycling

Permitting issue to be resolved: Clarify that facilities seeking permits to perform advanced recycling of plastics are permitted as manufacturers, not as solid waste incinerators under Section 129 of the Clean Air Act (42 U.S.C. § 7429).

Background: An array of technologies known as advanced recycling (also called chemical or molecular recycling) is helping tackle more of today's hard-to-recycle plastics, allowing them to be reused, repurposed and reimagined into tomorrow's products. (Learn more about advanced recycling at recycling-facts.org.) One of the more prominent technologies under the advanced recycling umbrella is pyrolysis. Pyrolysis is a technology that has been in use for several decades for a wide array of purposes; over the past 10-15 years manufacturers have been able to use pyrolysis to turn used plastics into new plastics and other useful products.

The phrase "pyrolysis/combustion" appears in various subparts to the regulations supporting CAA Section 129 (40 CFR Part 60 *et seq.*), and while its original intent does not appear to be a bar to pyrolysis-based advanced recycling, its presence in the regulations operates as one. In August 2020, EPA proposed a to remove pyrolysis/combustion units from the definition of "municipal solid waste combustion unit" under Other Solid Waste Incineration rules under Section 129. The reason for the change was to distinguish plastic-to-plastic recycling using pyrolysis, which is a considerably different process than other uses of pyrolysis.

The outgoing Trump EPA was not able to finalize the rule prior to the change in White House control in 2021. The newly-installed Biden EPA immediately sought to change course. In September 2021, the EPA issued an Advanced Notice of Proposed Rulemaking (ANPRM) seeking input on future regulations on pyrolysis/combustion units. EPA formally withdrew the Trump EPA proposal in June 2023 but has not issued new regulations to date.

Why it matters: EPA's change in posture regarding whether to regulate pyrolysis-based advanced recycling under Section 129 (and to require Section 129 adherence in its permits) has created substantial uncertainty for the industry. Not only would regulation as solid waste incineration be factually and legally incorrect—not to mention directly in conflict with the laws of 25 U.S. states, which consider advanced recycling to be a manufacturing process—but regulating advanced recycling as "solid waste incineration" under Section 129 would destroy the market for the technology and for plastics recycled by it. If advanced recycling is solid waste incineration, then the end product is not considered recycled product—it would be waste. Companies relying on advanced recycling to meet their recycled content targets would no longer be able to do so. Legally and scientifically, pyrolysis is not incineration and

700 Second Street NE, Washington DC 20002 | 202.249.7000 | americanchemistry.com

should not be regulated under Section 129. To incinerate something, oxygen must be present; by definition, pyrolysis occurs in the absence of oxygen.

Recommendation: Amend Section 129(g)(1) of the Clean Air Act to make clear that plastic-to-plastic recycling using pyrolysis is not within the scope of the term "solid waste incineration unit." Section 129(g)(1) already exempts materials recovery facilities (including primary or secondary smelters) which combust waste for the purpose of recovering metals; like those facilities, advanced recycling facilities raw materials—and they do not even combust the waste. Make clear that this would not exempt facilities from other regulatory programs such as section 111 and 112.

Alternative pathways to solving this permitting problem include enactment of a federal definition of advanced recycling (see H.R. 9676 from last Congress) or removing "pyrolysis/combustion" from the CFR. However, the most direct and meaningful way to solve the problem would be to amend Section 129 directly. If metals recycling is not solid waste incineration, neither should be plastics recycling.

700 Second Street NE, Washington DC 20002 | 202.249.7000 | americanchemistry.com

Airports Council International – North America
Senate Committee on Environment and Public Works
"Improving the Federal Environmental Review and Permitting Processes" Public Input
Wednesday, February 19, 2025

On behalf of its members, Airports Council International – North America (ACI-NA) appreciates the opportunity to submit public comments on improving the federal environmental review and permitting processes. ACI-NA represents local, regional, and state governing bodies that own and operate commercial airports in the United States and Canada. ACI-NA's members operate over 300 airports in the United States, accounting for over 95 percent of the domestic passenger traffic and virtually all international airline passenger and cargo traffic in the U.S. Over 400 aviation-related businesses also are members of ACI-NA, providing goods and services to airports.

According to the soon-to-be released 2025 ACI-NA Infrastructure Needs Report, airports face $174 billion in outstanding capital infrastructure needs over the next five years. ACI-NA members support the underlying goal of streamlining environmental reviews and the permitting process with the purpose of improving America's airports in a timely and cost-effective manner. Effective streamlining should benefit all parties – Federal agencies, regulated entities, and the public – without undermining the statutory goals of understanding environmental impacts of a project.

In the FAA Reauthorization Act of 2024, Congress took steps to help accelerate airport land development; improve NEPA for airport projects; update Part 150 noise standards; and mitigate PFAS contamination at airports. Regarding PFAS mitigation, while we secured regular updates from FAA to the National Transition Plan for Airports, our work continues on CERCLA liability related to FAA-required use of Aqueous Film Foaming Foams (AFFF) at airports, as well as soil remediation.

We are grateful for the changes to the environmental review and One Federal Decision that will now apply to all airport capacity enhancement projects, terminal development projects, and certain aviation safety projects, and we appreciate the oversight of Congress throughout implementation of these changes. The 2024 FAA Reauthorization Act also directs the FAA to take the lead on coordinating and scheduling the environmental review process and to ensure

environmental reviews are occurring concurrently. Questions remain regarding FAA's implementation of the land use changes, National Environmental Policy Act (NEPA) streamlining, Part 150 noise updates, and the VALE and ZEV programs. Recognizing the federal environmental review and permitting process has a multitude of applications, our suggestions below focus on airport land use, reforming NEPA, and oversight.

Airport Land Use: Section 743 of the FAA Reauthorization Act of 2024 rewrites a provision in the FAA Reauthorization Act of 2018 prohibiting the FAA from regulating, directly or indirectly, the acquisition, use, lease, transfer, or disposal of airport property by an airport owner or operator if the land was not purchased with federal funds, except to ensure airport safety and efficiency is maintained and that fair market value is received.

While the new provision cedes some authority back to FAA on what type of land is subject to federal oversight, it places some new limits on the federal authority – such as prohibiting the FAA from extending its review authority to any non-aeronautical portions of a project and setting a 45-day review window for the FAA to raise any objections. These new limits should help move airport projects along more quickly, avoiding costly FAA delays that have hurt airports in the past. The FAA should move quickly to implement the new congressional mandate and amend the agency's land use policy issued in early 2024 to account for the new statutory regime. The agency also should socialize the procedures to implement the new law with their headquarters and regional offices staff and airports as quickly as possible.

Reforming Implementation of the National Environmental Policy Act (NEPA): Airports have long been committed to environmentally responsible development of their facilities while simultaneously planning, designing, and constructing infrastructure improvements that meet the growing air transportation needs of the communities they serve safely, efficiently, and cost-effectively. One area that vexes airports in their pursuit of this goal is compliance with often onerous and time-consuming NEPA environmental review processes that go far beyond any regulation that the original statutory language intended.

The recent recission of NEPA regulations on the part of the U.S. Council on Environmental Quality (CEQ)[1] provides an excellent starting point for airports and the FAA to reform how NEPA is implemented regarding airport projects. The goals of this reform effort should be further simplification of NEPA analyses and documentation, elimination of duplicative environmental review efforts at state and federal levels, appropriately scaling the extent of environmental analyses to anticipated environmental impacts, providing clear, certain timelines for federal review, and conducting reviews in accordance with explicit statutory authorities.

In accordance with these goals, we recommend the following specific reforms:

---

[1] Removal of National Environmental Policy Act Implementing Regulations, Interim Final Rule, 90 Fed. Reg. 10610-10616 (February 25, 2025).

- FAA NEPA implementation guidance should strictly adhere to provisions articulated in the NEPA statute.[2]
- The FAA should expedite the implementation of new Categorical Exclusion (CatEx) provisions in the FAA Reauthorization Act of 2024, which will hopefully enable limited environmental review resources to be focused on larger projects that really require this focus. FAA should reexamine the list of projects that qualify for Categorical Exclusion (CATEX) and expand to include others that warrant exception from full environmental analysis.
- FAA should also reexamine the actions it deems to be "major federal actions" and thus subject to NEPA review. For example, we believe that the approval of an Airport Layout Plan should not be deemed a major federal action.
- In states with rigorous environmental laws, a simple certification process could be employed that the FAA would accept as meeting NEPA requirements, eliminating duplicative environmental documentation and analysis, and unnecessary delays. There may well be other areas of environmental regulation and processing that could be streamlined.
- FAA has worked on new Standard Operating Procedures for updating CATEX instructions to make them clearer, and to identify more projects that could be eligible for processing as a CATEX instead of the more extensive Environmental Analysis. Completing this process would help streamline the approval of certain projects. FAA should widely disseminate and explain any revisions to airports and FAA field staff.
- The FAA should make clear commitments to NEPA review timelines, consistent with statutory and Administration guidelines, and hold to these timelines.

Airports look forward to engaging with the FAA on additional ways to address overarching NEPA process constraints—from page limits to review deadlines—in ways that do not undermine or delay these processes.

As noted above, rescinding the "rules of the game" that have governed NEPA reviews for more than 40 years—namely Council on Environmental Quality (CEQ) implementing regulations at 40 C.F.R. parts 1500-1508— offers opportunities for substantive improvement and streamlining of NEPA review. However, in the near term, it has introduced confusion and uncertainty that is already resulting in delayed NEPA reviews and possible ensuing project delays. It is critical that the FAA provide clear guidance and take prompt action to ensure that timely NEPA approvals are issued in spite of these uncertainties.

Oversight: We strongly recommend reviewing all areas in which the FAA has approval authority and assessing whether this authority has a basis in statute. Approval authority should be eliminated in cases where this statutory basis is unclear or lacking. This will not only enable projects to move forward more efficiently, but it will also enable the FAA to focus reduced resources on the most critical priorities. Areas that are ripe for consideration in this regard include, but are not limited to:

---

[2] National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4347

- Airport layout plan updates
- Airport capital project design approvals
- Airport master plan approvals
- Airport land use changes
- Airport Certification Manual and Safety Management System manual amendments

We note that narrowing the FAA's scope of approval authorities consistent with statutory provisions will help address having the appropriate resources for the mission. The elimination of core definitions or concepts, and the introduction of new language and procedures without sufficient supporting explanation from federal agencies, will likely create additional regulatory delays and even litigation. We asked DOT to include clarification in regulations guidance as it relates to cumulative impacts and language changes in 2020 and again in the 2024 FAA Reauthorization implementations. We also asked for better coordination across federal departments and transparency throughout the process and will continue to do so.

We appreciate the opportunity to provide feedback while the committee examines how to improve permitting and environmental reviews. ACI-NA strongly believes reforms to the federal review and environmental permitting process can be made to reduce unnecessary delays and legal uncertainty while maintaining appropriate environmental protections.



The Honorable Shelley Moore Capito
Chairman
Environment and Public Works Committee
United States Senate
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Environment and Public Works Committee
United States Senate
Washington, DC 20510

Re: Senate Environment and Public Works Committee Hearing titled, "Improving the Federal Environmental Review Permitting Processes"

Dear Chairman Moore Capito and Ranking Member Whitehouse:

The American Gas Association ("AGA") respectfully submits this letter to the record following the Environment and Public Works Committee's ("Committee") hearing titled, "Improving the Federal Environmental Review Permitting Processes," held on February 19, 2025. AGA commends your efforts to continue the important dialogue regarding permitting reform. Natural gas and the extensive infrastructure network that supports it has been a cornerstone of America's energy economy for more than a century. Today, hundreds of millions of Americans rely on this infrastructure and the energy it delivers to heat their homes, power their businesses, and manufacture goods. It was this infrastructure that enabled the accessibility of shale gas to customers across the country and ushered in the historic era of energy abundance and affordability which we still enjoy today.

AGA, founded in 1918, represents more than 200 local energy companies that deliver clean natural gas throughout the United States. There are more than 79 million residential, commercial, and industrial natural gas customers in the U.S., of which 94 percent — more than 74 million customers — receive their gas from AGA members. AGA is an advocate for natural gas utility companies and their customers and provides a broad range of programs and services for member natural gas pipelines, marketers, gatherers, international natural gas companies, and industry associates. Today, natural gas meets one-third of the United States' energy needs.[1]

Continued delays in the environmental review and permitting process remain an overarching concern for the natural gas industry. Natural gas utilities face serious challenges in managing multiple overlapping, inconsistent, and often duplicative federal, state, and local permitting processes. All too often, an inefficient permitting process results in considerable delays, increased costs for shippers such as natural gas utilities, or worst of all, the demise of needed projects. Delays can leave stakeholders in limbo as to the status of a project that could have business, supply chain, or property implications. More importantly, an untimely review process and unreasonable delays undermine the resilience of the gas system which is concerning since hundreds of millions of Americans rely on the gas system either directly or indirectly. AGA urges Congress to pass meaningful and durable environmental permitting reforms, which must include associated judicial reforms to ensure that

[1] For more information, please visit www.aga.org.

natural gas and all energy infrastructure projects can deliver the reliable, affordable energy our nation needs.

Although AGA appreciates the permitting reform efforts included in the 2023 Fiscal Responsibility Act, more needs to be done. AGA urges Congress to advance additional reforms in order to provide for the timelier evaluation of, and decisions on, energy infrastructure applications, such as those for natural gas pipelines and storage facilities. A modernization of the permitting process would include, among other things, changes to the National Environmental Policy Act ("NEPA") and Sections 401 and 404 of the Clean Water Act ("CWA"). Revisions should focus on ensuring timelines for environmental reviews are met by federal and state agencies. Moreover, the definition of a "major federal action" in NEPA should be clarified so that it only encompasses projects that significantly affect the quality of the human environment and relegate other projects to lower level NEPA review. Additionally, Congress should clarify that the appropriate scope of NEPA reviews if limited to "reasonably foreseeable" outcomes of a project that have "a reasonably close causal relationship to the proposed action or alternatives."

Regarding the CWA, Congress should require that Environmental Protection Agency ("EPA") define Section 401 certification requests using a single set of requirements and require certifying agencies to act on requests within a reasonable period of time, not to exceed one year without pausing/tolling. Furthermore, the scope of certification reviews and denials should be limited to potential water quality impacts directly occurring from the project's point source discharges. We urge Congress to clarify that the Section 401 certification process should exclude tangential impacts that are not directly related to water quality and are beyond the scope of the CWA. Finally, the Army Corps of Engineers' streamlined permitting process for oil and natural gas construction, maintenance, repair and other lower-impact activities resulting in minimal environmental effects (i.e., Nationwide Permit 12) should be codified in statute to ensure its future availability for projects with minimal environmental effects.

Again, thank you for continuing the important discussion surrounding permitting reform. Congress must pass meaningful and durable permitting reform to include associated judicial reform for natural gas and all energy projects to deliver the energy capacity our nation needs. This much needed reform will drive economic progress for this country, homeowners and businesses alike, and help ensure Americans have access to the reliable energy they want, need and expect. Should you have any questions regarding this submission, we would be pleased to share additional thoughts and information.

Respectfully,



George Lowe
Vice President, Government Affairs and Public Policy
American Gas Association

Permitting Reform:

NEPA, Clean Water Act and Judicial Reform

American Petroleum Institute

API Objectives in Permitting Reform

- To fully harness the power of American energy, support consumers, promote energy security and protect the environment – permitting reform legislation should be based on key elements of:
  - **Transparency** and **predictability**,
  - **Timeliness** and **efficiency** and
  - **Judicial durability**

- In particular, specific legislative changes are needed to:
  - The National Environmental Policy Act (NEPA),
  - Sections 401 and 404 of the Clean Water Act (CWA), and
  - Judicial review of agency decisions

API American Petroleum Institute

National Environmental Policy Act (NEPA)

Under NEPA, federal agencies must evaluate environmental impacts of proposed federal agency actions, including permitting. NEPA is a procedural requirement – not a set of environmental standards – to inform agencies of potential environmental impacts but not to determine what decision is made based on that information.

Why is its interpretation problematic?

NEPA has become a major bureaucratic hurdle to get federal permits on critical infrastructure and is the most frequently litigated environmental statute. Inconsistent agency application and court decisions have exacerbated the issue and led to:

- An overly broad causation standard, which determines how far down the line that the "effects" of an action can be considered
- An unrealistic scope of alternatives considered, which can require agencies to conduct endless analyses of impractical alternatives
- Inconsistent agency rules, where various agencies develop their own NEPA procedures

How do we fix the problem?

1. Narrow the "effects" under review to those that have a "reasonably close causal relationship" to the alleged cause consistent with the *Public Citizen* Supreme Court decision
2. Narrow scoping process to ensure that an agency's "purpose and need" statement, as well as reasonable alternatives, are based on the goals of the applicant and the agency's statutory authority
3. Establish that the CEQ's guidance for NEPA reviews is the "ceiling" for specific agency review.

API American Petroleum Institute

Lease Sale 257

Lease Sale 257 was the largest offshore oil and gas lease sale in U.S. history at nearly 81 million acres. It was vacated by the courts after environmental groups sued on NEPA grounds, but eventually leases were issued as required by the *Inflation Reduction Act of 2022*.

- In 2021 environmental groups sued the Bureau of Ocean Energy Management (BOEM), alleging that their NEPA analyses were inadequate.
- The court found that BOEM's NEPA analysis had not adequately considered the impacts on foreign downstream greenhouse gas emissions despite the agency completing three separate NEPA analyses – including one that found that emissions would be higher *without* the lease sale.
- BOEM was forced to abandon the lease sale and the 307 high bids offering nearly $190 million to the US government just to acquire leases.

What are the consequences?

- The court decision coincided with rising geopolitical instability and the Russian invasion of Ukraine, a period of considerably supply uncertainty.
- Though the leases were eventually offered, the use of NEPA to vacate an in-progress lease sale sent a troubling signal to the market





API American Petroleum Institute

Other projects impacted by NEPA abuse

- **The Northern Integrated Supply Project** – a water reservoir project in Colorado
  - NEPA analysis took nearly 14 years
- **The Bayonne Bridge Raising Project** – elevation of the bridge connecting New York and New Jersey
  - Took 10+ years to complete and required 20,000 pages of environmental review
- **The Seattle-Tacoma International Airport Runway Expansion**
  - Required 15 years of environmental reviews.
- **The Spring Valley Wind Farm** – a 150-MW facility in Nevada
  - NEPA delays took 7 years to resolve

API American Petroleum Institute

Clean Water Act § 401

CWA § 401 certifications by states are necessary for federal agencies to issue permits on activities that may result in any discharge into a "water of the United States."

Why is its interpretation problematic?

The CWA § 401 certification process has become a common and effective means to block energy and other infrastructure projects as states have exploited ambiguities in the statute to take an expansive view of their authority to delay or deny project certifications by:

- Rejecting certification requests on grounds completely unrelated to water quality
- Requiring applicants to meet conditions unrelated to water quality
- Indefinitely extending the time for acting on a certification request

How do we fix the problem?

1. **Scope:** Ensure § 401 reviews are limited to water quality impacts from the discharge only, and not from the activity as a whole.
2. **Timing:**
    - Clarify that the review period begins upon receipt of the certification request and that the review period cannot exceed one year.
    - Require states to inform a project applicant within a certain number of days (e.g., 30) of receipt of the application whether more materials will be needed in order to process the request.

API American Petroleum Institute

The Constitution Pipeline

The $680 million Constitution Pipeline was designed to bring natural gas from the Appalachian Basin into the constrained Northeast U.S. market and could have served the energy needs of 3 million homes.

- In 2013, Constitution's project sponsor requested a water quality certification from New York – as required under CWA § 401.
- After directing the project sponsor to withdraw and re-submit the certification request multiple times in order to re-start the one-year clock, in 2016 New York denied the certification request.
- The permitting delays were litigated over the next several years and in 2020 the Constitution project was canceled because:

  "The underlying risk adjusted return for this greenfield pipeline project has diminished in such a way that further development is no longer supported."

What are the consequences?

- With the Northeast remaining gas-constrained, local energy prices are persistently elevated and the region continues to rely on foreign liquefied natural gas (LNG).
- In 2021, residential natural gas prices in Massachusetts were 34% higher than those in Pennsylvania.



Source: API and EIA
Prices represent residential retail natural gas rates in 2021 as reported by the U.S. Energy Information Administration.

American Petroleum Institute

Millennium Valley Lateral Project

Millennium Valley Lateral Project is a 7.8-mile pipeline connecting a natural gas mainline to a new natural gas-fueled combined cycle electric generation facility in New York.

- FERC approved the project in November 2016.
- After FERC approval, the project became bogged down with state regulators. In 2017, the New York State Department of Environmental Conservation denied 401 certification on the grounds that FERC's environmental review of the project lacked a sufficient analysis of the potential downstream greenhouse gas emissions.

What are the consequences?

FERC eventually rejected New York's denial of 401 certification for the pipeline, concluding that the state waived its authority to review the certification request because it exceeded the CWA one-year timeline to grant or deny certification. New York appealed, but the U.S. Appeals Court for the Second Circuit upheld FERC's decision. Nevertheless, the project and the energy benefits had been needlessly delayed.

FERC
Strategic Plan FY 2022-2026

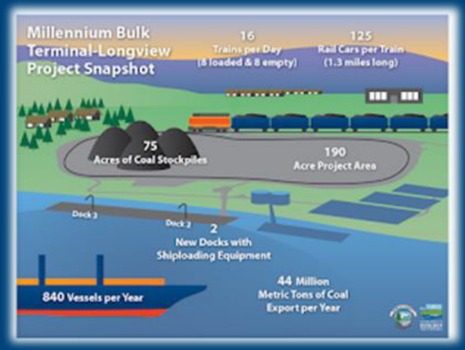
DEPARTMENT OF ENVIRONMENTAL CONSERVATION · NEW YORK STATE ·

API American Petroleum Institute

Millennium Bulk Terminals – Longview Project

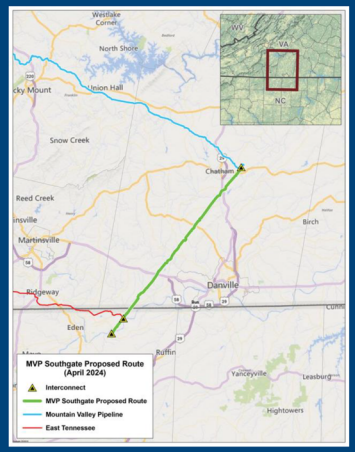
- The Washington Department of Ecology denied the 401 certification despite that the state environmental impact statement concluded "there would be no unavoidable and significant adverse environmental impacts on water quality."
- The denial cited adverse impacts related to air quality, vehicle transportation, noise, social and community, rail transportation and safety, vessel transportation, and cultural and tribal resources concerns.

What are the consequences?
The developer of the Millennium Bulk Terminal project went bankrupt, and the project was canceled. The two major coal mining states (Wyoming, Montana) have lost an opportunity to boost exports.



American Petroleum Institute

Mountain Valley Pipeline Southgate



Mountain Valley Pipeline Southgate project was announced in 2018 and is designed to bring a much-needed new supply of reliable, affordable, domestically produced natural gas to North Carolina.

- In June 2020, FERC issued a Certificate of Public Convenience and Necessity for the project.
- In August 2020, the North Carolina Department of Environmental Quality (NCDEQ) denied certification, explaining that the purpose of the project was “unachievable” due to “uncertainty” over completion of a different pipeline project.
- While NCDEQ noted that certification would allow for impacts to water quality, the basis of the denial was achievability due to uncertainty over completion of another project. The achievability of a project is beyond the State’s purview under 401.
- The project was recently redesigned and is targeted for completion in 2028.

American Petroleum Institute

Clean Water Act § 404

CWA § 404 permits are required for projects that involve the discharge of dredged or fill material into "waters of the United States." Nationwide Permits (NWP) are general permits issued under CWA § 404 for projects with minimal environmental impacts. The process is designed to allow these projects to proceed without delay. NWP 12 applies to oil and gas pipelines.

Why is it problematic?

NWPs must be re-authorized every five years, which creates regulatory risk for project developers. Further, the US Army Corps of Engineers (Corps) announced in March 2022 that it was reviewing and soliciting public input on NWP 12 with a focus on whether it adequately considered the potential effects of pipeline construction as well as public engagement. It's widely acknowledged that this review could be the precursor to significant changes to or revocation of NWP 12, which is relied upon for the timely and efficient authorization of oil and natural gas activities that are essential to the safe and reliable delivery of energy to customers. Without NWP 12, companies would have to undergo the potentially lengthy process of obtaining an individual § 404 permit, risking possible project delays and cancellations.

Additionally, the NWP process is increasingly being challenged on several fronts, including via attempts to narrow acreage and expand consultation with other agencies.

How do we fix the problem?

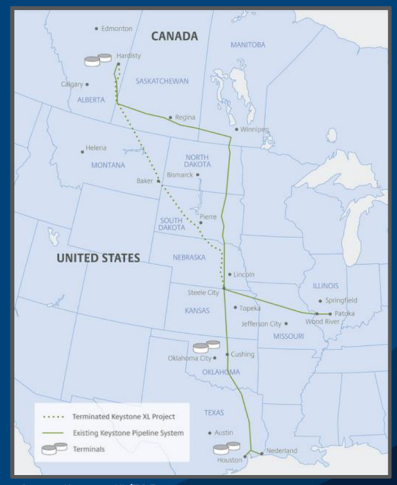
1. Mandate the ongoing existence of NWP 12 and extend the period of re-issuance from five to ten years.
2. Clarify that one linear project requires only one general NWP.
3. Clarify that the NWP process does not require separate consultation with other agencies.
4. Reaffirm that NWP 12 will be kept in place for oil & gas pipelines that do not result in a net loss of more than ½ acre of WOTUS.
5. Ensure that EPA does not use its authority under § 404(c) to preemptively bar activities requiring a § 404 permit before a permit application has been submitted.

API American Petroleum Institute

Keystone XL Pipeline

The $5.2 billion Keystone XL Pipeline was designed to transport oil sands crude from Canada and shale oil from North Dakota and Montana to a hub in Nebraska, where it would then go to refineries on the U.S. Gulf Coast.

- In 2017, the developer of Keystone XL submitted preconstruction notifications to the Corps – as required under the NWP program.
- In July 2019, a conservation group filed a lawsuit against the Corps alleging that it violated the CWA and other statutes when it approved Keystone XL under NWP 12.
- A federal court ruled in favor of the conservation groups and vacated the 2017 iteration of NWP 12 .
- While the Supreme Court granted a stay that reinstated NWP 12 for oil and gas pipeline projects except Keystone XL, the temporary unavailability of NWP 12 for an approximate two-month period led to delays, increased costs, and significant uncertainty for project developers.
- The Corps eventually issued a revised NWP 12 in 2021 that is being challenged by environmental groups.
- In 2021 President Biden revoked Keystone XL's cross-border permit, effectively killing the project.



Source: Keystone XL/TC Energy

What are the consequences?

- The pipeline's cancellation meant the loss of thousands of construction jobs across several states.

American Petroleum Institute

Judicial Reform

Judicial reform is necessary to ensure the nation's energy security and to meet global energy needs.

Why is it problematic?
Historically, major new or expansion project permits are almost always challenged as perfunctory procedure by opponents of critical infrastructure projects, delaying them for years and increasing costs into the billions of dollars.

- Judicial review of a decision under NEPA has a 6-year statute of limitations where parties that are not directly impacted can appeal
- A remand to the federal agency from the federal court could take years for a resolution from the agency
- A federal court could vacate a decision and order the dismantling of a project for easily correctible changes to its analysis.

Legislation to fix the problem
1. Deadline for court challenges to permits to be within 180 days from the final federal action and to limit standing to directly impacted parties who have participated in the permitting review docket
2. If a federal court remands a permit for an energy infrastructure project, the court must set and enforce a reasonable schedule and deadline, not exceeding 180 days from when the court remands, for the agency to act on that remand
3. Agencies should be directed to address the identified deficiency but not vacate the permit

API American Petroleum Institute

Cape Wind Project

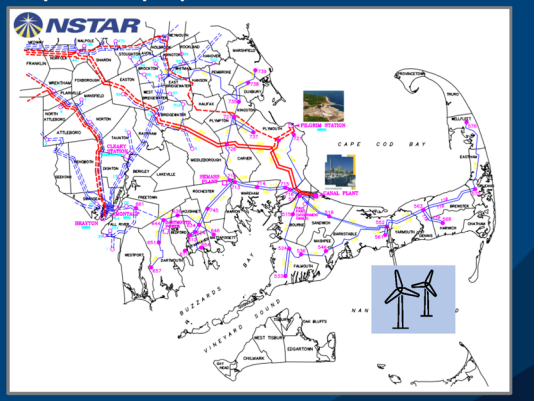
The $2.6 billion Cape Wind project would have been the first offshore wind farm in the U.S. and generated enough power to serve most of Nantucket, Cape Cod and Martha's Vineyard combined.

- In 2001, developers applied for federal permits for the Cape Wind project, a proposed wind farm off Cape Cod supported by virtually every major environmental group.
- The project went through 10+ years of federal and state permitting processes, including an 800-page NEPA environmental impact statement issued in 2012.
- Cape Wind was bogged down with more than a dozen lawsuits from a coalition of landowners that sued in connection with nearly every regulatory approval related to the project's environmental reviews and permitting, including NEPA challenges.
- After spending an estimated $65 million fighting lawsuits and regulatory hurdles, Cape Wind's sponsors canceled the project in 2017.

What are the consequences?

- In the absence of the project, Massachusetts has struggled to keep pace with its ambitious decarbonization targets – and still has no offshore wind capacity.
- Further, the region continues to rely on foreign LNG.

Cape Wind proposed location



Source: NSTAR

American Petroleum Institute

The Atlantic Coast Pipeline

The $5 billion Atlantic Coast Pipeline (ACP) was designed to bring natural gas from the Appalachian basin to demand centers in Virginia and North Carolina and would have helped displace coal-fired power generation.

- In 2014 the developer of ACP initiated the regulatory approval process and, after a lengthy review, in 2018 received FERC approval.
- Conservation groups began challenging key federal permits that ACP had received.
- In 2018 and 2019, federal appeals courts vacated previously granted permits from the U.S. Fish and Wildlife Service, the National Park Service and the U.S. Army Corps of Engineers.
- Following years of lawsuits, court stays, and permit revocations, in July 2020 the developer of ACP canceled the project, citing delays and mounting costs.

What are the consequences?

- Without incremental natural gas flowing into the Southeast, electric utilities in the region are unable to retire their coal-fired generators and meet state decarbonization mandates.
- Duke Energy noted in a recent regulatory filing that:
  - "Without additional interstate pipeline firm transportation, the Companies have increased fuel assurance risk, […] and increased risk of delayed coal retirements."

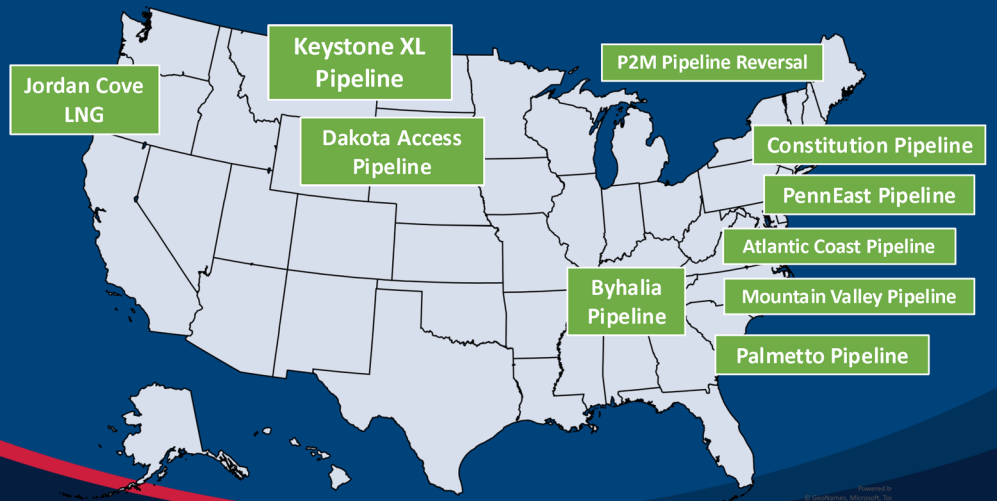


Source: API and EIA
Prices represent residential retail natural gas rates in 2021 as reported by the U.S. Energy Information Administration.

American Petroleum Institute

Permitting delays plague infrastructure projects

- In recent years, at least 10 major infrastructure projects have been canceled or are at risk of cancelation due to delayed and uncertain permitting processes
- These projects – which represent $34 billion in capital investment – were delayed an average of 7.5 years

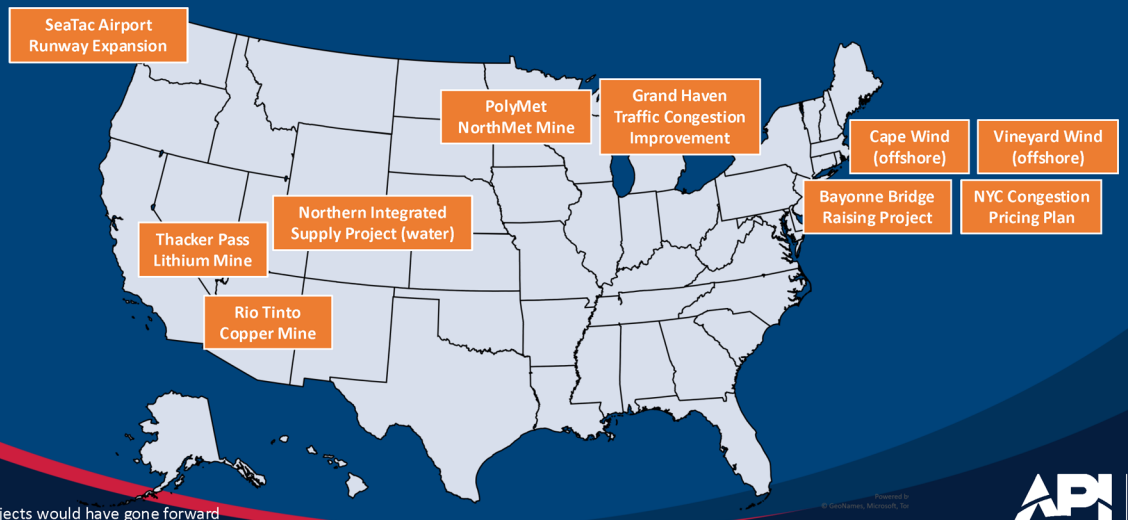


NOTE: Not all these projects would have gone forward under the permitting reforms that API is proposing.

API American Petroleum Institute

Permitting issues also impact other industries

- It's just not oil & gas – other types of projects have faced and continue to face permitting issues that result in delays, increased costs, and cancellations.

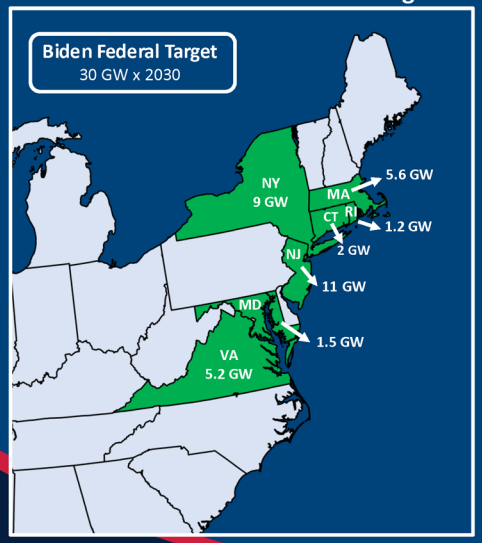


Note: Not all these projects would have gone forward under the permitting reforms that API is proposing.

American Petroleum Institute

Timely permitting will be critical for offshore wind

Select states with offshore wind targets



Note: Only includes state targets that are in statute.

What's at stake?

- Seven eastern states have offshore wind development targets in statute that totals more than 35,000 MW.
- Today, US offshore wind capacity totals just 41 MW.
- Meeting these ambitious targets will require the rapid development of offshore wind projects – several of which are currently being challenged in court.

Vineyard Wind

Opponents filed multiple lawsuits challenging BOEM's approval of the project – which is poised to be the nation's first commercial scale offshore wind farm – alleging various NEPA, CWA, ESA and other violations.

The bottom line

Without meaningful permitting reform, these projects could face significant delays, cost overruns and potential cancellation that threaten clean energy goals.

API American Petroleum Institute

Permitting Reform Focus Areas

Permitting reform legislation should be based on the key elements of Timeliness, Transparency, Predictability, Efficiency and Durability. For decades permitting challenges have stymied investment in critical infrastructure, delaying projects and, in some instances, cancelling projects due to continuous delays and cost overruns. API stands with Congress and the administration in recognizing that permitting reform is necessary to meet the objectives of the Infrastructure and Jobs Act and the Inflation Reduction Act and achieve the full benefits of critical infrastructure projects.

API has identified three primary focus areas as the core to begin the discussion on permitting reform:

- National Environmental Policy Act (NEPA) Modernization
- Clean Water Act (CWA) Improvements
- Judicial Reform

NEPA Modernization

NEPA should allow timely, efficient review and construction of the nation's infrastructure and not impose unnecessary delays. In relation to the energy sector, predictable, timely and efficient permitting is key to facilitating the construction of more wind, solar and other renewable energy capacity, as well as oil and natural gas infrastructure.

TIMELINES:	*Establish a 2-year timeline for Environmental Impact Statements (EIS) and 180 days for Environmental Assessments (EA).*
LANGUAGE:	*Title I of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) is amended by adding at the end the following new Section 106:*
	With respect to a proposed agency action, the lead agency shall complete (1) the environmental impact statement not later than the date that is 2 years after the date on which such agency issues a notice of intent to prepare the environmental impact statement for such action; and (2) the environmental assessment not later than the date that is 180 days after the date on which such agency issues a notice of intent to prepare the environmental assessment for such action.[1]

[1] This provision is a modification of Section 107(h) of the "Building United States Infrastructure through Limited Delays and Efficient Reviews Act of 2023" or the "BUILDER Act of 2023", as incorporated in Section 20202 of H.R. 1. The purpose of the BUILDER Act of 2023 is to amend the National Environmental Policy Act of 1969.

CONSISTENT REVIEWS:	*Establish Council on Environmental Quality (CEQ) rules as the ceiling, and not the floor*
LANGUAGE:	*Title I of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) is amended by adding at the end of Section 104:*
Federal agency NEPA procedures shall not impose additional procedures or requirements beyond those set forth by the Council of Environmental Quality.[2]	
PURPOSE AND NEED:	*Narrow scoping process to ensure an agency's "purpose and need" statement is based on goals of the applicant / the scope of the agency's authority and align/limit reasonable alternative reviews to goals of the applicants.*
LANGUAGE:	*Title I of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) is amended by adding at the end the following new Section 107:*
	Each environmental impact statement shall include a statement of purpose and need that briefly summarizes the underlying purpose and need that meets the goals of the applicant and the agency's statutory authority for the proposed agency action.[3]
	Title I of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) is amended by adding at the end the following new Section 108:
	Reasonable alternatives means a reasonable range of alternatives that are technically and economically feasible, and meet the goals of the applicant and the agency's statutory authority .[4]

[2] This provision is a modification of 40 C.F.R. 1507.3(b), as contained in the 2020 Final Rule. 85 FR 14403 (July 16, 2020).

[3] This provision is a modification of Section 107(d) of the "Building United States Infrastructure through Limited Delays and Efficient Reviews Act of 2023" or the "BUILDER Act of 2023", as incorporated in Section 20202 of H.R. 1. The purpose of the BUILDER Act of 2023 is to amend the National Environmental Policy Act of 1969. This provision is consistent with 40 C.F.R. 1502.13, as contained in the 2020 Final Rule. 85 FR 14403 (July 16, 2020).

[4] This provision is a modification of 40 C.F.R. 1508.1(z). See also 40 C.F.R. 1502.14 (a) and (f).

CONSIDERATION OF EFFECTS: *Effects consideration have a "reasonably close causal relationship" to the alleged cause consistent with Public Citizen Supreme Court decision.*

LANGUAGE: *Title I of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) is amended by adding at the end the following new Section 109:*

Effects or impacts means changes to the human environment from the proposed action that have a reasonably close causal relationship to the proposed action or alternatives, including those effects that occur at the same time and place as the proposed action or alternatives.[5]

Clean Water Act (CWA) Improvements

Water quality certifications reviewed and issued by states, tribes, or EPA under Section 401 should be limited to direct water quality impacts from point source discharges to navigable waters and should not be used by certifying agencies to veto critical energy projects. The Nationwide Permit Program under Section 404 should be reformed to address the ongoing viability of the program, extend the reissuance period, address authority of the Army Corps of Engineers (Corps) and the Environmental Protection Agency, codify longstanding Corps interpretation and practice around NWP 12, and provide clarity regarding several areas where environmental challenges have been made to the established process.

Section 401

APPLYS ONLY TO FEDERAL ACTIVITY: *Need for certification arises only when a federally licensed or permitted activity has the potential to result in a discharge from a point source into a "water of the United States."*

DRAFT LEGISLATIVE TEXT: *Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341) is amended by inserting "directly" in subsection (a) paragraph (1) as follows:*
"Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may directly result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable

[5] This provision is a modification from 40 C.F.R. 1508.1(g), as contained in the 2020 Final Rule. 85 FR 14403 (July 16, 2020).

	provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title."[6]
SCOPE OF REVIEWS:	*Review is limited to water quality impacts from the discharge only that would result from the federally permitted or licensed activity itself – not from other sources or from the "activity as a whole".*
DRAFT LEGISLATIVE TEXT:	*Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341) is amended by inserting after the first sentence in subsection (a) paragraph (1) the following: The scope of a Clean Water Act section 401 certification is limited to assuring that a discharge from a point source from a federally licensed or permitted activity will comply with the applicable provisions of sections 301, 302, 303, 306, and 307.*[7] *Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341) is amended by inserting the following two sentences after the fourth sentence in subsection (a) paragraph (1): (these sentences are hereinafter referred to as new sentence five and new sentence six): Not later than 30 days after the date of enactment of the Water Quality Certification and Energy Project Improvement Act of 2023, each State and interstate agency that has authority to give such a certification, and the Administrator, shall publish requirements for certification to demonstrate to such State, such interstate agency, or the Administrator, as the case may be, compliance with the applicable provisions of sections 301, 302, 303, 306, and 307. A decision to grant or deny a request for certification shall be based only on the applicable provisions of sections 301, 302, 303, 306, and 307, and the grounds for the decision shall be set forth in writing and provided to the applicant.*[8]
START OF THE CLOCK:	*Review period commences upon the date of the certifying authority's receipt of a request for*

[6] This addition to the statutory text was proposed in the "Water Quality Certification and Energy Project Improvement Act of 2023,'' a draft bill to amend Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341).

[7] This provision is a modification of 40 C.F.R. 121.3, as contained in the 2020 Final Rule. 85 FR 42210 (July 13, 2020).

[8] This addition to the statutory text was proposed in the "Water Quality Certification and Energy Project Improvement Act of 2023,'' a draft bill to amend Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341).

	certification and that this review period cannot exceed one year.
DRAFT LEGISLATIVE TEXT:	*Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341) is amended by modifying the existing fifth sentence in subsection (a) paragraph (1) as follows: "If the State, interstate agency, or Administrator, as the case may be, fails or refuses to ~~act on~~ grant or deny request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application."*[9]
PROHIBIT WITHDRAWAL / RESUBMIT:	*Prohibit recommending withdrawal and resubmission of applications to restart the one-year time review requirement.*
DRAFT LEGISLATIVE TEXT:	*Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341) is amended by inserting after new sentence five in subsection (a) paragraph (1) the following:* *The State, interstate agency, or Administrator, as the case may be, is not authorized to request the applicant to withdraw a request.*[10]
CLEAR APPLICATION REQUIREMENTS:	*Require states to publish requirements for WQC requests and require notice within 30 days whether the states have all the materials needed to process a certification request.*
DRAFT LEGISLATIVE TEXT:	*Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341) is amended by inserting after the fourth sentence in subsection (a) paragraph (1) the following: (new sentence five, see above "Scope of Reviews") Not later than 30 days after the date of enactment of the [Water Quality Certification and Energy Project Improvement Act of 2023], each State and interstate agency that has authority to give such a certification, and the Administrator, shall publish requirements for certification to demonstrate to such State, such interstate agency, or the Administrator, as the case may*

[9] *Id.*

[10] This provision is a modification of 40 C.F.R. 121.6(e) as contained in the 2020 Final Rule. 85 FR 42210 (July 13, 2020).

	be, compliance with the applicable provisions of sections 301, 302, 303, 306, and 307.[11]
	Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341) is amended by inserting after the fourth sentence in subsection (a) paragraph (1) and after new sentences five and six the following: *Not later than 30 days after receipt of a request for certification, the State, interstate agency, or Administrator, as the case may be, shall identify in writing all specific additional materials or information that are necessary to grant or deny the request.*[12]
DETERMINATIONS:	*Final decisions on whether to grant, grant with conditions or deny a request must be in writing based only on local water quality reasons and provide rationale for decision.*
CONDITIONS:	*Each certification condition to be supported by an explanation for why the condition is necessary to certify compliance with water quality requirements and supported with a citation to applicable legal requirements that protect water quality.*
DRAFT LEGISLATIVE TEXT:	*Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341) is amended by inserting after the fourth sentence in subsection (a) paragraph (1) after the new fifth sentence:* *A decision to grant or deny a request for certification shall be based only on the applicable provisions of sections 301, 302, 303, 306, and 307, and the grounds for the decision shall be set forth in writing and provided to the applicant.*[13]

[11] This addition to the statutory text was proposed in the "Water Quality Certification and Energy Project Improvement Act of 2023,'' a draft bill to amend Section 401.

[12] This addition to the statutory text was proposed in the "Water Quality Certification and Energy Project Improvement Act of 2023,'' a draft bill to amend Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341), but note that the draft bill provided for 90 days, rather than 30 days, for the State, interstate agency, or Administrator, as the case may be, to identify in writing all specific additional materials or information that are necessary to grant or deny the request.

[13] This addition to the statutory text was proposed in the "Water Quality Certification and Energy Project Improvement Act of 2023,'' a draft bill to amend Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341).

Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341) subsection (d) is amended by inserting the following at the end of the first sentence:
Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply ~~*with any applicable effluent limitations and other limitations, under section 1311 or 1312 of this title, standard of performance under section 1316 of this title, or prohibition, effluent standard, or pretreatment standard under section 1317 of this title, and with any other appropriate requirement of State law set forth in such certification,*~~ *the applicable provisions of sections 301, 302, 303, 306, and 307, and any such limitations or requirements and shall become a condition on any Federal license or permit subject to the provisions of this section,* ***and any such condition must be supported by a statement explaining why the condition is necessary and citation to applicable law that authorizes the condition***.[14]

NOTE: The proposed "Water Quality Certification and Energy Project Improvement Act of 2023,'' a draft bill to amend Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341), also included a number of other revisions.

Section 404

NWP RENEWALS:	*Mandate the ongoing existence and effectiveness of NWP 12 and extend the period for each reissuance of the NWP Program to 10 years from current 5 years.*
DRAFT LEGISLATIVE TEXT:	*Section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is amended in the first sentence of subsection (e) paragraph (2) by striking "five" and inserting "ten":* *No general permit issued under this subsection shall be for a period of more than* ~~*five*~~ *ten years after the date of its issuance and such general permit may be revoked or modified by the Secretary if, after opportunity for public hearing, the Secretary determines that the activities authorized by such general permit have an adverse impact on the environment or such activities are more appropriately authorized by individual permits.*

[14] The text in strikethrough and the underlined text were proposed in the "Water Quality Certification and Energy Project Improvement Act of 2023,'' a draft bill to amend Section 401 of the Federal Water Pollution Control Act (33 U.S.C. 1341). The bold and underlined text is new.

CLARIFY EPA AUTHORITY:

Ensure EPA does not pre-emptively bar potential activities requiring a CWA Section 404 permit before there is an applicant or a project; for EPA to make a veto determination under 404(c), an entity must apply for an actual Section 404 permit with the Corps.

DRAFT LEGISLATIVE TEXT:

Section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is modified in the first sentence of subsection (c) as follows:

The Administrator is authorized, to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site, whenever he determines, <u>after an applicant has submitted a complete application for a permit under this section and after such application has been considered and</u> after notice and opportunity for public hearings, that the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas.

ONE NWP:

Clarify that one linear project, and thus, one general NWP, is needed even if there are multiple owners and if there are multiple crossings of the same water in different places or multiple water bodies in the same location.

DRAFT LEGISLATIVE TEXT:

Section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is amended as follows:

"(e) General Permits on State, Regional, or Nationwide Basis.—

"(1) Permits authorized.—

"(A) In general.—In carrying";

(iii) in paragraph (2), by striking "(2) No general" and inserting the following:

"(2) Term.—No general"; and

(iv) by adding at the end the following:

"(3) Single and complete projects.—

"(A) Definition of single and complete project.—

"(i) In general.—In this paragraph, the term 'single and complete project', with respect to a project for which the Secretary is determining whether a general permit issued under this subsection applies, means that portion

of the total project proposed or accomplished by—

"(I) a single owner or developer;

"(II) a partnership of 1 or more owners or developers; or

"(III) an association of owners or developers.

"(ii) Linear projects.—

"(I) Definition.—In this clause, the term 'linear project' means a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which may involve multiple crossings of 1 or more waters of the United States at separate and distant locations.

"(II) General rule.—For purposes of this paragraph, with respect to projects described in clause (i) that are linear projects—

"(aa) the crossings of separate waters of the United States at a specific location shall be considered 1 single and complete project; but

"(bb) each crossing of a single water of the United States shall be considered a separate single and complete project if those crossings are at separate and distant locations.

"(III) Additional exclusions.—For purposes of subclause (II), individual channels in a braided stream or river, individual arms of a large, irregularly-shaped wetland or lake, and other, similar bodies of water shall not

be considered to be separate waters of the United States.

"(B) Requirement.—In determining whether a general permit issued under this subsection applies to an activity, the Secretary shall consider the estimated total of all losses of waters of the United States expected to result from the single and complete project.

"(C) Use of multiple permits.—The Secretary may combine 2 or more general permits issued under this subsection to authorize a single and complete project, but the same general permit issued under this subsection may not be used more than once for a single and complete project.[15]

CONSULTATION: *Clarify that Endangered Species Act (ESA) consultation is accomplished through the NWP process and that separate consultation with agencies (such as FWS, NOAA, and NMFS) is not required.*

DRAFT LEGISLATIVE TEXT: *Section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is amended is amended by adding at the end of subsection (e) new paragraph (3) the following new paragraph (4):*

"(4) Reissuance of nationwide permits.—In determining whether to reissue a general permit issued under this subsection on a nationwide basis—

"(A) no consultation with an applicable State pursuant to section 6(a) of the Endangered Species Act of 1973 (16 U.S.C. 1535(a)) is required;

"(B) no consultation with a Federal agency pursuant to section 7(a)(2) of that Act (16 U.S.C. 1536(a)(2)) is required; and

"(C) for purposes of carrying out the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) with respect to that reissuance, conducting an environmental assessment on a

[15] This language was originally included in a draft bill from Senator Toomey and is pasted here using the same numbering/lettering scheme as in the draft bill.

nationwide basis is sufficient for purposes of compliance with that Act.[16]

USE FOR OIL/ PIPELINES: *Reaffirm that the Administration shall keep the NWP 12 in place for use in activities associated with oil and natural gas pipelines that doesn't result in a loss of more than a ½ acre.*

DRAFT LEGISLATIVE TEXT: *Section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is amended is amended by adding at the end of subsection (e) new paragraph (4) the following new paragraph (5):*

"(5) NATIONWIDE PERMIT FOR OIL AND NATURAL GAS PIPELINES.—Notwithstanding any other provision of this section, the Secretary shall maintain a nationwide permit for the activities required for the construction, maintenance, repair, operation, and removal of oil and natural gas pipelines and associated facilities that does not result in the loss of greater than 1/2 -acre of waters of the United States for each single and complete project (as defined in paragraph (3)(A)), which shall be known as 'nationwide permit 12'.";[17]

JUDICIAL REVIEW: *Provides the same type of assurances that other judicial review provisions provide in permitting reform including a timeline for consumer, business, and economic certainty. Ensure that those permits already approved as of the date of enactment are not subject to challenge.*

DRAFT LEGISLATIVE TEXT: *Section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344) is amended by adding the following:*

"(u) Savings Provision.—Nothing"; and (H) by inserting after subsection (s) the following[18]*:*

"(t) Judicial Review.—

[16] This language was originally included in a draft bill from Senator Toomey and is pasted here using the same numbering/lettering scheme as in the draft bill.

[17] This language was originally included in a draft bill from Senator Toomey and is pasted here using the same numbering/lettering scheme as in the draft bill.

[18] This language was originally included in a draft bill from Senator Toomey and maintains the "(u) Savings Provision.—Nothing"; preceding the judicial review provision from the draft bill.

"(1) STATUTE OF LIMITATIONS.—

"(A) IN GENERAL.—Notwithstanding any other provision of law, an action seeking judicial review of an individual or general permit issued under this section shall be filed not later than the date that is 60 days after the date on which the permit was issued.

"(B) SAVINGS PROVISION.—Nothing in subparagraph (A) authorizes an action seeking judicial review of the structure of or authorization for a State permit program approved pursuant to this section.

"(2) TIMELINE TO ACT ON REMAND AND VACATUR.—If a Federal court remands or vacates a permit under this section, the Federal court shall set and enforce a reasonable schedule and deadline, which may not exceed 180 days from the date on which the Federal court remands or vacates the permit, for the issuer of the permit to act on that remand or vacatur.".

(2) RATIFICATION OF CURRENT PERMITS.—Notwithstanding any other provision of law, each category of activities authorized by a general permit issued under section 404(e) of the Federal Water Pollution Control Act (33 U.S.C. 1344(e)) (including nationwide permit 12) or under section 10 of the Act of March 3, 1899 (33 U.S.C. 403), that is in effect on the date of enactment of this Act shall, consistent with subparagraph (A) of section 404(e)(1) of the Federal Water Pollution Control Act (33 U.S.C. 1344(e)(1)), when conducted in accordance with the conditions set forth in the nationwide permits, be considered to cause—

(A) not more than minimal adverse environmental effects when actions authorized under those permits are carried out separately; and

(B) not more than minimal cumulative adverse effects on the environment.[19]

Judicial Reform

[19] This language was originally included in a draft bill from Senator Toomey and is pasted here using the same numbering/lettering scheme as in the draft bill.

Judicial reform is necessary to ensure the nation's energy security and to meet global energy needs. Historically, major new or expansion project permits are almost always challenged as perfunctory procedure by opponents of energy projects, delaying projects for years and increasing costs into the billions of dollars.

STANDING AND DEADLINES:	*Deadline for court challenges to permits within 180 days from final federal action and limit standing to directly impacted parties who have participated in the permitting review docket.*
LANGUAGE:	*Title I of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) is amended by adding at the end the following new Section 110:*
Notwithstanding any other provision of law, a claim arising under Federal law seeking judicial review of compliance with this Act, of a determination made under this Act, or of Federal action resulting from a determination made under this Act, shall be barred unless: I1) such claim is filed no later than the date that is 180 days after the date on which the issuance of a record of decision or other final agency action with respect to the relevant proposed agency action; and (2) the claim is filed by a party who is directly impacted by the proposed agency action and that party participated in the administrative proceedings of the proposed agency action.[20]	
REMAND REVIEW TIMELINE:	*If a federal court remands a permit for an energy infrastructure project, the court must set and enforce a reasonable schedule and deadline, not exceeding 180 days from when the court remands, for the agency to promptly act on remand.*
LANGUAGE:	*Title I of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) is amended by adding at the end the following new Section 111:*
	If a Federal court remands a proposed action to the applicable agency, the Federal court shall set and enforce a schedule and deadline, which may not be later than the date that is 180 days after the date on which the Federal court remands the proposed action, for the agency to act on that remand.

[20] This provision is a modification of Section 108(a) of the "Building United States Infrastructure through Limited Delays and Efficient Reviews Act of 2023" or the "BUILDER Act of 2023", as incorporated in Section 20202 of H.R. 1. The purpose of the BUILDER Act of 2023 is to amend the National Environmental Policy Act of 1969.

VACATUR:	*Vacatur is not the default remedy for an environmental review shortcoming. Agencies should be directed to address the identified deficiency but not vacate the permit.*
LANGUAGE:	*Title I of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) is amended by adding at the end the following new Section 112:*

Should a project be found not to have met the requirement of [NEPA}, the only remedy shall be remand to the agency.



February 12, 2025

Acting Chair, Council on Environmental Quality
730 Jackson Place NW
Washington, D.C. 20503

Re: **Comments on Council on Environmental Quality's development of guidance on implementation of the National Environmental Policy Act pursuant to Executive Order 14154 "Unleashing American Energy".**

To Whom it May Concern:

American Petroleum Institute ("API") submits the following comments in response to President Donald J. Trump's January 20, 2025 Executive Order 14154 "Unleashing American Energy" directing the Chairman of the Council on Environmental Quality (CEQ) to "within 30 days of the date of this order…provide guidance on implementing the National Environmental Policy Act (NEPA or the Act), 42 U.S.C. 4321 et seq.,."

API supports an effective NEPA review process that meets the purpose of the Act without unduly delaying critical energy projects. API further supports CEQ's issuance of clear and reliable guidance to agencies that are consistent with the intent and language of the NEPA statute, fully incorporates the revisions contained in the Fiscal Responsibility Act of 2023 (FRA) and reflects the recent decision in *State of Iowa v. Council on Envtl. Quality,* 1:24-cv-089 (D.N.D. Feb. 3, 2025), where the court vacated the Biden administration's 2024 NEPA rule.

We ask that the guidance take into consideration API's recommendations contained in our Phase 1 & Phase 2 rulemaking comments. We would welcome the opportunity to engage with the Administration constructively to achieve an approach that is consistent with the underlying statute and that does not excessively delay infrastructure development.

To that end, API requests that CEQ consider the following issues while drafting its guidance:

- Fully implement key provisions of the Builder Act of 2023, as contained in the Fiscal Responsibility Act of 2023, which was meant to advance a more streamlined NEPA review process.
- Reinforce the Congressional mandate that NEPA is a procedural statute used to inform federal decision making and that lead agencies should not analyze speculative or remote impacts: Limit the scope of NEPA analyses consistent with *DOT v. Public Citizen* to those effects that are reasonably foreseeable and proximately caused by the proposed action, (*Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752 [2004]).
- Limit the scope of NEPA reviews to the consideration of effects of the proposed action that are subject to the lead agency's statutory authority and responsibility.

- Eliminate Biden-era approaches to extra-jurisdictional alternatives and "environmentally preferable alternatives" which needlessly divert agency and the public's attention away from those reasonable alternatives that actually advance NEPA's mandate for fully informed and reasoned decision-making. Alternatives should be within the jurisdiction of the agency, tethered to the project's stated purpose and need, and focused on achieving the goals of the applicant described in the purpose and need statement to prevent unreasonable and speculative alternatives considerations.
- Eliminate guidance that mitigation measures be legally binding and subject to ongoing monitoring for compliance, which departs from longstanding agency and judicial interpretation and ignores the limitations and constraints on mitigation imposed by agencies' governing authorities.
- Realign the scope of NEPA reviews with the statute's original intent to focus on impacts on a local, regional, and national scale, as opposed to providing global contexts.
- Recognize that the environmental justice-related considerations contained in the 2024 rule were not tethered to either NEPA's procedural requirements or previous agency practice and case law, and create more, not less, confusion about an agency's or a project applicant's obligations. These considerations should be re-evaluated future guidance.
- Environmental document preparation timelines should only be extended by the lead agency upon consultation with and approval by the applicant.
- Agencies should not be required to undertake new scientific or technical research or create new models and should not do so if the overall costs and timeframe involved are unreasonable.
- The guidance should revise the approach to categorical exclusions to encourage greater availability and adoption of exclusions.
- CEQ should recommend that agencies shorten administrative review timelines as practicable.
- CEQ's NEPA guidance on Consideration of Greenhouse Gas Emissions and Climate Change issued in 2023 should be rescinded.
- While API supports and encourages public participation in the permitting process, the guidance needs to ensure timely public input. The public participation process should not be used to delay or lead to the cancelation of projects.

API continues to advocate for a more streamlined, predictable, and practical environmental review procedure that balances environmental protection with advancing critical energy and infrastructure needs. API's support for a streamlined NEPA review is not simply based on interests in expediency, but rather on our belief that the public interest is best served by focusing on NEPA's central purpose of improving agency decision-making in a fair, legal, and neutral manner.

API appreciates the opportunity to work with CEQ and the Administration on our shared mission to advance critical energy infrastructure projects and move to a new era of energy development, while maintaining the Nation's high standard of environmental protection and global environmental leadership. Furthermore, when the Chair, pursuant to the Executive Order, convenes a working group to coordinate the revision of agency-level implementing regulations for consistency, it is API's hope that stakeholders will be able to participate in a public dialogue throughout that process.

Additionally, API will continue to work with the Administration and Congress to codify durable reforms to achieve an efficient and effective NEPA review process that ensures timely and efficient permitting for projects.

API looks forward to working with the CEQ in pursuit of guidance that will advance NEPA reviews in a timely manner and without unduly delaying construction of our nation's most critical energy, transportation infrastructure. Doing so will help ensure that the much-needed projects for securing energy dominance are able to be completed in a timely and affordable manner.

Sincerely,



Dustin Meyer
Senior Vice President of Policy, Economics
and Regulatory Affairs
American Petroleum Institute

American
Public Transportation
Association

EXECUTIVE COMMITTEE

CHAIR
MJ Maynard

VICE CHAIR
Leanne Redden

SECRETARY-TREASURER
Jeffrey Wharton

IMMEDIATE PAST CHAIR
Michele Wong Krause

Jose R. Bustamante
Randy Clarke
Alexander Clifford
Francis "Buddy" Coleman
Charles DiMaggio
Shawn Donaghy
Denise Figueroa
Sharon Fleming
Gary S. Giovanetti
Carolyn Gonot
Collie Greenwood
Beth Holbrook
Debra A. Johnson
Bacarra Mauldin
Raymond Melleady
Erin Rogers
Catherine Rinaldi
Kimberly Slaughter
Jannet Walker-Ford
Joel Young

PRESIDENT AND CEO
Paul P. Skoutelas

1300 I Street NW
Suite 1200 East
Washington, DC 20005
p: (202) 496-4800
f: (202) 496-4324

APTA.COM

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment and
Public Works
U.S. Senate
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and
Public Works
U.S. Senate
Washington, DC 20510

Dear Chairman Capito and Ranking Member Whitehouse:

The American Public Transportation Association (APTA) represents a $79 billion industry that directly employs 430,000 people and supports millions of private-sector jobs. We greatly appreciate the opportunity to provide testimony for the record for the U.S. Senate Committee on Environment and Public Works hearing on February 19, 2025, titled, "*Improving the Federal Environmental Review and Permitting Processes.*"

APTA has actively engaged our more than 1,600 public- and private-sector members organizations to identify and develop recommendations that prioritize common sense regulatory reform proposals to streamline public transportation projects and program delivery. Our members share the goal of accelerating the delivery of safe, high-quality public transportation projects as efficiently as possible.

Overall, APTA's members have found that coordination among agencies with different National Environmental Policy Act (NEPA) procedures and/or disparate interests can add to the complexity and timeline of the NEPA process. In addition, many APTA member projects fall under categorical exclusions (CE), and there are conflicting policies and definitions between Federal agencies on when they apply.

Outlined below are two policy recommendations for streamlining regulatory and administrative requirements that will go a long way toward expediting projects of importance to public transit agencies.

Real Property Acquisition

Public transit agencies face difficulties purchasing real property for operations and maintenance facilities because Federal Transit Administration (FTA) policies restrict the purchase of real property where Federal funds will be, or are anticipated to be, used for the purchase or development of that property. In most cases, transit agencies cannot acquire such real property until NEPA processes are completed..[1] Expanded flexibility for early real property acquisition for public transportation projects is needed to reduce delays and associated costs of projects and to create certainty in property rights with a view toward future use.

We urge Congress to add flexibility to FTA's policy on land acquisition prior to NEPA by amending 49 U.S.C. § 5323(q) (Corridor Preservation) to replace the term "right-of-way" with "real property interests". This proposal would bring FTA's authority into parity with the Federal Highway Administration's property acquisition authority, thereby expanding the opportunity for broader property acquisition prior to the completion of environmental reviews.

NEPA and NHPA Requirements for Bus Shelters

APTA members also experience project delivery delays due to the interaction of NEPA reviews with other regulatory requirements, such as National Historic Preservation Act (NHPA) Section 106 reviews. The Section 106 review process, administered by the Advisory Council on Historic Preservation (ACHP), generates additional mitigation requirements that become part of the NEPA decision document. However, NHPA reviews involve outside agencies (typically State and Tribal Historic Preservation Officers) that are not bound by the same review timeframes. Often, these review processes extend the environmental review process but are beyond the control of the Federal agency.

Specifically, transit agencies encounter obstacles funding and installing bus shelter projects in certain FTA regions due to NHPA requirements. Under NEPA, many bus shelter projects are exempt as CEs [2] if they are located in an existing right-of-way. However, NHPA continues to apply, and grant applicants must work with FTA to determine if the NHPA Section 106 review process must be utilized.

A letter exchange between an APTA member and then-FTA Acting Administrator K. Jane Williams in 2018 confirmed that, "The NEPA and Section 106 are Federal cross-cutting requirements that apply to all FTA projects when FTA is providing funding or approvals for the project, regardless of the project's size. The result of these legal requirements is that, even for a bus shelter project in an existing right-of-way that typically is subject to a categorical exclusion under NEPA, FTA needs to collect certain basic information before it can make that [Section 106] determination."

---

[1] On July 11, 2022, FTA sent a Dear Colleague letter to remind project sponsors that the purchase of real property outside of existing transit corridors cannot proceed until the NEPA process is completed or until FTA has either determined that the project is exempt as a Categorial Exclusion (CE) (i.e., corridor preservation or there will be no substantial changes); issued a decision that there is "Finding of No Significant Impact"; or issued a combined or separate final Environmental Impact Statement and or Record of Decision, ultimately clearing the project.

[2] *See* 23 C.F.R. § 771.118; *see also,* FTA, Guidance for Implementation of FTA's Categorical Exclusions (23 C.F.R. § 771.118) (January 2023).

Transit agencies must develop and provide the necessary additional information to determine NHPA Section 106 applicability and, as a result, experience delays and increased costs, including loss of local match, for bus shelter projects. **We urge Congress to direct FTA and ACHP to create a national Programmatic Agreement to categorically exclude bus shelter installation in an existing right-of-way for Section 106 determinations.**

APTA stands ready to work with your Committee and Congress to streamline and improve the Federal regulatory process to enable better and expanded public transportation services for Americans and drive economic growth across the nation.

Thank you for the opportunity to comment. If you have additional questions, you may contact me or Ward McCarragher, Vice President, APTA Government Affairs and Advocacy, at wmccarragher@apta.com.

Sincerely,

Paul P. Skoutelas

Paul P. Skoutelas
President and CEO

cc: The Honorable Kevin Cramer, Chairman, Subcommittee on Transportation and Infrastructure, Committee on Environment and Public Works, U.S. Senate
The Honorable Angela Alsobrooks, Ranking Member, Subcommittee on Transportation and Infrastructure, Committee on Environment and Public Works, U.S. Senate
The Honorable Tim Scott, Chairman, Committee on Banking, Housing, and Urban Affairs, U.S. Senate
The Honorable Elizabeth Warren, Ranking Member, Committee on Banking, Housing, and Urban Affairs, U.S. Senate
The Honorable Katie Britt, Chairman, Subcommittee on Housing, Transportation, and Community Development, Committee on Banking, Housing, and Urban Affairs, U.S. Senate
The Honorable Tina Smith, Ranking Member, Subcommittee on Housing, Transportation, and Community Development, Committee on Banking, Housing, and Urban Affairs, U.S. Senate
The Honorable Sam Graves, Chairman, Committee on Transportation and Infrastructure, U.S. House of Representatives
The Honorable Rick Larsen, Ranking Member, Committee on Transportation and Infrastructure, U.S. House of Representatives
The Honorable David Rouzer, Chairman, Subcommittee on Highways and Transit, Committee on Transportation and Infrastructure, U.S. House of Representatives
The Honorable Eleanor Holmes Norton, Ranking Member, Subcommittee on Highways and Transit, Committee on Transportation and Infrastructure, U.S. House of Representatives

bear6@verizon.net
March 20, 2025

Senator Senator Shelly Capito
Chairman, Senate Environment and Public Works Committee

Senator Sheldon Whitehouse
Ranking Member, Senate Environment and Public Works Committee

Sent via: permitting@epw.senate.gov

Dear Senators Capito and Whitehouse:

I am writing in response to the Committee's February 19th hearing on Improving the Environment Review and Permitting Processes. By way of background, I was asked to serve as Deputy General Counsel for the Council on Environmental Quality, the agency created by the National Environmental Policy Act (NEPA), by President Reagan's administration in 1981. In 1983, I was appointed General Counsel, which was then and remains a non-career position. In that role, I had responsibility for oversight of NEPA implementation by about 85 federal agencies. I served in that position through both terms of President Reagan's administration and that of President George H. W. Bush. I was asked to return to CEQ as General Counsel in January, 1995 and remained in that position through the end of 2007, when I retired from federal service. I continue to be active in the field of environmental law generally and NEPA specifically.

As I watched the February 19th hearing, I was pleased to see civility and thoughtfulness about the Committee's continued deliberations regarding this issue. In particular, Senator Capito's three principles framing these considerations – that any legislative provisions must be bipartisan, that they must address all projects across the board rather than picking and choosing favored (or disfavored) types of actions, and that legislation not weaken current protections are, in my view, sound. However, for reasons discussed below, I believe that real progress implementing a more efficient and effective environmental review process requires adequate agency capacity, sufficient training and wise and sustained management of the process. Those attributes will be next to impossible in the current context of executive branch actions regarding federal agencies capacity. Nonetheless, I discuss these issues in some detail below.

Agency Implementation Issues

In the years between President Nixon signing NEPA into law on January 1, 1970 and June 30, 1979, the Council on Environmental Quality managed compliance with the Act through a series of guidelines and guidance documents. In 1978, CEQ proposed regulations binding on all federal agencies for implementation of the procedural provision of NEPA, effective in 1979. The regulations were specifically "designed to make the environmental

impact statement process more useful to decisionmakers and the public; and to reduce paperwork and the accumulation of extraneous background data, in order to emphasize the need for focus on real environmental issues and alternatives."[1] Under the CEQ regulations, federal agencies were required to promulgate their own NEPA procedures addressing how the generic requirements would apply to each agency's mission activities. As noted in Ms. Pilconis' written testimony, those regulations are now being rescinded.[2] CEQ has issued brief guidance to agencies regarding revision of their NEPA procedures, to take place over the coming year.[3] Thus, for the foreseeable future, NEPA compliance will be implemented through each department and agency's individual NEPA procedures along with any further guidance CEQ provides.

It is important for Committee Members to understand the gap between what's on paper and what happens on the ground. As both majority and minority witnesses alluded to during the hearing, Congress has already taken a number of steps in an attempt to make the "streamline" the NEPA process, starting with provisions in transportation authorization acts, then water resource developments authorizations, and then broadening "streamlining" provisions to a wide range of infrastructure projects in various sectors presently encompassing energy production, aviation, ports, broadband, electricity transmission, pipelines, manufacturing, mining, data storage, carbon capture, ocean management and more. Most recently, Congress amended NEPA itself in the Fiscal Responsibility Act amendments to include clarification of legal standards, codification of time limits and page limits and address several other issues. Many of the provisions that have been passed are sensible; some, in my view, are not desirable but that is beside the point – they are now law.

In my experience, three developments that have existed since the early 1980's that have impaired NEPA's efficiency and effectiveness: 1) a lack of capacity within the federal agencies; 2) a lack of education and training of remaining NEPA staff, and 3) a widening disconnect between decisionmakers and the NEPA process. After NEPA's passage, a number of major departments and agencies organized small offices (usually roughly five to twelve people) with interdisciplinary staff intended to implement and/or oversee the implementation of the law and the agency procedures. Those offices have been significantly shrunk or totally abolished over the years, resulting in reliance on consulting firms to prepare NEPA documents and often to undertake related actions, such as running public meetings and providing responses to comments. This has resulted in two unfortunate consequences: a) a disconnect between the purpose of the NEPA process in engaging the agency decisionmakers and agency staff in thinking about the best way to achieve a particular goal; b) erasure of institutional knowledge about NEPA and the CEQ regulations within an agency that, in turns, leads to uncertainty and delay as contractors wait for guidance from agencies.

---

[1] Exec. Order 11514, as amended by Exec. Order 11991 (May 24, 1977). Exec. Order 11991 was rescinded by Exec. Order 14154, Jan. 20, 2025.
[2] Pilconis, Leah, "Improving the Federal Environmental Review and Permitting Processes", Feb. 19, 2025, p. 5, fns. 11-14.
[3] Available at https://ceq.doe.gov/docs/ceq-regulations-and-guidance/CEQ-Memo-Implementation-of-NEPA-02.19.2025.pdf

Concurrently with the shrinkage of NEPA staff within federal agencies, the education and training of staff assigned to work on NEPA compliance has been almost entirely eviscerated. When I began public service, agencies with substantial portfolios of actions triggering NEPA regularly provided training for their employees, often with CEQ's participation. As those forums dried up due to various cost-cutting and staff reduction measures, CEQ partnered with Duke University to provide some training to agency staff who were able to get permission and resources to attend. However, after a number of years of that work, the Duke sponsors changed their focus and those courses were terminated.[4] I saw and a number of NEPA problems that were caused simply by a lack of understanding about the process. Unfortunately, given CEQ's own staffing issues while I served there, such efforts were generally limited to situations that were brought directly to our attention.

Finally, during my tenure at CEQ, which spanned 25 years, decisionmakers became increasingly isolated from the very process that was designed to inform them. During my first few years, there was much more interaction between decisionmakers and their staff about NEPA. Later, with a few notable exceptions, there was very little engagement. This both eviscerates a major purpose of the NEPA process and also results in less management of the process, leading to serious inefficiencies. In situations where decisionmakers personally engaged with agency personnel working on a NEPA process, implementation was both better and faster.

In sum, NEPA implementation suffers from a serious and sustained lack of agency capacity, inadequate training of agency personnel and flawed management. Some of these issues can and must be addressed by Congress through, for example, carefully directed appropriations provisions and others are better addressed by Congressional oversight. More specifically, agency capacity and education can be addressed through agency authorizations and appropriations. Congress began to do so recently by providing serious resources to improve the capacity of a few key agencies to implement NEPA in the Inflation Reduction Act. For example, the Federal Energy Regulatory Commission received a hundred million dollars to provide for the hiring and training of personnel, the development of programmatic environmental documents, the procurement of scientific services for environmental reviews, the development of environmental data or information systems, stakeholder and community engagement, and the purchase of new equipment for environmental analysis to facilitate timely and efficient environmental reviews and authorizations (Section 50302). The Department of the Interior received a hundred and fifty million dollars for the same purposes (Section 50303). While progress was being made by agencies utilizing those funds, progress is quite likely halted now. The Committee would be well advised to engage in some oversight

[4] Lack of training has real world consequences. For example, group of county commissioners who had spent considerable time thinking about how the NEPA process could be improved developed about a dozen recommendations for improvement and presented them to CEQ. The good news was that each of their recommendations were already embedded in the CEQ regulations. The bad news was that the Commissioners weren't seeing implementation on the ground because agency staff in the area they governed in simply did not have a good understanding of the regulations. During the hearing, the Committee heard similar comments about capacity and competence in regards to permitting staff in general.

now about whether staff hired through these funds, likely on probationary status, have been terminated, and what is happening to the remaining funds.

Unintended Consequences: Delegation to States

A second issue I am going to address is the belief that delegating NEPA responsibilities to the states would result in faster environmental review processes. In 1975, in response to a court decision invalidating an EIS due to its preparation by a state highway department,[5] Congress amended NEPA to provide that agencies with state-wide jurisdiction can prepare EISs under certain conditions, including independent evaluation of such EISs by the responsible federal official.[6] This provision was not utilized very much in the first couple of decades after NEPA's passage, with the exception of state highway departments that began regularly preparing EISs.

Congress began legislating provisions intended to expedite the NEPA process in 1998, most frequently in the context of surface transportation. In the 1998 Transportation Equity Act for the 21st Century (TEA-21),[7] Congress allowed a state to proceed with a single contract for the preparation of NEPA analyses for a proposed project as well as subsequent engineering work on the project.[8] This provision overturned CEQ's regulation on conflict of interest provisions for EISs for all actions within the Department of Transportation (DOT).[9]

In 2005, Congress passed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)[10] and included additional measures related to the environmental review process. Provisions included denominating the Department of Transportation as the lead agency for transportation project, authorizing state and local government agencies to serve as joint lead agencies, setting up a new category of "participating agencies", establishing a new requirement for involvement in defining the purpose and need of a proposed action, extending the minimum comment period on a draft EIS from 45 to 60 day, providing for an additional dispute resolution process, reducing the statute of limitations from six years to 180 days, and allowing for states to assume responsibility for determining whether proposed actions are categorically excluded and establishing a pilot project under which up to five states could assume responsibilities for implementing any federal laws relevant to a proposed actions (other than responsibilities relating to federally recognized Indian tribes).[11] The next transportation authorization law, entitled "Moving Ahead for Progress in the 21st

---

[5] *Conservation Society of Southern Vermont v. Sec. of Transportation*, 455 F.2d 412 (1972).
[6] 42 U.S.C. § 4332(G).
[7] Pub. L. No. 105-178.
[8] 23 U.S.C. 112(g).
[9] 40 C.F.R. 1506.5 (c) required contractors to declare that they have no financial or other interest in the outcome of the project.
[10] Pub. L. No. 109-59.
[11] 23 U.S.C. §§ 6002, 6003, 6004, 6005.

Century (MAP-21)[12] broadened the pilot program and state assumption provisions of SAFETEA-LU.[13]

In the 2015 Fixing America's Surface Transportation Act, (the "FAST Act") Congress added additional provisions addressing state assumption of NEPA responsibilities.[14] Specifically, the law allows any state to assume any or all part of NEPA responsibilities (as well as any or all responsibility for compliance with any other federal environmental law pertaining to a specific project), for any surface transportation project, including railroad and multilmodal projects as well as highways. The FAST Act also established a pilot program for states to – for the first time – substitute state environmental impact assessment laws that are at "least as stringent" as NEPA, and directed the Department of Transportation and CEQ to promulgate regulations implementing that provision.[15] Another provision in what is commonly referred to as FAST-41 authorizes the use of a document prepared by the state for a wide range of infrastructure projects if the lead agency and CEQ determines that the law under which the document was prepared is "substantially equivalent" to what would have been available had the analysis been prepared under NEPA.[16]

The rationale for the enthusiasm to move NEPA compliance to the states or, in the case of the FAST and Fast-41provisions, actually substitute state laws for NEPA, raises questions. From an efficiency perspective, what is the point of having state laws substitute for NEPA and other environmental laws? Is it because state laws will somehow be easier to implement, even though they have to be "at least as stringent"? Is it because states now have more resources than federal agencies and will therefore do a better job?

Whatever the reason for the apparent assumption that moving NEPA compliance to the states and possibly under state laws will expedite the process has not been born out by the facts. CEQ's recent report on the time that Federal agencies took to complete EISs and Records of Decisions between 2010 and 2018 shows that the Department of Transportation (DOT) recorded by far the longest timelines for completion of the the EIS process[17]. The majority of EISs within DOT agencies are virtually always for federal highways, the one action that has been largely handled by state agencies since the early 1970's. Ironically, it is the type of action that more than any other has pushed the average time for EISs up. A deeper look at the factors contribution to this unintended

---

[12] Pub. L. No. 112-141.

[13] 23 U.S.C. §326.

[14] 23 U.S.C. § 327.

[15] 23 U.S.C. § 330.

[16] 42 U.S.C. 4370m-4(b)(1)(A).

[17] Council on Environmental Quality, "Environmental Impact Statement Timelines (2010-2018), December 14, 2018, available at https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Report_2020-6-12.pdf The timeline shows a total of Department of Transportation EISs (highways by far being the most frequent subject of those EISs) to normally take just under 7 years. By comparison, the Forest Service which more frequently handles it NEPA compliance within the agency, prepared 319 EISs during the same period in a little over 3 years.

consequences of legislative attempts to streamline could be of value. The bottom line appears to be that moving NEPA responsibilities to the states actually lengthens the process instead of expediting it.

Finally, I want to note the obvious. While all of us benefit if the NEPA process – or any process – is efficient and timely – the NEPA process is often triggered by proposed actions that will have impacts on communities, public lands and waters and wildlife that may last for centuries. An efficient and effective NEPA process must be managed in a way to bring together the analysis, informed by the public and relevant federal, tribal, state and local agencies in a manner that fulfills NEPA's goal of informing federal decisionmaking. The process can be managed much better, as I have indicated above, but speed should not be the primary metric by which the process is measured. The law is intended to benefit not just those of us here today, but, in the words of the law, "to fulfill the responsibilities of each generation as trustee of the environment for succeeding future generations."[18]

I would be happy to discuss any NEPA related issues further if it would be helpful. Thank you for the opportunity to supplement the record.

Sincerely,

Dinah Bear

[18] 42 U.S.C. § 4331(b)(1).

Bipartisan Policy Center

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
U.S. Senate Committee on Environment and Public Works
Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
U.S. Senate Committee on Environment and Public Works
Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chair Capito and Ranking Member Whitehouse:

On behalf of the Bipartisan Policy Center, I am writing to express our gratitude to you and the Environment and Public Works Committee for hosting a hearing on "Improving the Federal Environmental Review and Permitting Processes." BPC has been actively working to find consensus on how to comprehensively reform the federal permitting process to reduce energy costs, increase energy reliability, and reduce emissions. We appreciate your joint efforts to pass meaningful, bipartisan permitting reform this Congress and to support the buildout of a variety of crucial energy infrastructure projects.

To assist in your work, BPC is pleased to submit for the record our permitting reform report, ***Finding the Goldilocks Zone for Permitting Reform***, which is informed by a series of stakeholder roundtables aimed at exploring legislative options for a more efficient permitting system. The stakeholder roundtable series brought together a diverse set of permitting experts to evaluate a menu of policy options for permitting reform, explore the nuances of policy options, discuss the effectiveness of different policies, and consider the potential political controversies each option might elicit. The report ranks each policy option across two dimensions: Effectiveness and controversy. These workshops were designed to encourage discussion between stakeholders and policymakers across the political spectrum who work in the energy permitting space.

We hope you find this information helpful as you explore options that can bolster a more efficient permitting system for energy infrastructure that will grow the economy and improve environmental stewardship. Please do not hesitate to contact me if you have any questions or comments about the analysis.

Sincerely,

Xan Fishman
Senior Managing Director, Energy


JUST RIGHT
TOO LITTLE
TOO MUCH
U.S. PERMITTING PROCESS
Bipartisan Policy Center
Finding the Goldilocks Zone for Permitting Reform
A SYNTHESIS REPORT BASED ON SEVEN ROUNDTABLE DISCUSSIONS
By Xan Fishman, John Jacobs, Daniel Elizalde, Lori Pickford, and Owen Minott
January 2024

AUTHORS

Xan Fishman
John Jacobs
Daniel Elizalde
Lori Pickford
Owen Minott

Table of Contents

4 INTRODUCTION

17 EMPOWERING COMMUNITIES WHILE STREAMLINING CLEAN INFRASTRUCTURE PERMITTING [ORIGINALLY PUBLISHED ON MAY 9, 2023]

26 LINEAR INFRASTRUCTURE: OPTIONS FOR EFFICIENT PERMITTING OF TRANSMISSION AND PIPELINE INFRASTRUCTURE [ORIGINALLY PUBLISHED ON JULY 24, 2023]

37 REFORMING JUDICIAL REVIEW FOR CLEAN INFRASTRUCTURE: A BIPARTISAN APPROACH [ORIGINALLY PUBLISHED ON SEPTEMBER 18, 2023]

43 EXPLORING NEPA REFORMS NEEDED TO UNLOCK CLEAN ENERGY INFRASTRUCTURE [ORIGINALLY PUBLISHED ON NOVEMBER 13, 2023]

53 LICENSING AND PERMITTING REFORMS TO ACCELERATE NUCLEAR ENERGY DEPLOYMENT [ORIGINALLY PUBLISHED ON JANUARY 22, 2024]

70 MITIGATING UNIQUE PERMITTING BARRIERS TO SPECIFIC ENERGY TECHNOLOGIES [ORIGINALLY PUBLISHED ON JANUARY 25, 2024]

Introduction

A more efficient permitting system for energy infrastructure would reduce energy costs, increase energy reliability, increase quality of life, and reduce emissions. It should be no surprise that there is bipartisan interest in achieving these goals. Last year, Congress passed, and President Joe Biden signed, the Fiscal Responsibility Act.[a] This law includes several reforms to the federal permitting and environmental review process recommended by BPC's Smarter, Cleaner, Faster Infrastructure Task Force.[b] But more can, and should, be done.

THERE IS BOTH THE NEED AND POLITICAL APPETITE FOR MORE SIGNIFICANT IMPROVEMENTS TO THE ENERGY PERMITTING PROCESS.

This synthesis report on permitting reform is based on six previous issue briefs, which were informed by a series of stakeholder roundtables aimed at exploring legislative options for a more efficient permitting system. This latest report ranks each of the previously discussed policy options across two dimensions: **Effectiveness** and **Controversy**. Following this analysis, each of the six previously published issue briefs are reproduced below for more detail on each policy option and insight into the roundtable discussions that informed the rankings.

The purpose of this roundtable series was to bring together a diverse set of permitting experts to evaluate different options for permitting, explore the nuances of policy options, discuss the effectiveness of different policies, and consider the potential political controversies each option might elicit. These discussions were intended to inform educational products and further discussions between stakeholders and policymakers in the energy permitting space.

a Fishman, X., Jacobs, J., & Minott, O. (2023, June 02). How Does the Fiscal Responsibility Act Reform Permitting and Environmental Review? Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/blog/fiscal-responsibility-actpermit-reform/

b Bipartisan Policy Center. (n.d.). Smarter, Cleaner, Faster Infrastructure Task Force. Retrieved from https://bipartisanpolicy.org/cleaner-smarter-faster-task-force/

Our north star was trying to identify policy options that satisfy the following:

> *Permit reform options should improve the permitting process while simultaneously increasing efficiency, protecting the environment, and protecting the public.*

Historically, this has been a policy area where environmental priorities and energy development priorities were often in opposition. But that has changed. There is growing understanding that an unnecessarily slow environmental review process produces worse environmental outcomes, rather than better. America's current permitting process helps to lock-in the status quo of energy infrastructure by hamstringing new development and improvements. With drastic scaleup of clean energy technologies needed, reforming the permitting process can align both the desire for improved environmental outcomes and energy sector growth by unlocking a wave of more sustainable project development. This approach requires recognizing that some historical arguments against permitting reform need to be reconsidered, while also acknowledging the importance of a clear, transparent review process for projects to ensure safety.

> *In short, our goal is to find the "Goldilocks Zone" of Permitting Reform: striking a balance where review is neither too extensive such that it causes undue delays, nor too minimal such that it risks public and environmental harm, but is just right to ensure safety while facilitating efficient energy infrastructure development.*

The rankings below are intended to aid stakeholders in finding the Goldilocks Zone of an effective and politically viable package of reforms for energy infrastructure permitting system.

EXPLAINING THE RANKINGS

We ranked each of the options along two dimensions: Effectiveness and Controversy

Effectiveness

The likelihood of each policy option achieving the stated goal of increasing permitting efficiency. This metric also incorporates environmental and public protection, as those are core tenants of an efficient permitting process. However, because reasonable people may disagree on aspects of environmental and public protection, some of those considerations are also reflected in the Controversy ranking.

Controversy

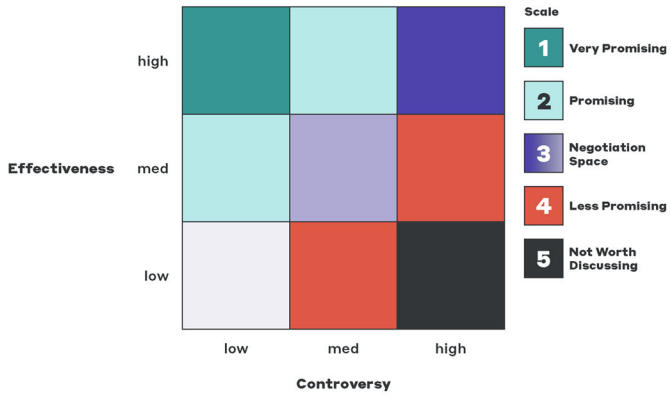
The degree and the intensity to which a particular policy option is likely to face opposition from stakeholders, including policymakers, developers, and the public. Factors that could drive opposition: litigation risk, risk of environmental harm, potential to harm specific communities, increasing the federal deficit, authority of the federal government over state or local governments, or deployment of certain types of energy technology over others. Some of these are more likely to face opposition from Democrats, some from Republicans, and some opposition may be more regional in nature.

HOW TO THINK ABOUT THE RANKINGS

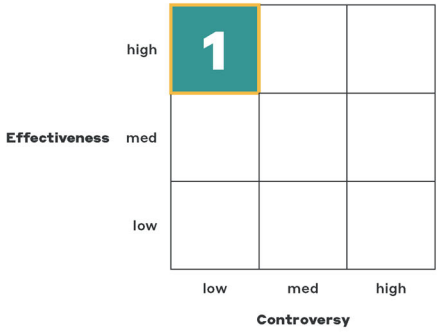
For purposes of deciding which policy options are worth spending the most time on, we divide them into five categories based on their Effectiveness and Controversy rankings:

1. **Very Promising** | High Effectiveness - Low Controversy
2. **Promising** | Effectiveness higher than Controversy
3. **Negotiation Space** | Effectiveness equal to Controversy
4. **Less Promising** | Effectiveness lower than Controversy
5. **Not Worth Discussing** | Low Effectiveness - High Controversy

The following section describes how we suggest thinking about these 5 categories and the options that fall within each.

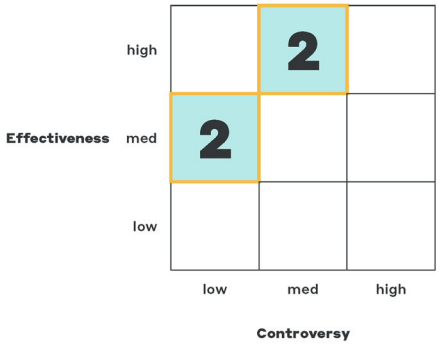


1. Very Promising | High Effectiveness — Low Controversy



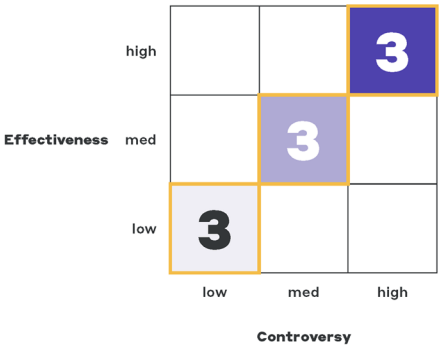
The "no brainer" rank. If a policy option would be highly effective and uncontroversial, it should be a top-tier candidate for inclusion in any permitting package. It should be noted that simply pulling from options in this rank is unlikely to lead to a major bipartisan permitting package. A major bipartisan permitting package is more likely to be anchored by policies that deal with transmission and judicial review which have equal rankings in the Effectiveness and Controversy categories, placing them in the "negotiation zone" as described in section 3 below.

2. Promising | Effectiveness higher than Controversy



Options in this category are more effective than they are controversial, making them good candidates for inclusion in a bipartisan permitting package. While not a true "no brainer," these options are worthy of further discussion and should be on the table for negotiators.

3. Negotiation Space | Effectiveness equal to Controversy

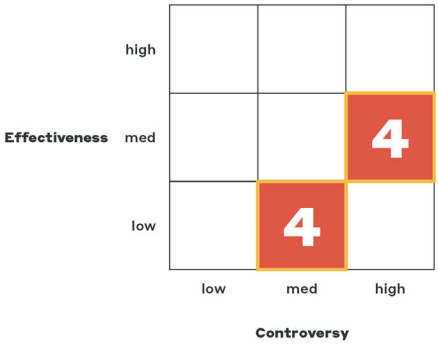


Options in this category are likely to form the core deal around which a bipartisan permitting package is made, making this perhaps the most interesting category. Specifically, we expect certain policy options around transmission and judicial review reforms to be the major negotiating points.

It's important to note that ranking many options in this category was challenging due to the variability in policy design, where effectiveness and controversy often scale together. For example, a policy option rated as Medium Effectiveness—Medium Controversy could potentially be classified as High Effectiveness—High Controversy or Low Effectiveness - Low Controversy, depending on the details of its design.

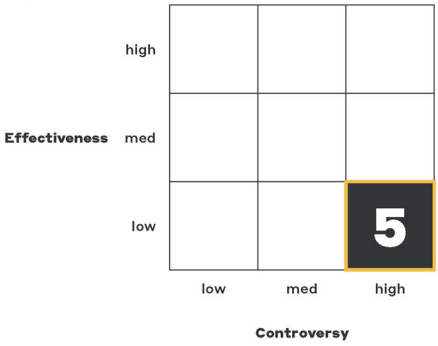
The key elements of the deal are likely to be in the High - High or Medium - Medium category. The Low - Low category may also contribute to policy options that may only move the needle a small amount but do so in a way that is non-controversial.

4. Less Promising | Effectiveness lower than Controversy



The options in this category are more controversial than they are effective. For that reason, these options are not the most likely to end up in a final agreement. That does not mean, however, that they are necessarily dead-upon-arrival. If policy options in this category are priorities for specific members of Congress who are central to the deal-making, they may still need to be considered.

5. Not Worth Discussing | Low Effectiveness — High Controversy



These options incite much greater controversy than the degree to which they might help, and in some cases may not help at all. For this reason, options in this category are not likely to make it into a compromise package and may not be worth spending time on.

RANKING THE OPTIONS

Below you will find each option discussed in the roundtables, grouped by topic type. Each policy option is ranked according to the two previously explained dimensions. Importantly, you will find a page number next to each option corresponding to the section of the previously published issue brief that explained each option in detail. We recommend reading the full explanation of an option, rather than relying solely on the one-sentence summary of the policy option.

Public Engagement

Policy Description		Effectiveness	Controversy
Establish and fund non-biased third parties to perform community education and engagement on energy technologies (not projects) [Pg. 18]	**3** Negotiation Space	Med	Med
Establish a monitoring committee for individual projects, comprised of local stakeholders, that ensures standards are met and provides an avenue for continued public engagement for the life of the project [Pg. 21]	**4** Less Promising	Med	High
Require or incentivize agencies to engage stakeholders before developing a public notice of intent to prepare an Environmental Impact Statement [Pg. 23]	**3** Negotiation Space	Med	Med
Conduct and provide resources for extensive community information hearings that address public comments and concerns of the community [Pg. 23]	**2** Promising	Med	Low
Establish a clearinghouse for information on environmental justice, best practices, and opportunities for community engagement [Pg. 24]	**4** Less Promising	Low	Med
Establish commissions to advise agencies on the design, implementation, and evaluation of public participation processes [Pg. 24]	**5** Not Worth Discussing	Low	High

Linear Infrastructure

Policy Description		Effectiveness	Controversy
Bolster FERC's backstop siting authority for transmission [Pg. 27]	**3** Negotiation Space	Med	Med
Provide FERC with primary siting authority for interstate transmission [Pg. 28]	**3** Negotiation Space	High	High
Provide FERC with cost allocation authority for transmission [Pg. 29]	**3** Negotiation Space	High	High
Minimum transfer requirement for transmission [Pg. 30]	**2** Promising	High	Med
Compensation for delays in interconnection queue [Pg. 32]	**5** Not Worth Discussing	Low	High
Create a new federal regime for siting hydrogen pipelines [Pg. 32]	**2** Promising	High	Med
Provide federal siting for hydrogen pipelines under the natural gas act [Pg. 33]	**2** Promising	High	Med
Provide FERC with backstop authority for CO_2 pipelines [Pg. 33]	**3** Negotiation Space	Med	Med
Provide FERC with primary siting authority for CO_2 pipelines [Pg. 33]	**3** Negotiation Space	High	High
Expand the definition of "energy corridors" to include CO_2 pipelines [Pg. 34]	**3** Negotiation Space	Low	Low
Clarify the definition of "discharge" in the Clean Water Act [Pg. 34]	**3** Negotiation Space	High	High
Improve the eminent domain process [Pg. 35]	**3** Negotiation Space	Med	Med

Judicial Review

Policy Description		Effectiveness	Controversy
Reduce the statute of limitations to 2 years (parity with transportation projects and FAST-41) [Pg. 38]	**2** Promising	Med	Low
Reduce the statute of limitations to 1 year [Pg. 38]	**2** Promising	High	Med
Reduce the statute of limitations to 6 months [Pg. 38]	**3** Negotiation Space	High	High
Reduce standing [Pg. 38]	**3** Negotiation Space	High	High
Eliminate judicial review for categorical exclusion designations [Pg. 39]	**3** Negotiation Space	Med	Med
Elevate litigation filed after final agency actions directly to U.S. Courts of Appeals [Pg. 39]	**2** Promising	Med	Low
Establish a technical court with jurisdiction over federal permitting decisions [Pg. 39]	**1** Very Promising	High	Low
Establish a permitting review board for energy projects [Pg. 40]	**1** Very Promising	High	Low
Setting court deadlines [Pg. 40]	**5** Not Worth Discussing	Low	High
Setting deadlines on agency remand [Pg. 40]	**2** Promising	Med	Low
Narrowing the scope of decisions [Pg. 40]	**2** Promising	Med	Low
Direct CEQ or the Permitting Council to develop a public database of NEPA lawsuits [Pg. 41]	**2** Promising	Med	Low

Remaining NEPA Reform

Policy Description		Effectiveness	Controversy
Clarify actions that trigger NEPA review [Pg. 44]	3 Negotiation Space	Med	Med
Further clarify and narrow the definition of "effects" [Pg. 46]	4 Less Promising	Low	Med
Expand utilization of programmatic reviews [Pg. 47]	2 Promising	Med	Low
Expand utilization of categorical exclusions [Pg. 48]	2 Promising	High	Med
Eliminate requirement for agencies to publish full environmental assessment document [Pg. 48]	5 Not Worth Discussing	Low	High
NEPA delegation to states [Pg. 49]	3 Negotiation Space	Med	Med
Competitive Grant Program for states to improve state-level permitting (carrot) [Pg. 49]	2 Promising	Med	Low
Restrict federal funding from states if they don't have efficient state-level permitting (stick) [Pg. 50]	4 Less Promising	Med	High
Enforcement mechanism for agency deadlines: agency pays fee to project sponsor for every day past deadline [Pg. 50]	5 Not Worth Discussing	Low	High
Enforcement mechanism for agency deadlines: automatic approval if deadline is missed [Pg. 50]	4 Less Promising	Med	High
Enforcement mechanism for agency deadlines: increased transparency [Pg. 50]	2 Promising	Med	Low
Provide agencies with additional resources and funding [Pg. 51]	2 Promising	High	Med

Nuclear Energy Licensing and Permitting

Policy Description		Effectiveness	Controversy
Change the NRC environmental review process so that advanced reactors do not automatically require an Environmental Impact Statement (EIS) [Pg. 55]	**1** Very Promising	High	Low
Require the NRC to create and utilize a generic EIS for the construction and operation of advanced nuclear reactors [Pg. 57]	**2** Promising	Med	Low
Require the NRC to develop a process for timely environmental review of nuclear projects that reuse brownfield sites (e.g., coal-to-nuclear projects) [Pg. 58]	**1** Very Promising	High	Low
Increase the NRC off-fee funding and make agency funding for infrastructure, technology upgrades, and training activities non-fee-dependent [Pg. 59]	**2** Promising	High	Med
Eliminate license review fees for new advanced nuclear reactors [Pg. 60]	**3** Negotiation Space	Med	Med
Establish and enforce timelines for each stage of the licensing and permitting process [Pg. 61]	**1** Very Promising	High	Low
Eliminate uncontested mandatory hearings from the licensing process for new reactors [Pg. 62]	**2** Promising	Med	Low
Replace court-like hearings on contested environmental issues in license applications with a public comment process like that conducted by other federal agencies [Pg. 62]	**4** Less Promising	Low	Med
Require the NRC's Advisory Committee on Reactor Safeguards to review only novel or safety-significant issues rather than all applications [Pg. 64]	**2** Promising	Med	Low

Technology Specific Reforms

Policy Description		Effectiveness	Controversy
Critical Minerals			
Expand the 2015 Fixing America's Surface Transportation Act (FAST-41) to include all federally regulated mining, processing, and refining projects for critical minerals [Pg. 71]	**4** Less Promising	Low	Med
Allow the Environmental Protection Agency to temporarily waive Clean Air Act and Solid Waste Disposal Act requirements for the processing of critical minerals if a shortage causes national security concerns [Pg. 72]	**5** Not Worth Discussing	Low	High
Require mining companies to provide financial assurance in their reclamation plans [Pg. 72]	**3** Negotiation Space	Med	Med
Create incentives for third parties to clean up abandoned mines, including by limiting liability for organizations that undertake cleanup efforts [Pg. 73]	**1** Very Promising	High	Low
Provide enhanced guidance to mine operators by organizing pre-consultation meetings, designating cross-agency case workers, and improving reference materials [Pg. 74]	**3** Negotiation Space	Low	Low
Establish royalties for critical minerals extracted from federal lands [Pg. 74]	**5** Not Worth Discussing	Low	High
Carbon Capture and Storage			
Establish enforceable timeline for EPA to process state Class VI primacy applications [Pg. 75]	**2** Promising	High	Med
Allow EPA to issue aquifer exemptions for Class VI wells as is allowed for other well types [Pg. 76]	**3** Negotiation Space	Low	Low
Establish a categorical exclusion for adding carbon capture, utilization, and storage (CCUS) to an existing power plant or industrial facility [Pg. 77]	**3** Negotiation Space	High	High
Establish a categorical exclusion for adding additional direct air capture (DAC) facilities to an operational DAC hub [Pg. 77]	**1** Very Promising	High	Low

Policy Description		Effectiveness	Controversy
Geothermal			
Establish categorical exclusions for geothermal test wells [Pg. 78]	**1** Very Promising	High	Low
Clarify that geothermal lease reinstatement is not a 'major federal action' under NEPA [Pg. 79]	**2** Promising	Med	Low
Require annual federal lease sales for geothermal energy [Pg. 79]	**1** Very Promising	High	Low
Establish a 30-day timeline for reviewing geothermal drilling permits (GDPs) [Pg. 79]	**3** Negotiation Space	Med	Med
Clarify that geothermal projects on state or private lands in which the federal ownership interest is less than 50% are not subject to federal permitting requirements [Pg. 80]	**1** Very Promising	High	Low
Hydropower			
Affirm a 2-year licensing process for next-generation hydropower resources [Pg. 80]	**3** Negotiation Space	Med	Med
Exempt small hydropower projects that do not have significant environmental impacts from FERC licensing requirements [Pg. 81]	**3** Negotiation Space	Med	Med
Exempt closed-loop pumped storage projects that do not utilize federal land or impound navigable waters from FERC licensing requirements [Pg. 81]	**2** Promising	Med	Low

Bipartisan Policy Center

Empowering Communities while Streamlining Clean Infrastructure Permitting

Xan Fishman, John Jacobs, Owen Minott, Meron Tesfaye, Ph.D., Andy Winkler

Accelerating our permitting process for clean energy and other infrastructure projects is critical to lowering emissions, reducing energy costs, increasing energy reliability, and enhancing both our energy and supply chain security. At the same time, robust public engagement with local communities is crucial to ensure transparency and provide timely, comprehensive, and understandable information to those who are potentially impacted. An effective process will help to foster a trusted environment that in turn enhances the opportunity to develop "buy-in" and even potential partnerships. A fulsome and transparent community process will also result in better final project planning and reduce potential opposition

In April 2023, the Bipartisan Policy Center convened a private workshop that brought together experts from across the political spectrum to explore the pros and cons of specific reforms to improve public engagement and increase the efficiency of the permitting process. The goal of the workshop was not to identify a set of consensus recommendations. Rather, it was to solicit feedback on a menu of policy options. There was one point of consensus: community engagement reforms must be included in any politically viable legislative permitting reform package.

The workshop explored a set of specific policy options that were considered by participants, with a significant amount of the discussion focused on third-party involvement.

Option: Establish and fund non-biased third parties to perform community education and engagement on energy technologies (not projects)

Because the onus for community engagement activities currently falls on project sponsors, it is natural for local communities to have at least some level of apprehension, even distrust, with developers who have a profit motive associated with the project. Workshop participants discussed having a third-party entity perform community engagement on technology types, rather than specific projects, to educate the community on the specifics of the technology, infrastructure needs, science, likely generic local impacts, and safety considerations. Funding a non-biased third-party with technology expertise to perform upfront community engagement and technical education could unlock early project efficiency gains. Utilizing an organization with repeated experience and expertise in the technology and process should give local communities a trusted resource and partner while serving to reduce delays associated with the permitting process. Participants noted that information sharing could be reciprocal, with the third-party gaining knowledge on community concerns so they can be addressed in project planning and environmental reviews.

Participants discussed whether the use of a third-party should be optional or mandatory. A mandatory approach would create a new baseline for community engagement but would, unfortunately, add to the already cumbersome permitting process. For that reason, most participants preferred not requiring this step for specific projects, but rather developing the capacity to provide this service for large projects where it may be more useful.

Some participants argued that the third-party approach may help educate communities, but would not solve the issue of disadvantaged stakeholders having neither the time or resources to engage in the process. This was acknowledged and BPC moderators reiterated that these policy options are not mutually exclusive—no single option discussed would solve each and every problem, and that some combination of these options could be included in final legislation—with the ultimate goal being an early, comprehensive and trusted community engagement and education process that would lead to reduced delays for worthy projects.

Participants identified two major policy design choices that would impact the effectiveness of the policy:

WHO IS THE THIRD PARTY?

There are numerous options for who the third party is, each bringing their own advantages and disadvantages. Participants identified that the third party must be trusted by the community, as well as the developers, to be neutral experts not advancing any ideological or profit-driven perspective. Participants also noted that this may require using different entities in different parts of the country depending on which local or regional entity can maintain that position of trust. Participants generally agreed that the third party would be less trustworthy if it were politically appointed. If the third party has a government affiliation, the steps would be needed to ensure confidence with both the community and project sponsor that the entity is without political or technology bias.

The following entities were proposed as possibly filling the third-party role:

USDA Cooperative Extension System

- **Pros:** The Department of Agriculture's Cooperative Extension System (CES) is a nationwide network, with an office in nearly all 3,000 U.S. counties, of educators and researchers that aims to provide mostly rural communities and farmers with practical, research-based information on best practices and has experience facilitating community engagement.
- **Cons:** CES is already resource constrained and is not currently equipped to take on such a large role in the permitting process. Additionally, permitting is not just a rural issue, and the program may need to become better equipped to work with urban and suburban communities.

DOE Foundation for Energy Security and Innovation

- **Pros:** The recently established Foundation for Energy Security and Innovation (FESI) is a private non-profit organization designed to involve the private sector in DOE's effort of commercializing and deploying energy technologies. FESI's unique structure with an insulated board of directors and the ability to mix philanthropic donations with public funding makes them well suited for a third-party role.
- **Cons:** FESI is not a well-established institution with roots in communities across the country, making it difficult to establish trust or build administrative capacity. FESI might be better equipped for a high-level role in aggregating funding and providing technology specific expertise that can be matched and disbursed to other third-party entities performing community engagement.

Community Colleges or Universities

- **Pros:** Community colleges and universities are spread across the country in diverse regions and would be well equipped to play an educational role when it comes to describing the benefits, impacts, and needs of specific energy technologies. Additionally, universities sometimes house federal entities, such as the EPA Environmental Finance Centers, which may prove a valuable resource and increase coordination between the universities and federal agencies.
- **Cons:** Community colleges and universities often have little to no experience with community engagement and may not have the expertise to discuss site-specific or regulatory issues. If the university does house a federal entity, it will also need to ensure that it maintains trust as a non-biased third party.

The Permitting Council

- **Pros:** Permanently reauthorized as part of the Bipartisan Infrastructure Law, the Permitting Council is an existing government agency with expertise both in the permitting process and in interacting with all of the other federal agencies that are involved in environmental reviews.
- **Cons:** Their current expertise is in permitting and intergovernmental coordination, not community engagement or education on technologies.

It is worth noting that each of these ideas above can be combined into one model where FESI and/or the Permitting Council pools resources, best practices, and educational materials which they then distribute in a partnership model to more local entities such as the CES or local academic institutions who act as the face of public engagement.

HOW IS THE THIRD-PARTY FUNDED?

A key policy design and concern of the third-party model is how the entity will be funded. Participants quickly pointed out that this model could be very expensive. Proposals on how to fund the entity are sorted into four buckets: project developers, trade associations, philanthropy, and the government.

Project Developers

- Developers benefit from third-party engagement as it can lead to more informed communities regarding their technology or project and help to minimize public opposition. It could therefore make sense for developers to contribute funding to this public education and

engagement effort, which would save them time and resources in the long run. One concern with this approach is maintaining the level of trust between the local community and third party and avoiding the appearance or actual conflicts of interest.

Trade Associations

- Trade associations could pool funding to support community engagement on specific technology types. Trade associations' members would benefit from more community education on their specific technology. Spreading the funding across members also keeps funding for community engagement one more step removed from individual projects.

Philanthropy

- Particularly if FESI is involved, philanthropic dollars could be leveraged to supplement other funding sources. There are many philanthropies focusing both on deploying clean energy technologies and on community engagement and environmental justice that may be interested in supporting this effort.

Government

- Agencies already have funding for environmental review and community engagement, which could be utilized here or leveraged through FESI. Participants noted that current funding levels are not enough to take on this new task and also implement an efficient permitting system. They also noted that the Permitting Council's Environmental Review Improvement Fund is an already existing source of potential funding for project developers to contribute to permitting expenses.

While there was no true consensus surrounding Option 1, an overwhelming majority of participants recognized the value and supported the concept assuming implementation details were designed well.

Option 2: Establish a monitoring committee for individual projects comprised of local stakeholders that ensures standards are met and provides an avenue for continued public engagement for the life of the project.

This recommendation is based off Quebec's community engagement model used for mining projects. The recommendation drew strong support from some participants who view it as a solution that places community members at the center of project development and delivery, and skepticism from other participants who thought the scale would be

too resource intensive and the authority of committees would need to be carefully defined to ensure the committees do not become an additional de facto approver/negotiator of projects. Participants also noted that the monitoring committees could interact as community representatives with the third-party in the recommendation above.

Participants supporting the recommendation highlighted that establishing a monitoring committee comprised of local stakeholders would provide a means for continued public engagement throughout the life of a project, which may reassure communities that standards will be adhered to years down the line. Committees could also help filter more legitimate community concerns from less legitimate, sometimes aesthetic concerns. By filtering and communicating concerns to agencies, the committees would be a valuable resource to agencies to identify and address the most pressing concerns.

Participants skeptical of the idea noted the sheer scale of the recommendation. Providing the committees with resources and their members with compensation could prove expensive. Participants also highlighted the importance of getting the committees' authority right. There was general consensus that the committees should not have jurisdiction to approve or deny projects—or even the perceived authority to do so—which could add an extra veto point. Instead, the committee should act as a forum for aggregating and communicating community concerns to agencies.

HOW IS COMMITTEE PARTICIPATION DECIDED?

There was consensus that the committee should consist of local stakeholders and not be decided by the federal government, but participants proposed different options for how to choose members.

Decided by local government

- The local government might be well informed on which community members are most knowledgeable of the technology or specific site location. This design also allows voters to have some oversight on the process by keeping local government representatives accountable.

Jury duty model

- Another proposal would use the jury duty model where members of the community are selected at random and compensated for their participation. This design would help mitigate the concern that these types of committees only represent individuals who have the time and resources to engage and ensure a more representative sample of the local population is involved.

Option 3: Require or incentivize agencies to engage stakeholders before developing a public notice of intent to prepare an Environmental Impact Statement.

In its 2021 report, BPC's Smarter, Cleaner, Faster Task Force recommended that Congress should codify the National Environmental Policy Act (NEPA) 2020 regulations' expansion of scoping and directing all agencies to prioritize early engagement and consensus building. Specifically, NEPA 2020 regulations would require agencies to engage stakeholders before developing a public notice of intent to prepare an Environmental Impact Statement (EIS) and to include specific information for, and to solicit information from, the public regarding proposed actions. Codifying this regulation could facilitate early public buy-in with the public and other stakeholders.

Participants agreed with the potential benefits of early engagement, noting that it helps developers, as well as communities, when residents provide feedback on a project at an earlier stage in development. Early engagement may also reduce the risk of litigation by community members that feel their concerns were not addressed through the standard process.

However, some voiced concern that this may also open up a new avenue for litigation if agencies do not conduct early engagement, which could slow projects down and disincentivize development. Therefore, participants questioned whether early engagement should be a requirement or whether there should be incentives to encourage early engagement. For example, one participant suggested that there could be a federal incentive to fast-track permitting for projects with early engagement.

Option 4: Conduct and provide resources for extensive community information hearings that address public comments and concerns of the community.

In Québec, the Bureau d'audiences publiques sur l'environnement (BAPE) serves as an independent government entity providing citizens with a platform to publicly express their views on proposed infrastructure and energy projects. BAPE posts information online and hosts hearings with community members, sharing their findings with the Québec government. The United States could facilitate a similar process by providing resources for such community information hearings.

Some participants supported the idea of better equipping impacted communities to represent themselves, as opposed to having other entities represent impacted communities. For example, the Impact Assessment Agency of Canada provides funding to reduce financial barriers for

members of the public to participate in the assessment process. Participants noted that this model could allow communities to hire representatives and experts they trust in order to feel that their interests are protected diligently. Other participants felt that hearings are less important, but providing resources for participation, such as technical assistance, would be more effective.

Option 5: Establish a clearinghouse for information on environmental justice, best practices, and opportunities for community engagement.

The Environmental Justice for All Act, introduced in the 117th Congress, included a measure to establish a web-based Environmental Justice (EJ) Clearinghouse, including:

- Information describing the EPA's efforts to advance EJ
- Providing EPA training materials to help individuals and employees carry out EJ activities
- Links to web pages that describe EJ activities of other Federal agencies
- A directory of individuals who possess technical expertise in issues relating to EJ
- A directory of nonprofit and community-based organizations that address EJ issues

While participants noted that a hub of standards and best practices could be a useful tool, some expressed a concern that any guidance provided in the Clearinghouse would become de facto standards for other agencies to promote with little oversight and create increased litigation risk. Other participants noted that CEQ already provides resources and guidance on EJ activities, and thus there could be significant redundance in creating a new platform.

Option 6: Establish commissions to advise agencies on the design, implementation, and evaluation of public participation processes

Commissions to advise agencies on public participation processes can provide a structured approach to developing and implementing effective public participation policies. These commissions can help agencies identify best practices, evaluate the effectiveness of their existing policies, and develop new strategies for engaging the public in decision-making processes.

However, workshop participants showed a general consensus of disapproval for this recommendation. Participants argued that commissions would add another layer of bureaucracy without addressing the contention between communities and developers. As with the

previous option, participants noted that the "best practices" established by the commission may become de facto standards with little oversight and that these commissions may be redundant of CEQ's role in the process.

REMAINING OPTIONS THAT WERE NOT DISCUSSED IN-DEPTH

The options listed below were also part of the conversation, but time constraints prevented a more detailed discussion on their pros and cons.

- Establish an accessible online central hub for information on individual projects, public comments, and information about community hearings.
- Develop simple, intuitive agency formats for public involvement in project permitting, public hearings, and notice and comment stages.
- For projects involving multiple states, provide incentives and resources for coordinating community engagement.
- Incentivize developers to submit community benefit plans, where developers outline how they plan to serve communities through jobs and other economic benefits.

Conclusion

While this roundtable was not designed to forge consensus, it did highlight the significant areas of bipartisan interest and the need for more creative problem solving. There was broad agreement that early and trusted community engagement is an effective tool in reducing permitting delays. The third-party and monitoring committee options specifically garnered significant interest and debate over program design decisions. Additionally, requiring or incentivizing agencies to conduct stakeholder engagement efforts prior to the EIS also received general support by participants.

This workshop was the first of a series that BPC will be convening over the coming months to facilitate across the aisle conversations on specific permitting reform considerations, including technology specific needs, administrative bureaucracy, and judicial review. Each workshop will be followed by a similar takeaways document highlighting areas with bipartisan interest that can be built upon.

Bipartisan Policy Center

Linear Infrastructure: Options for Efficient Permitting of Transmission and Pipeline Infrastructure

Accelerating the federal permitting process for clean energy and other infrastructure projects is critical to lowering emissions, reducing energy costs, increasing energy reliability, and enhancing U.S. energy and supply chain security. Building linear infrastructure—transmission lines and pipelines for hydrogen, carbon dioxide (CO_2), and natural gas—is essential to meeting these goals. Linear infrastructure transports energy, fuels, and CO_2 from the point of creation to where they are needed, an enormous and often underrecognized task that requires substantial investment and planning. The permitting process for interstate linear infrastructure projects introduces especially unique and complex challenges. In May 2023, the Bipartisan Policy Center convened a private roundtable under the Chatham House Rule that brought together experts from across the political spectrum to explore a menu of options for improving the permitting system for linear infrastructure and achieving the shared goals of energy reliability and affordability, environmental responsibility, public participation, and decarbonization.

This roundtable was the second in a series on permitting. The first roundtable focused on public engagement, with the takeaways published in the issue brief titled *Empowering Communities While Streamlining Clean Infrastructure Permitting*.[1] The goal of this roundtable was to have robust discussions on a range of policy options, weighing the pros and cons of each.

Xan Fishman, Marty Hall, John Jacobs, and Lori Pickford

ENERGY PROGRAM
July 2023

INTERSTATE TRANSMISSION

Electric transmission is the means to move large amounts of electricity from generation sources (such as wind, solar, nuclear, natural gas, and coal) to the point of distribution, and eventually to consumers. The transmission network is like an interstate highway system for electricity, and the electric distribution system is like the network of state and local roads. As electricity demand grows and the economy becomes more electrified, the need for new transmission increases and will continue to rise rapidly. New transmission infrastructure is necessary to ensure that the U.S. energy system is secure, reliable, resilient, and efficient, while also allowing regions with untapped energy generation potential to capitalize on the economic opportunity.

Issuing permits for interstate transmission infrastructure often requires action by multiple levels of government (federal, state, local, tribal, etc.) across multiple states—each with its own processes and rules. This labyrinth can make the permitting process cumbersome, contentious, and time-consuming, particularly for geographically extensive interstate transmission projects crossing multiple states. Obtaining permits for a complex interstate transmission line can take upward of 10 years. Meeting expected power demand, particularly from low-carbon emission sources, in an increasingly electrified economy cannot be achieved if the permitting process takes more than a decade to connect new energy projects to the grid.

Roundtable participants discussed several ideas on how the federal government could speed up the permitting and deployment of interstate transmission. Participants generally agreed that any political consensus or legislative deal on comprehensive permitting reform would have to include meaningful changes that accelerated and increased transmission build-out.

Option: Bolster FERC's Backstop Siting Authority for Transmission

Roundtable participants discussed bolstering the Federal Energy Regulatory Commission's (FERC) existing backstop siting authority, which was included in the Bipartisan Infrastructure Law (BIL) but is still being implemented. The BIL directs the U.S. Department of Energy (DOE) to designate National Interest Electric Transmission Corridors[2] through the issuance of a study and a report within three years. BIL includes language authorizing FERC to issue a permit where a state authority "has denied an application seeking approval" for the siting of electric transmission facilities located within a DOE-designated National Interest Corridor. Transmission advocates have argued that this two-step procedure of first requiring DOE corridor designation and only then allowing FERC to step in is too cumbersome of a process.

Recent legislative proposals have embraced expanding FERC's backstop authority to issue permits for the construction of transmission infrastructure without requiring a DOE corridor designation. For example, the Building American Energy

Security Act of 2023[3] (S. 1399), introduced by Sen. Joe Manchin (D-WV), would give FERC backstop authority to permit transmission for lines of "national interest," if a state fails to permit the project after one year from application. The bill defines an interstate or interregional line as being in the national interest when the line is needed to reduce transmission congestion in interstate commerce, protect or benefit consumers, and enhance energy independence.

Although some roundtable participants voiced concern that FERC could overrule states and issue permits for a transmission line that had been explicitly denied, most participants generally supported both the commission's backstop siting authority and bolstering it to improve FERC's effectiveness. Some participants were reluctant to back legislation that would supersede FERC's current efforts to implement its recently provided backstop authority under the Bipartisan Infrastructure Law. They preferred, instead, to wait for DOE to issue its report on National Interest Corridors and to see how FERC's implementation proceeds. Additionally, some participants felt that support for siting authority would be broader if it was limited to interregional transmission instead of interstate. Interregional transmission can be higher voltage (which allows electricity to be transported more efficiently across longer distances), can cross a region or numerous states, and can open up significant opportunities to move power long distances to where it is needed (load centers).

Option: Provide FERC with Primary Siting Authority for Interstate Transmission

During the discussion, roundtable participants explored granting FERC primary siting authority for interstate transmission lines. Such a step would resemble the authority FERC currently possesses for siting natural gas pipelines, in which the agency has the primary permitting responsibility. By having primary siting authority, FERC would take the lead in approving the location of and issuing permits for interstate transmission lines, rather than the current process which relies on multiple state and local jurisdictions.

Under this proposal, FERC would have the authority to grant permits for transmission lines, independent of state actions, while still undergoing the necessary environmental review process. This would effectively circumvent potential delays caused by state procedures, including instances of inaction. The result would be a more streamlined and predictable process by reducing jurisdictional overlap. Many participants in the roundtable supported this proposal, believing that expanding FERC's authority to expedite transmission lines' permitting process was logical and necessary.

However, some participants raised concerns about FERC potentially overriding state and utility decisions, particularly in "regulated states" where state utility commissions have the ultimate authority to ensure reliability and approve electric

system plans, including transmission. Others noted that FERC already regulates wholesale markets, including in regulated states, so expanding the commission's permitting authority would not be entirely new in those jurisdictions. Participants agreed that such an expansion would accelerate the transmission permitting process. But they believed that the most favorable outcome would be a cooperative interregional planning approach over one that creates adversarial relationships with the states. Most participants felt that expanding FERC's authority should not diminish the goal of a cooperative approach to planning projects before permitting.

Option: Provide FERC with Cost Allocation Authority for Transmission

How stakeholders share the costs of building a transmission project affects the timeline and ability to permit the project. Ratepayers (the customers actually using the electricity) generally bear the cost of new transmission lines based on the principle that the "beneficiary pays" as determined by the state or regional transmission authorities. These authorities, in turn, rely on formulas to assign the costs to beneficiaries.

Current cost allocation methods differ by region and state, each having its own formulaic approach to distributing transmission costs to beneficiaries. For example, some states calculate "benefits" specific to the economic and reliability effects of the project, while other states' formulas include the "benefits" of greenhouse gas reductions. This approach generally works for short and intrastate or intraregional transmission. However, allocating costs associated with lines that cross several state jurisdictions or multiple transmission organizations that employ different formulas can become complicated and uncertain, making planning for long transmission lines more complex and contentious. In addition, new transmission often needs subscribers to show benefits to get permits, but new subscribers are more challenging to attract without permits and a clear understanding of the cost allocation. It is the classic chicken-and-egg situation. Simply put, cost allocation is vital in determining whether and how fast new transmission is built.

A reform that many roundtable participants felt is necessary to accelerate the deployment of transmission is granting FERC the authority to determine the cost allocation formula. Similar to expanding FERC's authority to permit new transmission, such clear authority regarding the cost allocation formula could help to expedite the building of interstate transmission by significantly streamlining the process. Participants said such a reform is especially important for renewable energy, which often must travel long distances from generation to consumer (e.g., utility-scale solar, onshore and offshore wind energy projects). Participants also discussed refinements to cost allocation, including a clear understanding of what constitutes "benefits" and ensuring the FERC process was closely aligned with cooperative planning with states and regional transmission authorities.

Some were concerned that if reform is done incorrectly, stakeholders could view expanded FERC authority as undermining the current planning processes utilized

by states, Regional Transmission Organizations (RTOs), and Independent System Operators (ISOs). Some participants noted that FERC is already working on cost allocation rules and that expediting that process might be better than creating a new authority in statute. Even so, many participants advocated for the certainty of having the authority enshrined in statute, thereby reducing the inevitable pendulum swings that come with new federal administrations and FERC majorities.

As with expanding FERC authority to permit transmission, some participants were concerned about providing FERC authority over cost allocation. Again, the questions were particularly acute concerning "regulated" states. Concerns centered on broadly constructed authorities that left much to FERC's determination, such as the definitions of "national interest" and "beneficiaries," and little to bind its action. These problems could result in ratepayers in one state being required to pay for transmission that the state rejected and from which the ratepayer would receive little to no traditional benefit. Some participants noted that many ratepayers would benefit if issues such as grid reliability and resiliency and overall energy system efficiency were considered as benefits. However, including these benefits, as well as environmental benefits or lower costs to achieve policy goals, remains controversial.

In regulated states where the state commission caps utility rates, cost allocation by FERC could result in ratepayers paying more than approved or tolerated by the state commission and ratepayers, thus reducing the ability to make other necessary reliability or clean energy investments in the state. Participants who raised these concerns recognized this might be an unlikely scenario, but they noted the importance of cooperation with states and of clearly defining "benefit." Most participants agreed that cost allocation is an essential tool for accelerating the build-out of new transmission—if allocation is properly utilized geographically and with recognition of consensus planning.

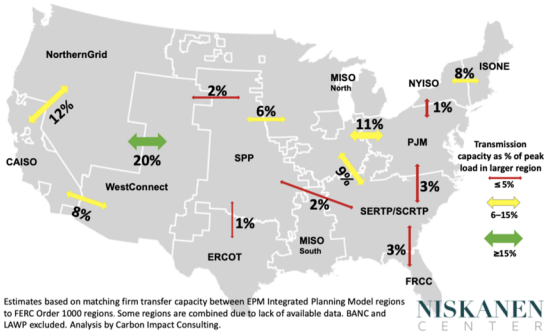
Additionally, participants broadly supported creating incentives for states and local communities to site interstate transmission through communities that otherwise would receive little to no benefit from the transmission. When moving electricity to end consumers from generation that is hundreds of miles away, the transmission will inevitably go through communities that will not receive any power or any tangible benefit. Participants agreed that developing a package of incentives for these communities would create a win-win scenario for the deployment of new transmission by reducing opposition to permitting.

Option: Minimum Transfer Requirement

Requiring regions to have a minimum capacity transfer capability is one potential option to increase the entire grid's reliability, as this ability could enhance the capability of one region to supplement the power needs of a neighboring region in times of high demand or reduced supply. As seen in the map (Figure 1, below) created by the Niskanen Center, the United States is divided into multiple power grid regions, and sometimes a region does not have enough capability to transfer power to a neighboring region in times of need.

Figure 1

Lack of transfer capacity leaves some regions more vulnerable



The Big Wires Act, proposed by Sen. John Hickenlooper (D-CO) and Rep. Scott Peters (D-CA) would require a minimum percentage of transfer capacity between each region. Increasing transfer capacity would entail having each pair of regions build additional transmission capacity that would be available during a severe weather event or times of critical grid instability such as the 2021 Texas power crisis. Some participants noted that Europe already does this and its system, by all accounts, is working without major problems.

Although participants generally agreed that providing power to neighboring grids is a legitimate goal, many differed on how to achieve it. All participants agreed that there are situations when requiring transfer capacity could be beneficial, but some warned that the policy should not be a "one size fits all" approach, and any such requirement should come through consensus with the regions. Participants also had questions about how ratemaking would work in those cases: who determines when and how much power to transfer, particularly between regulated states and unregulated states; what if both regions are experiencing similar situations; and who determines transfer routing.

One additional concern raised by participants was that a mandated transfer capacity could penalize states and regions that have already made the necessary investment to de-risk their own grid by requiring them to pay for additional transfer capacity to help de-risk adjacent grids.

Support for the value of minimum transfer was broad, but participants were keen to ensure that details were properly and transparently vetted and that any such requirement was tailored fairly to a region's specific needs.

Option: Compensation for Delays in Interconnection Queue

A final transmission issue discussed at the roundtable was requiring grid operators to compensate the owners of an energy generation project for costs related to unreasonable delays in winning approval to join the grid, known as interconnection queue delays. Currently, projects totaling 2,000 gigawatts[4] of generation capacity have requested a connection to the grid, which is more than 150% of current U.S. generation. Roundtable participants recognized that, too often, generation projects experience unreasonable delays in the queue, but there was an overwhelming consensus that Congress should not attempt to fix this problem and that FERC should take responsibility for addressing queue concerns. Participants noted that FERC is currently considering ways to reduce time in queues and expects to issue a final rule soon.

HYDROGEN PIPELINES

Due to significant federal investment, including private-sector incentives, in the Bipartisan Infrastructure Law, the Inflation Reduction Act, and other recently passed legislation, hydrogen is expected to play an essential role in the nation's clean energy future. Advancing hydrogen has enjoyed strong bipartisan support and significant private-sector interest. Efficiently transporting the anticipated mass quantities of hydrogen will require a significant build-out of pipelines dedicated to hydrogen transport. Today, no federal regulatory regime exists for the siting of interstate hydrogen pipelines, and all roundtable participants agreed that siting authority was necessary.

Participants discussed different options for federal authorities to site and permit this linear infrastructure. Much discussion concerned creating a regime specifically for hydrogen or expanding an existing regulatory system to include hydrogen pipelines. Regardless of the favored solution—creating a new statute or incorporating hydrogen into an existing law—participants agreed that FERC was the preferred jurisdictional agency for the authority.

Option: Create a New Federal Regime for Siting Hydrogen Pipelines

Most participants agreed that in a perfect world, a new statute would be developed for siting hydrogen pipelines. Participants recognized that hydrogen is unique. As such, it is preferrable to design a new regime specifically for hydrogen pipelines as opposed to utilizing an existing structure, such as the Natural Gas Act (NGA), which is designed for a commodity with different features. For example, natural gas is ultimately delivered to residential households, while hydrogen pipelines are unlikely to do so. A hydrogen-specific regime would be better suited for the industry; however, establishing and designing the regime could be difficult and time-consuming in the short run. This challenge could be addressed by leveraging the portions of existing NGA legislative text that would be appropriate for hydrogen pipelines.

Option: Provide Federal Siting for Hydrogen Pipelines Under the Natural Gas Act

Many participants felt it is more politically feasible and expeditious to expand the NGA to include hydrogen rather than Congress starting from scratch to develop a new statute. In addition, participants noted that the NGA provides FERC with a substantial amount of discretion that could be utilized to accommodate the uniqueness of hydrogen without significantly amending the NGA. NGA is also flexible to handle the blending of hydrogen and natural gas.

In sum, participants recognized the NGA's utility to meet the needs of hydrogen given the time it would take for Congress to develop a new hydrogen-specific law—and the potential risks that come with Congress writing a new law. In this case, some participants argued that politics and expedience make expanding the NGA to include hydrogen the preferred option over a new statute.

CARBON DIOXIDE PIPELINES

Carbon capture technology is widely recognized as necessary to reduce global emissions. Whether the technology is direct air capture or carbon capture in the industrial or power sectors, large investment by the government and private sector is expected to spur and significantly expand the use of carbon capture. Once captured, the CO_2 must be transported via pipeline for sequestration or utilization. However, like hydrogen, no federal regulatory regime has jurisdiction over siting CO_2 pipelines.

Option: Provide FERC with Backstop Authority for CO_2 Pipelines

There was a general consensus among participants that FERC should receive backstop authority for siting interstate CO_2 pipelines. Using this authority, a project sponsor would be able to request that the Commission take over the permitting of a pipeline if states delayed or denied permits. This is similar to the previous discussion on bolstering FERC's backstop for interstate transmission projects, although the process would not overlap with utility operations which is a complication for transmission projects. Concerns remain, however, regarding the potential for overriding state and local decisions. Participants preferred a collaborative process involving all relevant stakeholders to ensure that decisions are made collectively and with careful consideration.

Participants also noted that while CO_2 is not an energy commodity—which is noteworthy because FERC traditionally regulates only energy commodities—the commission has a long history of and expertise in siting similar types of pipelines, making the agency well suited for regulating the infrastructure. Participants added that FERC authority should come with a federal regulatory structure specific to the properties and use of CO_2.

Option: Provide FERC with Primary Siting Authority for CO_2 Pipelines

As with transmission, participants discussed providing FERC with primary siting authority for CO_2 pipelines in the same manner it has for natural gas pipelines. This policy would come with many of the same benefits that we have discussed previously in the context of transmission and natural gas pipelines, such as allowing FERC to act as the lead on the siting and permitting process without waiting for state or local action; this would streamline the process and prevent delays.

Option: Expand the Definition of "Energy Corridors" to Include CO_2 Pipelines

Another policy broadly supported by participants involved updating the DOE definition of Energy Corridors to include CO_2 pipelines. Even so, roundtable participants were skeptical about whether this change would accelerate deployment, partly because existing Energy Corridors do not necessarily align with routes and destinations most likely needed for CO_2 pipelines. Nevertheless, participants felt that there was no harm in the expansion and could, in limited cases, potentially provide a benefit.

NATURAL GAS PIPELINES

Roundtable participants considered reforms that could expedite permitting for natural gas pipelines. As previously discussed, FERC already has primary siting authority for natural gas pipelines. However, these pipelines often face challenges during the state certification process under the Clean Water Act, often by states that are seeking to block the pipelines for reasons unrelated to local water quality.

Option: Clarify the Definition of "Discharge" in the Clean Water Act

Participants discussed the merits of existing legislative proposals to clarify the Clean Water Act "discharge," which would apply only to the impact on water quality and not on other impacts such as air quality. Participants' views were generally mixed on this issue, with many reluctant to change the current regime for natural gas pipelines.

However, participants generally agreed that for Congress to reach agreement on broad and meaningful permitting reforms, the package might need to include reforms to the natural gas pipeline permitting process, and that a balance of reforms to enable the build-out of both transmission and natural gas pipelines was likely a political trade that stakeholders on the left and right could back.

ALL OF THE ABOVE

Although each type of linear infrastructure has unique needs, overarching permitting reforms can be applied to each to expedite the process and ensure all parties receive consideration.

Option: Improve Eminent Domain Process

Participants discussed and generally agreed on the need to improve the eminent domain process, including providing landowners with adequate opportunity to intervene and instructions on how to do so; reasonable timelines for remuneration; and rights to reclaim land if the permitting process fails. Additionally, the roundtable discussed rights of way, including notification to applicants and timelines for completion, as well as water rights of way to be granted, issued, or renewed for up to 50 years or in perpetuity if appropriate.

CONCLUSION

It is clear that there is bipartisan interest in further permitting reform legislation this year, and that transmission and pipeline reforms are likely to form much of the core of that bipartisan deal. There is a logic to treating different forms of linear infrastructure with rough parity regarding the regulatory approach to siting, acknowledging that each has a unique set of siting-related considerations (economic, environmental, land use, etc.) that are important to consider. BPC will continue this permitting roundtable series and publishing takeaway documents. The next one will focus on Judicial Review.

Endnotes

1. Available at: https://bipartisanpolicy.org/blog/clean-infrastructure-permitting/

2. Available at: https://www.energy.gov/gdo/articles/doe-proposes-national-interest-electric-transmission-corridor-designation-process

3. Available at: https://www.energy.senate.gov/services/files/3B223C58-3777-4371-B680-49619A88059D

4. Available at: https://www.canarymedia.com/articles/transmission/us-clean-energy-rollout-continues-to-be-hamstrung-by-grid-challenges#:~:text=Speeding%20up%20interconnection%20is%20a%20must&text=The%20lengthy%20process%20is%20producing,connect%20with%20the%20electric%20grid.

Bipartisan Policy Center

Reforming Judicial Review for Clean Infrastructure: A Bipartisan Approach

Xan Fishman, Marty Hall, John Jacobs, and Owen Minott

ENERGY PROGRAM
September 2023

For the United States to drastically cut greenhouse gas emissions, reduce energy costs, and bolster its supply chains, the nation needs to undertake clean energy and infrastructure projects at a historic pace. Meeting this challenge requires re-evaluating the litigation process for these projects. Current law provides opponents of a project continuous opportunities to sue. Regardless of how many cases the project developer might win, another lawsuit to stall development is always hanging over their head.

Judicial review is the means by which the federal government's actions are subject to legal challenges under the courts' authority: The judiciary can confirm, alter, or invalidate the action of agencies, including those related to permitting or siting under a federal statute. Currently, there are few restrictions on who can initiate legal action against a project, why the legal action can be initiated, or how many times legal action can be taken against a project.

According to a forthcoming study of 355 of the largest energy and transportation projects between 2010 and 2018, solar energy projects experienced the highest litigation rate, with nearly two-thirds facing a claimed National Environmental Policy Act (NEPA) violation.[1] Transmission and wind energy projects similarly face higher-than-average rates of litigation, as well as light-rail transit projects. Maintaining opportunities for people to file meritorious lawsuits against projects that have the potential to unduly harm the environment or communities is vital. Nevertheless, the status quo prevents the accelerated build-out of desperately needed infrastructure, all while increasing costs and discouraging investment.

In June 2023, the Bipartisan Policy Center convened a private roundtable under the Chatham House Rule with experts from across the political spectrum to explore ways to streamline the judicial review process while maintaining individual rights and providing certainty that the process would conclude in a reasonable amount of time.

This roundtable was the third in a series on permitting. The first roundtable focused on public engagement,[2] and the second focused on permitting linear infrastructure (i.e., transmission and pipelines).[3] The goal of this roundtable was to foster robust discussions on reforming the judicial review process related to permitting, with participants weighing the pros and cons of a variety of policy proposals from across the political spectrum.

Option: Reduce the Statute of Limitations

Under current law, initial lawsuits can be filed for up to six years after final permitting decisions. Participants generally agreed on the value of reducing that time frame. Once the specified time frame has passed, parties could no longer bring lawsuits against the permitting decision. There is precedent for such limitations: The Fixing America's Surface Transportation Act of 2015 reduced the statute of limitations for projects using the "FAST-41" process to two years, and the bipartisan Infrastructure Investment and Jobs Act (IIJA) reduced the statute of limitations for transportation projects to two years.

Providing specific time limitations will add a level of certainty for projects. This change will not only expedite projects but also reduce project costs associated with delays. One participant noted that uncertainty can increase costs by forcing the renegotiation of labor contracts or potentially losing seasonal construction opportunities. An additional risk, others pointed out, is facing higher interest rates on loans due to delays, increasing the cost and making some projects unviable.

Current proposals in Congress vary for placing time restrictions on legal challenges, ranging from 60 days up to three years. Some participants advocated shorter time limits, while others wanted to ensure that affected communities would have a longer period to file lawsuits. Although no consensus on a specific time frame was reached, the majority felt that a deadline of two years or less to file suit was acceptable, and most were comfortable with a statute of limitations under one year.

Option: Reduce Standing

Legal standing is the requirement that a person or group must be sufficiently impacted or connected to an action to file a lawsuit. Before litigation related to a project can move forward on the merits, standing must first be determined. Reducing standing ultimately limits parties not directly impacted by a project from filing lawsuits while preserving opportunities for litigation in cases involving potentially harmed communities. Some participants argued that this change would result in fewer frivolous lawsuits being filed against projects.

One proposal raised by participants, similar to a provision in H.R. 1 passed by the House of Representatives earlier this year, is to limit eligibility to those who raised concerns during the public comment period in the administrative process:[4] If a person or group did not express their concern during the process designed to receive such comment, then they would not be able to petition the courts after the administrative process ended. Some participants expressed concern that such limitations could shut persons out directly affected by a project but were not aware or able to participate in the administrative process. Participants also noted that if this change were adopted, agencies would need to do a better job advertising and make the public comment process accessible.

Option: Eliminate Judicial Review for Categorical Exclusion Designations

A categorical exclusion (CE) is a form of NEPA compliance for certain actions that a federal agency has determined do not have a significant impact on the environment. Those actions are therefore excluded from requiring further review in the form of an Environmental Assessment or Environmental Impact Statement. Participants discussed not allowing litigation for actions that receive a CE, providing these projects with certainty but eliminating the public's ability to sue. Participants were generally lukewarm about this proposal and did not think it should be prioritized, given the fact that projects that receive a CE are already less likely to face challenges. Some participants commented that the proposal's impact might grow if agencies create more CEs. However, others expressed concerns about granting excessive power to agencies to create CEs and shield projects from litigation.

Option: Elevate Litigation Filed after Final Agency Actions Directly to U.S. Courts of Appeals

One proposal that received near unanimous support at the roundtable was to elevate litigation directly to an appeals court following the administrative process. This option would speed up the entire litigation process by bypassing district courts and eliminating a step in the judicial process. Because litigation under NEPA is essentially an appeal of a government agency decision, participants agreed that moving directly to a court of appeals would streamline the process without undermining the rigor or thoroughness of judicial review.

Option: Establish a Technical Court with Jurisdiction Over Federal Permitting Decisions

Another proposal that received general backing is the establishment of a single technical federal court with jurisdiction over American Procedure Act reviews and NEPA decisions. This court would have the expertise to address these cases in an effective and timely manner. Participants noted that the U.S. Court of Appeals for the D.C. Circuit already has environmental

review expertise and could play this role well. Participants also noted that sending appeals directly to a single technical court would solve the issue of court shopping. Overall, participants agreed that this would be an effective solution that would provide certainty to project developers and appropriate judicial review.

Option: Establish a Permitting Review Board for Energy Projects

Similar to the Environmental Protection Agency's Environmental Appeals Board, an independent technical appeals board consisting of judges would act as a forum for parties to appeal permitting decisions for energy projects.[5] After a final permitting decision is issued, rather than filing an appeal with district courts, litigants could appeal to a review board that attempts to resolve disputes between the parties. If the board is unable to resolve a dispute, the appealing party can raise their concerns to U.S. Circuit Courts of Appeals. The review board could help concentrate permitting expertise in a single independent body and expeditiously resolve disputes. However, some roundtable participants added that appointments to this board would need to be handled with care to avoid it becoming politicized.

Option: Setting Court Deadlines

A proposal that participants found appealing was to set deadlines for court actions, such as requiring court decisions on federal permitting challenges within a time frame designated in statute. However, there was skepticism as to whether the legislative branch's decision to place time restrictions on the judiciary would withstand constitutional scrutiny, or whether the deadline would be enforceable.

Option: Setting Deadlines on Agency Remand

Some participants proposed requiring courts to set deadlines for agency action when the judges remanded a decision. (A remand is when the courts send the decision back to the agency for further consideration, or when a judge vacates a permit, which means the courts invalidated or canceled the permit.) In these cases, deadlines for agency action would provide needed certainty on the timeline for next steps for developers. However, as with the previous option, participants questioned whether requiring courts to set agency deadlines would withstand constitutional scrutiny. Congress could, however, set agency deadlines for agency action following remand, though a deadline set in statute would have less flexibility than one set by a court for a specific action under review.

Option: Narrowing the Scope of Decisions

Participants broadly supported narrowing judicial outcomes by directing the courts to specify aspects of review requiring additional analysis, revision, or remand. By specifying the particular aspects requiring attention, agencies

can focus their efforts on rectifying specific deficiencies without the need to entirely vacate permits. This would streamline the process and promote more efficient decision-making. The familiarity of this procedure to the D.C. Circuit also garnered support, as it builds upon existing practices that have proven to be effective in addressing complex regulatory challenges.

Option: Direct CEQ or the Permitting Council to Develop a Public Database of NEPA Lawsuits

Roundtable support was strong for the Council on Environmental Quality (CEQ) or the Permitting Council to establish a public database of NEPA lawsuits that would include information about timelines for both filing of initial claims and total length of the judicial review process.[6] CEQ previously tracked such data, but it stopped doing so in 2013.[7] One participant stressed that transparency is critical for accountability.

CONCLUSION

Among participants, there was broad, bipartisan recognition that unfettered judicial review can, and does, delay permitting and construction of clean energy projects and associated infrastructure. These delays harm efforts to rapidly lower emissions, reduce reliance on foreign adversaries, and accelerate the transition to cleaner energy. Participants also expressed a clear desire to preserve access to courts for those directly affected by projects where legitimate issues require judiciary involvement.

Although the Fiscal Responsibility Act included important permitting reforms, it did not address judicial review—which will be a necessary component of a more comprehensive bipartisan deal to help the nation meet its climate goals.[8] A comprehensive bipartisan permitting deal should include reforms to appropriately balance affected stakeholders' rights to sue with the need for a predictable timeline over which the process can come to a timely conclusion. BPC will continue to play a constructive role in bringing all sides together to meet this challenge. Our next roundtable in this series focuses on additional reforms to NEPA or general administrative bureaucracy that were not included in the Fiscal Responsibility Act.

Endnotes

1 M. Bennon and D. Wilson, "Environmental Litigation on Large Energy and Transport Infrastructure Projects in the United States," Environmental Law Reporter, Forthcoming, 2023. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4498938.

2 X. Fishman, J. Jacobs, et al., "Empowering Communities while Streamlining Clean Infrastructure Permitting," Bipartisan Policy Center, May 9, 2023. Available at: https://bipartisanpolicy.org/blog/clean-infrastructure-permitting/.

3 X. Fishman, M. Hall, et al., "Linear Infrastructure: Options for Efficient Permitting of Transmission and Pipeline Infrastructure," Bipartisan Policy Center, July 24, 2023. Available at: https://bipartisanpolicy.org/explainer/efficient-permitting-of-linear-infrastructure/.

4 H.R.1 – Lower Energy Costs Act. (2023-2024), 118th Congress. Available at: https://www.congress.gov bill/118th-congress/house-bill/1.

5 Environmental Appeals Board (EAB), U.S. Environmental Protection Agency. Available at: https://www.epa.gov/aboutepa/about-environmental-appeals-board-eab.

6 Federal Permitting Improvement Steering Council, U.S. Permitting Dashboard. Available at: https://www.permits.performance.gov/fpisc-content/federal-permitting-improvement-steering-council.

7 NEPA Litigation, National Environmental Protection Act. Available at: https://ceq.doe.gov/ceq-reports/litigation.html.

8 X. Fishman, J. Jacobs, O. Minott, "How Does the Fiscal Responsibility Act Reform Permitting and Environmental Review?" Bipartisan Policy Center, June 2, 2023. Available at: https://bipartisanpolicy.org/blog/fiscal-responsibility-act-permit-reform/.

Bipartisan Policy Center

Exploring NEPA Reforms Needed to Unlock Clean Energy Infrastructure

By Xan Fishman and John Jacobs

ENERGY PROGRAM
November 2023

Recent years have seen increased recognition of the importance of permitting reform to accelerate the implementation of clean energy and infrastructure projects. The Fiscal Responsibility Act of 2023 (FRA) makes meaningful progress toward reform in several areas, including by establishing timelines for federal permits, encouraging agencies to coordinate their reviews, clarifying which projects are not subject to the National Environmental Policy Act (NEPA), and promoting expanded use of programmatic reviews and categorical exclusions.[i]

These provisions are an important step in the right direction but additional changes to the federal permitting process are needed to enable more rapid deployment of clean energy technologies and advance critical national goals in terms of cutting emissions of carbon dioxide and other pollutants, reducing energy costs, improving grid reliability, and enhancing energy and supply chain security.

In July 2023, the Bipartisan Policy Center convened the fourth in a series of private roundtables on the topic of permitting reforms. The roundtable brought together experts from across the political spectrum to explore a menu of policy options that build on reforms in the FRA with the aim of further streamlining NEPA reviews and federal permitting processes. Roundtable participants sought to identify specific additional reforms that are still needed to accelerate deployment and to weigh the pros and cons of a variety of specific policy proposals.

BPC's previous permitting roundtables covered the following topics; each roundtable generated a policy brief that captures highlights from the discussion:

1. Public Engagement Roundtable[ii]
2. Permitting Linear Infrastructure Roundtable (i.e., transmission and pipelines)[iii]
3. Judicial Review Roundtable[iv]

The remainder of this brief summarizes perspectives and insights from the July 2023 roundtable about NEPA reform options that were not included in the FRA but that merit further policy consideration.

OPTION: CLARIFY ACTIONS THAT TRIGGER NEPA REVIEW

Under current law, the determination that a project constitutes or requires a "major federal action" automatically triggers NEPA review. However, it is not always clear what types of projects or actions should be considered "major federal action." The FRA amended NEPA to list, for the first time, categories of federal actions that are specifically *not* considered major federal actions. But there is no language in the law to clarify what types of projects definitely *are* considered major federal actions. Clarifying and refining the definition of a major federal action could reduce the number of projects that are subject to NEPA review, while freeing up resources so that projects that do fall under NEPA are reviewed in a more timely fashion.

In general, roundtable participants felt that there was value in fine-tuning the criteria used to trigger NEPA review. They also discussed various metrics that could be considered in developing these criteria.

Cost trigger

In setting federal regulations, a "major rule" is one that, among other criteria, has "an annual effect on the economy of $100 million or more."[v] Applying the same threshold to "major actions" in the context of NEPA review, one option would be use $100 million of economic impact as a trigger. While there was some support for this approach, however, many participants felt that a monetary trigger would be arbitrary and might not reflect the potential environmental impact of a project or federal action. Yet, projects with a price tag significantly less than $100 million could have greater environmental risks than many more expensive projects, if they are located in environmentally sensitive areas. Further, roundtable participants who were particularly interested in expediting transmission projects noted that few projects of this type would fall below a $100-million threshold and would not benefit from this reform regardless of the risks they present. Some participants favored a threshold based on percentage of federal funding

(as opposed to an absolute dollar figure). But this idea met with similar objections in terms of making the "major action" designation dependent on a single, arbitrary figure.

Federal permit trigger

Some participants proposed that projects that require a federal permit should automatically be defined as major actions. Projects that did not require a federal permit would thus be exempted from NEPA review, including those projects that currently trigger NEPA simply because they receive federal funding. This proposal had broad support from roundtable participants, who recognize the value of distinguishing federal "action" within the broader context of a project. Because most projects require some form of federal permit, however, this approach may have limited impact.

Interstate (cross-border) trigger

Recognizing that a federal role is inevitable when multiple states are involved, or when an international boundary is crossed, another option is to consider whether a project crosses borders, not necessarily as the sole criterion for making a "major federal action" determination, but as one of several criteria to be considered. Most participants agreed that in the context of efforts to narrow the number of projects subject to NEPA review, considering whether a project crosses borders is a reasonable trigger for inclusion under NEPA, with the caveat that this criterion would be part of a larger list of considerations.

Multiple federal action trigger

Instead of NEPA being triggered by a single action or federal investment, a project could be considered major federal action if (and only if) it is legally required to complete multiple authorizations, reviews, or studies by federal law. The idea in this approach is to ensure that projects with relatively minimal federal involvement will be excluded from the major federal action designation. Participants felt that this type of trigger would reduce the number of projects subject to NEPA, while also remaining consistent with the original intent of NEPA, which was to consider the environmental impacts of federal action. Other participants, however, were quick to point out that many environmental and environmental justice advocates would see this as a weakening of NEPA, and warned that the policy could face headwinds in Congress.

OPTION: FURTHER CLARIFY AND NARROW THE DEFINITION OF "EFFECTS"

Participants also discussed current legislative proposals that go beyond changes in the FRA to further clarify and narrow what is meant by "effects" in the context of a NEPA review. Language in the FRA aims to limit the effects an agency is required to consider to those that are "reasonably foreseeable."
Participants discussed current legislative proposals that would further narrow what effects could trigger NEPA review, including limiting consideration to effects that are:

- *not speculative, and not remote in time or geographically remote;*
- *have a reasonably close causal relationship to the action or alternative;*
- *are able to be prevented by a federal agency;*
- *would not occur absent the proposed action or alternative action.*

Advocates for these changes felt they could be implemented in a way that is consistent with the intent of NEPA, which is to establish a clear, common sense understanding of the environmental impacts of a potential action and limit agency discretion to ignore those impacts. In their view, greater clarity about which effects an agency can consider will make the permitting process more certain and more efficient, and promote more effective use of public resources. Other participants agreed that narrowing the definition of "effects" would be beneficial to project developers, increase certainty in the permitting process, and accelerate NEPA review. However, some participants also expressed concern that narrowing language could specifically prohibit agencies from considering greenhouse gas emissions. In addition, many participants felt that this proposal was politically fraught and would be strongly opposed by environmental groups.

Many roundtable participants particularly objected to limiting the definition of "effects" in a way that would not include greenhouse gas emissions. In their view, failure to consider such emissions would be inconsistent with assessing actual climate impact. Others noted that NEPA was intended to provide an understanding of the environmental impact of a project and noted that no single project would likely have a measurable impact on global temperatures. Some suggested that other non-NEPA policies were better suited for considering greenhouse gas emissions. All participants agreed that there is strong disagreement between Democrats and Republicans about whether climate change impacts should be included in NEPA reviews, making this a contentious policy change.

OPTION: EXPAND UTILIZATION OF PROGRAMMATIC REVIEWS

Roundtable participants strongly supported expanding the use of programmatic reviews to eliminate repetitive analyses and allow for more efficient preparation of Environmental Impact Statements (EISs) or Environmental Assessments (EAs). In a programmatic review, the NEPA process would be used to evaluate the environmental impacts of a broad-scale action or a class of routine, repetitive actions within a specific large region, thereby eliminating the need to individually analyze each repeated action.

Require agencies to expand the use of programmatic reviews

Most participants agreed that federal agencies should increase their use of programmatic reviews to increase efficiency and better use staff resources. But some participants cautioned against *requiring* agencies to take this step, out of concern that conducting programmatic reviews without any specific projects in mind could consume a lot of time and agency resources and end up being unnecessary or moot. Their view was that programmatic reviews should be tied to specific projects, which would then benefit from expedited review or limited judicial review.

Conduct programmatic reviews to pre-approve uses of federal land for particular types of projects

Another idea that received strong support was using programmatic reviews to pre-approve federal lands for clean infrastructure projects that would then be eligible for categorical exclusions. Participants discussed which regions should be considered for review. Some worried that the federal government may prefer specific regions for certain types of development, but these preferences may not align with the needs of project developers and fail to attract proposals. These participants stressed the need to ensure that pre-approved regions will be economically and geographically attractive for project developers. Many favored establishing an advisory group that includes public and private sector perspectives to help guide decisions and recognize what is needed to deliver value to project investors. The idea of an advisory group prompted a related concern that outsized industry input could outweigh community input, which might mean that additional measures are needed to ensure that community engagement receives strong consideration when deciding which regions to review.

An alternative approach for specially designated federal regions would be to establish a process wherein states and local communities identify and pre-approve sites for projects that would enjoy streamlined and expedited approval. This bottom-up approach appealed to many participants, both in terms of ensuring project desirability as well as guaranteeing community involvement.

OPTION: EXPAND UTILIZATION OF CATEGORICAL EXCLUSIONS

Expanded use of categorical exclusions (CEs) would help expedite permitting and ensure that staff resources are focused on projects of significant impact. There was broad consensus among roundtable participants that agencies should be required to seek ways to establish new CEs, including by issuing requests for information (RFIs) to solicit ideas for new CEs and by reviewing CEs on a periodic basis. There was also agreement about the need to update CEs to keep pace with new developments, such as expanding existing CEs for oil and gas projects so that they can be applied to geothermal projects. Participants noted that there is more of an appetite in Congress for legislating targeted CEs than there is for making broader definitional changes in the NEPA statute.

OPTION: REFORM ENVIRONMENTAL ASSESSMENT REQUIREMENTS

For a project to be approved without undergoing a full EIS, it must receive a "Finding of No Significant Impact" (FONSI). However, an EA must first be conducted to make a FONSI determination. EAs are a significant procedural undertaking, yet they produce a FONSI determination in more than 99% of cases.[vi]

One proposal discussed at the roundtable was to allow agencies to issue a FONSI determination without preparing a formal EA document. This would give agencies the option to base FONSI determinations on internal deliberations while avoiding the public process requirements of a formal EA. Roundtable participants were generally open to reforms that reduce paperwork delays in permitting. However, some pointed out that the EA itself is what allows an agency to avoid a full EIS and helps agency decisions withstand legal challenges. Additionally, participants questioned whether this proposal would have a significant impact. Even if a FONSI determination is made as an internal agency decision rather than on the basis of an EA, agencies may still need to utilize an internal process similar to an EA so that their determinations stand up to legal scrutiny. Ultimately, many participants felt that this proposal needed to be refined further.

OPTION: NEPA DELEGATION TO STATES

Another idea discussed at the roundtable was to broaden NEPA assignments to states, similar to the mechanism that is already available for highway projects under federal statute. Generally speaking, the Secretary of Transportation, at a state's request, can assign the NEPA responsibilities of

the Federal Highway Administration (FHWA) to the requesting state. The state then assumes responsibility for project review in exchange for a faster federal review. These agreements are executed through a renewable five-year Memorandum of Understanding and the FHWA conducts audits to ensure that states are in compliance with the MOU. This option could be expanded beyond transportation projects to energy and other infrastructure projects. Participants largely agreed that the idea has potential and expressed support for state delegation if it comes with appropriate criteria and oversight. But participants also questioned whether states would be interested in assuming responsibility for NEPA review. Currently, only a small handful of states have a NEPA Assignment from FHWA, so there may not be significant interest in broadening the use of this delegation. One example of such delegation in the energy space is state primacy for Class VI well review for underground carbon dioxide sequestration. Two states currently have primacy for Class VI well review and others have applied. Funding to help more states set up and apply for Class VI primacy was authorized in the Bipartisan Infrastructure Law.

OPTION: COMPETITIVE GRANT PROGRAM FOR STATES (CARROT)

Roundtable participants discussed the merits of a carrot approach to permitting reform – in this case, using federal grants to incentivize states to increase the efficiency of their permitting systems and align more closely with the federal system. If grants were tied to outcomes, then states would benefit from improving permitting processes and performance, likely leading to accelerated deployment of projects. Financial incentives could also be designed to require alignment of state and federal processes and timelines, reductions in redundant permitting requirements, and a sustained pace of review. While there was strong support for this concept in principle, participants expressed concern that it would require significant funding to ensure that grants are sizable enough to motivate states to rework their own permitting procedures.

OPTION: RESTRICT FEDERAL FUNDING FROM STATES (STICK)

As an alternative to competitive grants to create positive incentives for permitting reform, the federal government could take a punitive approach by denying resources to states that fail to act. Roundtable participants conceded that a "stick" approach could be effective but were broadly skeptical of this idea. Most noted that it was unlikely to be politically viable in Congress. Participants also pointed out that developers often try to avoid states with difficult permitting processes anyway, so additional federal disincentives might not prompt these states to change in any case.

OPTION: DEADLINE ENFORCEMENT

Participants also discussed options for better enforcing statutory or administrative timelines for completing permitting processes. The new enforcement mechanism, which was newly created along with such timelines as part of the FRA relies on a "right of action" by project developers to take federal agencies to court to compel compliance with permitting deadlines. Some suggested this mechanism might have limited impact, especially if developers are reluctant to sue the agencies that they rely on to issue permits.

Fee paid to project sponsor

Another option discussed at the roundtable would be to set a fine, of a specified amount, that would be paid to the project sponsor by the permitting agency for every day that elapses post-deadline without an agency action/decision. While some participants saw the logic of compensating project sponsors for delays, which are often costly, there was also recognition that fines might not have much of an impact on agency decisions unless the fines are taken directly from the permitting budget. That, however, would have the effect of reducing the resources available for permitting, which could further slow the process.

Automatic approval

Another idea that some participants endorsed was to deem a project approved if an agency misses a permitting deadline. This option carries obvious risks and would require significant safeguards so that applicants, and agencies who want to avoid conflict, do not game the system or deliberately slow-walk the process. While some felt this idea was worth vetting, most participants felt its risks outweighed its potential benefits. Even supporters recognized that automatic permitting is probably impractical and very unlikely to garner enough congressional support to become law.

Increased transparency

The FRA now requires that agencies submit a report to Congress if they miss a deadline, detailing why the deadline was not met. Recognizing that deadlines are difficult to enforce, participants agreed that increased transparency and further reforms could be effective in reducing delays. One idea was to require agencies to provide frequent reports to Congress on their performance in meeting deadlines. This would shine a light on poor performers and give legislators an opportunity, through the appropriations process for example, to take action to address continued poor performance. There was broad support among participants for increased transparency and reporting as initial steps to encourage improved performance.

OPTION: PROVIDE AGENCIES WITH ADDITIONAL RESOURCES AND FUNDING

Participants discussed the need to ensure that agencies have adequate funding, resources, staff, and technology to efficiently review all projects that require permitting. There was strong agreement that agencies must have sufficient resources to keep up with growing demands on the permitting process. However, some participants felt that resources should be contingent on reform and performance. These participants had concerns about simply throwing more funding at the current federal permitting system. But they could support the provision of resources in conjunction with the implementation of permitting reforms, recognizing that support for an effective permitting system is a worthwhile investment.

Conclusion

Momentum for improving the federal permitting system is undeniably strong, with bipartisan support for reforms that would reduce delays and costs without compromising protections for the environment or communities. Looking ahead, the importance of building on reforms introduced in the Fiscal Responsibility Act of 2023 to address urgent infrastructure needs and meet ever-growing demand for clean energy is clear.

BPC remains dedicated to fostering meaningful discussions and collaborations in the area of permitting reform. Our ongoing roundtable series will continue to provide a forum for vigorous debate and dialogue on the best steps forward. The next issue brief in this series will focus on permitting reforms that specifically target certain types of technologies, rather than reforms that are generalizable across a wide variety of energy infrastructure projects.

Endnotes

i Fishman, X., Jacobs, J., & Minott, O. (2023, June 02). How Does the Fiscal Responsibility Act Reform Permitting and Environmental Review? Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/blog/fiscal-responsibility-act-permit-reform/.

ii Fishman, X., Jacobs, J., Minott, O., Tesfaye, M., & Winkler, A. (2023, May 09). Empowering Communities while Streamlining Clean Infrastructure Permitting. Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/blog/clean-infrastructure-permitting/.

iii Fishman, X., Hall, M., Jacobs, J., & Pickford, L. J. (2023, July 24). Linear Infrastructure: Options for Efficient Permitting of Transmission and Pipeline Infrastructure. Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/explainer/efficient-permitting-of-linear-infrastructure/.

iv Fishman, X., Hall, M., Jacobs, J., Minott, O. (2023, Sept. 18). Reforming Judicial Review for Clean Infrastructure: A Bipartisan Approach. Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/explainer/reforming-judicial-review-for-clean-infrastructure-a-bipartisan-approach/.

v Congressional Review Act. (n.d.). U.S. Government Accountability Office. Available at: https://www.gao.gov/legal/other-legal-work/congressional-review-act#:~:text=The%20CRA%20defines%20a%20major,%3B%20or%20(3)%20significant%20adverse.

vi Mackenzie, A. (2023, May 9). Environmental Assessment Reform. Institute for Progress. Available at: https://progress.institute/environmental-assessment-reform/.

Bipartisan Policy Center

Licensing and Permitting Reforms to Accelerate Nuclear Energy Deployment

By John Jacobs, Lesley Jantarasami and Xan Fishman

The permitting and licensing process for nuclear power plants in the United States has long been under scrutiny for hampering the deployment of nuclear energy technologies. When Vogtle 3 came online in July 2023,[1] it was the first time in the nearly 50-year history of the U.S. Nuclear Regulatory Commission (NRC) that a new commercial reactor design had been licensed and subsequently entered into operation.[2] Numerous stakeholders from across the political spectrum have made recommendations for accelerating the NRC's regulatory process, but reforms so far have not been adopted or have not proved impactful.

Developers of advanced nuclear technologies are working to push the envelope on speeding reactor deployment, with some companies promising to reduce licensing and permitting hurdles by implementing conveyor-belt-like manufacturing and siting microreactors at existing industrial facilities. These efforts are finding support on Capitol Hill: in July 2023, the bipartisan ADVANCE Act,[3] which aims to restore U.S. leadership in nuclear technology, passed the Senate as part of the National Defense Authorization Act (NDAA) by a vote of 86-11; more recently, the House Committee on Energy and Commerce passed H.R. 6544, The Atomic Energy Advancement Act,[4] which contains similar provisions.

While these developments signal new opportunities for progress, more is needed to transform the landscape for nuclear technology investment and deployment in the United States. This brief identifies additional policies and reforms, beyond those included in the ADVANCE Act and similar legislation, that could increase the efficiency of the regulatory process and support an expanded role for safe, reliable, and cost-effective nuclear technologies in meeting the critical environmental and energy security challenges of this century.

The ideas and perspectives presented here were generated in a private roundtable discussion convened by the Bipartisan Policy Center in October 2023. The roundtable included stakeholders from across the political spectrum, including nuclear industry representatives, permitting and legal experts, environmental organizations, and other think tanks and NGOs. Its goal was to explore the pros and cons of specific policy options for reforming the nuclear permitting and licensing process.

This roundtable was part of a series that BPC has hosted on the broader topic of permitting reforms to accelerate the deployment of energy projects.

Issue briefs from previous permitting roundtables may be accessed through the BPC website;[5] they include:

1. Public Engagement Roundtable[6]
2. Permitting Linear Infrastructure Roundtable (i.e., transmission and pipelines)[7]
3. Judicial Review Roundtable[8]
4. Remaining NEPA Reforms Issue Brief[9]

The remainder of this brief summarizes perspectives and insights specific to the deployment of nuclear technologies from the October 2023 roundtable.

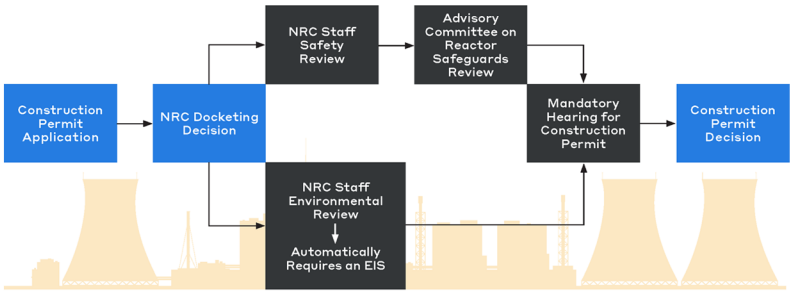
Environmental Permitting Reform for Advanced Nuclear Reactors

Option: Change the NRC environmental review process so that advanced reactors do not automatically require an Environmental Impact Statement

Consistent with the National Environmental Policy Act (NEPA), the NRC requires an environmental review to be completed before approving a construction permit for any new nuclear reactor. Under the agency's current administrative process (Figure 1), this review automatically takes the form of an Environmental Impact Statement (EIS). This is different than the federal environmental review process for non-nuclear projects, where federal agencies can choose to first conduct an Environmental Assessment (EA) to decide whether a comprehensive EIS is necessary. The EA is a more concise public document; its aim is to develop evidence and analysis sufficient to make a simpler determination: whether a project is likely to have a significant environmental impact, in which case an EIS is required, or to reach a "finding of no significant impact" (FONSI), in which case an EIS is not required and a project can proceed. The vast majority (99%) of EAs result in a FONSI.[10]

EISs typically take much longer to complete than EAs. A 2020 study by the Council on Environmental Quality (CEQ) found that the median time to complete an EIS across all federal agencies is 3.5 years, while the average completion time is even longer at 4.5 years.[11] Meanwhile, estimates of time to complete a typical EA are much shorter: six to nine months, on average.[12] The recently passed Fiscal Responsibility Act attempts to place time limits on environmental reviews—it requires that EISs be completed within two years and EAs be completed within one year.

Figure 1: Current Process for the NRC to Approve a Construction Permit (10 CFR Part 50)[13]



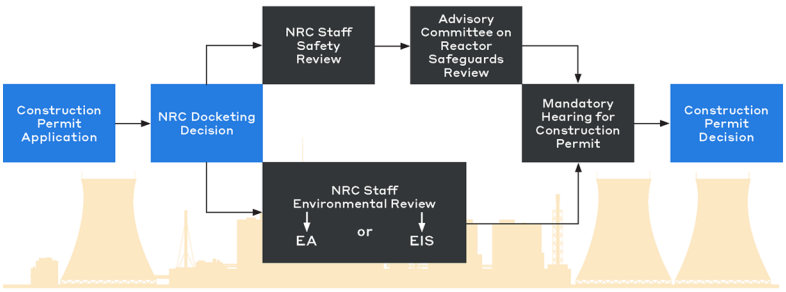
Source: Idaho National Laboratory

Roundtable participants broadly supported reforming the NRC's environmental review process for advanced reactors so that NRC staff have the option of utilizing an EA when possible (Figure 2). This reform is included in the House Atomic Energy Advancement Act.[14] Participants stressed that all reactors and nuclear projects do not have the same characteristics and therefore should not be required to go through the same environmental review process. In general, advanced reactors—especially new microreactors and small modular reactors—have smaller land use[15] and water requirements[16] than traditional nuclear reactors.

For example, the U.S. Air Force has announced a program to pilot a microreactor at Eielson Air Force Base in Alaska.[17] The plan is for the base to enter into a power purchase agreement with a private company that builds and operates the microreactor. Siting this project at an existing military base has different environmental impacts than constructing a large-scale nuclear power plant at a greenfield site. As one roundtable participant observed, environmental impacts for some large light water reactor projects may likewise be considered insignificant, enabling them to benefit from this policy as well.

Allowing an EA when appropriate would not *prevent* the NRC from requiring an EIS for a specific project. Rather, it allows NRC staff the option of preparing an EA depending on the environmental considerations associated with that particular project.

Figure 2: Proposed NRC Construction Permit Process with Environmental Assessment (10 CFR Part 50)[18]



Source: Idaho National Laboratory

Roundtable participants also discussed whether the recently passed Fiscal Responsibility Act (FRA), which requires agencies to consider whether an EA or EIS is the appropriate level of review for a project, applies to the NRC. The NRC has stated that it considers itself to be subject to the FRA and is working to analyze and implement the FRA's permitting reform provisions.[19] As participants pointed out, however, the NRC could still determine that an EIS is the appropriate level of review for all nuclear energy projects, which would leave the status quo essentially unchanged. Overall, participants were generally skeptical that the FRA will alter the NRC's current processes in significant ways; rather, they believed that statutory changes specific to nuclear energy regulation, including EIS requirements, will likely be needed.

Option: Require the NRC to create and utilize a generic EIS for the construction and operation of advanced nuclear reactors

Roundtable participants also discussed the idea of requiring the agency to create and utilize a generic EIS (GEIS) for advanced nuclear reactors. For reactor designs that will be deployed many times over, a GEIS can avoid the redundant work of analyzing environmental impacts for each individual project. The information and analysis needed to develop a GEIS for an advanced reactor design could be utilized for multiple subsequent installations, allowing the NRC to focus its resources on the unique characteristics of each project.

Participants generally supported the GEIS concept so that NRC staff can utilize analysis that has already been conducted, accelerating the environmental review process for advanced reactors. One participant noted the NRC is already working on a GEIS for constructing, operating, and

decommissioning advanced reactors, but the effort has been dormant for two years.[20] There was broad agreement that this effort should be completed and the NRC should vote to finalize the GEIS.

Option: Require the NRC to develop a process for timely environmental review of nuclear projects that reuse brownfield sites (e.g., coal-to-nuclear projects)

The bipartisan ADVANCE Act would require the NRC to develop a pathway to enable the timely licensing of nuclear facilities at brownfield sites. Specifically, the NRC would identify issues and develop a standard application for reutilizing brownfield sites, develop early site permits, and consider how retiring coal power plant infrastructure could be relicensed. There was broad support for this approach as a necessary first step to utilizing previously developed sites, especially retiring coal-fired power plants.

Roundtable participants emphasized the value of early site permits (ESPs) and discussed various policies that would further leverage this tool for reutilizing brownfield sites. With an ESP, the NRC could approve a site for a nuclear power plant for up to 20 years, independent of the construction or operating licensing process. The ESP process would address issues of site safety, environmental protection, and emergency planning. It would give nuclear project developers certainty that a specific site can be utilized, provided necessary licenses for construction and operation are also approved. Given the considerable potential liabilities of remediating a brownfield site, including concerns about subsurface instability and environmental radiation caused by coal ash disposal in the case of former coal plant sites, an ESP might be necessary to attract support from investors who would otherwise deem the project too risky.

Some participants proposed creating a Department of Energy program to remediate appropriate brownfield sites to a standard acceptable by the NRC for issuing an ESP. The idea would be to create a set of ready-to-build and pre-permitted sites for nuclear power plant construction, thereby mitigating the risks developers would otherwise face when attempting to reutilize a brownfield site. There were questions about whether a DOE-led remediation program would be faster than private-sector efforts. While the time required for remediation at different sites was unclear, participants generally agreed that a federal program should develop a streamlined and coordinated approach that can accelerate the process.

With certainty around site permitting, advanced nuclear project developers could capitalize on the estimated 17%–35% cost savings that could come from reutilizing retiring coal plant infrastructure.[21] Reutilizing transmission infrastructure and avoiding some of the permitting barriers associated with new transmission projects would enable further significant time and cost

savings. As one roundtable participant pointed out, the ability to leverage existing transmission infrastructure, water rights, and workforce assets would likely be among the most valuable aspects of coal-to-nuclear projects.

Another participant noted that this approach would be similar to pre-approving land for energy projects, as some states have done for solar projects[22] and as has been proposed at a federal level.[23] A preclearance process means that the environmental review is conducted prior to a project application, providing developers with certainty that their project will not be delayed by NEPA requirements or other state siting and environmental review policies. An important consideration for pre-approval programs and ESPs is ensuring that the brownfield location makes business sense for investment. As a participant pointed out, to successfully catalyze investment, any DOE-led remediation program will have to focus on sites that developers are also interested in utilizing.

NRC Fee Structure Reform

A common critique of the NRC's funding structure is that it relies on annual fees charged to license holders, as well as hourly fees paid for license application reviews and other regulatory services provided by the commission. This structure places the cost of regulatory licensing and oversight on applicants and creates a disincentive for the NRC to accelerate its licensing review process. The NRC recently increased its hourly rate to $300 for fiscal year 2023.[24] In 2021, the agency estimated that 18,000 NRC staff hours would be required to complete the safety and environmental review process for a construction permit for an advanced test reactor.[25] Workshop participants noted these costs can be prohibitive for early-stage advanced reactor companies on one hand, while also being too low to ensure that the NRC has the human resources and institutional infrastructure needed to accelerate the review process on the other hand. The ADVANCE Act includes provisions to reduce the NRC's hourly rate for reviewing challenges associated with new advanced reactors, but it does not reform the NRC's overall fee structure.

Option: Increase the NRC off-fee funding and make agency funding for infrastructure, technology upgrades, and training activities non-fee-dependent

Roundtable participants were broadly supportive of providing the NRC with more off-fee funding so that it can invest in infrastructure, develop new technologies, automate to streamline the review process, and train staff. This would mean increasing appropriations from Congress for some activities that are currently funded by hourly fees for NRC services,

consultation, and license reviews. Participants generally agreed that reducing the NRC's reliance on fees is crucial to enable the investments needed to increase permitting and licensing efficiency.

Option: Eliminate license review fees for new advanced nuclear reactors

Roundtable participants also considered the idea of eliminating NRC review fees for new advanced reactors. Most agreed that the agency's current hourly rate for license and permit reviews can be prohibitively expensive for advanced reactor companies. This is an especially important concern for microreactor companies that expect to produce numerous reactor units and face the prospect of going through the NRC review process for each one. However, many participants voiced concern about eliminating licensing fees altogether.

The most significant objection was that eliminating licensing fees could, absent increased congressional appropriations or other funding reforms, leave the NRC will less overall funding, which would decrease the agency's effectiveness as it tries to do more with less. Thus, participants were quick to emphasize that this policy should only be pursued in conjunction with increased off-fee appropriations. Provided the NRC can be made whole for any lost fee revenue, participants generally agreed that removing licensing fees would lower the barrier to entry for advanced reactor applicants. Even then, however, some participants noted there are still advantages to a fee structure that ensures applicants have "skin in the game."

In particular, a few participants were concerned that eliminating review fees could lead to frivolous applications that could consume the NRC's limited resources. Applicants would have no financial incentive to ensure that their design is mature enough to receive approval. One participant compared the potential for perverse incentives in this situation to the broadly scrutinized transmission interconnection queue, which is notoriously backlogged with electricity generation projects applying to get on the grid. Until recently, there was no cost for applying to join the interconnection queue, leading to concern that many projects in the queue are not feasible and would not be built even if approved. To address this concern, the Federal Energy Regulatory Commission (FERC) recently issued a new rule requiring applicants to submit a non-refundable $5,000 fee and put down an initial study deposit of between $55,000 and $250,000 depending on the project's size.[26]

One participant added that the Nuclear Assistance for America's Small Businesses Act,[27] introduced by Rep. Byron Donalds (R-FL) in February 2023, offers another approach to mitigate fee burdens while discouraging premature applications. The bill allows eligible advanced reactor companies to defer a certain portion of their NRC application fees until the reactor is

operational. This would give project developers time to establish a revenue stream prior to having to pay review fees.

NRC Licensing and Permitting Process Reform

The NRC's standard Part 50 licensing pathway for new nuclear power plants is a two-step process. First, the applicant must go through the construction permit process as illustrated by Figure 1. Second, the applicant must obtain an operating license, which is similar to the process of applying for a construction permit but without the mandatory hearing phase. From initial application to receiving a final decision, applicants must go through a series of steps and sub-review processes for both the construction permit and operating license. Roundtable participants considered several options that would streamline and accelerate the current two-step process.

Option: Establish and enforce timelines for each stage of the licensing and permitting process

Participants broadly agreed that statutory timelines for each stage of the licensing and permitting process would increase efficiency and give applicants greater certainty regarding the cost and timeliness of the regulatory process. Currently, the NRC provides applicants with an estimated timeline on a case-by-case basis, but there is no requirement that the agency keep to this schedule. The NRC has stated that it considers itself subject to the FRA's two-year and one-year statutory deadlines for EIS and EA reviews, respectively.[28] But the NRC has yet to implement these deadlines for its environmental review process and there still are no deadlines for other steps in the NRC's regulatory process.[29]

While participants were generally supportive of specific statutory timelines, some worried that these timelines would be difficult to enforce. One issue is how to set a sensible penalty when the agency misses a deadline. Financial penalties would also decrease the NRC's resources, potentially slowing the regulatory process even further. Instead, the FRA allows project developers to take agencies to court over missed deadlines and requires agencies to submit an annual report to Congress detailing the reasons that a deadline was missed. A participant noted that the NRC already submits similar types of reports to Congress under the Nuclear Energy Innovation and Modernization Act. But these reports receive little attention and have not incentivized the NRC to maintain or accelerate timelines.

Another concern was that the NRC could simply push more activities into the pre-application phase, therefore delaying the start of a timeline. Participants recognized that the pre-application phase is valuable and can take significant time to complete, especially for novel reactor designs. To preserve these benefits while avoiding incentives to game the timeline, one participant proposed specifically detailing what is and is not part of the pre-application phase. This would help set clear boundaries and establish a shared understanding of when the official application process and associated deadlines begin.

Lastly, another participant suggested that the most effective way to expedite the review process and ensure the NRC meets deadlines is to give the agency more resources to hire experienced staff and improve project management.

Option: Eliminate uncontested mandatory hearings from the licensing process for new reactors

Under a 1957 amendment[30] to the Atomic Energy Act of 1954, the NRC is required to hold a mandatory hearing as part of the construction permit process (Figure 1). The mandatory hearing is only between the applicant and NRC staff and is required even if there are no challenges to the construction permit or a combined license. The Efficient Nuclear Licensing Hearings Act recently introduced by Rep. Morgan Griffith (R-VA) would allow the NRC to eliminate the hearing if the construction permit is uncontested.[31]

Some roundtable participants characterized the hearing requirement as an expensive formality considering that hearings do not include public input and that any issues with the permit would have been addressed during prior stages of the process. Further, the cost of holding the hearing is paid by the applicant at the NRC staff rate of $300 per hour. The NRC recently estimated the cost of a mandatory hearing for an advanced reactor application at approximately 1,500 NRC staff hours, or a total of $450,000 to be paid by the applicant.[32]

Roundtable participants broadly agreed that mandatory hearings can be costly and burdensome to applicants, while providing little value in cases where a construction permit is uncontested. Opinions were divided about whether uncontested mandatory hearings should be eliminated altogether versus allowing the NRC to decide on a case-by-case basis.

Option: Replace court-like hearings on contested environmental issues in license applications with a public comment process like that conducted by other federal agencies

In NRC licensing and permitting processes, the public may submit comments challenging any portion of an application, including the findings of the EIS that the NRC prepares during the environmental review stage. The NRC is statutorily required (under provisions of the Atomic Energy Act

of 1954 as amended), to resolve these public challenges by conducting a court-like hearing process.[33] At these hearings, license applicants and NRC staff present oral testimony and written information on relevant public comments and technical questions before three administrative judges who then decide how disputed issues are to be resolved. The process requires extensive paperwork and preparation by both NRC staff and the applicant.

Roundtable participants agreed that the current process is not efficient. They discussed a reform proposal that would replace the NRC's current hearing process with the public comment process that is standard under the Administrative Procedures Act (APA) and used by other federal agencies when taking a regulatory action. Both approaches provide a public comment period to gather outside input, but other agencies are not required to conduct a formal, in-person hearing to adjudicate issues raised in public comments—rather, the agency can respond when it issues a final decision. Some participants supported extending this approach to the NRC's licensing process because it removes the hassle and delay of scheduling in-person meetings and preparing written testimony.

Some participants, however, viewed an APA-style public comment process as also flawed. They recommended instead that the entire process be modernized and made iterative. Public comments would still be invited, but issues would be resolved internally, between the applicant and NRC staff, using primarily digital communication.

One participant strongly disagreed with this proposal, citing a concern that this reform could result in *increased* legal challenges to future license applications. The participant worried that changes to remove environmental issues from the NRC's adjudicatory process could remove them from the scope of Hobbs Act review. The Hobbs Administrative Orders Review Act[34] and Atomic Energy Act provide that final decisions issued by the Commission go directly to the circuit court after adjudication at the NRC. If a party wants to challenge an NRC license, it must raise that challenge at the very beginning of a licensing proceeding. Removing environmental reviews as part of the adjudicatory process unsettles the status quo and potentially risks putting an appeal of an agency decision in the district court, with the obligations of traditional discovery, if courts determine that there is no "final decision" per the Hobbs Act. The participant stated that this situation could negatively impact nuclear licensing, leading to higher costs, increased uncertainty, and possibly broader regulatory issues that are difficult to anticipate.

Option: Require the NRC's Advisory Committee on Reactor Safeguards to review only novel or safety-significant issues rather than all applications

As seen in Figure 1, review by the Advisory Committee on Reactor Safeguards (ACRS) is a mandatory step in the process for approving a construction permit; it is also required before the NRC can issue a license to operate.[35] The ACRS was established by the 1957 amendments to the Atomic Energy Act of 1954 as a statutory committee under the U.S. Atomic Energy Commission. Its mandate is to independently review safety studies and facility license applications, and to advise the federal government on the hazards of proposed or existing reactor facilities as well as the adequacy of reactor safety standards. The role of an independent regulatory body was eventually transferred to the NRC, but all nuclear projects must still go through the independent ACRS as part of the licensing and permitting process.

ACRS review entails hundreds of hours of meetings between NRC staff and applicants to analyze specific technical design considerations and risk profiles for each project.[36] While there are no official timelines for these reviews, a workshop participant estimated that they typically take between three and six months to complete. Scheduling difficulties for NRC staff often extend the timeline. With the NRC already acting as an independent regulatory body, workshop participants considered whether the scope of ACRS review should be narrowed to focus only on novel or safety-significant issues rather than all aspects of every application.

Some roundtable participants strongly agreed with this recommendation, pointing to past recommendations, by both the NRC[37] and ACRS,[38] to right-size ACRS's role in the process. They argued that ACRS review should not be required for all applications, especially those that use standard designs that have already been approved. Instead, ACRS review could be reserved for projects that present novel design aspects. These participants viewed ACRS review as a significant barrier to the approval of new reactors and especially burdensome for companies that want to deploy many smaller reactors. One participant noted that, if this reform were to be adopted, it would be important for the NRC to have the role of referring applications to the ACRS rather than giving the ACRS discretion over which applications to review (the concern was that ACRS discretion over this decision could result in most, if not all, applications still undergoing ACRS review).

Overall, there was agreement among roundtable participants who are knowledgeable on this topic that the ACRS plays an important role in analyzing technical aspects of reactor design. But the reactor licensing and permitting process can be made more efficient and the ACRS itself can be more effective if its scope is narrowed to focus only on unique design aspects.

Conclusion

Bipartisan support for the ADVANCE Act suggests that there is interest on both sides of the aisle for accelerating and streamlining the nuclear licensing and permitting process. As Congress continues to explore options for speeding nuclear energy deployment, it will be crucial to identify which policies would be most effective at improving the nuclear regulatory process. This workshop identified several recommendations that would accelerate the regulatory process and could draw support across the political spectrum.

BPC remains dedicated to fostering meaningful discussions and collaboration on nuclear energy policy and permitting reform more generally. Our roundtables have provided a forum for vigorous debate and dialogue regarding specific permitting issues. The next issue brief in this series will analyze options to improve the permitting for specific types of energy technologies beyond nuclear power that are not generalizable to energy projects broadly.

Endnotes

1 Georgia Power. "Vogtle Unit 3 goes into operation." July 31, 2023. Available at: https://www.georgiapower.com/company/news-center/2023-articles/vogtle-unit-3-goes-into-operation.html.

2 Ted Nordhaus and Adam Stein. "NRC Staff Whiffs On Nuclear Licensing Modernization." The Breakthrough Institute, December 12, 2022. Available at: https://thebreakthrough.org/blog/nrc-staff-whiffs-on-nuclear-licensing-modernization.

3 U.S. Senate Committee on Environment and Public Works. "Senate Passes Bipartisan Nuclear Energy Bill from Capito, Carper, Whitehouse." July 27, 2023. Available at: https://www.epw.senate.gov/public/index.cfm/2023/7/senate-passes-bipartisan-nuclear-energy-bill-from-capito-carper-whitehouse.

4 House Committee on Energy and Commerce. (2023, December 1). Chair Rodgers announces full committee markup of 44 pieces of legislation. Retrieved from https://energycommerce.house.gov/posts/chair-rodgers-announces-full-committee-markup-of-44-pieces-of-legislation.

5 Bipartisan Policy Center. (2023, November 2). BPC Roundtable Series: Exploring Energy Permitting Reform. Retrieved from https://bipartisanpolicy.org/blog/bpc-roundtable-series-exploring-energy-permitting-reform/.

6 Fishman, X., Jacobs, J., Minott, O., Tesfaye, M., & Winkler, A. (2023, May 09). Empowering Communities while Streamlining Clean Infrastructure Permitting. Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/blog/clean-infrastructure-permitting/.

7 Fishman, X., Hall, M., Jacobs, J., & Pickford, L. J. (2023, July 24). Linear Infrastructure: Options for Efficient Permitting of Transmission and Pipeline Infrastructure. Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/explainer/efficient-permitting-of-linear-infrastructure/.

8 Fishman, X., Hall, M., Jacobs, J., Minott, O. (2023, Sept. 18). Reforming Judicial Review for Clean Infrastructure: A Bipartisan Approach. Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/explainer/reforming-judicial-review-for-clean-infrastructure-a-bipartisan-approach/.

9 Fishman, X., & Jacobs, J. (2023, November 13). Exploring NEPA reforms needed to unlock clean energy infrastructure. Bipartisan Policy Center. Retrieved from https://bipartisanpolicy.org/report/exploring-nepa-reforms-unlock-clean-energy-infrastructure/.

10 Aidan Mackenzie. "Environmental Assessment Reform." Institute For Progress, May 9, 2023. Available at: https://ifp.org/environmental-assessment-reform/.

11 White House Council on Environmental Quality, "Environmental Impact Statement Timelines (2010-2018)," June 2020. Available at: https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Report_2020-6-12.pdf.

12 DOE Loan Programs Office. "ENVIRONMENTAL COMPLIANCE." Available at: https://www.energy.gov/lpo/environmental-compliance#:~:text=The%20average%20timeline%20for%20completing,involvement%20process%20than%20an%20EA.

13 Stephen Burdick. "Available NRC Licensing Pathways and Associated Hearing Processes." Page 5. Idaho National Laboratory. Available at: https://gain.inl.gov/SiteAssets/GAIN_WebinarSeries/2021.03.31_RegulatorySeries-3/Presentations/01-Burdick_OverallProjectRisk_31Mar2021.pdf. Modified to add "Automatically Requires an EIS."

14 House Committee on Energy and Commerce. (2023, December 1). Chair Rodgers announces full committee markup of 44 pieces of legislation. Page 28. Retrieved from https://energycommerce.house.gov/posts/chair-rodgers-announces-full-committee-markup-of-44-pieces-of-legislation.

15 ScottMadden. "Gone with the Steam." October 2021, p. 15. Available at: https://www.scottmadden.com/content/uploads/2021/10/ScottMadden_Gone_With_The_Steam_WhitePaper_final4.pdf.

16 Matthew L. Wald. "Nuclear Reactors Don't Need to Be So Thirsty." The Breakthrough Institute, October 17, 2023. Available at: https://thebreakthrough.org/blog/nuclear-reactors-dont-need-to-be-so-thirsty.

17 Eielson Air Force Base. "Micro-reactor Pilot Program." Available at: https://www.eielson.af.mil/microreactor/.

18 Stephen Burdick. "Available NRC Licensing Pathways and Associated Hearing Processes." Page 5. Idaho National Laboratory. Available at: https://gain.inl.gov/SiteAssets/GAIN_WebinarSeries/2021.03.31_RegulatorySeries-3/Presentations/01-Burdick_OverallProjectRisk_31Mar2021.pdf. Modified to add "Automatically Requires an EIS."

19 U.S. Nuclear Regulatory Commission. "Response to Request for Information House Committee on Energy and Commerce." September 1, 2023. Available at: https://www.nrc.gov/docs/ML2325/ML23256A067.pdf.

20 U.S. NRC. "GENERIC ENVIRONMENTAL IMPACT STATEMENT FOR ADVANCED NUCLEAR REACTORS." 2021. Available at: https://www.nrc.gov/docs/ML2122/ML21222A055.pdf.

21 John Jacobs and Lesley Jantarasami. "Can Advanced Nuclear Repower Coal Country?" Bipartisan Policy Center. March 23, 2023. https://bipartisanpolicy.org/report/nuclear-repower-in-coal-country/.

22 Richard Gittleman. "California Governor Signs Executive Order Expanding State's Renewable Energy Goals and Expediting Renewable Energy Development." Akin Gump, November 19, 2008. Available at: https://www.akingump.com/a/web/5672/aogQn/081119_california-governor-signs-executive-order-expanding-state.pdf.

23 Bipartisan Policy Center. "Smarter, Cleaner, Faster Infrastructure Task Force: Policy Recommendations." May 2021. Available at: https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2021/05/BPC_SmarterCleanerFasterRecPage.pdf.

24 U.S. Nuclear Regulatory Commission. "NRC Amends Licensing, Inspection, and Annual Fees for Fiscal Year 2023." June 15, 2023. Available at: https://www.nrc.gov/cdn/doc-collection-news/2023/23-035.pdf.

25 U.S. Nuclear Regulatory Commission. "KAIROS POWER, LLC - HERMES TEST REACTOR CONSTRUCTION PERMIT APPLICATION REVIEW SCHEDULE AND RESOURCE ESTIMATE (EPIDS: L-2021-NEW-0011 AND L-2021-NEW-0012)." December 15, 2021. Available at: https://www.nrc.gov/docs/ML2134/ML21343A214.pdf.

26 Ruta Skučas et al. "ORDER NO. 2023: INTERCONNECTION REFORM IS FINALLY HERE." K&L Gates, September 6, 2023. Available at: https://www.klgates.com/Order-No-2023-Interconnection-Reform-is-Finally-Here-9-7-2023.

27 Donalds, B. (2023, February 14). H.R.1007 - Nuclear Assistance for America's Small Businesses Act. Retrieved from https://www.congress.gov/bill/118th-congress/house-bill/1007.

28 U.S. Nuclear Regulatory Commission. "Response to Request for Information House Committee on Energy and Commerce." September 1, 2023. Available at: https://www.nrc.gov/docs/ML2325/ML23256A067.pdf. U.S. NRC. "GENERIC ENVIRONMENTAL IMPACT STATEMENT FOR ADVANCED NUCLEAR REACTORS." 2021. Available at: https://www.nrc.gov/docs/ML2122/ML21222A055.pdf.

29 U.S. Nuclear Regulatory Commission. "Response to Request for Information House Committee on Energy and Commerce." September 1, 2023. Available at: https://www.nrc.gov/docs/ML2325/ML23256A067.pdf. U.S. NRC. "GENERIC ENVIRONMENTAL IMPACT STATEMENT FOR ADVANCED NUCLEAR REACTORS." 2021. Available at: https://www.nrc.gov/docs/ML2122/ML21222A055.pdf.

30 Matt Bowen, Rama T. Ponangi, & Stephen Burns. "Improving the Efficiency of NRC Power Reactor Licensing: The 1957 Mandatory Hearing Reconsidered." November 21, 2023. Available at: https://www.energypolicy.columbia.edu/publications/improving-the-efficiency-of-nrc-power-reactor-licensing-the-1957-mandatory-hearing-reconsidered/#:~:text=Dating%20to%20a%201957%20amendment,projects%20under%20consideration%20for%20development.

31 Griffith, H. M. (2023, November 21). H.R.6464 - Efficient Nuclear Licensing Hearings Act. Retrieved from https://www.congress.gov/bill/118th-congress/house-bill/6464/cosponsors.

32 Matthew Hiser. "Hermes Construction Permit Application Mandatory Hearing Resource Estimate." August 10, 2023. Available at: https://www.nrc.gov/docs/ML2322/ML23226A172.pdf.

33 Stephen J. Burdick, J.D., Dr. John C. Wagner, Dr. Jess C. Gehin. "Recommendations to Improve the Nuclear Regulatory Commission Reactor Licensing and Approval Process." Idaho National Laboratory, April 2023, p. 6. Available at: https://inldigitallibrary.inl.gov/sites/sti/sti/Sort_65730.pdf.

34 Legal Information Institute. (n.d.). 28 U.S. Code Chapter 158 - ORDERS OF FEDERAL AGENCIES; REVIEW. Retrieved from https://www.law.cornell.edu/uscode/text/28/part-VI/chapter-158.

35 Nourbakhsh, H. (2023, February 24). The enduring legacy of ACRS: Reviewing safety-licensing to protect the public. ANS / Nuclear Newswire. Retrieved from https://www.ans.org/news/article-4679/the-enduring-legacy-of-acrs-reviewing-safetylicensing-to-protect-the-public/.

36 Danielle Emche et al. "Improving the Effectiveness and Efficiency of the Advisory Committee on Reactor Safeguards." Nuclear Innovation Alliance, March 2023. Available at: https://nuclearinnovationalliance.org/sites/default/files/2023-03/NIA%20Final%20Report%20on%20ACRS%20-%20March%202023.pdf.

37 U.S. Nuclear Regulatory Commission. "ACRS ACTIVITIES TO SUPPORT NRC TRANSFORMATION." October 17, 2019. Available at: https://www.nrc.gov/docs/ML1929/ML19290F956.pdf.

38 U.S. Atomic Energy Commission. "Annual Report to Congress of the Atomic Energy Commission for 1965-66." January 1966. Available at: https://www.osti.gov/opennet/servlets/purl/16360407.pdf.

Bipartisan Policy Center

Mitigating Unique Permitting Barriers to Specific Energy Technologies

By Daniel Elizalde, Xan Fishman and John Jacobs

Introduction

To meet energy and climate goals, the United States needs to accelerate the deployment of a wide variety of energy technologies in areas such as critical minerals, carbon capture and storage (CCS), geothermal energy, and hydrogen. While all energy projects face some similar permitting challenges, specific technologies also face their own unique permitting hurdles. For example, while oil and gas projects can receive a categorical exclusion from the requirement to prepare an environmental impact statement (EIS) for test well projects, no such categorical exclusion exists for geothermal projects.

In July 2023, the Bipartisan Policy Center convened a private roundtable to explore the pros and cons of specific permitting reforms that tackle challenges unique to individual energy technologies. The workshop was conducted under Chatham House Rule and brought together experts on permitting and technology-specific regulatory challenges from across the political spectrum. This brief does not provide a comprehensive list of permitting reform options, rather it focuses on proposals that have been introduced in legislation this Congress, supplemented by suggestions from roundtable participants.

This roundtable and a separate roundtable that focused on permitting for nuclear energy projects were the fifth and sixth in a series of BPC-convened roundtables on permitting reforms. Prior roundtables focused on public engagement, linear infrastructure (transmission and pipeline), additional National Environmental Policy Act (NEPA) reforms, and judicial review. Rather than seek consensus, the goal of these roundtables has been to identify policies that would drive impact and are also politically viable.

Issue briefs from previous permitting roundtables may be accessed through the BPC website[1]; they include:

1. Public Engagement Roundtable[2]
2. Permitting Linear Infrastructure Roundtable (i.e., transmission and pipelines)[3]
3. Judicial Review Roundtable[4]
4. Remaining NEPA Reform Roundtable[5]
5. Nuclear Energy Licensing and Permitting Roundtable[6]

Critical Minerals

Option: Expand the 2015 Fixing America's Surface Transportation Act (FAST-41) to include all federally regulated mining, processing, and refining projects for critical minerals

FAST-41 establishes a process for the coordinated and timely review of covered infrastructure projects involving multiple federal agencies, with the goal of reducing regulatory delays and expediting project approvals. There was broad support for FAST-41 at BPC's July 2023 roundtable: As one participant explained, this legislation offers a good model because it does not cut environmental or regulatory corners. Rather, FAST-41 aims to promote a more efficient and effective federal permitting process by increasing agency coordination and providing increased transparency.

Mining projects were not originally included in FAST-41, but a 2020 rule from the federal Permitting Council added mining to the program.[7] That rule, however, left out mineral processing and refining projects. Thus, roundtable participants discussed the value of adding processing and refining projects. This step was taken in September 2023, when the Permitting Council introduced a new rule covering all critical mineral mining, processing, and recycling projects under FAST-41.[8] While generally

supportive of the council's action, roundtable participants had some concerns about establishing this policy through regulation rather than by statute.

Specifically, one roundtable participant emphasized the importance of adding critical minerals projects by changing the statutory language of FAST-41. This would ensure that future administrations do not reverse course and provide greater certainty for project developers. Furthermore, the Permitting Council's recent action was not without controversy: while it expanded FAST-41 eligibility to critical mineral processing and recycling projects, eligibility was narrowed to projects that involve critical minerals, rather than all mining projects (as under the earlier, 2020 rule).

Option: Allow the Environmental Protection Agency (EPA) to temporarily waive Clean Air Act and Solid Waste Disposal Act requirements for the processing of critical minerals if a shortage causes national security concerns

Under this policy option, a temporary waiver of any requirement under the Clean Air Act or Solid Waste Disposal Act could be issued by the EPA Administrator and the Secretary of Energy to allow for the processing or refining of critical minerals at a critical energy resource facility. The Lower Energy Costs Act of 2023 (HR1) includes a policy that would allow domestic mineral processing projects to receive a 90-day waiver if needed for national security concerns.[9]

Roundtable participants were generally skeptical of the efficacy of this policy. They noted that its benefits are unclear as long as the United States lacks a robust critical mineral processing industry to begin with. Further, the ability to access temporary waivers, by itself, is unlikely to drive investment in capital intensive domestic mineral processing projects. The prospect that such waivers would be available in the event of a future national security crisis would not convince developers to build projects today. Other participants worried that a future administration could overuse the temporary waiver option by issuing waivers on a rolling basis.

Participants also strongly agreed that this option, because it involves waiving Clean Air Act requirements, is politically controversial. The general consensus at the roundtable was that the limitations of this policy, combined with its political controversy make it a policy to avoid.

Option: Require mining companies to provide financial assurance in their reclamation plans

This option would mandate that mining companies provide financial assurance in reclamation plans. Financial assurance can help ensure that reclamation costs do not fall on state or local communities if mining

companies abandon their operations. Such assurance could decrease local opposition to mining projects.

A roundtable participant began the discussion by noting that the inclusion of financial assurance in reclamation plans is already standard practice in the United States. But this assurance often takes the form of self-bonding or corporate guarantees, both of which are tied to the value of the company. If a company goes bankrupt, funding for reclamation efforts may also disappear. Financing mechanisms are needed that do not put reclamation efforts at risk if companies go bankrupt.

There was general consensus among roundtable participants that mining companies should be required to pay for reclamation. However, there was no consensus on more assured financial mechanisms or tools to replace the current reliance on self-bonds and corporate guarantees.

Option: Create incentives for third parties to clean up abandoned mines, including by limiting liability for organizations that undertake cleanup efforts

The United States has over 140,000 abandoned hardrock mines, of which 22,500 pose environmental hazards according to the Government Accountability Office (GAO).[10] Companies that operate mines today are responsible for the cleanup and decommissioning of these mines. However, most of America's abandoned mines date back to the 19th and early 20th centuries, before modern laws on mining reclamation and sustainability were introduced. Many of these mines remain a source of local environmental pollution, particularly when they continue to contaminate nearby water sources with toxic metals. Because their original owners are no longer operating, however, nobody is responsible for the cleanup. And third-party organizations that might want to undertake cleanup efforts are often discouraged from doing so because getting involved might make them liable for the mines and associated environmental hazards.

The 2021 Bipartisan Infrastructure Law (BIL) included $725 million[11] to help finance the mapping and cleanup of abandoned mines across America via grants to states and tribes. However, the BIL did not address liability concerns for third parties that voluntarily undertake to clean up these sites. The bipartisan would tackle this issue by limiting liability for such organizations.[12]

Participants broadly agreed that the cleanup of abandoned mines was important to gain public support for new mining projects; they also shared the view that addressing liability concerns and providing incentives for third-party cleanup efforts could make a significant difference. Overall, there was strong support for this policy.

Option: Provide enhanced guidance to mine operators by organizing pre-consultation meetings, designating cross-agency case workers, and improving reference materials

New mine projects are often subject to regulatory requirements set by multiple agencies, such as the U.S. Forest Service (USFS) and Bureau of Land Management (BLM). If a mine developer changes plans after submitting an application, there is generally little guidance available to help the developer avoid regulatory delays. This policy option aims to help companies navigate different circumstances so they have a better understanding of how project changes would impact the regulatory process. An additional objective is to increase agency coordination during reviews and pre-consultation efforts so that regulators and project developers alike have better information to navigate the regulatory process.

Roundtable participants strongly supported increased agency coordination, particularly better information sharing between the USFS and BLM. Participants also saw the value of clear guidance and pre-consultation meetings. However, some participants also noted that the USFS and BLM lack the technical expertise to address all issues with mining projects. Therefore, one participant suggested increased coordination with the U.S. Geological Survey (USGS), which specializes in subsurface geology and can provide helpful expertise on technical questions.

Option: Establish royalties for critical minerals extracted from federal lands

A controversial option is to transform the current lease-based policy for mining on public lands into a royalties-based policy. Hardrock mining is the only extractive industry that does not pay royalties for operating on public lands.[13] According to a recent report by the Interagency Working Group on Mining Laws, Regulations, and Permitting, a 2% royalty on gross revenue from the sale of minerals extracted from public lands in 2019 would have generated $98 million.[14] A royalty rate of 8% would have generated $392 million. Currently, mine operators are only required to pay a processing fee of $20, a location fee of $40, and a maintenance fee of $165 for every 20 acres of public land they use.[15]

Roundtable participants discussed the idea of establishing royalty fees for minerals extraction and the potential impacts of this policy on the domestic mining industry. The discussion began with an acknowledgment that royalties would increase the financial burden for domestic mining projects on public land. Most participants agreed that a policy that increases costs and reduces incentivizes for domestic mining could be seen as counterproductive to current efforts by Congress and the White House to promote investment in U.S.-based mining and processing capacity and diversify away from Chinese mineral imports. Several participants pointed

out that domestic mineral producers already struggle to be cost-competitive with low-cost Chinese products.

In the context of an economically robust domestic minerals industry, by contrast, many participants agreed that a royalty system makes sense in concept. Royalties might be more palatable if they are tied to programs that benefit nearby communities, such as a remediation fund or watershed restoration fund. With the current effort to reshore supply chains and compete with cheaper Chinese imports in mind, however, there was general recognition that now is not the best time to introduce the new fees.

Additionally, there was broad concern about whether a royalties policy could attract political support in Congress. The current leasing scheme has been in place since 1872. Changing this long-standing structure would be difficult and would likely need to be paired with other policies designed to support the domestic mining industry, such as policies to enable more efficient permitting or reduce other barriers to investment.

Carbon Capture and Storage (CCS)

Option: Establish enforceable timeline for EPA to process State Class VI primacy applications

EPA recently designated a new category of wells, Class VI, for the geologic sequestration of carbon dioxide (CO_2). Such wells are needed to enable the deployment of carbon management projects, which are expected to play a critical role in achieving climate goals. ClearPath estimates that a minimum of 650 Class VI wells will be needed for geologic storage of CO_2 under a net-zero-by-2050 scenario.[16] Permit applications for this class of wells are generally processed by the EPA; approval can take up to six years.[17] The idea of giving states primacy over the permitting of Class VI wells is gaining attention as a way to speed the deployment of carbon storage projects. A recent BPC blog[18] discusses the role of state primacy:

> State primary authority, or "primacy," is the ability for a state to carry out EPA's authority under the Safe Drinking Water Act in approving a specific type of permit. This approach to processing permits has been used for decades for other classes of permits and has the advantage of leveraging state geologic survey expertise on a state's unique geology when evaluating a permit application. The UIC [Underground Injection Control] program has granted primacy authority for many different classes of wells in 31 states

> and three territories, but only two* states have primacy for Class VI permits today—North Dakota and Wyoming.
>
> As EPA expands staff expertise to process permits at the federal level, state primacy authority can play a complementary role to ensure project developers are not stuck waiting for permit approvals before continuing to develop a carbon management project.
>
> Fortunately, several states: Louisiana, Texas, West Virginia, and Arizona have taken steps toward primacy approval. Louisiana is the furthest along in the process, with EPA issuing a proposed rule for primacy in April 2023. [*Update: Since publication of this blog, Louisiana's Class VI primacy application was approved on December 28, 2023.]

With many states seeking Class VI primacy, roundtable participants discussed establishing a timeline for EPA to review these primacy applications. Currently, there is no enforceable timeline for EPA to issue final decisions on Class VI primacy applications. In the interim, Class VI projects must continue to go through the EPA permitting process. While participants broadly supported timelines, they were skeptical that a statutory timeline would be effective. Instead, there was general support for increasing transparency and better standardizing the primacy application process. Many participants agreed with the idea of establishing milestones for EPA action as part of the review process. This would give applicants greater clarity about their progress through the permitting process. Another participant suggested that the EPA could send a letter to the applicant after 180 days that outlines updates, challenges, progress, and an expected completion date.

Option: Allow EPA to issue aquifer exemptions for Class VI wells as is allowed for other well types

Currently, EPA aquifer exemptions are available for Class I, II, III, IV, and V wells, but not Class VI wells. Aquifer exemptions allow underground sources of water that do not and will not serve as a source of drinking water to be used by energy, mining, and other companies for oil or mineral extraction or disposal purposes in compliance with the Safe Drinking Water Act.[19] According to EPA regulations, to inject fluids into an aquifer, the aquifer must have more than 10,000 parts per million (ppm) total dissolved solids (TDS). Drinking water sources typically have TDS below 3,000 ppm. For most types of wells, waivers are allowed on a case-by-case basis if TDS is between 3,000 and 10,000 ppm. This type of waiver is not allowed for Class VI wells. EPA can, however, issue an injection depth waiver for Class VI wells, which is a different waiver process than the aquifer exemptions that can be given to Class I, II, III, IV, and V wells. The option of allowing EPA to grant aquifer exemption waivers would provide parity among all six well classes.

Participants agreed that exemptions should be consistent across all well classes, noting that Class VI wells should not have to clear a higher bar. A participant added that if fracking fluid can be injected into an aquifer with an aquifer exemption, CO_2 should be allowed as well. Another participant noted that this policy option is worth pursuing, but might only be relevant to a handful of projects based in the Rocky Mountains. Overall, there was broad support for this policy, but also a recognition that its impact would be limited.

Option: Establish a categorical exclusion for adding carbon capture, utilization, and storage (CCUS) to an existing power plant or industrial facility

According to the Council on Environmental Quality (CEQ): "A categorical exclusion (CE) is a class of actions that a Federal agency has determined, after review by CEQ, do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is normally required. The use of categorical exclusions can reduce paperwork and save time and resources."[20] Recently, the Department of Energy proposed a new categorical exclusion for certain battery storage systems.[21] Roundtable participants discussed the value of establishing a new CE for the installation of CCUS technology at an existing power plant or industrial facility.

For CCUS projects that are required to go through the National Environmental Protection Act (NEPA) process, there was general agreement that a CE would accelerate the process and would be helpful. Participants noted that adding CCUS at an existing facility reduces other kinds of emissions, as well as greenhouse gas emissions, which provides health benefits in addition to climate benefits. But participants also noted that CCUS technology lacks support from some stakeholders, so this option may face political opposition.

Option: Establish a categorical exclusion for adding additional direct air capture (DAC) facilities to an operational DAC hub

As recommended in BPC's 2022 report "The Role of Categorical Exclusions in Achieving Net-Zero by 2050,"[22] this policy would establish a new CE for adding additional DAC facilities at an existing DAC hub.

> "The Infrastructure Investment and Jobs Act appropriated $3.5 billion for four regional DAC hubs. These hubs will consist of several elements, including DAC facilities, carbon dioxide sequestration wells, carbon dioxide transportation infrastructure, power generation, and carbon dioxide utilization facilities. These hubs will have "room to grow" and it is expected that additional DAC facilities, including pilots, demonstration projects, and commercial scale facilities, will be added on to existing hubs over

> time. As DOE is doing the initial permitting review for each hub, they should do a programmatic review that includes designating a categorical exclusion for adding additional DAC facilities to an operational DAC hub."

Roundtable participants recognized that a CE could accelerate numerous future projects considering that DAC hubs are federally funded and therefore subject to the NEPA process. Participants also noted that because the initial DAC hub infrastructure will have already gone through the NEPA review process, adding additional facilities at the same site would likely have minimal environmental impact. Overall, there was strong support for this policy, with one participant declaring that it could be considered the "poster child" of what a categorical exclusion should be used for.

Geothermal

Option: Establish categorical exclusions for geothermal test wells

This policy would establish a new CE for geothermal test wells on federal land, creating parity with oil and gas test well projects that already have a CE. This policy was also recommended in BPC's 2022 report "The Role of Categorical Exclusions in Achieving Net-Zero by 2050."[23]

> "The vast majority of viable geothermal resources exist on federal land, meaning most geothermal exploration is subject to NEPA review. Creating a new categorical exclusion at DOI for geothermal exploration on federally managed lands would facilitate investment in geothermal energy and empower clean energy companies to develop geothermal energy by reducing the high up-front costs and uncertainty associated with lengthy environmental reviews for small-scale test drilling."

As with other CE-related policy options, roundtable participants broadly supported a new CE for geothermal wells. The general view was that there is no reason oil and gas test wells should receive a CE but geothermal test wells should not. Since the nation's geothermal resources are largely located on federal land, this policy could have a large impact on the geothermal industry.

Option: Clarify that geothermal lease reinstatement is not a 'major federal action' under NEPA

The Fiscal Responsibility Act lists specific actions that are not considered "major federal actions," and therefore do not trigger the NEPA process.[24] This policy option would add geothermal lease reinstatement to the list of actions that are exempt from NEPA review. The initial construction of a new geothermal facility would still be subject to NEPA but subsequent reinstatements would be exempt.

Roundtable participants broadly supported this option. They saw no reason that a geothermal project that had already received approval would need to continue going back through the NEPA process for reinstatement.

Option: Require annual federal lease sales for geothermal energy

The Department of Interior (DOI) is currently required to hold lease sales for geothermal resources at least once every two years. These lease sales allow federal land to be developed for geothermal projects. Roundtable participants considered changing the current requirement so that geothermal lease sales must be conducted annually. This would put geothermal lease sales on par with lease sales for offshore wind and oil and gas projects, which benefited from recent BIL provisions that require federal agencies to conduct annual lease sales for those type of projects.

Participants had no objections to making this policy change and saw the value of accelerating the rate at which federal land is made available for geothermal development. There was broad consensus that it makes sense to standardize annual lease sale requirements across various clean energy technologies.

Option: Establish a 30-day timeline for reviewing geothermal drilling permits (GDPs)

Developers of geothermal projects on federal land must receive a GDP before they can break ground. GDPs are typically issued by the BLM based on an environmental assessment (EA) that results in a "finding of no significant impact" (FONSI) or a "determination of NEPA adequacy."[25] A GDP issued on the basis of an EA can take about five months.[26] A provision that would require GDPs to be completed within 30 days of submission was included in the Lower Energy Costs Act of 2023 (HR1).[27]

While roundtable participants generally approved of permitting timelines that help accelerate the decision-making process, there were questions about the feasibility of a 30-day timeline. Participants did not believe that BLM has the staff capacity or expertise needed to meet accelerated permitting deadlines. Some participants suggested that this policy could put the agency under pressure to increase administrative capacity. Others thought that it

would need to be paired with legislation that helps BLM staff up, whether through increased appropriations or staffing authorities. Overall, there was some skepticism that this policy change, pursued on its own, would work as intended. Timelines in general, however, were viewed as positive, so a timeline that is greater than 30 days but shorter than five months, could be productive, as long as agency staffing and resources are sufficient to achieve this goal.

Option: Clarify that geothermal projects on state or private lands in which the federal ownership interest is less than 50% are not subject to federal permitting requirements

Roundtable participants discussed another policy provision in the Lower Energy Costs Act of 2023 (HR1)[28] clarifying that geothermal projects are not subject to federal permitting requirements if the project is located on land in which the federal government does not own at least 50% of the subsurface mineral estate. This clarification would put geothermal projects in-line with oil and gas projects, which are already exempt from federal permitting requirements in these cases.

Participants broadly supported this policy on the basis that it would establish parity between geothermal and oil and gas projects in terms of federal permitting requirements. A participant noted that this change would help resolve complicated issues of intermingled land ownership. In the west, where federal land ownership is extensive, intermingled ownership and "checkerboarding" commonly result in situations where the federal government has a minority stake in the subsurface mineral estate of a property. This change would give developers greater clarity about which projects will and will not be subject to NEPA review.

Hydroelectric Power

Option: Affirm a 2-year licensing process for next-generation hydropower resources

The Federal Energy Regulatory Commission (FERC) has sole authority over licensing hydropower projects. A 2021 DOE report found that, on average, FERC takes five years to review and issue a license for a new hydropower project and 7.6 years to relicense an existing hydropower project.[29] This policy, which was included in the bipartisan Hydropower Clean Energy Future Act, would establish a mandatory 2-year timeline for FERC to complete a licensing review for next-generation hydropower projects.[30] The legislation defines "next generation" as a hydropower project "that utilizes

turbine and generation technology, an energy storage method, or a measure to protect, mitigate and enhance environmental resources, that is not in widespread, utility-scale use in the US as of the date of enactment."

Roundtable participants saw the potential benefit of an accelerated timeline for licensing certain types of hydropower projects, including non-utility sized projects, such as projects in an irrigation, water supply, industrial, agricultural, or water conduit system. However, some participants did not believe two years is a reasonable timeline for more intensive projects. Projects that add infrastructure to existing dams raise significantly fewer licensing and environmental issues than projects that construct new dams. Participants emphasized the significant clean energy potential of powering existing dams that currently lack hydropower infrastructure.

Option: Exempt small hydropower projects that do not have significant environmental impacts from FERC licensing requirements

Under this policy option, small hydropower projects that do not have significant environmental impacts would be exempt from the FERC licensing process. The option was included in the Hydropower Clean Energy Future Act[31], which defines "small hydropower projects" as projects with an installation capacity of less than 40 megawatts (MW). Relative to DOE's definition[32] of small hydropower projects, which is currently set at a much lower threshold of 10 MW, the 40-MW threshold would allow a larger number of projects to qualify for an exemption.

While roundtable participants did not take a position on specifically what size project should qualify as "small," there was agreement that this policy option could be worthwhile, provided there is a reasonable process for assessing environmental impact, such as a programmatic review. If the conclusion is that a project will not have a significant impact, it should not be required to go through FERC's lengthy licensing process.

Option: Exempt closed-loop pumped storage projects that do not utilize federal land or impound navigable waters from FERC licensing requirements

Closed-loop pumped storage projects involve two reservoirs that are entirely separated from other bodies of water. Energy is stored by moving water between the reservoirs, spinning a turbine in the process. This policy option would exempt such projects from FERC's hydropower licensing process, provided they are not located on federal land and do not impound navigable waters.

There was consensus among roundtable participants that closed-loop pumped hydro projects should be exempt from the FERC hydropower licensing process because they are, by definition, completely contained and do not interact with other bodies of water. A few participants noted

that this policy change will have a relatively small impact in the near term because there are not many closed-loop pumped storage projects. However, as the need for energy storage increases with the expanded deployment of intermittent renewable generators, this policy may have greater impact.

Conclusion

It is clear that additional, technology-specific policy reforms could be useful, in combination with the more broad-based permitting changes discussed in previous briefs, to achieve a more efficient overall permitting system for energy projects. BPC remains committed to educating stakeholders about promising options for permitting reform that help advance the broadly shared goals in terms of energy reliability, affordability, and reduced emissions while maintaining protections for the environment and public health and safety. The next issue brief in this series will provide a comprehensive analysis of all the permitting reform policies discussed in our roundtable meetings to date in an effort to identify those options that are most likely to be impactful and attract bipartisan political support.

Endnotes

1 Bipartisan Policy Center. (2023, November 2). BPC Roundtable Series: Exploring Energy Permitting Reform. Retrieved from https://bipartisanpolicy.org/blog/bpc-roundtable-series-exploring-energy-permitting-reform/.

2 Fishman, X., Jacobs, J., Minott, O., Tesfaye, M., & Winkler, A. (2023, May 09). Empowering Communities while Streamlining Clean Infrastructure Permitting. Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/blog/clean-infrastructure-permitting/.

3 Fishman, X., Hall, M., Jacobs, J., & Pickford, L. J. (2023, July 24). Linear Infrastructure: Options for Efficient Permitting of Transmission and Pipeline Infrastructure. Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/explainer/efficient-permitting-of-linear-infrastructure/.

4 Fishman, X., Hall, M., Jacobs, J., Minott, O. (2023, Sept. 18). Reforming Judicial Review for Clean Infrastructure: A Bipartisan Approach. Bipartisan Policy Center. Available at: https://bipartisanpolicy.org/explainer/reforming-judicial-review-for-clean-infrastructure-a-bipartisan-approach/.

5 Xan Fishman, John Jacobs. "Exploring NEPA Reforms Needed to Unlock Clean Energy Infrastructure." Bipartisan Policy Center, November 13, 2023. Available at: https://bipartisanpolicy.org/report/exploring-nepa-reforms-unlock-clean-energy-infrastructure/.

6 Jacobs, J., Jantarasami, L., & Fishman, X. (2024, January). Licensing and Permitting Reforms to Accelerate Nuclear Energy Deployment. Bipartisan Policy Center. Retrieved from https://bipartisanpolicy.org/explainer/nuclear-energy-license-permit-reform/.

7 Federal Permitting Improvement Steering Council. "Adding Mining as a Sector of Projects Eligible for Coverage Under Title 41 of the Fixing America's Surface Transportation Act." November 27, 2020. Available at: https://www.federalregister.gov/documents/2020/11/27/2020-25235/adding-mining-as-a-sector-of-projects-eligible-for-coverage-under-title-41-of-the-fixing-americas.

8 Permitting Dashboard. "Permitting Council Moves to Designate the Critical Minerals Supply Chain as a FAST-41 Sector." September 21, 2023. Available at: https://www.permits.performance.gov/fpisc-content/permitting-council-moves-designate-critical-minerals-supply-chain-fast-41-sector.

9 Congress.gov. "H.R. 1 - The Lower Energy Costs Act." May 14, 2023. Available at: https://www.congress.gov/118/bills/hr1/BILLS-118hr1ih.pdf.

10 U.S. Government Accountability Office. "Abandoned Hardrock Mines: Land Management Agencies Should Improve Reporting of Total Cleanup Costs." January 13, 2023. Available at: https://www.gao.gov/products/gao-23-105408#:~:text=Why%20GAO%20Did%20This%20Study,as%20arsenic%2C%20into%20nearby%20waterways.

11 U.S. Department of the Interior. "Biden-Harris Administration Releases Final Guidance on Bipartisan Infrastructure Law Abandoned Mine Land Grant Program." July 21, 2022. Available at: https://www.doi.gov/pressreleases/biden-harris-administration-releases-final-guidance-bipartisan-infrastructure-law.

12 Heinrich, M., & Risch, J. (2023, September 13). Heinrich, Risch reintroduce bipartisan legislation to remove hurdles for Good Samaritans to clean up abandoned hardrock mines. Retrieved from https://www.heinrich.senate.gov/newsroom/press-releases/heinrich-risch-reintroduce-bipartisan-legislation-to-remove-hurdles-for-good-samaritans-to-clean-up-abandoned-hardrock-mines.

13 U.S. Department of the Interior. "Biden-Harris Administration Fundamental Principles for Domestic Mining Reform." February 22, 2022. Available at: https://www.doi.gov/sites/doi.gov/files/biden-harris-administration-fundamental-principles-for-domestic-mining-reform.pdf.

14 The Biden-Harris Administration's Interagency Working Group on Mining Laws, Regulations, and Permitting. "Recommendations to Improve Mining on Public Lands." September 2023. Page 83. Available at: https://www.doi.gov/sites/doi.gov/files/mriwg-report-final-508.pdf.

15 The Biden-Harris Administration's Interagency Working Group on Mining Laws, Regulations, and Permitting. "Recommendations to Improve Mining on Public Lands." September 2023. Page 84. Available at: https://www.doi.gov/sites/doi.gov/files/mriwg-report-final-508.pdf.

16 Jonika Rathi and Spencer Nelson. "Need for Speed: Removing Roadblocks for CO2 Pipelines and Wells." ClearPath, April 13, 2023. Available at: https://clearpath.org/our-take/need-for-speed-removing-roadblocks-for-co2-pipelines-and-wells/.

17 Philip K. Lau, Dale D. Smith, Nadav C. Klugman. "Carbon Capture, Utilization, and Storage: Class VI Wells and US State Primacy." June 2022. Mayer Brown. Available at: https://www.mayerbrown.com/en/perspectives-events/publications/2022/06/carbon-capture-utilization-and-storage-class-vi-wells-and-us-state-primacy.

18 Danny Broberg, Anne-Charlotte Frotté. "EPA Class VI State Primacy: Injecting Local Expertise for Permanent CO2 Sequestration." Bipartisan Policy Center, November 16, 2023. Available at: https://bipartisanpolicy.org/blog/injecting-local-expertise-for-permanent-co2-sequestration/.

19 U.S. EPA. "Aquifer Exemptions in the Underground Injection Control Program." Available at: https://www.epa.gov/uic/aquifer-exemptions-underground-injection-control-program.

20 NEPA.gov. "Categorical Exclusions." Available at: https://ceq.doe.gov/nepa-practice/categorical-exclusions.html.

21 Office of the General Counsel, Department of Energy. (2023, November 16). Notice of proposed rulemaking and request for comment. Retrieved from https://public-inspection.federalregister.gov/2023-25174.pdf.

22 Bipartisan Policy Center. "The Role of Categorical Exclusions in Achieving Net-Zero by 2050." September 27, 2022. Available at: https://bipartisanpolicy.org/report/categorical-exclusions/.

23 Bipartisan Policy Center. "The Role of Categorical Exclusions in Achieving Net-Zero by 2050." September 27, 2022. Available at: https://bipartisanpolicy.org/report/categorical-exclusions/.

24 Owen Minott, Xan Fishman, John Jacobs. "How Does the Fiscal Responsibility Act Reform Permitting and Environmental Review?" Bipartisan Policy Center, June 02, 2023. Available at: https://bipartisanpolicy.org/blog/fiscal-responsibility-act-permit-reform/.

25 Katherine R. Young, Kermit Witherbee, Aaron Levine, et al. "Geothermal Permitting and NEPA Timelines." National Renewable Energy Laboratory, 2014. Available at: https://gdr.openei.org/files/1258/Geothermal%20Permitting%20and%20NEPA%20Timeline%20Analysis%20-%20FINAL.pdf.

26 Katherine R. Young, Kermit Witherbee, Aaron Levine, et al. "Geothermal Permitting and NEPA Timelines." National Renewable Energy Laboratory, 2014. Page 899. Available at: https://gdr.openei.org/files/1258/Geothermal%20Permitting%20and%20NEPA%20Timeline%20Analysis%20-%20FINAL.pdf.

27 Congress.gov. "H.R. 1 - The Lower Energy Costs Act." May 14, 2023. Available at: https://www.congress.gov/118/bills/hr1/BILLS-118hr1ih.pdf.

28 Congress.gov. "H.R. 1 - The Lower Energy Costs Act." May 14, 2023. Available at: https://www.congress.gov/118/bills/hr1/BILLS-118hr1ih.pdf.

29 U.S. DOE Water Power Technologies Office. "New Report Examines the U.S. Hydropower Permitting Process." October 21, 2021. Available at: https://www.energy.gov/eere/water/articles/new-report-examines-us-hydropower-permitting-process#:~:text=Evaluating%20how%20to%20mitigate%20the%20impacts%20of%20a,while%20relicensing%20takes%20an%20average%20of%207.6%20years.

30 Committee on Energy & Commerce. "Chair Rodgers Introduces Bill to Unleash Clean, Reliable Hydropower Through Innovation and Licensing Reform." June 12, 2023. Available at: https://energycommerce.house.gov/posts/mc-morris-rodgers-introduces-bill-to-unleash-clean-reliable-hydropower-through-innovation-and-licensing-reform.

31 Committee on Energy & Commerce. "Chair Rodgers Introduces Bill to Unleash Clean, Reliable Hydropower Through Innovation and Licensing Reform." June 12, 2023. Available at: https://energycommerce.house.gov/posts/mc-morris-rodgers-introduces-bill-to-unleash-clean-reliable-hydropower-through-innovation-and-licensing-reform.

32 DOE Water Power Technologies Office. "Types of Hydropower Plants." Available at: https://www.energy.gov/eere/water/types-hydropower-plants#sizes.

Bipartisan Policy Center

1225 Eye St NW, Suite 1000
Washington, DC 20005

bipartisanpolicy.org

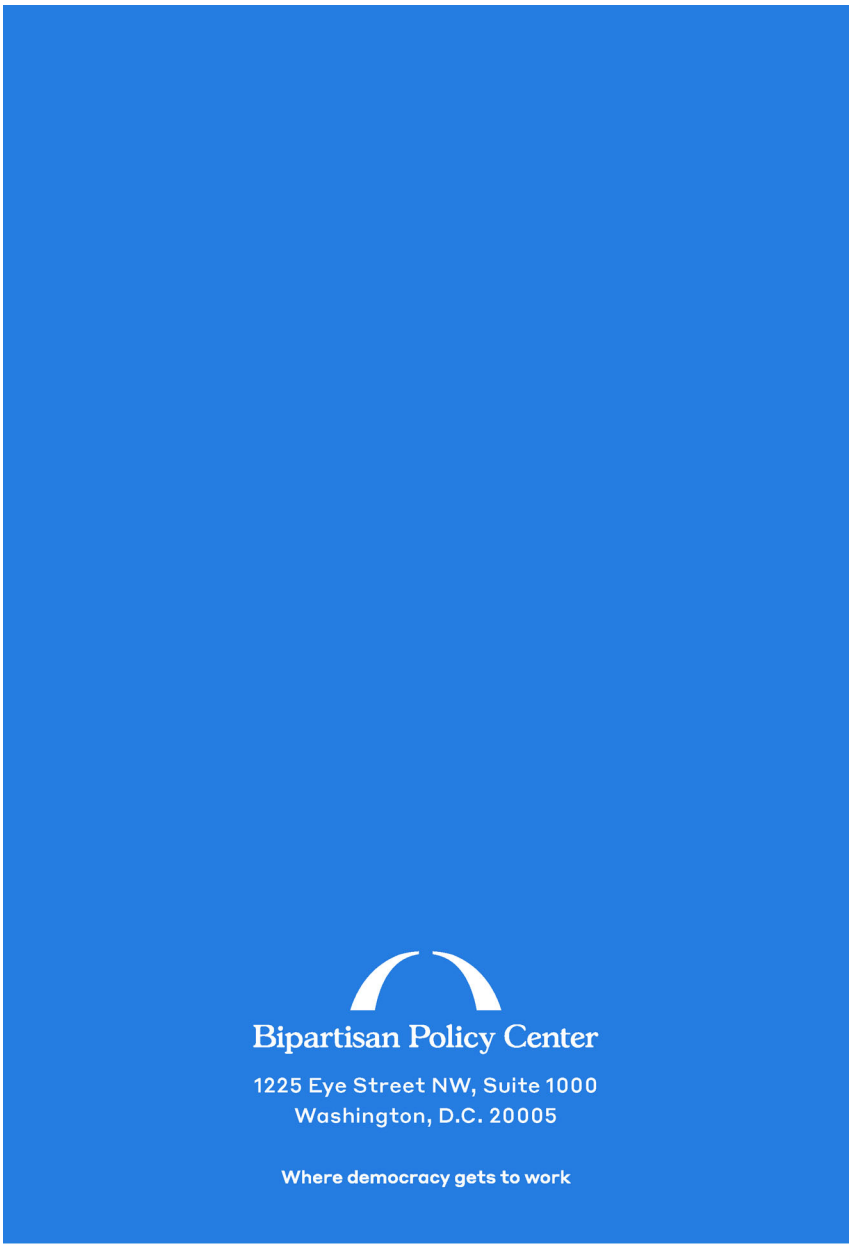
202 - 204 - 2400

The Bipartisan Policy Center helps policymakers work across party lines to craft bipartisan solutions. By connecting lawmakers across the entire political spectrum, delivering data and context, negotiating policy details, and creating space for bipartisan collaboration, we ensure democracy can function on behalf of all Americans.

@BPC_Bipartisan
facebook.com/BipartisanPolicyCenter
instagram.com/BPC_Bipartisan

Policy Areas

- Business
- Child Welfare Initiative
- Democracy
  - American Congressional Exchange
  - Campus Free Expression
  - Digital Democracy
  - Elections
  - Presidential Leadership
  - Structural Democracy
- Early Childhood
- Economy
  - Debt Limit
  - Higher Education
  - Immigration
  - Paid Family Leave
- Energy
- Health
- Housing
- Infrastructure
- Technology


Bipartisan Policy Center
1225 Eye Street NW, Suite 1000
Washington, D.C. 20005
Where democracy gets to work

A Simple Way to Cut NEPA's Red Tape

The Supreme Court should take account of all the environmental laws enacted since 1970.

By James L. Connaughton

Dec. 9, 2024 5:47 pm ET
Wall Street Journal
https://www.wsj.com/opinion/a-simple-way-to-cut-nepas-red-tape-environmental-laws-supreme-court-38e7f6fd?st=LoHZG3&reflink=article_copyURL_share

There's something about a train. The Supreme Court hears oral arguments Tuesday in *Seven County Infrastructure Coalition v. Eagle County*. At stake is an 88-mile railway bringing oil and farm goods out of rural Utah, which is under challenge by Eagle County, Colo., even though the new railway won't be built in Colorado.

Eagle County sued under the National Environmental Policy Act, claiming that the Surface Transportation Board's 3,600-page environmental-impact review was inadequate. The U.S. Circuit Court of Appeals for the District of Columbia agreed. It held that the board is required to analyze possible impacts as far away as the Gulf Coast, where the exported oil might be refined, and the environmental effects of "long-term employment and commercial activity" resulting from the railway. The Seven County Infrastructure Coalition contends that it shouldn't have to analyze the environmental impact of anything not directly associated with railroads. It should be responsible only for the "proximate effects" of development over which it has regulatory authority.

Ample legal precedent exists to reverse the lower court's decision. But establishing a predictable principle to guide future decisions about infrastructure development and prevent further litigation will be difficult. Litigants will have to parry a barrage of unpredictable hypotheticals trying to determine what constitutes the relevant proximate effects.

So before going down that rabbit hole, the justices might first consider the National Environmental Policy Act's original threshold for review. NEPA directs federal agencies undertaking major action to consider "presently unquantified environmental amenities and values." When NEPA was enacted in 1970, little in the environmental domain was quantified. More than 50 years later, almost everything is.

Since 1970, Congress has enacted at least 25 environmental and resource-protection statutes, compounded by a vast array of state, county, local and tribal laws. These laws cover every imaginable environmental topic. They amount to hundreds of thousands of technical rules established by countless experts constantly reviewing, monitoring,

inspecting and enforcing every last one of them. In other words, there is very little that is still "unquantified" by NEPA's standards. If something can be studied and regulated, there is probably an agency already doing so.

So when the court considers a clear and practical boundary for NEPA analysis, it should conclude that an agency need not consider environmental impact already regulated by an existing law. A couple of examples illustrate the value of this "regulated impacts" principle. In 2008 the Ninth Circuit enjoined the U.S. Navy from conducting submarine training in California on the ground that the Navy hadn't adequately assessed effects on whales and dolphins under NEPA. The court ignored that the Navy's plan had been approved as sufficiently protective by the National Oceanic and Atmospheric Administration under the Endangered Species Act and received a waiver under the Marine Mammal Protection Act. Although the Supreme Court reversed the injunction, the Navy still had to produce further analysis. But to what end, since the Navy was already doing what the law required to prevent harm to whales and dolphins?

This past summer, the D.C. Circuit blocked the Federal Energy Regulatory Commission from authorizing two liquefied-natural-gas projects in Texas, mainly on the grounds that FERC hadn't adequately assessed the projects' effects on air quality. The court ignored that the Texas Department of Environmental Quality had already approved the projects' air-quality permits and found them in line with standards set by the U.S. Environmental Protection Agency.

Applying such reasoning would let the Surface Transportation Board's approval stand. It would also curtail excessive and redundant NEPA analysis. Completing an environmental-impact statement now takes 4½ years on average, with 25% taking longer than six years. Such prolonged delay triples the cost of building critical infrastructure projects. The U.S. needs faster development of critical infrastructure, and the justices have an opportunity to clear the way.

Mr. Connaughton is CEO of JLC Strategies. He served as chairman of the White House Council on Environmental Quality, 2001-09.

THE ASPEN INSTITUTE ENERGY & ENVIRONMENT PROGRAM

BUILDING CLEANER, FASTER

Final Report

The Aspen Institute, Energy & Environment Program

Spring 2021

On March 31, President Biden announced "The American Jobs Plan" as part of his Build Back Better agenda to accomplish two important missions: (1) decarbonizing the nation's economy to address the challenges of climate change and the energy transition; and (2) growing jobs and the economy while simultaneously making the nation's infrastructure more resilient. The White House announcement focused on fiscal, policy, and regulatory goals. This paper solves for the critical missing link: the need to address the challenges of delay, uncertainty, and cost of our current environmental review and permitting system that threatens the build out of decarbonization infrastructure. As described below, there is well established precedent for both Congress and the Executive Branch introducing regulatory tools for streamlining the approval process for environmental projects that will bring net benefits and otherwise comply with strict requirements.

Anticipating the Administration's bold proposals for urgent economy-wide action on climate change, the Aspen Institute Energy & Environment Program convened a group of policymakers, experts, and practitioners to consider solutions to expedite climate action. Over a series of threeroundtable conversations in the winter months between 2020 and 2021, these professionals focused on the following problem:

> *Achieving net-zero emissions by 2050 is ecologically essential, technologically feasible, economically achievable, but procedurally impossible.*

The discussions led to a unanimous conclusion: to truly succeed in decarbonizing the economy, we must take bold action to modernize and reform our environmental review and permitting processes to implement decarbonization projects with the scale, speed, and predictability that confronting the climate crisis requires. Strong funding and the best intentions to invest in infrastructure will otherwise be met with years of delay and uncertainty that will hinder progress and threaten the viability of projects needed to solve the problem.

The group endorsed four critical paths to success:

1. **Immediate approvals**: For categories of decarbonization projects where environmental impacts are well understood, either due to the nature or location of the project, Congress should establish approval criteria that enable project clearance without delay.
2. **Accelerated approvals**: For decarbonization projects that may cause unique or significant negative local environmental impacts, Congress should establish a bifurcated

process that documents the categories of climate-beneficial projects at the outset, and then focuses environmental review and permitting on any uniquely local conditions of a project on an accelerated timeline.

3. **Accelerated adjudications**: Once a project is approved, any adjudications for decarbonization projects must include a final decision timeline of well under one year to ensure that protracted litigation does not undermine project viability.
4. **State and local conformity**: Eligibility for any federal infrastructure or climate-related funding, tax incentives, or grants shall be conditioned on a state or locality conforming to the same framework and timeline for fast approval and adjudication of projects.

The ideas outlined below reflect our consensus that we must seize this moment of wide-spread support for decarbonization of infrastructure to accelerate project approval and adjudication to well under a year, while preserving good government principles of public participation through legislative and administrative processes. Such reforms should broadly encompass all sectors and technologies that can deliver emissions reductions at the gigatons of scale (either per project or with respect to a technology capable of being scaled) needed to confront the climate crisis and eliminate the inequitable public health burden of disproportionate environmental harms once and for all.

Opportunity Statement: The Benefits of Speed and Certainty

Realizing the President's goal of net zero emissions by 2050—and net zero for the energy sector by 2035—will need more than just fiscal and policy support to succeed. Even with significant resources and strong policy direction, speed and certainty of project approvals will be critical to success.

Speed is essential to realizing climate objectives given the still growing trajectory of emissions, the increasing severity of climate change, and the lack of action since the signing of the Paris Agreement. A ton of carbon reduced today delivers 30 tons more cumulative abatement benefit than a ton reduced in 2050. A ton of air pollution reduced today improves the health and prolongs the lives of more people than a ton reduced in 2050. Speed also lowers the costs of achieving the objective. A clean infrastructure project with certainty of deployment in less than a year incurs substantially lower financing costs and produces jobs, revenues, and taxes a lot sooner than a project that is hung up for 3 to 10 years. Finally, speed produces more projects sooner to meet the objective. Prompt permitting and adjudication reduces the number of projects that are otherwise abandoned due to delay.

Certainty is also critical to realizing climate objectives. Only with final and durable decisions can public and private investors make commitments to secure funding, hire workers, mobilize supply chains, and initiate the complex logistics to rapidly complete the large scale infrastructure projects and deploy the innovative support technologies needed for decarbonization plans.

Unfortunately, speed and certainty are not the hallmarks of our present environmental review and permitting system at the federal, state, and local level, even when the net environmental outcomes of a project are clearly favorable. The environmental review and permitting system

now takes years and, in many cases, more than a decade to approve and adjudicate hundreds of major infrastructure projects. Delay and uncertainty cause cancellation of countless others along the way.

For decarbonization infrastructure projects intended to have net environmental benefits, this situation is particularly counterproductive since, during every stage of construction, operations, and ultimate decommissioning, every project must fully comply at all times with the world's most stringent federal, state and local environmental protection, natural resource conservation, and health & safety regulations. All of these regulations were developed through extensive legislative and administrative processes embodying critically important concepts of good government and the rule of law including record-based decision making, public participation, transparency, and judicial review. Project sponsors and owners face harsh civil penalties and even criminal liability for any noncompliance.

Understood in this context, the permitting system provides an up-front assurance of regulatory compliance prior to project construction and operation. The environmental review process, in turn, ensures project sponsors consider environmental factors other than what is already subject to regulatory compliance to better inform project siting and design choices. For projects intended to advance environmental goals, these processes of compliance assurance should have improved substantially over time to handle current infrastructure approval workloads with greater agility and finality, particularly given advances in science and information technology. But unfortunately, the situation has worsened and environmentally beneficial projects that are already subject to heavy regulation face the same delays, risks, and uncertainty as other projects whose environmental impacts are less certain.

Decarbonization of the economy is projected to require trillions of dollars in new investment and tens of thousands of increasingly distributed and interconnected energy, transportation, industrial and agricultural infrastructure. The goal of these projects first and foremost is to improve the environment and promote a more sustainable planet. But federal, state, and local agencies do not currently have the workforce, resources, processes, or adjudication capacity to handle the forthcoming volume of necessary activity. Accordingly, even if we get everything else right on the road to net-zero in terms of fiscal support and strong policy, our current permitting system threatens to be an insurmountable barrier to success.

To succeed, we must bring the same bold thinking to the environmental review and permitting process as we are to fiscal investments and to infrastructure and climate policy. In other times and places, national leadership and nationwide determination combined to overcome such obstacles to achieving critical objectives. For example, in just 15 years, the US delivered rural electrification to 80% percent of farmers and not much longer than that to reach almost 100%. In just 15 years, France built an 80 percent independent and emissions free electricity system using nuclear and renewable energy, and not much longer than that to essentially achieve net zero electricity sector emissions by becoming a clean energy exporter. These efforts required national, regional, and local leadership, a dramatic acceleration of development and investment, and the removal of needless procedural barriers to construction and deployment.

Similarly, for projects that are intended to solve climate change and advance decarbonization

and the energy transition, we must commit to realizing the principles of record-based decision making, public participation, transparency, and adjudication within a reasonable time period and well under a year. The ideas below are intended to address the problems associated with both speed and uncertainty.

Importantly, in putting forth the ideas described here to fix our current system of progress-preventing processes and deliver fully reviewed and permitted clean infrastructure projects in one year or less, as noted above, we can be assured that all such projects will be as environmentally protective as our laws and regulations require. We recognize that some environmental impact analyses may need to extend beyond a year (for example, for local analyses of migratory patterns or seasonal water flows), but these should be the exception, not the rule. Similarly, community engagement and public participation are a must and time is needed fully to build partnership with neighbors of the proposed project (see more on this topic below). The thought here is that much of such analysis and engagement would occur before a project is proposed for permitting. It is the permit review process and time that we are addressing here. With appropriate upfront planning, engagement, and analysis we believe needed reviews can and should be completed in the timeframes described here.

Accordingly, a dramatically faster and certain process of clean infrastructure permitting can be established with full confidence that our highest levels of protection of public health and the environment will be assured, with full respect for and partnership with local communities and without having to put the project sponsor through years of having to preliminarily prove the sponsor will comply with the law. Federally legislated carbon emission reduction requirements could provide further confidence of a positive environmental outcome.

Step 1: Immediate Approvals for Critical Projects with Well Documented Net Environmental Benefits

Every president since Jimmy Carter has sought to improve the cumbersome and inefficient process for siting and reviewing major infrastructure projects, mainly through complex, ad hoc efforts to improve administrative management, consolidate decision-making, and coordinate more closely with state and local officials making most of the decisions. None of these efforts have resulted in lasting, large scale improvements. The imperative to quickly construct thousands of low carbon energy, industrial, transportation and agricultural systems and to address the risks posed by our nation’s crumbling infrastructure demands a policy outcome proportionate to the imperative. That is why legislating automatic approval of certain qualifying projects and qualifying locations is the best and most consequential action that could be taken for categories of projects where the opportunity for greenhouse gas abatement is high, and the net beneficial impacts are well understood. Precedent exists for such action, such as legislated categorical exclusions under NEPA and state equivalents, national security waivers, and general permits. The international and domestic urgency of the climate crisis is equally or more compelling justification for adopting such measures.

Pre-Qualified Projects

Legislation should authorize all categories of projects where the opportunity for greenhouse gas abatement is the highest and other potential environmental impacts are well understood and documented. For example, projects to improve the resilience of the energy ecosystem and grid to accommodate more renewable energy and abate threats due to weather events, such as the recent Texas storms, are overdue and deploy technologies and methods that have well understood impacts that do not require repetitive, boilerplate re-analysis.

Another example are projects that, de facto, deliver substantial net climate and environment benefits by replacing existing infrastructure with new infrastructure which has less impact than what is already permitted. A good example is the conversion of coal-fired plants, either through repowering to natural gas, retrofit for CCUS, or repurposing the site for renewable energy, green data centers, and other projects that can take advantage of the existing electrical and mechanical infrastructure. Absent automatic permitting, these complex and heavily regulated locations may be among the last to see meaningful redevelopment, when they could and should be among the first in order to enable a meaningful and equitable transition.

Identification of such clean infrastructure project categories and particular projects that qualify for pre-approval should be embodied in legislation to the extent possible, which would enable both expedited approvals and avoid the potential for protracted judicial review where Congress has deemed such projects pre-qualified. Such categories can be linked to existing federal, state, and local processes of categorization of projects as clean infrastructure driving decarbonization. These could include projects that: 1) qualify for federal, state, or local tax credit, such as the ITC,PTC or 45Q; 2) recipient of a DOE loan guarantee, USDA grants/loans, or similar public fundingprograms established to reduce emissions; 3) subject to a Clean Energy Standard, Renewable Energy Standard, or equivalent mandatory legislation.

A further variation on the theme and additional approach would have Congress establish a non-discretionary presumption of project approval so long as a project satisfies certain predefined criteria. Congress could require an agency to review and approve or reject such an application within 90 days, and then allow public comment only as to whether the application meets the criteria specified by Congress, with judicial deference afforded to the agency's initial determination.

Pre-Qualified Locations

Identification of locations that qualify for pre-approval should be embodied in federal, state, and local legislation for the same reason as pre-qualified projects, and likewise could take advantage of already existing federal, state, and local processes of priority. Recent bipartisan Opportunity Zone legislation provides a particularly compelling example and alignment of constituent interests. Each state has already worked with local communities to prioritize specific economically disadvantaged areas for substantially tax incentivized private sector

redevelopment, including infrastructure. A very substantial portion of these areas are ideal for clean infrastructure investment, not only supporting good construction and operations jobs, but also local ownership of valuable new community infrastructure that can attract new business. This program is ripe for a second round of designations which could include specific attention to urban and rural areas particularly well suited to green infrastructure investment enabling (as noted above) conversion of Environmental Justice communities into Environmental Opportunity communities.

Both in this context and separately, other already established categories should be considered for pre-approval such as: 1) federal and state designated Brownfields that have been cleared for redevelopment; 2) former military bases; 3) local enterprise zones and their equivalent; 4) dam sites where hydro-power generation can be added; 5) pre-zoned BLM, Forest Service, and other public lands.

Step 2: Accelerated Approvals for Projects with Documented Impacts but Local Analysis

As part of the push toward clean energy infrastructure, some projects will have a high sense of urgency and need but less documented environmental impacts. For example, an automatic approval process may not be feasible for particularly complex or novel projects such as new advanced designed nuclear energy plants, hydrogen production and distribution facilities, or for “linear” infrastructure such as smart highways, natural gas pipelines, CO2 pipelines and repositories for CCUS, and certain intrastate and interstate transmission, and supporting digital infrastructure. In such cases, there is an opportunity to ensure permitting is still accountable for timelines and certainty and achieve thorough government and public review on the fastest rather than the most protracted timeline achievable. The way to accomplish this is to do as much of the work in advance as possible.

Here, a bifurcated approach could be used in which agencies would prepare environmental reviews and permit templates for certain types of complex and linear projects that analyze the pertinent impacts of such projects generally. The public would be provided three months of review and comment before finalizing the general framework. A specific permit application would then incorporate by reference that review and focus specifically on local or unique impacts of the project, with a period of no more than three months of public comment limited to the local and unique aspects under consideration. Modern communication and information technology makes possible such substantially more efficient processes, focused and transparent exchange and evaluation of such information. Precedent for this approach exists in the context of programmatic environmental impact statement under NEPA and in various general permit programs and permits-by-rule at the federal and state level.

This bifurcated approach enables the opportunity for record-based decision making, public participation, transparency, and adjudication while promoting timeliness and certainty for projects. The bulk of the impacts among a category of projects would be assessed in advance,

enabling the review of a specific project to be tailored to local and specific impacts. When combined with accelerated adjudication (Part III below) this would achieve the dual goals of public participation and project approval within a year of application for critical clean energy infrastructure projects.

Development and adoption of local ordinances to establish standards for siting and permitting various clean energy and infrastructure systems ahead of individual project permit applications could also be considered in order to expedite needed consultations and reviews. State efforts to adopt uniform siting and permitting standards with specified deadlines for action are already emerging, with examples in New York and Minnesota. Federal leadership will be necessary to accelerate nationwide adoption of responsible siting and permitting ordinances with fixed time limits for permitting decisions at the state and local level where permitting occurs. The tools range from development of model ordinances (similar to federal government development of model building efficiency codes) to funding, and could involve joint industry resources and personnel working with local officials to put ordinances in place.

To ensure success in these initiatives, we recommend considering coalescing or collocating into a single location on a regional basis, or even into a single federal agency, the policy, regulatory and permitting initiatives needed to quickly approve and build clean infrastructure to support a net-zero carbon emissions future. An excellent example of this is the National Interagency Fire Center in Idaho, which houses multiple federal, state, tribal and private agencies to coordinate fire response on lands under their respective management.

Step 3: Rapid Adjudication to Enable Review and Certainty for Critical Clean Energy Projects

Both immediate and faster approvals are of no value if there is not a correspondingly speedy and certain process of adjudicating disputes over permitting decision. In other contexts, Congress has established extremely fast adjudication processes where a prompt and definitive outcome was deemed to be among the highest national priorities. For example, in the area of federal procurement, Congress established a very aggressive 100-day time limit for administrative resolution of contract award disputes with the GAO, and similarly limited timelines for any appeal, limited to the jurisdiction and expertise of the Federal Court of Claims, with very limited grounds for review of the administrative decision. The rationale for such a process is straightforward: the government cannot function if the procurement of the technology, equipment, systems and services for defense and other vital government services is held up in years of litigation. In a related context, Congress broadened the scope of the interagency Committee on Foreign Investment in the United States (CFIUS) review of such investments to determine whether they undermine national security. Concerned about the significant economic consequences to US business from prolonged delay in clearing transactions through CFIUS, Congress expressly created a new streamlined process of only 30 days for CFIUS to provide clearance—a process available for all transactions. In rare situations, a more intensive review may be required, but even then Congress limited full investigation and final decision to no more

than 105 days. The urgency of the climate crisis warrants the same adjudicatory speed as that provided for government contracting and foreign investment in US companies.

For infrastructure projects identified as leading to decarbonization (described above), a process for review can be created that provides appropriate adjudicative review while avoiding the risk to important projects due to uncertainty and delays associated with conventional final agency action review in the federal courts. Many Executive Branch agencies—including those in the environmental and resource agencies—have an administrative review board comprised of subject matter expert administrative law judges and magistrates who review permitting decisions and other federal actions. A similar board should be created, or adapted from an existing board, with adequate resources to provide for timely reviews of appeals within 120 days. Within 30 days from a decision, a petitioner would carry the burden in their opening appeal to identify "clear error" and "arbitrary and capricious" decision making by either failing to assess a significant harmful impact or by misapplying a legal/regulatory standard in the review. This already is a common standard of review for such appeals. If no petition is filed, the decision shall be deemed complete and not subject to further review. In the case of a petition, the government and interested parties shall have 21 days to respond, with petitioners' reply papers due 7 days later. The appeals board shall issue an opinion no later than 120 days from the dateof the original decision. The scope of review shall be limited to the clear error and arbitrary and capricious standard above. To the extent the panel issues a remand under this standard, the permitting agency must respond to amend the record within 60 days.

Addressing Environmental Justice

Important work is underway to address the historic injustices suffered by disadvantaged communities—including communities of color, low income, children, and elderly—as it relates to hosting heavily polluting sources of energy. We strongly support the proposals in the President's announcements to address environmental justice more broadly. In the context of accelerating decarbonization infrastructure and addressing environmental justice, we find two complementary approaches to be particularly compelling.

First, disadvantaged communities need a seat at the table in considering, helping to shape, and reaping economic opportunity from new, clean energy and infrastructure projects. We must both avoid the risk of new projects harming disadvantaged communities and ensure that we are creating opportunities to remedy past harms as the nation builds its decarbonization infrastructure. As described above, the process of designating a second round of Opportunity Zones to support clean infrastructure development near disadvantaged communities is one example of how this could be accomplished on a nationwide basis.

In the District of Columbia and elsewhere structured, time-bound processes are proposed that enable (1) inclusion; (2) equity ownership and (3) decision-making measured in months, not years or decades. Crucial elements of the approach include identification of a neutral arbitrator; selection of a group representative of the community by the arbitrator; creation of an equity

participation vehicle to ensure community financial benefit; access by the representative group to needed technical support resources; and a firm agreed timeline for decision-making. Resources for these activities would be provided by the project developer and these activities would be concluded before the project is submitted for the accelerated approval options discussed above.

Second, an additional way to promote environmental justice and benefit communities that continue to live in the shadow of harm could be to add a surcharge on all infrastructure projects qualifying for expedited consideration that would accelerate access to clean energy for disadvantaged communities—communities of color, low income, children, and the elderly. These communities are readily identifiable based on census tract information. An initiative of this kind would be similar to the surcharge on phone bills administered by the FCC to support the build out of internet infrastructure in disadvantaged communities. We know that fossil fuel infrastructure has historically been situated in or near low-income communities and communities of color. We also know that solar access is deeply skewed based on race. According to a recent study, majority black communities (normalized for income and home ownership) have over 61% less rooftop solar installed than those communities with no racial or ethnic minority. A surcharge could create funds needed to level the playing field and enable low income and communities of color to participate in and benefit from the many health, environmental and economic benefits of clean energy resources. The recent Biden Administration infrastructure proposal would substantially amplify this objective through a large appropriation and prioritization of funding directed into these communities.

Finally, it is important to make cost effectiveness for ratepayers a pillar of environmental justice platform for clean energy. Properly conceived, the clean energy transition will save people on fixed income a lot of money. If not properly conceived, ratepayers who are least well positioned to absorb cost impacts will bear a disproportionately high burden.

Aligning state and local processes

Acceleration only works if the federal, state, and local government are fully aligned on fast and certain permitting and adjudication. To this end, we propose that eligibility for any federal infrastructure or climate-related funding, tax incentives, or grants should be conditioned on a state or locality conforming to the same framework and timeline for fast approval and adjudication of projects. The best way to secure this alignment is for Congress to prohibit states from receiving federal clean infrastructure funds and incentives, unless they adopt permit acceleration measures equal to or better in speed and certainty than the federal standards.

Transmission siting and approval present particularly well-known challenges that significantly impede necessary speed and call for federal-state-local coordination to achieve decarbonization goals.

Assuming more rapid permitting can be established, a number of measures can further accelerate outcomes, including:

- Create a "supergrid authority" inside of DOE or elsewhere to purchase capacity on long haul transmission lines under certain criteria. Because generation gets built when transmission is built, there is little risk that the government will be able to sell off its transmission rights before the lines complete construction.
- Have the supergrid authority fund grid enhancing technologies to maximize the efficiency and capacity of existing grid at a cost in the low billions of dollars.
- Provide ITC to the billions of dollars of transmission projects that are ready for construction today for which there is no need for the government to purchase capacity.
- Provide a short-term fix to tax equity markets via full or almost 100% "direct pay" for tax credits from renewables.
- Require FERC to incorporate carbon emissions in all transmission planning processes.
- Require FERC to order NYISO, PJM, and ISO-NE to work together to come up with an offshore grid to handle offshore renewable resources in the Northeast.

Signatories

Co-Chairs:

Jim Connaughton, CEO, Nautilus Data Technologies

Katie McGinty, Vice President & Chief Sustainability, Government & Regulatory Affairs Officer, Johnson Controls

Participants:

Brent Alderfer, Co-Founder & Director, Community Energy, Inc.

Roger Ballentine, President, Green Strategies, Inc.

Donnel Baird, Founder, BlocPower

Dan Esty, Hillhouse Professor of Environmental Law and Policy, Yale University

Roger Martella, General Counsel, Environment, Health & Safety, General Electric

Manisha Patel, Vice President for Environmental Policy Practice, WSP USA

Nancy Pfund, Founder & Managing Partner, DBL Partners

Rich Powell, Executive Director, ClearPath

Gov. Bill Ritter, Founder & Director, Center for the New Energy Economy, Colorado State University

Emily Schapira, Board Member, President & CEO, Philadelphia Energy Authority

Michael Skelly, CEO, Grid United

###

Disclaimer: This report seeks to capture the essence of participant conversations, but individual participants may not agree with every aspect of the report. Rather, in affixing their name as a signatory, a participant is signaling support for the overarching concept of the series and the broad outcomes discussed herein.

Driving Innovation, Unleashing Prosperity and Revitalizing Communities
By Redeveloping America's Brownfields
March 11, 2025

Testimony of James L. Connaughton

I. INTRODUCTION

Good morning, Chairman Griffith, Ranking Member Tonko, and members of the Sub-Committee. Thank you for the opportunity to testify on this important and exciting topic.

My name is Jim Connaughton. I am CEO of JLC Strategies, a technology and policy advisory firm, working with technology startups, innovation project developers, private and public companies, and a handful of policy think tanks, universities, and government organizations. Specific to this discussion, I also served for eight years as the Chairman of the White House Counsel on Environmental Quality and proud to have played a small role, along with thousands of others, in Congress' unanimous passage of the original Small Business Liability Relief and Brownfields Revitalization Act of 2002 ("Brownfields Act"). I was also Chairman and CEO of the AI data center infrastructure startup Nautilus Data Technologies; Executive Vice President of C3.ai, one of the earliest AI software technology companies; and Executive Vice President of Constellation Energy, one the nation's most innovative developers and operators of power generation and providers of energy technologies and services. I have spent the better part of my professional life in and around brownfields.

Growing our economy to meet the needs of a thriving population over the next 25 years will require both replacing a major portion of our existing industrial and infrastructure footprint, as well as at least doubling, or possibly, tripling it. That amounts to the development of hundreds of thousands of new projects. Significantly more rapid and widespread redevelopment of America's brownfields is essential to the deployment of US innovations in manufacturing and infrastructure, unleashing greater prosperity, and revitalizing lives and livelihoods in our local communities.

Brownfields are currently understood as abandoned or underutilized commercial and industrial properties where redevelopment is complicated by the potential for environmental contamination. Recognizing the economic, environmental, and community importance of these sites, the US government, states and localities have developed policies to encourage their assessment for potential contamination, cleanup where contamination is identified, and productive reuse.

As this sub-committee considers reauthorization and expansion of the Brownfields Act, I encourage you to substantially widen the lens of policy development to significantly amplify the benefits that redevelopment will deliver, while substantially lowering the cost of doing so. Making improvements at the edges of the program will not be of lasting value or

consequence. Go big. Enough to fully realize the opportunity. Here are some guiding principles to consider:

- Start with the objective of profitable redevelopment of all economically viable brownfields by 2050, at increasingly lower costs to taxpayers and consumers.
- Broaden what constitutes a brownfield to encompass all abandoned or underutilized locations that are or were zoned for industrial activity, which would encompass a multitude of locations and existing rights of way where there is no or extremely low potential for prior environmental contamination.
- Advance interdependent brownfield redevelopment opportunities systematically to support growth of critical industrial sectors—i.e. assuring parallel development of critical minerals, material processing, component manufacturing, commodity and supply chain delivery (pipelines, electrical lines, railways, roadways, shipping), and end production.
- Create a default policy of brownfield project approval by eliminating both process and litigation barriers to enable *immediate, lower cost* redevelopment, recognizing that:
    - the current siting, permitting and interconnection, and project completion lag of 7-10 years (or more) makes projects cost two the three times more than they should,
    - brownfield sites are already a well-established element of a local community's footprint, and are generally well-known, understood and accepted as preferable for redevelopment,
    - new projects must, and in fact do, comply with all the substantive performance requirements embedded in our highly stringent environmental and natural resource protection laws and regulations enacted over 50 years.
- Take greater advantage of private market forces and private certified professionals to better leverage existing governmental programs, incentives and personnel.
- Legislate. 50 years of deferring to executive branch task forces, regulatory reforms, and judicial decisions has not resulted in predictable and sustained progress at the scale and speed needed to replace and build out new infrastructure.

II. BROWNFIELDS HISTORY

Brownfields exist in nearly every community in the United States. According to the Environmental Protection Agency (EPA), there are over 450,000 brownfield sites nationwide: an average of nearly 10,000 per state and hundreds per congressional district. These sites range from former industrial complexes to small, abandoned gas stations.

The concept of brownfields redevelopment gained traction in the early 1990s as local and state governments struggled with economic downturns and declining urban and rural cores. In response, EPA initiated a pilot program in 1995, offering grants to communities to assess and clean up brownfield sites. This program marked a shift from traditional hazardous waste management toward economic revitalization. The early

brownfields programs provided financial assistance, liability protection, and technical guidance to encourage redevelopment.

Recognizing the success of the early programs, Congress unanimously passed the Small Business Liability Relief Act and Brownfields Revitalization Act at the end of 2001. This landmark legislation amended the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to provide clearer liability protections for property owners and prospective purchasers. It also expanded funding for site assessments and remediation. The Brownfield Act removed the financial and legal barriers that had previously discouraged investment in brownfield sites.[1]

At the same time, states and tribes have played a crucial and increasing role in brownfields redevelopment through tailored legislation and programs. Many states have established voluntary cleanup programs (VCPs) to offer incentives such as tax credits, liability waivers, and grant funding. EPA collaborates with state and tribal programs to support brownfields cleanup and redevelopment.

While brownfields as currently defined tend to have moderate contamination, they typically do not present an acute public health problem.[2] Extremely contaminated sites, e.g. those qualifying for the Superfund National Priorities List, are excluded from the brownfield category. Roughly 70% of brownfields assessed to date have contamination that exceeds regulatory safety standards and require well proven cleanup or remediation measures.[3] Approximately 30% of brownfields assessed to date have contamination below regulatory concern levels and typically can be redeveloped without further remediation. An expanded view of brownfields would encompass hundreds of thousands of locations that fall within the no further remediation category.

EPA recently reported that the federal program has assessed 40,477 properties, made 11,723 properties (149,094 acres) ready for reuse, cleaned up 2,828 properties, leveraged $41B of investment and created 279,884 jobs.[4] State level programs are also reportedly enrolling more than 33,000 properties annually and have completed more than 232,000 cleanups, and making nearly 4 million acres ready for anticipated use.[5] Included

---

[1] Since the passage of the Brownfield Act, the EPA has distributed billions of dollars in grants to support brownfields redevelopment. Key federal initiatives include:

- **Brownfields Assessment Grants**: Funding to help local governments evaluate potential contamination levels.
- **Cleanup Grants**: Financial assistance to remove contaminants and prepare sites for redevelopment.
- **Job Training Grants**: Programs to train workers in environmental remediation techniques.
- **Multipurpose Grants**: Comprehensive funding for assessment, cleanup, and redevelopment. These efforts have resulted in significant economic benefits, including job creation, infrastructure improvements, and increased tax revenues in revitalized areas.

[2] osha.gov

[3] stacks.cdc.gov

[4] epa.gov

[5] The Environmental Protection Agency (EPA) maintains several databases that provide state-specific information on brownfield sites. One key resource is the **Assessment, Cleanup and Redevelopment Exchange System (ACRES)**, an online database where Brownfields Grant recipients submit data directly to the EPA. ACRES contains detailed information

among an exhaustive profile of the benefits of redeveloping brownfield, EPA has further note that cleaning up a brownfield can boost surrounding property values by 5% to 15% on average, as blight is removed and perceptions improve. Local governments can gain significant tax revenue (2 to 7 times the dollars invested by EPA) after sites are cleaned and returned to productive use. At the same time, private sector investment in brownfields is growing. Initially, public funds were crucial to kick-start redevelopment, but now many projects are driven by real estate market demand (for urban land) and public-private partnerships. Trends in real estate – such as the high demand for warehouse/logistics space and housing in cities – are leading developers to seek out brownfield sites, sometimes with less reliance on public subsidies.[6]

The progress over the last 25 years in identifying, assessing, and making sites ready for development is very encouraging.[7] But it begs the critical question: with so many sites now ready for redevelopment and even more on the way, why aren't more of these sites being redeveloped? In particular, shouldn't we be doing more to put these sites back to work with renewed deployment of modern, large scale industrial innovations that historically have been the hallmark and the foundation of American technology, economic, and national security leadership? That should be a major focus of brownfields redevelopment policy over the next 25 years.

III. BROWNFIELDS AS THE ENGINE OF AMERICAN INDUSTRIAL INNOVATION

Brownfields are ideal for development, deployment and substantial growth of modern, large scale industrial innovations. Construction of such projects requires a lot land and materials, hundreds of millions or billions of dollars, hundreds or thousands of skilled workers, engineers and service professionals at both the project and in mines, factories, and offices all along the project development and supply chain. Operating these projects requires highly reliable, cost-effective, scalable and secure physical infrastructure for electricity and gas, transportation (road, rail, shipping, aviation), digital services, storage and warehousing, and both onsite and offsite security and emergency response systems. Just as important, the construction and operation of these project requires substantial community infrastructure—project managers, operators, service, maintenance and public safety and service professionals; homes, schools, churches, stores, restaurants

---

necessary to track environmental progress at brownfield facilities across various states. Additionally, the EPA's **Cleanups in My Community** web application allows users to explore sites where pollution is being or has been cleaned up throughout the United States. This tool provides maps, lists, and cleanup progress profiles for various programs, including Superfund, RCRA Corrective Action, Brownfields, Emergency Responses, and Federal Facilities. Users can define their geographic area of interest to access specific information about cleanups and grants in their communities. For more localized data, the **EPA's EnviroAtlas** offers an interactive map with hundreds of geospatial datasets, including those related to brownfields. This resource supports brownfields redevelopment by providing data layers and analysis tools relevant to specific projects.

[6] jsheld.com

[7] A different government report notes "Many Sites, Slow Progress: There is a vast inventory of brownfields in the U.S. (hundreds of thousands of sites), but only a small portion have been addressed so far. As of recent estimates, less than 7% of U.S. brownfields have even undergone environmental assessment, and only a fraction of those have been cleaned up through EPA's programs." stacks.cdc.gov

and other local amenities; and knowledgeable, professional and supportive regulators (with some prominent exceptions). Projects also benefit from the environmental and natural dimensions of a site being well developed and well understood. Brownfields have a substantial head start over greenfields in satisfying these requirements.

Most large brownfields, such as ports, military facilities and industrial parks also have undertaken campus-wide environmental assessments and operate under umbrella permitting schemes that allow greater flexibility for developers and tenants to add and subtract facilities. And most large brownfields have previously been extensively analyzed, situated, and engineered to ensure the least exposure and highest level of resilience to major weather events or natural disasters, with a long history and track record of experience bearing that out. When the big storm hits, significant damage to or shut down of industrial, public works, and services infrastructure is rare.

Given these advantages, the critical question for policymakers should be: what must done to add accelerators and remove the brakes to unleash and rapidly drive investment and deployment of such innovative infrastructure? In the Appendix, I highlight five of the most consequential areas of American industrial innovation where brownfields have and will promise to figure prominently—data centers, semiconductors, submarine and shipbuilding, energy production, and plastics recycling.[8]

Delivering on the proven promise of brownfield driven industrial innovation requires a significant modernization of governmental approval processes for site assessment, permitting and interconnecting. Consistent with the policy principles outlined above, the following describes a few of the most important and broadly consequential areas of policy improvement that Congress should address.

IV. KEY POLICY IMPROVEMENTS

a. Environmental Permitting

Legislative improvement to accelerating government approvals of critical infrastructure is the only way to meet the demands of a growing economy; to make infrastructure more available, reliable, affordable, and secure; and to unleash exports of innovative American infrastructure technologies, products, and expert services.

Several years ago, I was privileged to co-chair a bi-partisan permitting reform panel ("Panel") consisting of current and former policymakers, experts, and practitioners to consider solutions to permitting process delays. At the time, the national policy focus was on the urgency of confronting climate change. Today, the national policy focus is on the urgency of confronting our energy emergency. Regardless of which objective you prefer, both face a common reality. They are procedurally impossible.

[8] For a broader sampling of brhttps://www.epa.gov/brownfields/success-stories

Recognizing this fact, the Panel explored well-established precedent for legislative and regulatory tools that can streamline the approval process for energy projects that will bring net benefits and otherwise comply with strict requirements. These lessons apply with equal relevance to other critical infrastructure. The Panel endorsed four critical paths to success, built around the well-precedented "permit-by-rule" concept:[9]

> **Immediate approvals**: For categories of projects where environmental impacts are well understood, either due to the nature or location of the project, Congress should establish approval criteria that enable project clearance without delay.
>
> **Accelerated approvals**: For projects that may cause unique or significant negative local environmental impacts, Congress should establish a bifurcated process that documents the categories of beneficial projects at the outset, and then focuses environmental review and permitting on any uniquely local conditions of a project on an accelerated timeline.
>
> **Accelerated adjudications**: Once a project is approved, any adjudications for projects must include a final decision timeline of well under one year to ensure that protracted litigation does not undermine project viability.
>
> **State and local conformity**: Eligibility for any federal infrastructure or climate-related funding, tax incentives, or grants shall be conditioned on a state or locality conforming to the same framework and timeline for fast approval and adjudication of projects.

Each of these recommendations is discussed at length in the Panel report. Here are a few specific ideas for putting these recommendations into practical policy.

1. Immediate Approval: ABC

Legislating a framework for immediate approvals of infrastructure is the single most consequential policy that Congress could undertake. One way to accomplish this is through an approach I call "Approve, Build, and Comply."

Combining two standalone ideas from the Panel report, Congress would legislatively designate a list of pre-cleared types of locations along with a list of pre-cleared type of critical infrastructure projects. Such legislation would categorically approve any pre-cleared projects built in a pre-cleared location in lieu of any further permitting and

---

[9] See https://www.aspeninstitute.org/wp-content/uploads/2021/06/Building-Cleaner-Faster-Final-Report.pdf My discussion in this section is not precisely verbatim from the report, but a very close adaptation, for the purposes of illustrating the report's broader applicability to the significantly overlapping sets of urgent objectives of import to different policy makers.

judicial review. Importantly, such projects would remain subject to and must comply with the technical performance, monitoring, and reporting requirements specified in applicable federal environment and natural resource laws, regulations and resource management plans. And any non-compliance would remain subject to inspection, enforcement, civil and criminal penalties, liability for damages, and judicial review.

The list of pre-cleared locations would start with the 450,000+ US brownfield sites that are the focus of this hearing. And as noted earlier in my testimony, a number of federal laws have set national priorities for development a series of other categories of essentially brownfield locations:

- The Opportunity Zone legislation called on each state to work with their local communities to prioritize and designate specific economically disadvantaged census tracts for substantially tax incentivized private sector redevelopment. A substantial portion of these areas are ideal for innovative infrastructure investment. This program is ripe for legislating a second round of designations which could include automatic designation of industrial areas immediately adjacent to existing opportunity zones, as well as new designation for maritime opportunity zones and critical infrastructure opportunity zones.
- The Infrastructure Investment and Jobs Acts specifies project priorities worthy of locational pre-clearance.
- The Inflation Reduction Act establishes priorities for infrastructure redevelopment in Energy Communities, which have now been formally designated by the Department of Energy. These include, for example, operating and decommissioned thermal power plant locations and coal mining regions.
- The Community and Hydropower Improvement Act establishes a priority and accelerated licensing process for electrifying non-powered dams and for closed-loop and off-stream pumped storage projects.

A variety of administrative programs establish categories of expanded brownfield locations as priorities for redevelopment:

- Federal land management plan designation of areas prioritized for infrastructure development on public land
- EPA RE-Powering America's Land Initiative locations
- Current and former military bases and facilities
- U.S. National Laboratory campuses
- Ports
- Mines and abandoned mine areas
- Ash and mine tailing areas
- Oil and gas lease areas
- Geothermal tracts

State, tribal and local authorities have established various forms of Enterprise Zones that warrant pre-clearance, as well as existing rights of way (e.g. for electricity, pipelines, railways, roadways, and telecommunications) and public works facilities, including municipal recycling facilities.

The legislation would also specify a list of locations excluded from pre-clearance, such as national, state or local parks, national monuments, national recreation areas, national wildlife refuges, national watershed protection areas, national wilderness and wilderness study areas, superfund sites, and designate prime farmland, unique farmland, and farmland of statewide or local importance.

The list of pre-cleared projects would dovetail with the pre-cleared locations, and include for example: data centers and other digital infrastructure, semiconductor R&D and manufacturing, energy production, storage and export facilities, advanced manufacturing facilities, supply chain military facilities, submarine and ship construction, energy efficiency projects and installations, critical minerals production and processing, supporting system infrastructure (electricity lines and substations, pipelines, railways, roadways, and telecommunications systems), plastics recycling facilities.

2. Accelerated Approval: NEPA

The initially groundbreaking and originally modest National Environmental Policy Act process for developing environmental impact statements and assessments has evolved into an administrative quagmire and a litigation festival.[10] We can do a lot better.

The US Supreme Court is taking its first look in 20 years at the way the federal government conducts environmental reviews under the National Environmental Policy Act. At stake is an 88-mile railway bringing oil and farm goods out of rural Utah. Eagle County Colorado sued under the National Environmental Policy Act, claiming that the Surface Transportation Board's 3,600-page environmental-impact review was inadequate. The U.S. Circuit Court of Appeals for the District of Columbia agreed, holding that the board is required to analyze possible impacts as far away as the Gulf Coast, where the exported oil might be refined, and the environmental effects of "long-term employment and commercial activity" resulting from the railway. The Seven County Infrastructure Coalition contends that it shouldn't have to analyze the environmental impact of anything not directly associated with the new railroad and that it should be responsible only for the "proximate effects" of development over which it has regulatory authority.

Although ample legal precedent exists to reverse the lower court's decision, the odds are low that the Supreme Court will be able establish a predictable principle to guide future project review and litigation. During the oral arguments, the litigants predictably parried a barrage of hypotheticals about what the relevant proximate effects might be. This interpretive challenge may be exacerbated by the recent amendment to NEPA that added a new "reasonably foreseeable" filter to consideration of potential impacts. While well-intentioned, it may instead provide additional fodder for the burgeoning and increasingly

[10] https://thebreakthrough.org/issues/energy/understanding-nepa-litigation

unpredictable judicial common law of NEPA. As every first-year law school student learns in torts class: "on a clear day you can reasonably foresee forever."

Congress should instead consider a much simpler approach that would deliver process certainty and speed, and significantly reduce litigation, while fully sustaining compliance with all of our environmental and natural resource protections. Congress should refocus federal agencies on NEPA's threshold directive found in Section 102(b) that federal agencies assess and consider "presently unquantified environmental amenities and values." When NEPA was enacted in 1970, little in the environmental domain was quantified. More than 50 years later, almost everything is.

Since 1970, Congress has enacted more than 25 environmental and resource-protection statutes, compounded by a vast array of state, county, local and tribal laws. These laws cover every imaginable environmental topic. They amount to hundreds of thousands of technical rules established by countless experts constantly reviewing, monitoring, inspecting and enforcing every one of them. Each one has its own process for public notice and comment; monitoring, reporting, and inspection; public and private citizen enforcement; judicial review for any alleged non-compliance; and steep civil penalties, criminal liability, and essentially strict liability for economic damages and restoration costs for any harm to people, the environment and natural resources. In other words, there is very little that is still "unquantified" by NEPA's standards. If something can be studied, regulated, enforced, and penalized, there is probably another agency already doing so.[11]

Accordingly, Congress should simply clarify that an action agency should focus their NEPA reviews only "unquantified" environmental impacts, deeming any environmental impacts that are now regulated and managed under other laws as "quantified" environmental impacts, excluded from further evaluation under NEPA.

---

[11] A couple of examples illustrate the value of distinguishing between unquantified and quantified environmental effects—as NEPA intended. In 2008 the Ninth Circuit enjoined the U.S. Navy from conducting submarine training in California on the ground that the Navy hadn't adequately assessed effects on whales and dolphins under NEPA. The court ignored that the Navy's plan had been approved as sufficiently protective by the National Oceanic and Atmospheric Administration under the Endangered Species Act and received a waiver under the Marine Mammal Protection Act. Although the Supreme Court reversed the injunction, the Navy still had to produce further analysis. But to what end, since the Navy was already doing what federal law required to assure protection of whales and dolphins?

This past summer, the D.C. Circuit blocked the Federal Energy Regulatory Commission from authorizing two liquefied-natural-gas projects, at brownfield locations in in Texas, mainly on the grounds that FERC hadn't adequately assessed the projects' effects on air quality. The court overlooked that the Texas Department of Environmental Quality had already approved the projects' air-quality permits and found them in line with standards set by the U.S. Environmental Protection Agency. The unquantified/quantified distinction would curtail such redundant NEPA analysis, while still assuring compliance with the specific environmental protection requirements that substantive law requires.

3. Accelerated Approval: Clean Air Act Section 309

Congress should also evaluate whether Section 309 of the Clean Air Act of 1990 has outlived its usefulness and consider repealing it.[12] Section 309 provides that EPA review all draft Environmental Impact Statements (EIS) prepared by other federal agencies and make these reviews public.[13] In this process, EPA deems an EIS either "satisfactory" or "unsatisfactory." An "unsatisfactory" determination puts in motion a prolonged process of re-evaluation and litigation-proofing of any EIS. After 35 years, it is not clear what the added value of this process is. EPA separately reviews infrastructure projects for compliance with the statutes under EPA's jurisdiction. And all infrastructure projects are reviewed by other federal, state, and local environmental and resource management agencies for compliance with the statutes under their jurisdiction. EPA does not possess any special expertise above and beyond what the other regulatory agencies already possess in their own particular domains. Similar to the needless NEPA redundancy discussed above, the Section 309 process is simply another redundant layer of process, one that likewise is less accountable than the direct regulatory processes and judicially reviewable decisions entrusted under other substantive laws to EPA and other expert agencies.

b. Site Assessment

Prolonged timelines for obtaining government agency sign off on site assessments for any contamination is a common barrier to fostering private sector interest in redeveloping brownfields. After 30 years and tens of thousands of assessments, the methods, practices and standard for performing site assessments and characterizing sites are quite mature and very well practiced. This work is performed relatively quickly and cost-effectively by competent, credentialed private sector experts. Drawing on this substantial body of experience with site assessments, Congress should consider authorizing an automatic sign-off process for site assessments, for all but the most exceptional circumstances.

c. Electricity Grid Interconnection

The most overlooked impediment to the deployment of innovative infrastructure in brownfields is the growing difficulty and delay that power plants and energy intensive consumers face in securing approval to connect to the grid.[14] Solving for permitting delays is of no use without also solving the problem of delay in interconnection.

---

[12] https://www.epa.gov/nepa/epa-review-process-under-section-309-clean-air-act

[13] EPA does this by posting EPA comment letters in the EIS database.

[14] https://clearpath.org/wp-content/uploads/sites/44/2023/08/all-queued-up-and-nowhere-to-go.pdf

Nearly 12,000 power generation projects representing 1,570 gigawatts (GW) of capacity and 1,030 GW of storage are actively seeking interconnection.[15] Only ~19% of projects requesting interconnection from 2000-2018 reached commercial operations by the end of 2023. And the typical project built in 2023 took nearly 5 years from the interconnection request to commercial operations, compared to 3 years in 2015 and under 2 years in 2008. Imagine being ready to move into your house and being told by the power company they can't turn the power on for five years. To compound the problem, two regional transmission operators, MISO[16] and PJM[17] have more than 50GW of projects each with signed interconnection agreements that are delayed or not being constructed due to issues including supply chains, siting & permitting, and financing.

In addition to the relatively modest actions currently being considered by the FERC, Congress should consider a more holistic suite of policies:

- Establish a national policy benchmark of interconnection decisions in no more than 6 months.
- Charge DOE to develop a program of action with the transmission system operators requiring them to co-fund over the next year, development and deployment of a series of potential private sector information technology solutions to more rapidly inform, analyze and automate grid interconnection analyses and decisions.
- Require coordination between FERC and other relevant agencies to create a fast track for approving the construction of new transmission capacity in existing corridors in concert with the Approve, Build and Comply framework discussed above.
- Establish a legislative process and a commission, similar to that used for military base re-alignment and closure, to conduct a phased program of federally approving National Interest Electric Transmission Corridors over the next three years, providing for regional and state differences in regulatory structure and utility business models.

[15] https://emp.lbl.gov/sites/default/files/2024-04/Queued%20Up%202024%20Edition_1.pdf
[16] https://cdn.misoenergy.org/20241210%20System%20Planning%20Committee%20of%20the%20BOD%20Item%2004%20Generator%20Interconnection%20Queue%20Update665714.pdf
[17] https://d1dth6e84htgma.cloudfront.net/03_05_2025_ENG_Testimony_Haque_08233b47af.pdf

APPENDIX

A. Data Centers

i. Nautilus Data Technologies

Nautilus Data Technologies, a startup company that I helped found and led for many years, has developed and deployed a patented data center cooling technology that eliminates the need for air cooling using mechanical chillers and refrigerants. Nautilus' approach significantly reduces energy consumption and essentially eliminates environmental impact. Unlike traditional data centers that consume millions of gallons of (mainly) drinking water per year to support evaporative cooling, Nautilus' system doesn't consume a single drop. The system also does not use any water treatment chemicals or potent zone depleting and greenhouse gas refrigerants, produces no wastewater, and makes no noise. Most important, the system can much more effectively cool the increasingly powerful, energy hungry, and therefore hotter AI computing chips and servers.

Nautilus engineered the system to enable factory construction of large modules containing most of the critical structural and components of a data center. The modules can readily be transported, assembled on site, and rapidly put into operation. As an option, Nautilus can fully construct and pre-commission a large data center in a shipyard by incorporating it onto a vessel—e.g. a barge or floating platform—transporting it to a waterside location, and simply plugging it into the local electricity and fiber optical networks. This modular approach creates steady factory jobs which offset a portion of temporary construction jobs. The result is a high-performance, AI ready data center, that costs less to build, costs less to operate, and is easy on the environment.

Brownfields are central to the Nautilus story. Nautilus invented, engineered and developed its first prototype and constructed its first data center at the former Mare Island Naval Shipyard in Vallejo, California. For more than 140 years, Mare Island served as a naval base, port, and ship and submarine construction and maintenance facility on more than 5200 acres. During World War II, it became a powerhouse of wartime production, with 50,000 workers turning out submarines, escort ships, and landing craft. Later, during the Cold War, it became a center for nuclear-powered submarine construction, keeping the Navy at the cutting edge of technology. Serendipitously, Mare Island was the home port of the world's first nuclear submarine named the "Nautilus."

The Navy decommissioned the facility in 1996 as part of the base realignment and closure process, leaving behind a hard-hit community and one of the nation's biggest brownfields and hard-hit community. Although the deepwater access, heavy-duty infrastructure, and manufacturing expertise remained, much of it sat idle waiting for a new purpose. Nearly 20 years later, Nautilus saw an opportunity to take advantage of the

residual skilled workforce and industrial capabilities needed for complex engineering projects. Nautilus played a significant role in the reestablishment of re-opening of the Mare Island dry dock for private sector shipbuilding and marine services. Nautilus invested tens of millions of dollars and employed dozens of skilled trade workers over four years at the site. In mid-summer of 2000, we launched our first water-cooled, floating data center out of the drydock and towed it up the San Joaquin River for mooring, commissioning and operation at the Port of Stockton in Stockton, California—another brownfield.

The Port of Stockton also has a long and storied history. Originally developed in 1933, it played a critical role during World War II as a Naval Supply Depot on Rough and Ready Island, providing inland security with infrastructure capable of berthing 13 ships simultaneously. After the war, the island remained a key Naval Communications Station until its decommissioning in 1996, when the property was transferred to a new port authority for commercial redevelopment. Today, the 4,200-acre port is one of California's largest, serving as a deepwater trade hub handling bulk cargo, breakbulk shipments, and foreign trade. Despite its industrial significance, however, very large portions of the port remained underutilized, presenting another opportunity. Redevelopment efforts—like the conversion of in the port's West Complex—demonstrated the potential to repurpose existing infrastructure for modern needs.

Nautilus found an ideal, albeit derelict, location on the west side of port—named "Rough and Ready Island"—for rapid commercial deployment from the perspective of as logistics, engineering, and a very routine brownfield site assessment and characterization for contaminants. We enjoyed strong support in the local community, the city and in the state capital. Nonetheless, the otherwise straightforward civil and electrical engineering work needed make the site ready to support the data center got bogged down by prolonged and overlapping permitting and approval processes. In a matter of just months, our environmental and technical experts prepared a 160-page CEQA environmental assessment (equivalent to a federal NEPA environmental impact statement) finding that the project would have no significant environmental impacts. Yet, it took years to get final sign-off on those findings, with fingers-crossed that we would avoid litigation. Only two aspects of our operations were ultimately subject to substantive regulation: our back-up diesel generator emissions and our thermal water discharge. And because both were well below regulatory thresholds, they qualified for general permits (a.k.a permit-by-rule), which are supposed to be automatic. Even so, it took extensive consultation, a substantial amount of delay, and agreement to a suite of ad hoc monitoring and operating requirements, before we were able to lock down those approvals.

Initially securing agreements for reliable and affordable power supply and upgrading electricity infrastructure was also very challenging, requiring innovative solutions to meet the growing demands of high-density operations. These delays substantially increased the costs of completing the project. Despite these setbacks, Nautilus provided family wage employment to over a hundred skilled workers to complete site construction and commission the data center, and to a dozen skilled operators,

security personnel and managers who operate the data center, contributing to the technological and economic success of a hardworking, heartland city in California. The Stockton data center project is now a model for the future—proving that high-performance computing and environmental responsibility can go hand in hand.

Some of the most advanced technology companies in the world have now chosen the Nautilus Stockton facility to support their operations. Cerebras, a leader in AI hardware, builds the most powerful AI processors in existence. Their systems push the limits of machine learning, requiring extreme cooling density—something Stockton can provide without the environmental costs of traditional solutions. Backblaze, a cloud storage provider with more than half a million customers, selected Stockton to expand its infrastructure, demonstrating that companies don't have to sacrifice performance to meet sustainability goals. These companies represent the future of computing—AI, cloud, and high-performance workloads that demand more efficient, scalable, and environmentally responsible data centers.

The proving grounds in the brownfields of the Mare Island Naval Shipyard and the Port of Stockton established a technology innovation and brownfield project development template that Nautilus and its partners can now replicate in the US and export abroad. For example, in Portugal, Nautilus is working with a development partner to transform a brownfield site at the Port of Sines into a global technology hub. The site was once home to heavy industry and a very large, decommissioned coal fired power plant. Taking advantage this readily available infrastructure, the campus will now support 1.2GW of high-performance computing and AI workloads—efficiently and sustainably. The Sines project is on track to be the largest data center campuses in Europe, the Middle East, and Africa (EMEA). The first phase of the project has already been completed in record time and on budget.

While at Nautilus, I visited and evaluated dozens of brownfields across the country and abroad that are locationally and logistically perfectly situated to support the rapid and beneficial growth of data centers, especially for data centers developers wanting to take advantage on infrastructure technology innovations such as what Nautilus offer. These include ports, industrial parks, municipal water facilities, former thermal power stations, former pulp and paper mills. In every location I visited, local officials, communities and regulators strongly supported the prospect of data center development.

At the same, in too many cases, such enthusiasm was overshadowed by very challenging constraints in permitting, electricity system interconnection, electricity supply, and the ever present "objector's veto." For example, at both the Port of Los Angeles in California and the Port of Shannon Foynes in Limerick, Ireland, Nautilus spent a couple of years securing leases and approvals for brownfield data center projects, only to told by the local electricity system operator that it would take them years to connect the projects to the grid. So, no projects.

Early in the process of trying to develop a data center project in the beleaguered brownfield community of East Palo, California (not the tech side of town), at a pre-planning meeting with regulators a US EPA official informed us that he "would NEVER permit a new water discharge into my bay." When we explained that we had already demonstrated in Stockton that the technology would fully comply with all federal, state and local environmental protection laws and would not cause any environmental harm, he simply replied, "well after I deny your permit, you can spend the next few years making that case to the court." So, no project.

About the same time, city officials in Alameda, California, courted Nautilus to construct a $1B data center inside a massive, concrete munitions bunker at the former Alameda Naval Air Station. The facility lay dormant since 1997 after it too was shuttered as part of the base closure process. The project would employ more than 100 local union workers, annually procure millions of dollars of emissions-free electricity from the city's municipal power authority and produce millions of dollars of new tax revenue for the City. Nautilus spent two years in extensive consultation with stakeholders explaining how the project would work and how it would fully comply with all federal, state and environmental laws. The City's own wildlife expert provided supportive public testimony concluding that project would not cause any harm to wildlife or the San Francisco Bay and instead would be a net environmental benefit. Nonetheless, a handful of local environmental group members raised objections to the project, persuading the City Council to shelve their approval of our lease—which was the predicate for us being able to get the permits to prove our point. But with the added delay and risk of future litigation we could not take the chance on moving forward. So, no project.

ii. AI Data Centers

Until recently, data center developers focused on building in "greenfield" locations near commercial real estate districts, tending to concentrate their development in places like Ashburn (VA), Silicon Valley/Los Angeles (CA), New York (NY, NJ), Chicago (IL), Dallas/Houston (TX), as well as Singapore, Dublin, Amsterdam, Paris, London and Frankfurt. As the AI data center boom unfolds, data center developers are scrambling to find brownfields that can support the much greater industrial scale of these new facilities and where there is greater prospect of finding an able workforce and securing existing and developing large quantities of electrical power supplies.

xAI recently proved at a brownfield in Memphis, Tennessee that it is possible to construct a massive new, state of the art data center in a span of just six months, following an equally rapid site development and environmental approval process. They have set the benchmark for what federal and state policy and management should fully commit to achieve at all brownfield data center projects nationwide. This will require a major rethinking of the present "accelerator and brake" reality of data center development and the enactment of federal and state improvements to the permitting process that aligns with building at the speed of the need.

The news is full of innovative and ambitious proposals to develop AI data centers in brownfields. These projects plan to use power from an existing nuclear power station, from the restart of a decommissioned nuclear power station, from an innovative modular nuclear power plant, from a massive new clean energy park and, further out, from an innovative nuclear fusion power plant.

B. Semiconductors

The US is undergoing an exciting renewal of semiconductor manufacturing and R&D. Many of these advanced technology production facilities have been or will be constructed on brownfield sites. To highlight just a few examples of completed and announced projects:

- Luther Forest Technology Campus (LFTC) in Malta and Stillwater, New York: This site, once home to the Malta Test Station—a rocket engine testing facility in the mid-20th century—has been transformed into a hub for semiconductor manufacturing. GlobalFoundries' Fab 8 facility operates here, producing advanced semiconductor wafers. The redevelopment of this area showcases the effective conversion of a former industrial site into a state-of-the-art technology campus.[18]
- SkyWater Technology's Facility in Bloomington, Minnesota: SkyWater Technology operates a semiconductor fabrication plant on a site with a rich industrial history. The facility was formerly part of Cypress Semiconductor and has been revitalized to serve as a U.S.-owned pure-play silicon foundry, contributing to domestic semiconductor manufacturing capabilities.[19]
- Intel's Fab 11X in Rio Rancho, New Mexico: Intel's manufacturing site in Rio Rancho has undergone significant upgrades over the years. Originally established in 1995, the facility has been modernized to accommodate advanced semiconductor fabrication processes, illustrating the adaptive reuse of existing industrial infrastructure.[20]
- Intel's Expansion in Chandler, Arizona: Intel has announced plans to construct two new semiconductor fabrication plants in Chandler, Arizona, expanding its existing Ocotillo campus. This site has a long industrial history, and the new development aims to rejuvenate the area while enhancing Intel's manufacturing capabilities.[21]
- GlobalFoundries' New Fab in Malta, New York**:** In February 2024, GlobalFoundries received a $1.5 billion investment under the CHIPS and Science Act to build a new semiconductor fabrication plant in Malta, New York. The development is set to occur on a site with prior industrial use, contributing to the revitalization of the area and strengthening domestic semiconductor manufacturing.[22]

---

[18] en.wikipedia.org
[19] mysanantonio.com+2en.wikipedia.org+2investopedia.com+2
[20] en.wikipedia.org
[21] https://download.intel.com/newsroom/2024/corporate/Intel-Arizona-The-Silicon-desert.pdf
[22] en.wikipedia.org+1en.wikipedia.org+1

- Hemlock Semiconductor's Facility in Hemlock, Michigan**:** Hemlock Semiconductor has been awarded $325 million under the CHIPS Incentives Program to construct a new manufacturing facility in Hemlock, Michigan. The project is planned for a site with a history of industrial activity, aiming to enhance the domestic supply of hyper-pure polysilicon essential for semiconductor production.[23]
- Applied Material's EPIC Center in Santa Clara, California: Applied Materials is building the multibillion-dollar Equipment and Process Innovation and Commercialization (EPIC) Center on a brownfield in the heart of Silicon Valley. This will be the world's largest R&D facility of its kind—with a footprint of three football filed--focused on high-velocity innovation platform designed to accelerate development and commercialization of the foundational technologies needed by the global semiconductor and computing industries.[24]

C. Submarine and Ship Manufacturing

Restoration of U.S. capability to rapidly and cost-effectively build a new class of innovative submarines as well as naval and civilian vessels has moved to the top of the national security agenda.[25] Almost all of this critical renaissance will occur in brownfields. The recent acquisition of the Mobile Naval Yard in Alabama is a prime example of how this will unfold nationwide. The Mobile Naval Yard is a 355-acre shipyard, including 3 piers, 1 dry dock, plus access to deep-water ports and ideally located within a nexus of designated federal Opportunity Zones. The U.S. Navy prioritized the strategic value of Mobile, AL out of a selection of possible location for co-investment by the private sector and DOD. These investments will upgrade the shipyard's infrastructure and will likely include complementary investments in local or on-site production facilities, workforce housing, and training centers. An existing tenant is currently leasing legacy assets and additional off-take lease arrangements are being negotiated with 3rd parties for built-to-suit facilities.[26] Speed will be the most critical benchmark of success or failure for this complex undertaking.

---

[23] https://www.ourmidland.com/news/article/hemlock-semiconductor-officially-awarded-325m-20019821.php
[24] https://ir.appliedmaterials.com/news-releases/news-release-details/applied-materials-launches-multibillion-dollar-rd-platform
[25] https://www.wsj.com/politics/policy/draft-of-trump-executive-order-aims-to-eliminate-education-department-5315c3a4
[26] https://www.navsea.navy.mil/Media/News/Article-View/Article/3913023/navy-partners-with-private-industry-to-grow-submarine-industrial-base-capacity/

D. Energy

The future of innovation in American energy infrastructure is also being written in brownfields. The following is a sampler of what is to come.

i. Nuclear Fission

- TerraPower's Advanced Reactor Demonstration Program (ARDP) project is being built adjacent to a retiring coal facility in Kemmerer, Wyoming.
- Oklo is characterizing a site at Idaho National Lab to deploy their Aurora microreactor.
- Kairos demonstration reactor, Hermes, is under construction at Oak Ridge National Lab. They intend to build two larger-scale reactors there as well.
- X-energy will soon break ground on its reactor in collaboration with Dow Chemical in Texas. This is both on an existing industrial site and within an Energy Community. They are also building a fuel fabrication facility at Oak Ridge National Lab, and are planning as second deployment near Pacific Northwest National Lab and the Hanford Site.
- Natura and NOV Shepherd Power plan to deploy microreactors in oil fields.
- Oklo was awarded a contract to deploy at Eielson Air Force Base in Alaska.
- Holtec plans to add its small modular reactor to existing nuclear site Palisades, where it's also restarting the plant. Holtec also proposed adding SMRs to the retired Oyster Creek site.

2. Nuclear Fusion

- Commonwealth Fusion Technologies is deploying its first commercial reactor at the James River Industrial Park in Virginia, in a Coal Closure Energy Community.
- Helion is planning to deploy its first commercial reactor in Malaga, Washington, which is adjacent to Rock Island Dam and likely will use existing right of ways.
- Type One Energy plans to build Infinity One at Bull Run Fossil Facility near Oak Ridge National Lab.

3. Geothermal

- Fervo Energy's Project Red in Nevada is being built in an Energy Community[27]
- Eavor Inc., Teverra, Zanskar Geothermal, Fervo Energy, GreenFire Energy, and Sage Geosystems are building projects on military sites.[28]
- Energy Communities are widespread in the west given the more expansive nature of western Metropolitan Statistical Areas. Given the strong geothermal potential in many western states, and large amounts of federal land, this designation is ripe to accelerate a new generation of geothermal development.

4. Hydrogen

- IPP Renewed is retiring existing coal-fueled units and replacing them with new natural gas-fueled electricity units designed to utilize 30% hydrogen fuel transition to 100% by 2045.[29]
- Idaho National Laboratory has deployed a high-temperature electrolysis test stand to work with industry partners and demonstrate performance.[30]

5. Carbon Dioxide Capture Use and Storage

- Petra Nova project in Thompsons, Texas: Retrofitting the existing W.A. Parish coal-fired power plant with post-combustion carbon capture technology. The captured carbon dioxide was transported to the West Ranch Oil Field for enhanced oil recovery.
- Archer Daniels Midland Co. is leading the Illinois Industrial Carbon Capture and Storage Initiative in Decatur, Illinois with a project that captures CO_2 from ethanol production and stores it underground in the Mt. Simon Sandstone saline aquifer.
- Rocky Mountain Power and 8 Rivers are collaborating to evaluate a carbon capture project at one of the utility's existing brownfield power plant sites in Wyoming.

---

[27] https://fervoenergy.com/fervo-energy-announces-technology-breakthrough-in-next-generation-geothermal

[28] https://www.diu.mil/latest/three-additional-next-generation-geothermal-technology-companies-advancing; https://www.sagegeosystems.com/press-release-sage-geosystems-expands-collaboration-with-the-dod-to-enhance-energy-resilience-through-geothermal-energy-at-naval-air-station-corpus-christi/

[29] https://www.ipautah.com/ipp-renewed/

[30]https://www.hydrogen.energy.gov/docs/hydrogenprogramlibraries/pdfs/progress18/tahi_obrien_2018.pdf?sfvrsn=9f31960a_1

e. Circular Plastics Recycling

The United States is seeing a surge in molecular plastics recycling innovations aimed at tackling the growing plastic waste problem. Once again, brownfields figure prominently in the innovation equation. Companies are developing advanced technologies to break down plastics at the molecular level, transforming them into valuable raw materials for new products. Brownfields are the locus of development and deployment of this important industrial innovation. Many initial efforts are co-locating with large scale petrochemical operations. Several startups are building their commercial demonstration facilities inside of industrial parks to lower capital and operating costs and leverage existing infrastructure for power, gas, security, safety and emergency response, logistics and supply chains. Some innovators envision leveraging our current system of local collection of used plastics and redeveloping the more than 300 municipal recycling centers in the U.S. with large scale molecular recycling facilities---transforming what currently imposes substantial costs on municipalities with very limited net environmental value into a significant profit center for municipalities with very significant environmental value. Here are a few examples:

- Loop Industries, which uses a proprietary depolymerization technology to convert PET plastic waste into virgin-quality PET resin. Their process is designed to handle a variety of post-consumer plastics, including colored and contaminated PET, which traditional recycling methods struggle to process.
- Eastman Chemical Company with its carbon renewal technology. This method breaks down mixed plastic waste into simple molecules, which can then be reused in the production of new plastics and other materials. Eastman's facility in Tennessee has been actively processing millions of pounds of waste annually.
- A partnership between Shell and Nexus Fuels focuses on converting plastic waste into feedstock for chemical production. Through pyrolysis, they transform hard-to-recycle plastics into high-quality chemicals that can be used to manufacture new plastics, ultimately reducing reliance on fossil fuels.
- Startup GSF Upcycling has developed graphene-based nanomaterials—commonly known as carbon-nanotubes—than can be added to a pyrolysis process and enable any municipal or industrial entity to "upcycle" the 80+% of used plastics that are currently too hard to recycle and otherwise end up in landfills, incinerators, or lost to the environment. Examples include packaging materials—about 45% of the global problem—as well as medical devices, automobile parts, circuits boards, and even degraded plastics such as marine debris.

These initiatives represent crucial steps toward a circular economy, where plastic waste is continuously recycled and repurposed, significantly reducing environmental impact.

Driving Innovation, Unleashing Prosperity and Revitalizing Communities by Redeveloping America's Brownfields
March 11, 2025
Oral Testimony of James L. Connaughton

Good morning, Chairman Griffith, Ranking Member Tonko, and members of the Sub-Committee. My name is Jim Connaughton. I am a technology entrepreneur, a policy entrepreneur, and an innovation infrastructure developer. I have spent the better part of my professional life in and around brownfields.

Growing our economy to meet the needs of a thriving population and national security will require a doubling or tripling of infrastructure over the next 25 years. That means hundreds of thousands of new projects. The hundreds of thousands of America's brownfields are the best place to start driving innovation, unleashing prosperity, and revitalizing communities.

My written testimony highlights five priority areas of American industrial innovation where brownfields are ideal—data centers, semiconductors, submarine and shipbuilding, energy production, and plastics recycling. Please check out my own, ultimately successful, 8-year saga developing innovative AI data center infrastructure—using two brownfields in California.

My testimony today will focus on the critical barrier to success of such projects: the prolonged delays in approving site assessments, environmental permits, and connections to the electricity grid. These delays either kill infrastructure projects or needlessly make them two to three times more expensive. Whether your objective is growing the economy, sustaining US technology leadership, strengthening national security, addressing the energy emergency, or confronting climate change—fully achieving these objectives is procedurally impossible.

I will highlight four policies to enable *immediate, and lower cost,* project development. These policies eliminate process and litigation barriers while preserving compliance with our nation's environmental protection laws.

The first speed bump for projects happens when agencies delay signing off on the environmental site assessments used to clear brownfields for reuse. This work is performed quickly and cost-effectively by credentialed private sector experts, using well-established methods developed over 30 years and tens of thousands of assessments. Congress should authorize an automatic sign-off process for certified expert site assessments.

The second major delay happens during environmental permitting. Congress should legislate a "permit-by-rule" approach that I call "Approve, Build, and Comply"—or

"ABC". The legislation would categorically approve a list of pre-cleared locations and pre-cleared types of critical infrastructure projects, in lieu of any further permitting. Such projects would still have to comply with substantive environmental regulations. And any non-compliance would remain subject to enforcement. Pre-cleared locations would include areas that federal, state, and tribal law have already prioritized, such as brownfields, opportunity zones, energy communities, shipyards, and existing rights of way.

The third delay factor is, of course, NEPA. The solution is to refocus agency NEPA reviews on "unquantified" environmental impacts, as the original 1970 law provides. Since 1970, hundreds of federal, state, local and tribal laws have been enacted, all of which "quantify" most every environmental impact in thousands of implementing regulations and technical documents. Congress should clarify that any environmental impacts regulated or managed under other laws do not require redundant review under NEPA.

Finally, new infrastructure faces a 5-year delay and massive backlog preventing connection to the electricity grid. Imagine if that was your home, school or hospital. Congress should set a 6-month limit on interconnection decisions and direct FERC and DOE to work with system operators to implement automated technology solutions within 3 years. Thank you for your consideration and I look forward to your questions.

Power Delayed: Economic Effects of Electricity Transmission and Generation Development Delays

Summary for Policymakers

Daniel Shawhan, Karen Palmer, McKenna Peplinski, Sally Robson, Ethan Russell, and Ethan Ziegler

This is a summary corresponding to a full report that will be posted early in 2025 at www.rff.org/topics/electric-power.

Introduction

With the electrification of transportation and buildings and growth in data centers, the US economy is expected to become increasingly reliant on electricity as a source of energy. Finding ways to meet that growing demand at least cost while maintaining grid reliability and resilience is economically important and requires investments in both generation and transmission infrastructure. Existing generators are retiring and some of the most productive low-cost abundant sources of generation, like wind power, are often located far from load centers. In addition, transmission across long distances can reduce congestion and enable greater sharing of generation resources across regions -- thereby supporting system reliability. Expanding transmission can also help to lower costs for consumers by enabling the sharing of low-cost generation and reserve capacity resources over larger areas. The DOE National Transmission Planning Study finds that a build-out of the transmission network would save between $1.60 and $1.80 in system costs for every dollar invested in transmission (DOE 2024).

However, there are many obstacles to investment in new energy infrastructure, including time-consuming and unpredictable siting and permitting processes, long interconnection queues, and supply chain bottlenecks that can substantially slow the development rate of new infrastructure. The typical development length for transmission lines in the US is now 8-10 years, and the average timeline to complete a utility-scale solar project is 4-5 years (IEA 2023, SEIA 2023). These obstacles have been widely recognized by federal and state energy policy makers and several pieces of legislation have been proposed to address them, including most recently the bipartisan Energy Permitting Reform Act of 2024.

In this research document we explore the effects of continued transmission and generation expansion delays on the costs of producing electricity and on transmission congestion, with a focus on effects in the year 2032. Transmission and generation development delays can be eased or exacerbated by changes in laws and regulations or in industry and government practices. To our knowledge, our analysis is the first to estimate the effects of transmission and generation development delays using a detailed transmission model. The inputs and results of our analysis include the US and Canada.

The modeling represents the policies on the books in October of 2024. These include the US Inflation Reduction Act, which provides incentives for wind, solar, nuclear, and carbon capturing generation. The policies also include the 2023 US greenhouse gas emissions rules, which require that coal-fueled generators either retire or retrofit with carbon capture or gas cofiring by 2032. These background policies influence the projected effects of the delays.

Effects of transmission development delays

To estimate the effects of transmission development delays, we simulate the US and Canadian power grid in the year 2032. We simulate it twice, once with a more expanded transmission system and once with a less expanded transmission system. The difference between the two systems is a set of real, specific transmission expansions anticipated by system operators. Those expansions make the total transmission capacity, measured in MW-miles, 6 percent larger in the more expanded transmission system than in the other. This represents approximately four years of transmission capacity growth at the 2010-2020 US high-voltage transmission expansion rate. However, the historical annual rate since 2010 has varied. It averaged 2.1 percent in 2010-2014 and 0.4 percent in 2020-2023 (ACEG 2024, DOE 2015).

The simulations project not only how much electricity each generator will produce in 2032 but also what new generators will be built and what existing generators will retire by that year. The transmission expansion delays prevent some generator additions because some new generators are dependent on a transmission expansion and prevent some generator retirements because some generators must continue to operate to compensate for the reduced new transmission and generation capacity.

The transmission development delays reduce the construction of new wind, solar, and natural gas combined cycle power plants. Wind and solar generation falls by 6 percent compared to the scenario without the delays. That decrease in turn increases other generation, most of which is powered by natural gas. The increase of other generation is partly from delaying the retirement of some existing power plants and partly from increasing the generation of other power plants. The net increase in generation from natural gas equals 82 percent of the reduction of wind and solar generation. The increased gas use for power generation increases wholesale gas prices by 6 percent.

Overall, there is an increase in electricity scarcity and consequently electricity prices. The higher gas prices are another reason for the higher electricity prices.

Here are the costs for energy users in 2032:

- $36.3 billion **higher costs for electricity users**
- $4.6 billion **higher costs for gas users outside the electricity sector**
- The value of **increased power outages** that might result from more transmission congestion. Transmission congestion tends to reduce the ability of the grid to endure adverse events without failing (Kendall, 2001). The transmission delays increase transmission congestion by a factor of 2.7, as measured by transmission congestion

charges.[1] We have not estimated the amount of additional outages or their dollar value, because that would require a different type of modeling.

The increase in electricity and natural gas prices amounts to $100 in higher energy expenditures per capita.

There are also some "winners" from the transmission delays:

- The higher electricity prices **increase the profits of electricity producers** by $25 billion.
- The higher natural gas prices and usage **increase the profits of natural gas producers** by $7 billion.
- The **savings from deferring the construction of the additional transmission capacity** is $6 billion.
- By reducing the development of wind, carbon-capturing, nuclear, and solar generators that receive government incentives, the transmission delays **save the government** $12 billion. Without those incentives, the delays would not have this benefit. Ignoring the change in government spending, the economic net costs of the transmission investment delays are 1.6 times the direct savings from deferring those investments, like in the DOE study mentioned in the introduction.

The value in terms of consumer well-being (what economists call "utility") of a dollar of increased profit for energy producers is not necessarily equal to the value of a dollar of savings to energy users. An additional dollar tends to be more valuable to low- and middle-income people than to high-income people. Low- and middle-income people pay energy bills and buy goods and services, the prices of which depend on the cost of energy inputs. However, low-income and middle-income people have little ownership stake in energy companies, so each dollar of change in energy bills may be more important for societal well-being than each dollar of change in energy producer profits.

Effects of generation expansion delays

To estimate the effects of generation expansion delays, we again simulate the operation of the US and Canadian power grid in the year 2032 twice. The transmission system without transmission delays is used in both simulations. In the second simulation, 80 GW, or 20 percent, of the generator and storage additions that occur from 2028 to 2032 in the first simulation are prevented. This is our generation expansion delays scenario.[2] Eighty GW equals approximately four percent of the generation capacity projected to exist in 2032, and roughly one year's worth of projected generation capacity additions. Randomly chosen facilities constituting twenty percent of the storage capacity and 20 percent of each major type of generation capacity—wind, solar, natural gas, and offshore wind—are prevented from being built by 2032. Eighty-six percent of the generation capacity prevented is wind and solar, five percent is battery storage, and nine percent is gas. The model

[1] Transmission congestion charges are payments to transmission owners. The more acute the congestion, the higher the transmission congestion charges.
[2] Eighty GW is the gross capacity addition; subtracting capacity retirements would give the net capacity addition amount, which naturally would be smaller.

predicts the effects of the delays on the retirement of other generators, and on the operation of all generators. The effects of the generator development delays are similar to the effects of the transmission development delays, so we will describe them more succinctly than we described the transmission development delays. We chose an amount of generation development delay to approximately match the effects of the transmission development delay, and the magnitude of the effects is very similar.

Overall, the generator development delays reduce wind and solar generation by 7 percent compared to the scenario without the delays. That in turn increases other generation, 76 percent of which is powered by natural gas. This increased gas usage increases wholesale gas prices by 8 percent.

Here are the costs for energy users in 2032:

- $35.9 billion **higher costs for electricity users**
- $4.7 billion **higher costs for gas users** outside the electricity sector
- The value of **increased power outages** that might result from more transmission congestion. The transmission delays increase transmission congestion by a factor of 1.9, as measured by transmission congestion charges.

The increase in electricity and natural gas prices amounts to $100 per capita.

There are also some "winners" from the generation delays:

- The higher electricity prices **increase the profits of electricity producers** by $24 billion.
- The higher natural gas prices and usage **increase the profits of natural gas producers** by $7.5 billion.
- By reducing the development of wind, nuclear, and solar generators that receive government incentives, the generation delays **save the government** $10 billion. Without those incentives, the delays would not have this benefit.

In addition to the above direct effects, the transmission and generation development delays also have some indirect effects, which we do not estimate. For example, the higher energy prices are likely to reduce the international competitiveness of businesses in the US.

We do estimate the effects of the delays on emissions and describe those effects in a companion document which is a summary of the emission, health, and environmental effects of the delays.

Methods and Inputs

The results are based on the year 2032. We simulated the electricity generation in that year, and the generator construction and retirement leading up to that year, using an unusually realistic electric power sector model called E4ST (the Engineering, Economic, and Environmental Electricity Simulation Tool). The model employs a detailed representation of the transmission grid and sixteen representative days that are carefully chosen and weighted to match the pattern of electricity demand, wind, and sun in each year, including times of maximum scarcity in each region. We used projected fuel and power plant costs from the Energy Information Administration, the National

Renewable Energy Laboratory, and consulting firm ICF. We used potential wind farm sites and hourly data from the NREL Wind Toolkit version 2 (NREL n.d.-a). We omitted some wind farm sites based on a set of current and projected siting restrictions (NREL 2023). We also omitted wind farm sites with population densities greater than 13.5 per km^2. We used potential utility-scale solar array sites and hourly data from NREL's National Solar Radiation Database (n.d.-b). We omitted some solar sites based on a set of current and projected siting restrictions (NREL 2021) and omitted sites with population densities greater than 273 per km^2. For existing generators, we used detailed data from Energy Visuals, Inc. Our model includes the contiguous US and most of Canada. The simulation solver we use is Gurobi.

We assumed that the current and prospective US environmental policies on the books in October 2024 would remain in effect through at least 2032. These include the Inflation Reduction Act, the 2023 EPA rules limiting CO2 emissions from coal- and new gas-fueled power plants, a weakened version of the Good Neighbor Plan, and various other national and state policies. The 2023 CO2 rules require that, by 2032, coal-fueled generators must retire, add carbon capture, or retrofit to use gas for 40 percent of their energy input. Without those policies, the costs of transmission and generation expansion delays would be different. However, it is difficult to predict whether they would be larger or smaller, because repealing or changing those policies would exert multiple, potentially opposing effects on costs. We also assumed the same level of electricity consumption in all the simulations.[3]

As noted above, we simulated first without reduced transmission or generation development, then with reduced transmission or generation development. In the simulations with reduced transmission or generation development, we limited the additional generators and energy storage facilities that could be built beyond those built in the simulations without the reduced development. This is because the simulation without the delays indicates that any other generators or energy storage facilities will be unprofitable once the delayed additions occur. In the case of the generator development delays, those delays limit how much wind, solar, and natural gas-powered capacity can be built (note: the limit does not apply to the last resort generators described below that are modeled similarly to standard natural gas generators). There were three types of additional capacity we did allow in the simulations with delayed development: we allowed non-coal-fueled generators that retired without the delays to not retire, we allowed additional coal-fueled capacity to retrofit to use natural gas for 40 percent of its heat input instead of retiring, and we allowed the construction of a generator type of last resort. These occur only if the delays make them profitable. The last-resort generator type, which makes up for a transmission or generation delay where nothing else could, costs ten percent more to build and $5 more per MWh than a standard natural gas turbine and has equivalent emissions intensity. This generator type represents both natural gas turbines that can be built with short notice (Pérez-Peña 2001) and a broader set of measures that utilities, system operators, and governments can take to cope with transmission and generation development delays, such as allowing coal plants to continue operating without retrofitting (PJM 2024), and expanding demand response programs.

[3] Exception: In our model, as in reality, consumption is curtailed at a very few times and places of extreme scarcity. In our model, this occurs when the electricity spot price would otherwise exceed $5000 per MWh.

To estimate the cost of the transmission expansions, we assume the levelized value of deferring the investments is the same as the levelized cost of the investments if they were made. We assume a cost of $3.64 million per MW-mile, which is the average from tables 13 and 14 in Pascale and Jenkins (2021). We assume an economic lifetime of 60 years and a real weighted average cost of capital of 4.4% (Gorman et al. 2019).

Estimating the effects of transmission and generation development delays is difficult, and subject to considerable uncertainty. For example, there is uncertainty about how much the industry's measures for adjusting to the delays will cost.

Shortly after issuing this summary, we will issue an accompanying summary of environmental and health effects. Both will be posted at www.rff.org/topics/electric-power once they are ready for wide distribution.

Works Cited

DOE (U.S. Department of Energy). 2015. Quadrennial Energy Review: Energy Transmission, Storage, and Distribution Infrastructure. Washington, D.C.: U.S. Department of Energy. https://www.energy.gov/gdo/national-transmission-planning-study

DOE GDO (U.S. Department of Energy, Grid Deployment Office). 2024. T*he National Transmission Planning Study*. Washington, D.C.: U.S. Department of Energy. https://www.energy.gov/gdo/national-transmission-planning-study

Gorman, Will, Andrew Mills, and Ryan Wiser. "Improving estimates of transmission capital costs for utility-scale wind and solar projects to inform renewable energy policy." *Energy Policy* 135 (2019): 110994. https://doi.org/10.1016/j.enpol.2019.110994.

IEA (International Energy Agency). 2023. “Average Lead Times to Build New Electricity Grid Assets in Europe and the United States, 2010-2021.” Last updated January 12, 2023. https://www.iea.org/data-and-statistics/charts/average-lead-times-to-build-new-electricity-grid-assets-in-europe-and-the-united-states-2010-2021.

Kendall, Gail. "Power outages during market deregulation." IEEE Control Systems Magazine 21.6 (2001): 33-39. https://ieeexplore.ieee.org/document/969133.

NREL (National Renewable Energy Laboratory). n.d.-b. “National Solar Radiation Database.” https://nsrdb.nrel.gov/. Accessed September 9, 2024,

NREL (National Renewable Energy Laboratory). n.d.-a. “Wind Toolkit.” https://www.nrel.gov/grid/wind-toolkit.html. Accessed September 9, 2024

NREL (National Renewable Energy Laboratory). 2021. Solar Supply Curves 2021 Release Year Reference Access | Geospatial Data Science . https://www.nrel.gov/gis/solar-supply-curves.html

NREL (National Renewable Energy Laboratory). 2023. Wind Supply Curves 2023 Release Year Reference Access | Geospatial Data Science. https://www.nrel.gov/gis/wind-supply-curves.html

Pascale, Andrew and Jesse D. Jenkins. Princeton’s Net-Zero America study Annex F: Integrated Transmission Line Mapping and Costing. 2021. https://netzeroamerica.princeton.edu/img/NZA%20Annex%20F%20-%20HV%20Transmission.pdf.

Pérez-Peña, Richard. 2001. Power Plants May Be in Use a Bit Longer. *New York Times,* March 23. https://www.nytimes.com/2001/03/23/nyregion/power-plants-may-be-in-use-a-bit-longer.html

PJM Interconnection. Letter from PJM Board chairperson Mark Takahashi to state consumer advocates. September 19, 2024. https://www.pjm.com/-/media/about-pjm/who-we-are/public-disclosures/2024/20240919-pjm-board-response-consumer-advocates-letter-re-urgent-reforms-pjm-capacity-market-re-reliability-must-run-units.ashx#:~:text=Shortly%20after%20receiving%20Talen's%20deactivation,solutions%20to%20resolve%20these%20violations.

SEIA (Solar Energy Industries Association). “Land Use & Solar Development.” SEIA. Accessed December 2, 2024. https://seia.org/initiatives/land-use-solar-development/.

Shreve, Nathan, Zachary Zimmerman, and Rob Gramlich. 2024. *Fewer Miles: The US Transmission Grid in the 2020s*. Grid Strategies. https://cleanenergygrid.org/wp-content/uploads/2024/07/GS_ACEG-Fewer-New-Miles-Report-July-2024.pdf

ENVIRONMENTAL POLICY INNOVATION CENTER

7761 Diamondback Drive
College Park, Maryland 20742
https://www.policyinnovation.org/

To: **The Honorable Shelley Moore Capito**
Chair
Committee on Environment
and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment
and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510

From: Environmental Policy Innovation Center (EPIC): Danielle Bissett, Becca Madsen, Jessie Mahr, Phoebe Higgins, Sydney Anderson, and Tim Male

Date: Thursday, March 20, 2025

Re: Letter for the Record, Environment and Public Works Committee Hearing, "Improving the Federal Environmental Review and Permitting Processes," held February 19, 2025

The Case for Smart Permitting Reform

The United States of America stands at a critical crossroads. Our aging systems are crumbling[1] while climate disasters are intensifying, with flood damage alone costing taxpayers hundreds of billions annually.[2] Meanwhile, the very permitting processes designed to protect our environment have become major barriers to the infrastructure projects and ecological restoration efforts urgently needed to build resilience and meet climate goals.

The current federal permitting system—created over 50 years ago to address widespread industrial pollution—has evolved into a labyrinth of redundancy and delay. Most troubling, ecological restoration projects face the same bureaucratic hurdles as development, despite their environmental benefits. This fundamental misalignment prevents us from rapidly advancing ecological restoration projects essential for combating habitat loss and climate impacts.

At the Environmental Policy Innovation Center (EPIC), we firmly believe in government and support the regulatory landscape and the dedicated staff filling necessary roles across federal, state, and local levels. We don't seek to dismantle environmental protections, but rather to enhance their effectiveness. We are convinced that by working together—agencies, communities, and stakeholders—we can improve these systems to advance both our social and ecological needs **(see recommendations on page 4)**.

EPIC's Smart Permitting Recommendations offer a strategic path forward, emphasizing transparency, efficiency, and accountability across all governance levels. By implementing these reforms—from replicating successful state models to differentiating restoration from development permitting—the

[1] Report Card for America's Infrastructure
[2] Joint Economic Committee

United States of America can create a gold-standard system that dedicates resources to building resilience rather than navigating bureaucracy.

The opportunity before us is clear: improve our permitting processes to facilitate timely action for both critical infrastructure and ecological restoration, ensuring a more sustainable future for all Americans.

State-Led Examples

Several states are taking charge by passing permitting reforms[3] that expedite reviews to advance critical projects that improve infrastructure, enhance community resiliency, and restore natural systems:

- **Virginia**: Under Governor Youngkin (R), Virginia established an e-permitting system, the **Permitting Enhancement and Evaluation Platform**, which streamlined 50,000 regulatory requirements, reducing processing time—particularly for restoration projects—by 70%. This reform saved the state **$1.2 billion**[4] and helped expedite critical flood protection and habitat restoration efforts.

- **Florida**: Under Governor DeSantis (R), Florida committed **$1.8 billion** to resilience projects[5] while simultaneously improving **permit transparency**, enforcing **permit review timeframes**, and offering **application fee refunds** if these timeframes were exceeded.[6] This comprehensive approach ensures that infrastructure projects crucial for both resilience and ecological restoration are not delayed.

- **Louisiana**: Louisiana implemented an **expedited permit program**[7] alongside the **Coastal Protection and Restoration Authority (CPRA)**, which gained bipartisan support and played a key role in rebuilding both natural and built infrastructure following **Hurricane Katrina**. This program has supported a cumulative investment of **$21.4 billion** in funding for over **150 flood protection and habitat restoration projects**[8], which have strengthened the state's ability to withstand future storms.

- **Washington**: Washington established the **Habitat Recovery Pilot Program**[9] to broaden the scope of **streamlined permitting** for ecological restoration projects. The program targets projects that directly benefit **fish habitats** across **freshwater, estuarine, and marine environments**. This program ensures that permit decisions are made within **45 days** of receiving a complete application unless an additional review process is required, which accelerates critical habitat restoration efforts in the state.

- **California**: California's **Cutting Green Tape initiative**[10] is a collaborative effort involving state and local agencies to improve the efficiency of **environmental permitting and funding processes**

[3] https://www.policyinnovation.org/restoration/database
[4] Permitting Enhancement and Evaluation Platform
[5] Executive Office of the Governor Press Release
[6] FL House Bill 1059 (2021)
[7] Mardi Gras for Permits
[8] Coastal Protection and Restoration Authority
[9] https://www.policyinnovation.org/publications/habitat-recovery-pilot-program
[10] California Bill SB-155 https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB155

for restoration projects. The initiative[11] aims to reduce administrative barriers to **ecological restoration**, enabling the state to accelerate project delivery while maintaining strong environmental protections, thus supporting the state's ambitious **30x30** goals for land and water conservation.

- **Colorado**: In response to the narrowing of federal protections under the Supreme Court's **Sackett decision**, Colorado enacted **House Bill 24-1379**[12] to establish a **state-level dredge and fill program** for safeguarding **state waters**, including wetlands and ephemeral streams. The bill specifically **exempts voluntary stream restoration efforts** in ephemeral streams aimed solely at providing **ecological lift** without requiring compensatory mitigation, making it easier for restoration projects to move forward without excessive regulatory delays.

High-Level Approach to Smart Permitting

EPIC uses the following conceptual strategies to reimagine the future of the permitting process, shape data-driven recommendations, and frame the national conversation around the need for smart, effective reform. By leveraging these approaches, we aim to balance efficiency, environmental integrity, and community engagement in the evolution of permitting policies.

1. Get Through the Process Faster: This strategy works like a fish ladder[13], bypassing barriers within the system. Permitting can be expedited without changing rules by ensuring sufficient staffing, strong leadership, and prioritizing timeliness. Interagency coordination through task forces and review teams helps avoid conflicts, identify bottlenecks, share best practices, and improve transparency. These approaches create urgency and drive meaningful progress within the existing framework, improving efficiency, transparency, and accountability.



2. Fundamentally Change the Permitting Process: Transformative permitting change is like removing a dam[14] blocking fish passage. Categorical exclusions can fast-track low-impact projects, while e-permitting and AI improve speed and efficiency. E-permitting modernizes systems, and AI drafts routine assessments and improves the quality of planning, freeing resources for complex reviews. Separating restoration from development permitting could reduce mismatches and accelerate approvals, ensuring efficiency without compromising integrity.



[11] https://suscon.org/blog/2023/04/california-cuts-the-green-tape/
[12] https://leg.colorado.gov/bills/hb24-1379
[13] Photo credit: Stepped fishway in the Guma dam (Duero River, Spain), GEA-Ecohidráulica
[14] Photo Credit: Copco 2 Deconstruction Begins on Klamath River

3. Avoid Impacts From the Start: This strategy prevents barriers before they form[15], addressing regulatory shortcomings that lead to more habitat loss than restoration. Shifting from "no net loss" to "net gain" aligns with sustainability goals, while better data sharing helps avoid impacts early. Strengthening mitigation policies and incentivizing restoration create a proactive framework, benefiting both the environment and the economy. Building with nature ensures ecological health, which needs to be a priority, not an afterthought.



List of Smart Permitting Recommendations

EPIC works to advance ecological restoration through faster, better, smarter permitting. We seek to decrease ecological restoration permit timelines so the average review takes less than a year for the most complex restoration projects and 60-90 days for typical restoration projects. The following recommendations provide a practical framework for implementing changes under four key areas: (1) Governance and Leadership Enhancements, (2) Policy and Regulatory Adjustments, (3) Process Efficiency and Transparency, and (4) Capacity Building, Data Utilization, and Public Engagement.

It is important to note that EPIC sees several red flags from previous permit reform attempts that sparked opposition and legal challenges: weakening Tribal consultation rights, reducing meaningful input from impacted communities, and restricting access to project data. Implementing any of these social barriers erodes public trust and undermines the effectiveness and legitimacy of permitting reforms.

1. **Governance and Leadership Enhancements**

    a. Replicate Successful State-Led Reforms[16] – Implement accountability measures and performance tracking to improve processing times. Require regulatory agency leaders to adopt a priority goal of improving processing times. Establish and track reasonable processing timelines where none exist. Publicly report processing times to ensure transparency. Develop performance improvement plans for permits with significant delays. Hold staff at all levels accountable through performance metrics.

    b. Foster a Solution-Oriented Regulatory Culture that Prioritizes Efficiency – Cultivate strong leadership within regulatory agencies to empower regulators to adapt processes and prioritize timely reviews. Encourage a cultural shift within agencies to promote problem-solving and solution-oriented approaches, emphasizing the importance of public service and responsiveness in regulatory decision-making. Just as effective customer service focuses on delivering solutions, regulatory agencies should engage with the public and project proponents in a way that is transparent, efficient, and outcome-driven.

[15] Photo Credit: Alatna River of the Arctic National Park and Preserve, Alaska, Michael Christopher Brown/NationalGeographic
[16] State-led reform examples are listed on pages 1-2 of this document.

Connecticut Department of Energy and Environmental Protection's Client Concierge Service[17] is an excellent example of this customer service mindset. Leadership must reinforce this service-oriented mindset, ensuring that regulatory processes are designed to support both environmental protection and timely, effective decision-making. For example, retain and replicate USACE leadership memos published in September,[18] [19] which directs staff to speed up approvals of wetland 'mitigation banks' — restoration projects that can be used for permit compliance and reduce USACE permit processing times by 50%.[20] By embedding this proactive approach, agencies can foster greater trust, collaboration, and efficiency in the regulatory process.

c. Expand the Permitting Council Model – Scale up permitting reforms at the state level and establish a dedicated task force for natural infrastructure projects. Work with state Governors to recreate the Permitting Council at the state level and replicate successful state efforts that have improved permitting processes.[21] Enhance permitting efficiency for natural infrastructure[22] projects within the Permitting Council by establishing a natural infrastructure sub-unit to approve and advance large-scale projects under the 'Discretionary Pathway.' Create an Interagency Permitting Modernization Task Force, led by a Natural Infrastructure Ombudsman, to develop permitting excellence standards and identify smart permitting processes.

d. Environmental Ombudsman Offices – Create independent offices to handle disputes and provide guidance before lawsuits escalate.

e. Use of Independent Science Panels – Require third-party technical reviews for major projects to increase credibility and reduce later legal challenges.

2. Policy and Regulatory Adjustments

a. Exempt Tribally-Led Restoration Projects from NEPA – Remove unnecessary federal hurdles for Tribal restoration efforts.[23] Amend NEPA to clarify that approvals required under federal law for projects involving Tribal trust lands should not be considered major federal actions and therefore should not trigger NEPA.[24] At a minimum, NEPA could be

[17] https://portal.ct.gov/deep/permits-and-licenses/client-concierge-permit-assistance
[18] Assistant Secretary of the Army Michael Connor's Sept. 2024 memo "Improving U.S. Army Corps of Engineers Timeline Compliance with the 2008 Compensatory Mitigation Rule."
[19] Chief of Regulatory Jennifer Moyer Sept 2024 memo "Principles of Delivery for Mitigation Bank Decisions."
[20] Hough and Harrington 2019
[21] e.g., Coastal Protection and Restoration Authority, Resilient Florida Program, and Permitting Enhancement and Evaluation Platform
[22] Natural infrastructure projects include both ecological restoration and nature-based solutions
[23] GAO 15-502 found that because NEPA treats Tribal lands like public lands and triggers NEPA, projects are often moved off of Tribal lands to adjacent private lands to avoid NEPA, hindering the implementation of projects, including restoration projects, on Tribal lands.
[24] Actions on Tribal trust lands, involving environmental restoration, leases, rights of way, and encumbrances require BIA approval, per the BIA. These are technical approvals that are required because of the unique nature of Indian land tenure and should not be considered major federal actions. Projects occurring on Tribal trust land by or for the benefit of Tribal Nations are subject to Tribal law. The Secretary of Interior must already review these proposed actions on Tribal trust land on a case-by-case basis to determine whether NEPA is triggered. By triggering NEPA anytime an agency approval is required, Tribal projects are slowed and Tribal economic development is hindered.

amended to clarify that Tribal restoration be excluded from the definition of "major federal action." Moreover, all agencies should align their treatment of Tribes in agency NEPA regulations. This should include establishing a categorical exclusion to exempt projects carried out by or with the support of Tribal Nations on or involving Tribal trust lands from NEPA. It should also include allowing Tribal environmental documents to be used in agency NEPA compliance. At a minimum, all agencies should establish a categorical exclusion to exempt ecological restoration projects carried out by or for the benefit of Tribal Nations on or involving Tribal trust lands from NEPA.

b. Align Policy with Practice – Exempt ecological restoration from NEPA's Major Federal Action definition[25] and develop clear definitions for (1) development and (2) restoration activities under FEMA's no-rise rule to ensure restoration isn't considered development in mapped flood zones.

c. Expedite Permitting for Federally Funded Restoration – Establish "green lanes" to expedite permitting pathways and approvals for well-vetted ecological restoration projects that meet predefined criteria and receive federal funding.

d. Streamlining Mitigation and Project Approvals for Smarter Environmental Offsetting – Recent changes to the Water Resources Development Act (WRDA) push the US Army Corps of Engineers (USACE) to use compensatory mitigation to offset environmental harm from their projects. The 2023 Promoting Efficient and Engaged Reviews Act highlights mitigation banking and third-party mitigation as ways to neutralize impacts, allowing projects to be classified as having no net significant effect. For the first time, proposed legislation acknowledges that if compensatory mitigation is enforceable, durable, monitored, and meets performance standards, an Environmental Impact Statement (EIS) may not be required. This could speed up project approvals while ensuring environmental accountability. However, to fully realize these benefits, the approval process for mitigation banks must also be streamlined. Faster approval times will ensure that high-quality mitigation options are available when needed, preventing unnecessary project delays.

e. Shift to a 'Net Gain' Approach – Move beyond the 'No Net Loss' framework to actively restore ecosystems and enhance biodiversity. Recognize that existing regulatory frameworks focus on preventing additional losses rather than restoring degraded ecosystems. Align federal and state policies to promote net ecological gains through proactive restoration rather than mere mitigation of development impacts.

f. Streamline Rules Across Jurisdictions – Harmonize regulatory requirements across federal, state, and local agencies to reduce confusion and improve collaboration. Streamlining these regulations will ensure that all levels of government are aligned and working together toward common goals. In addition, shorten turnaround times for

[25] California established a statutory exemption for restoration projects under the California Environmental Quality Act (CEQA) through Senate Bill (SB) 155, adding Section 21080.56 to the Public Resources Code, which allows CEQA lead agencies to use the exemption for qualifying restoration projects with CDFW concurrence.

issuing guidance and providing education following the introduction of new regulations, ensuring swift clarity for stakeholders. For example, if CEQ regulations are rescinded, this presents an opportunity for interagency collaboration to ensure a coordinated approach to implementing NEPA. This coordination should involve comprehensive discussions across agencies to avoid siloed conversations and ensure that regulations are implemented consistently, with input from all relevant stakeholders.

3. Process Efficiency and Transparency

a. Modernize Permitting with Technology – Invest in e-permitting, automation, and centralized platforms for application tracking, transparency, and accountability.[26] Employ product management funding models to keep systems updated and effective. Adopt and implement automated permitting processes to reduce review times and save staff resources. Fully implement and scale e-permitting across federal agencies.[27] Develop a "one-stop-shop" platform for permit applicants to upload machine-readable data, allowing agencies to coordinate reviews seamlessly while improving transparency, accountability, and efficiency.

b. Encourage Programmatic Reviews – Increase the use of programmatic assessments and exclusions to streamline recurring approvals. Federal agencies should expand the use of programmatic environmental assessments (PEAs), categorical exclusions (CEs), and programmatic biological opinions to improve permitting efficiency while maintaining environmental safeguards. To enhance accountability and effectiveness, (1) establish reporting requirements for agencies to track and publicly disclose their use of programmatic reviews, ensuring transparency and continuous improvement, and (2) develop a centralized resource hub to compile best practices, case studies, and guidance, enabling agencies to learn from previous efforts rather than duplicating work. Additionally, agencies should develop an Ecological Restoration Programmatic Environmental Assessment (ER-PEA) to create a predictable and efficient review process for restoration projects. This assessment should follow a "one-and-done" approach, where projects covered under the ER-PEA do not require additional tiering unless there are substantial new environmental conditions. To ensure relevance and scientific integrity, the ER-PEA should be reviewed and updated every 10 years, incorporating new ecological data and lessons learned.

c. Balancing Action and Inaction in Environmental Reviews – New policies ensure that environmental reviews consider both the risks of inaction and the benefits of proposed projects. The 2023 Fiscal Responsibility Act requires Environmental Impact Statements (EIS) to assess the environmental harm of not moving forward with a project. Similarly, the 2023 Promoting Efficient and Engaged Reviews Act mandates that agencies factor in a project's positive environmental effects, including those lost if the project isn't built. These changes provide a more balanced decision-making process, helping stakeholders

[26] Inventory of Environmental Permitting Tools
[27] USACE's Regulatory Request System and tool for tracking wetland mitigation credits (RIBITS); USFWS's tool for Endangered Species Act consultation (IPaC); Permitting Council's FAST-41 dashboard; CEQ's eNEPA tool

weigh tradeoffs more effectively and ensuring that projects with net environmental benefits aren't unfairly delayed or blocked.

d. Differentiate Restoration from Development – Establish distinct permitting pathways for ecological restoration projects to differentiate them from development projects. Ensure restoration projects are not subject to the same level of scrutiny as development projects, which can slow progress despite their critical role in restoring ecological function, protecting communities, and enhancing resilience to disasters. Create effective permitting pathways that prioritize efficiency and clarity while maintaining environmental safeguards.

e. Establish Dedicated Permit Review Teams – Create specialized teams and rapid response task forces to accelerate project reviews and approvals. Incorporate technology and AI support to reduce bottlenecks and enhance efficiency.

f. Expand the Use of Alternative Dispute Resolution (ADR) to Reduce Litigation – Require the use of Alternative Dispute Resolution (ADR) mechanisms—including mediation, arbitration, and negotiated settlements—to resolve disputes more efficiently and reduce litigation. Agencies should establish structured ADR processes to address concerns before they escalate into legal challenges. As part of this effort, the proposed Environmental Ombudsman Offices could: (1) require mandatory mediation before litigation, ensuring that disputes are first addressed through facilitated negotiation before lawsuits can proceed;[28] and (2) expand access to other ADR mechanisms, such as arbitration or independent environmental ombudsmen, to offer additional pathways for resolving disputes outside the court system. These tools can be used both before and during legal proceedings, providing multiple opportunities to reach agreements without lengthy litigation. By institutionalizing and requiring ADR and making mediation a mandatory prerequisite for litigation, agencies can improve permitting efficiency, reduce legal uncertainty, and foster more collaborative decision-making.

g. Develop Public Education and Guidance Resources – Regulators need to provide more guidance and educational resources upfront to ensure applicants know how to submit 'complete' permit applications, or as close to completion as possible.

h. Embrace Adaptive Management for Ecological Restoration Projects – Specifically for ecological restoration projects, regulators need to integrate agreed-upon adaptive management techniques into the post-construction phase. Practitioners need to seamlessly and actively engage with restored ecological sites to ensure they continue to perform as intended, especially in the context of climate adaptation.

4. Capacity Building, Data Utilization, and Public Engagement

a. Increase Staffing and Capacity (general) – Ensure acceptable staffing to improve permitting efficiency. Increase the number of technically skilled permit review staff in

[28] This approach has been effective in New Zealand, where environmental courts prioritize mediation over formal trials.

regulatory agencies to address delays caused by workforce shortages. Provide ongoing training to enhance staff expertise and performance. EPIC supports the Western Governor's Association and Theodore Roosevelt Conservation Partnership's recommendation, *"We support the WGA recommendation that "federal investments should prioritize hiring qualified permitting staff in local field offices to ensure permits are processed in a timely manner and technical assistance needs are met." Further, these investments should be expanded to build the capacity of state and Tribal governments to process environmental and cultural reviews in a timelier manner. For example, Tribes and states could be funded to perform cultural surveys in advance of proposed projects in key geographic areas to help ensure timely completion of State Historic Preservation Office reviews of proposed projects."*

b. Increase Staffing and Capacity (tribal) – NEPA is a valuable tool for ensuring that Tribal Nations' perspectives are considered in agency decision-making, requiring that Tribal Historic Preservation Officers (THPOs) consult on the impact that federally funded or permitted projects would have on Tribal Nations' cultural resources and places.[29] However, past federal action to streamline NEPA has not included additional funding for THPOs, failing to address delays that are caused by *"a failure to adequately fund THPO offices and subsequent inadequate staffing and capacity."*[30] Today, the average THPO is funded at just over $100,000 a year, barely enough to fund a single position, let alone to pay someone to consult on thousands of federal projects. As the National Association of Tribal Historic Preservation Officers has stated, *"THPO funding is a trust responsibility of the federal government and, unfortunately, the federal government has failed to meet that responsibility."*[31] Addressing THPO staffing and capacity issues through adequate funding will allow full consultation early on in federal projects, ultimately limiting the amount of legal action and lengthy completion timelines resulting from inadequate consultation.

c. Leverage Modern Mapping and Data Tools – Improve access to up-to-date environmental data to significantly improve decision-making in project siting and impact assessments. Address gaps in environmental data—such as wetlands data that are decades out of date in some regions—which contribute to suboptimal decisions and unnecessary environmental impacts.[32] Invest in modern mapping and data collection techniques ensuring development projects avoid impacts, restoration projects are located in areas with the greatest ecological benefit, and regulatory agencies have the resources and training to integrate these tools into permitting decisions.

d. Enhance Transparency and Public Engagement – Strengthen the permitting process by improving public access to data and early community engagement to foster trust, inclusivity, and better project outcomes. Centralize permit data, including project details,

[29] 04-08-24 NATHPO comment letter to the Federal Permitting Improvement Steering Council's implementation of Executive Order (E.O.) 13175, "Consultation and Coordination with Indian Tribal Governments."
[30] 09-27-23 NATHPO comment letter to the Council on Environmental Quality on the new National Environmental Protection Act revisions.
[31] 09-27-23 NATHPO comment letter to the Council on Environmental Quality on the new National Environmental Protection Act revisions.
[32] Connecting Wetlands Data

outcomes, and litigation history, to make it publicly accessible. This transparency will not only facilitate learning and improve application quality but also promote accountability. Incorporate early consultation requirements by mandating engagement with affected communities, tribes, and environmental groups at the beginning of the permitting process. Proactively addressing concerns during these early stages will help resolve potential issues before they escalate into litigation. Additionally, creating a centralized repository where stakeholders can track project progress, submit feedback, and see how their input is incorporated will enhance communication and strengthen collaboration. Agencies should adopt practices like Norway's collaborative permitting model, where community members are involved in discussions from the outset. Clear, consistent communication and platforms for public comment are essential to ensure that concerns are heard, and projects are modified as necessary. By integrating public feedback into the regulatory process, agencies can ensure more effective, inclusive, and trusted outcomes, reducing the potential for conflicts later on.

Concluding Thoughts

EPIC welcomes the opportunity to provide further resources to the U.S. Senate Committee on Environment and Public Works regarding these recommendations. The urgent convergence of aging infrastructure, climate disasters, and habitat loss demands immediate action, yet our permitting processes remain barriers rather than enablers of progress. EPIC's smart permitting recommendations offer a comprehensive approach that appeals across political divides by enhancing both economic efficiency and environmental protection. Smart permitting reform presents a rare opportunity to simultaneously advance critical infrastructure, community resilience, and ecological restoration. With your leadership and our continued collaboration, we can build a permitting process that is smart, efficient, and as dynamic as the environmental challenges we face, paving the way for a resilient and sustainable future for all Americans. The time for thoughtful, comprehensive reform is now.

Thank you for your consideration of the proposed permit reform recommendations.

For additional information please contact Danielle Bissett, Restoration Permitting Policy Lead.

Danielle Bissett, CERP, WEDG (she/her)
Restoration Permitting Policy Lead
Environmental Policy Innovation Center

(c) +1 516-610-7021
(e) dbissett@policyinnovation.org
(w) http://www.policyinnovation.org
(L) http://www.linkedin.com/in/daniellebissett

RESOURCE DEVELOPMENT COUNCIL
Growing Alaska Through Responsible Resource Development

March 20, 2025

Submitted via email: permitting@epw.senate.gov

The Honorable Shelley Moore Capito and Sheldon Whitehouse
U.S. Senate Environment and Public Works Committee (EPW)
410 Dirksen Senate Office Building
Washington, D.C. 20510

RE: Senate EPW Hearing on Improving the Federal Environmental Review and Permitting Process Comments for the Record

Dear Chair Moore Capito, Ranking Member Whitehouse, and Members of the Committee:

On behalf of the Resource Development Council for Alaska (RDC), thank you for your recent hearing on the "Improving the Federal Environmental Review and Permitting Process." We appreciate your leadership on this important issue. Please consider these comments for reforms needed for federal environmental reviews and permitting.

RDC is a statewide, non-profit trade association founded in 1975. Our membership is comprised of individuals and companies from Alaska's fishing, tourism, forestry, mining, and oil and gas industries and includes Alaska Native corporations, local communities, organized labor, and industry support firms. Our purpose is to encourage a strong, diversified private sector in Alaska and expand the state's economic base through the responsible development of our natural resources. RDC's members from the fishing, tourism, forestry, mining, and oil and gas industries are detrimentally impacted by these delays. Improving the federal permitting process is of the utmost importance to our membership, the State of Alaska, and the economic and national security of the United States.

The current federal permitting process is broken and acts as a significant barrier to responsible resource development in Alaska. Currently, permitting energy projects involves numerous federal, state and local government agencies, each requiring different conditions. Permitting at the federal level takes years, sometimes even decades, to work through the permitting process. For example, for mining development projects, the average permitting timeframe is now 29 years

TOURISM FISHERIES OIL & GAS MINING FORESTRY
(907) 276-0700 301 W. Northern Lights Blvd., Ste. 406, Anchorage, Alaska 99503 www.akrdc.org

according to the National Mining Association. Then, once permitted, legal challenges create further delays and too many legal challenges to responsible development projects are too easily filed to create further delay by nongovernmental entities with no relationship to the area or region of proposed development. These hurdles to permitting result in additional costs, delays, and reduce investment in responsible resource development in a state and a country that adheres to some of the highest environmental standards in the world.

As the Committee undertakes the work of proposing reforms to the many federal permitting processes, we offer the following for your consideration:

General Permitting Reform and Litigation Reform:

- Set clear, reasonable, and enforceable guidelines for the scope and timeline of National Environmental Policy Act (NEPA) reviews.
- Limit the size of Environmental Impact Statements to no more than 300 pages.
- Limit the timeframe for litigation of an EIS to 90 days from the issuance of the Final EIS.
- Limit the timeframe for further agency review following a court remand or other settlement arrangement to 180 days and limit the scope of the review to the specific issues identified in the remand or settlement.
- Mandate the use of a Joint Record of Decision when multiple agencies are using an EIS as the basis for a decision on issuing different Federal permits. All agencies should agree on a common timeline and scope for the review ahead of time and should be accountable to the lead agency for meeting all requirements of the process and timeline.
- All permits should be issued within 30 days of the Record of Decision.
- Set clear and enforceable guidelines and timelines for Tribal Consultation that are consistent with the timeline for completion of the NEPA review and issuance of permits.
- Support language to allow for more state assumption (primacy) of federal permitting programs.

(907) 276-0700 301 W. Northern Lights Blvd., Ste. 406, Anchorage, Alaska 99503 www.akrdc.org

National Historic Preservation Act of 1966 (NPA) Section 106 Review Process (Advisory Council on Historic Preservation and all implementing agencies):

- The process has been significantly expanded beyond its original scope and intent. Examples of this include:
  - The misuse of Traditional Cultural Landscape designations to block any form of development in large areas with little, if any, physical evidence or substantive oral records to provide support for the designations.
  - The expansion of the Area of Potential Effect (APE) for completing project evaluations which can dramatically increase the extent and complexity of these reviews without demonstrable benefit to the process.

- Set requirements for clear, well defined, and justifiable evidence to support the designation of Traditional Cultural Landscape and set limits on the physical extent of any designations.

- Limit the APE to the physical footprint impacted by a project with some reasonable buffer to account for physical impacts outside the immediate footprint. Just because physical activity can be seen from a hilltop miles away does not mean that the APE should extend for miles beyond a project boundary.

- Set clear and enforceable requirements and timelines for the review process that are consistent with the timelines for the primary permit and make the implementing agencies accountable for meeting the timelines.

Clean Water Act Section 404:

- Clearly define Waters of the United States in accordance with the original intent of the Act and the Supreme Court's Sackett Decision.

- Provide clear guidance to the USACE and EPA on the implementation of the definition in Alaska, which has been disproportionately impacted by WOTUS due the broad prevalence of so-called jurisdictional wetlands in the State.

- Provide clear guidance for when projects are required to mitigate for impacts to WOTUS in Alaska. Alaska has very few impacted WOTUS relative to the rest of the country and mitigation should not automatically be required for all projects. Make allowance for the use of "out of watershed" and "out of kind" mitigation when there are no impacted wetlands available in watershed for restoration. Consider an Alaska-specific provision similar to a proposal introduced by the late U.S. Senator Ted Stevens (Alaska) entitled the *Alaska Wetlands Conservation Credit Procedures Act of 1994,* which recognizes Alaska's unique qualities regarding wetlands (https://www.congress.gov/bill/104th-congress/senate-bill/49/text).

- Remove EPA's ability to preemptively and retroactively veto 404 permits. Limit EPA's timeframe to veto a 404 permit to the timeframe from the issuance of the Final EIS to the issuance of a Record of Decision.

- Provide federal funding and technical assistance to the states to assume administration of the CWA Section 404 program within Alaska to allow quicker permitting decisions.

Endangered Species Act (ESA) and Section 7 Consultations:

- Combine the roles and authorities of NOAA Fisheries and US Fish and Wildlife Service with respect to the designation, management and protection of ESA listed species and ESA Section 7 Consultations under the USFWS.

- Currently each agency separately designates, manages, and studies ESA listed species and issues separate Biological Opinions and related authorizations resulting in massive and unneeded duplication of work. Listed species are often found in the same areas/environments and are often similarly impacted (for example sea otters (USFWS) and sea lions (NOAA Fisheries). Consolidation of the work under USFWS would reduce the level of effort required by both the applicant and the agencies without impacting protection for listed species and result in more clear and consistent mitigation measures.

- Provide clear and enforceable guidelines and timelines for the issuance of BO's that are consistent with the timelines for the primary permit. In Alaska there is a history of Section 7 consultations being unjustifiably broad and detailed in scope and being used to delay the issuance of permits for projects.

RESOURCE DEVELOPMENT COUNCIL
Growing Alaska Through Responsible Resource Development

We ask the Committee to consider these comments as they develop legislation to reform the federal environmental review and permitting process. If done correctly, could have lasting, positive effects on our national security, domestic energy independence, and availability of affordable energy for all American people.

We look forward to future meetings of the Committee on this issue. We are available to answer questions and/or provide additional assistance to the Committee at your request. If you or your staff would like to follow up on this letter, please contact me at Leila@akrdc.org or my staff member, Connor Hajdukovich, at Connor@akrdc.org.

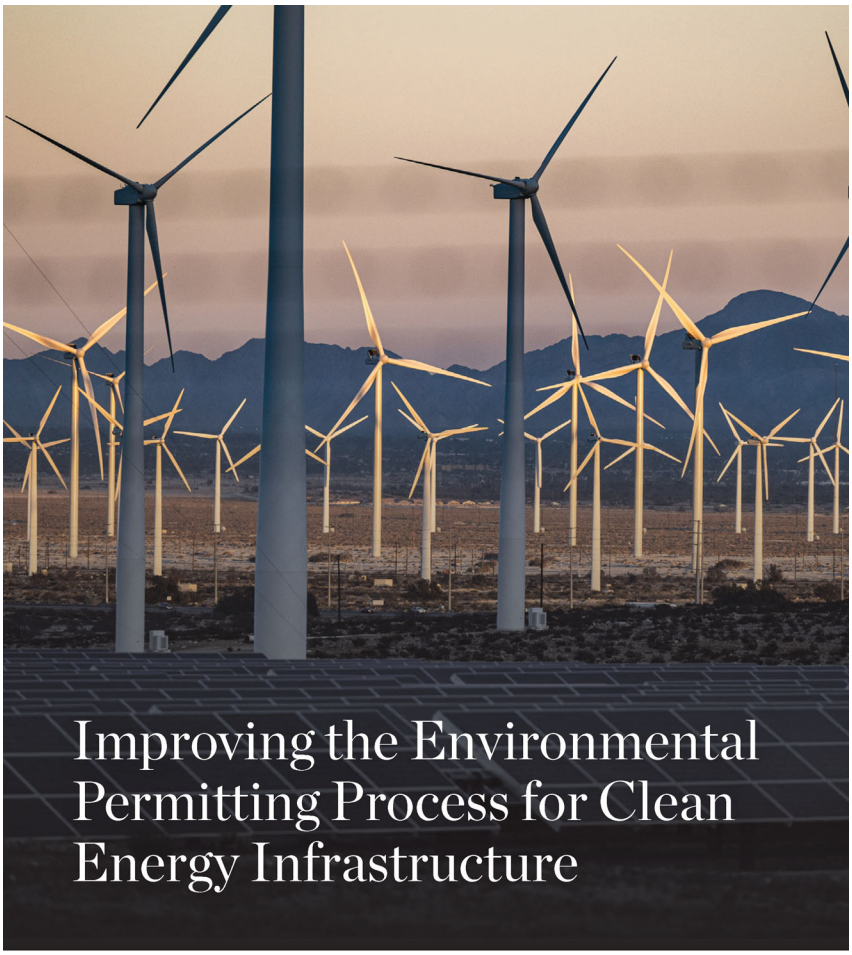
Thank you for your consideration.

Yours resourcefully,

Leila Kimbrell
Executive Director

CC: U.S. Senator Dan Sullivan (R-AK)
U.S. Senator Lisa Murkowski (R-AK)
Congressman Nick Begich (R-AK)
Alaska Governor Mike Dunleavy
Alaska Department of Natural Resources Commissioner John Boyle
Alaska Department of Environmental Conservation Acting Commissioner Christina Carpenter
EPA Region 10 Administrator Emma Pokon

TOURISM FISHERIES OIL & GAS MINING FORESTRY
(907) 276-0700 301 W. Northern Lights Blvd., Ste. 406, Anchorage, Alaska 99503 www.akrdc.org



Improving the Environmental Permitting Process for Clean Energy Infrastructure

The Nature Conservancy

Perkins Coie

808

Improving the Environmental Permitting Process for Clean Energy Infrastructure

About This Report
This reports offers recommendations for legislative and administrative reforms to improve the environmental permitting process, as well as providing background and context on applicable statutory and regulatory frameworks. It is based on the current state of environmental permitting practice, and is intended as a starting point for ongoing and evolving policy conversations on environmental permitting modernization.

This report includes input from numerous subject matter experts at The Nature Conservancy across multiple geographies and subject matter areas, with acknowledgement to Jason Albritton, Laura Brannen, Peter Gower, Paul Heberling, Nels Johnson, Brent Keith, Melanie Santiago-Mosier, Cody Sullivan and Jessica Wilkinson. The report was developed in partnership with Perkins Coie LLP, with thanks to Ted Boling, Laura Morton, Jane Rueger and Kerensa Gimre for their support and expertise.

Special thanks to Resource Media and Hoffman Design Group for support with copyediting and design.

About The Nature Conservancy
The Nature Conservancy is a global conservation organization dedicated to conserving the lands and waters on which all life depends. Guided by science, we create innovative, on-the-ground solutions to our world's toughest challenges so that nature and people can thrive together. We are tackling climate change, conserving lands, waters and oceans at an unprecedented scale, providing food and water sustainably and helping make cities more sustainable. The Nature Conservancy is working to make a lasting difference around the world in 77 countries and territories through a collaborative approach that engages local communities, governments, the private sector and other partners.

Cover Photo © Stuart Palley | Solar panels and turbines in California. April, 2021.

The Nature Conservancy

Perkins Coie

Executive Summary

The United States must take concrete actions now to enable a clean energy and nature-positive future. This requires ambitious emissions reductions, while protecting and restoring sensitive natural and working lands and maximizing benefits for communities. To avoid the worst impacts of a warming climate, the nation must rapidly transition to clean energy, which will necessitate a 400 percent increase in renewable energy by 2050[1] and at least a 2.5 times expansion of inter-regional transmission.[2] Reaching the pace and scale the moment demands will require reforming and modernizing key permitting and approval processes at all levels of government and a host of complementary actions to accelerate climate mitigation and restoration projects. The Nature Conservancy's (TNC) goal is to facilitate the delivery of critical clean energy resources, related infrastructure and ecosystem restoration projects at least 50 percent faster than they are today.

THE CHALLENGE

Recent passage of landmark climate and infrastructure legislation in the U.S. offers a once-in-a-lifetime opportunity to accelerate the transition to clean energy and slash greenhouse gas (GHG) emissions. However, the process for approving clean energy generation, transmission and other infrastructure in the U.S. is complex, with all levels of government playing critical roles. This can result in long timelines for reviews and approvals and many projects never make it to construction. Project delays and cancellations account for potential lost solar and wind generating capacity of at least 4.6 gigawatts (GW) annually.[3] Currently, there are sufficient clean energy projects planned and seeking interconnection to supply 90 percent of U.S. electricity needs from zero-carbon resources by 2035.[4] Nonetheless, if the past is a predictor of the future, only some of these wind, solar and storage projects are likely to be built. For many renewable energy generation projects, the time to completion is rising—from about two years in 2000-2007 to almost four years for those built since 2018. Approval times for major transmission projects can run even longer to over a decade, yet such projects are critical for connecting new zero-emitting generation to demand centers.[5]

At the same time, these permitting and approval processes provide important safeguards by addressing conservation, public engagement, safety and economic goals, especially in ecologically sensitive areas or already overburdened communities. The environmental permitting and review process provides critical venues for potentially affected communities to learn about and influence projects; structures for agency experts to collaborate; platforms for providing decision-makers with analysis; vehicles for designing and enforcing mitigation measures; and more. Finding innovative ways to accelerate the permitting and approval process for clean energy infrastructure projects while preserving the benefits of the permitting and approval process is critical not only for getting us to a clean and equitable energy future, but also to realize recent legislation's full potential.

THE PATH FORWARD

There are multiple barriers to successful development of major infrastructure projects for climate mitigation and adaptation, including market design inefficiencies, project review and permitting delays, supply chain constraints and local opposition. Although all of these challenges must be addressed, improving how we design, permit and approve projects can remove barriers and accelerate project delivery. Reforms should:

- Target bottlenecks that slow projects that provide meaningful emission reductions;
- Balance climate, conservation and community concerns to reduce conflicts and accelerate project delivery;
- Avoid and minimize impacts to natural and working lands and local communities;
- Encourage planning processes to identify projects to prioritize for review and permitting; and
- Provide tangible and equitable benefits for impacted communities and allow for robust and early community engagement.

1 Larson, E., et al., *Net-Zero America: Potential Pathways, Infrastructure, and Impacts*. Interim report. (Princeton University, Princeton, NJ, December 2020.
2 The Nature Conservancy. *Power of Place: Clean Energy Solutions that Protect People and Nature*. (The Nature Conservancy, 2023, May 9). https://www.nature.org/en-us/what-we-do/our-priorities/tackle-climate-change/climate-change-stories/power-of-place/
3 Susskind, L., et al., *Sources of opposition to renewable energy projects in the United States*. (Energy Policy, 2022), 165, 112922.
4 Lawrence Berkeley National Laboratory. *Grid connection requests grow by 40% in 2022 as clean energy surges, despite backlogs and uncertainty*. (Lawrence Berkeley National Laboratory, 2023, April 6). https://emp.lbl.gov/news/grid-connection-requests-grow-40-2022
5 For example, Princeton University finds that the pace of building new transmission must more than double, or 80 percent of the emissions benefits of the Inflation Reduction Act could be lost Princeton University Zero Lab. Princeton University, REPEAT Team. *Electricity Transmission is Key to Unlock the Full Potential of the Inflation Reduction Act*. https://repeatproject.org/docs/REPEAT_IRA_Transmission_2022-09-22.pdf

EXECUTIVE SUMMARY

This report offers a series of federal administrative and legislative recommendations to reform permitting and project approval processes for major infrastructure and clean energy projects. These reforms are designed to increase the efficiency and certainty of permitting and review for clean energy projects and related infrastructure while protecting the conservation and community engagement goals of the permitting process. The report outlines general reforms to increase transparency, improve planning and siting, employ programmatic approaches, efficiently resolve conflicts and better engage and share benefits with communities to accelerate the clean energy transition. The report also includes recommendations specifically for the sectors of electric transmission, solar and wind energy, hydrogen pipelines and carbon dioxide (CO_2) management. These recommendations are based on the current permitting reform landscape. As new information, practices and legislative and regulatory changes continue to develop, TNC may develop further recommendations in the future. The report appendices provide background on recent federal administrative actions and initiatives directed at improving permitting and review processes and summarize key federal statutory authorities affecting permitting and approvals of clean energy projects and related infrastructure.

Common themes highlighted throughout the recommendations include:

- **Agencies and states should undertake planning** to identify projects that are most critical for meeting climate goals, that minimize impacts to conservation and that maximize benefits to communities. Agencies should leverage these planning products to prioritize identified projects for approval and interconnection, reducing timelines and duplication in subsequent permitting and review.
- **The Permitting Council should prioritize climate mitigation and adaptation projects** with agency leadership focused on improving the efficiency of informed decision-making, collaboration and dispute resolution to expedite decisions.
- **Meaningful, early engagement with affected communities must be a part of all planning processes and project approvals** to ensure respect of sovereign rights, alignment on priorities and equitable benefits sharing and to avoid conflict and reduce delays.
- **Sustained and meaningful Tribal consultation and collaboration across regulatory and permitting processes should be enhanced and secured** as the foundation for building ongoing partnerships that uplift Tribal perspectives and authority, avoid conflicts and reduce delays.
- **Conflicts should be resolved fairly and expeditiously**, and when collaboration does not resolve conflicts, challenges to project decisions should be evaluated and resolved in an expedited, transparent and predictable manner.
- **Funding and staffing of permitting agencies should be prioritized**, with agencies at all levels receiving adequate resources and training to enable rapid and efficient environmental review and authorization decisions.
- **Federal agencies, led by the White House Council on Environmental Quality (CEQ),** must ensure consistency in agency terminology, methodologies and standards for evaluation of impacts, alternatives, mitigation and environmental costs and benefits, as well as drive improved inter-agency coordination and incorporation of existing information into environmental reviews.

Together, these recommendations would speed deployment of critical clean energy and climate mitigation projects while ensuring robust community input, equitable benefit sharing and minimization of impacts to natural and working lands.

Contents

1. RECOMMENDATION SUMMARY TABLE **7**

2. GENERAL REFORMS TO IMPROVE SITING AND PERMITTING OF INFRASTRUCTURE PROJECTS **11**

3. RECOMMENDATIONS TO IMPROVE TRANSMISSION PROJECT SITING AND PERMITTING **21**

4. RECOMMENDATIONS TO IMPROVE ONSHORE WIND AND SOLAR ENERGY DEVELOPMENT **30**

5. RECOMMENDATIONS TO IMPROVE HYDROGEN PIPELINE SITING AND PERMITTING **37**

6. RECOMMENDATIONS TO IMPROVE CARBON DIOXIDE MANAGEMENT **41**

APPENDIX A: BACKGROUND ON FEDERAL PERMITTING REFORM INITIATIVES **45**

Background on General Reforms to Improve Siting and Permitting 45

Recent Federal Administrative Action 45

Recent Federal Legislative Action 48

Background on Reforms to Improve Transmission Project Siting and Permitting 49

Background on Reforms to Improve Wind and Solar Energy Development 54

Background on Reforms to Improve Hydrogen Pipeline Siting and Permitting 58

Background on Reforms to Improve Carbon Dioxide Management 58

APPENDIX B: OVERVIEW OF KEY FEDERAL AUTHORITIES **63**

Federal Land Policy and Management Act 63

National Forest Management Act 64

National Park Service Organic Act 65

National Wildlife Refuge System Administration Act 65

Wilderness Act 66

General Antiquities Act 66

Electric Transmission Infrastructure—Planning, Permitting and Environmental Review 66

National Environmental Policy Act and Title 41 of the FAST Act 74

National Historic Preservation Act 77

Endangered Species Act 78

Migratory Bird Treaty Act 79

Bald and Golden Eagle Protection Act 80

Clean Water Act and Rivers and Harbors Act 81

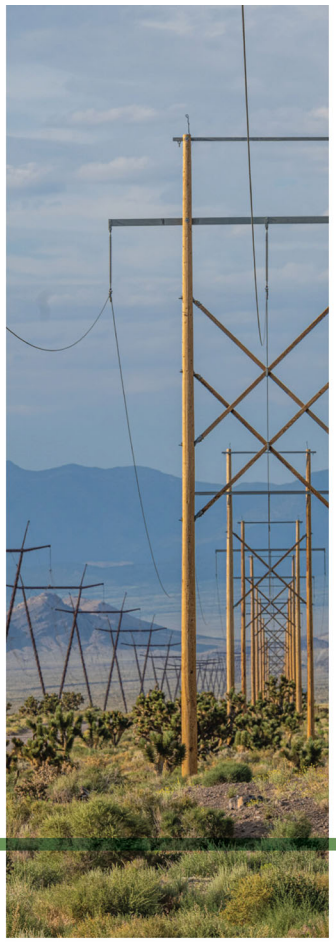
Department of Defense and Federal Aviation Administration Involvement 83

Clean Air Act 84

Mineral Leasing Act 84

Hydrogen Pipelines 85

Carbon Capture, Utilization, and Storage 86



One Nevada Line is part of the infrastructure that will bring renewable energy to California and other parts of the western power grid. © *Bridget Bennett*

1

Recommendation Summary Table

1. Recommendation Summary Table

PAGE	RECOMMENDATION	LEG.	ADMIN.
	GENERAL REFORMS		
11	**PLANNING**		
	Undertake annual net zero by 2050 decarbonization planning that balances land use impacts and benefits at the federal and state level.	●	
	Agencies should prioritize scale-appropriate mitigation planning in advance of and independent of individual project proposals.	●	●
12	**PROGRAMMATIC APPROACHES**		
	Encourage the use and resourcing of regional programmatic environmental reviews and tiering for project-specific reviews to speed environmental analysis for clean energy projects.	●	●
12	**COORDINATION**		
	The Permitting Council should leverage its existing and new authorities to prioritize timely permitting actions for covered projects in the renewable, electricity transmission, pipeline, carbon capture and related infrastructure sectors.	●	●
	Enhance and secure meaningful and sustained Tribal consultation and collaboration across regulatory and permitting processes.	●	●
	Better leverage technology and establish consistent standards to enable information sharing and coordination for environmental reviews.	●	●
	Provide funding and training necessary to ensure federal and state agencies have sufficient resources in their base budgets to conduct advanced planning and accelerated and coordinated reviews and permit decisions.	●	●
	Expand federal agencies' cultural competency, capacity and capabilities to support more effective stakeholder engagement processes and outcomes.	●	●
	CEQ should direct federal agencies to adopt clear and consistent mitigation guidelines to support efficient, effective and predictable decision-making.		●
15	**CATEGORICAL EXCLUSIONS**		
	Encourage continued use of categorical exclusions (CEs) for classes of projects with predictably low to no adverse environmental impacts.	●	●
	Establish CEs for projects with significant benefits for climate or biodiversity and that individually or cumulatively are demonstrated not to have a significant adverse effect on the human environment.	●	●
16	**COMMUNITY ENGAGEMENT**		
	Prioritize early and meaningful engagement with impacted landowners and communities before the Notice of Intent (NOI) and formal comment processes.	●	●
	Provide financial and technical resources and improve information accessibility about permitting decisions to affected communities to support their engagement in planning, siting and permitting processes.	●	●
	Incorporate mechanisms, such as Community Benefit Agreements (CBAs), in the environmental review process to ensure that economic and environmental benefits and burdens from decarbonization are shared equitably.	●	●
	Establish clear timeline goals and track key project information for priority projects.		●
19	**CONFLICT RESOLUTION**		
	Agencies should employ Environmental Collaboration and Conflict Resolution techniques in aid of priority infrastructure project development.		●
	The Permitting Council should dedicate resources to conflict resolution and support effective use of environmental collaboration and conflict resolution.		●
	Congress should encourage negotiated conflict resolution by expediting judicial review of final agency actions on high-priority renewable energy and transmission infrastructure projects.	●	

RECOMMENDATION SUMMARY TABLE

TRANSMISSION RECOMMENDATIONS			
21	**PLANNING**		
	CEQ should adopt regulations and issue guidance clarifying that land management agencies can and should rely on and incorporate transmission plans and related analyses developed by transmission planning entities into their environmental reviews of transmission projects and related siting, alternatives and mitigation analyses.	●	●
	The Federal Energy Regulatory Commission (FERC) should adopt reforms to all regional transmission planning processes, whether led by Regional Transmission Organizations (RTOs)/Independent System Operators (ISOs) or the Department of Energy (DOE), to require place-based long-term planning horizons and scenario-based planning, involve all levels of government and incorporate environmental and social factors in deployment of transmission.		●
	FERC should adopt requirements for minimum interregional transfer capacity.	●	
	The Bureau of Land Management (BLM) should complete the current Section 368 Energy Corridors Environmental Impact Statement (EIS) and conduct a Programmatic EIS (PEIS) to evaluate Section 368 Corridors.		
	State agencies should be provided with federal funding through Transmission Siting and Economic Development Grants to hire dedicated staff with legal and engineering backgrounds to participate actively in the regional transmission planning process and streamline siting and permitting processes for specific high priority transmission projects.		●
	Ensure that transmission planners rigorously evaluate use of reconductoring, grid-enhancing technologies (GETs) and other transmission line upgrades to right-size the scope of new build transmission projects approved in the regional transmission plan.	●	●
24	**SITING**		
	Update Section 368 energy corridors and encourage their use for transmission lines and hydrogen pipelines.	●	
	Identify opportunities and provide funding for co-location in existing highway, rail, utility and federal lands rights-of-way where technically feasible.	●	●
	DOE should continue to designate National Interest Electric Transmission Corridors (NIETCs) under Section 216(b) that connect areas of geographically constrained, low environmental impact renewable energy to load.		●
	DOE and FERC should work together to accelerate and consolidate their NIETC designation and project siting decisions	●	●
	DOE should develop an appropriately detailed environmental review of proposed NIETCs.	●	●
27	**COORDINATION**		
	DOE should identify nationally significant transmission projects and work with jurisdictional agencies to utilize the Permitting Dashboard and expedited procedures under the Fixing America's Surface Transportation Act (FAST Act) to manage their environmental review process.		●
	The Permitting Council should prioritize completion of transmission projects that meet a transmission need according to their planned in-service dates and generator queues.		●
WIND AND SOLAR ENERGY DEVELOPMENT RECOMMENDATIONS			
30	**PLANNING**		
	Land management agencies should identify priority Renewable Energy Zones sufficient for projected development in their programmatic reviews that seek to maximize community benefits and avoid significant negative environmental and social impacts through meaningful community engagement.		●
	The BLM should conduct PEISs for wind and geothermal leasing.		●
	BLM should establish consistent, effective and proportional mitigation requirements that balance wind and solar energy with resource management.	●	●
	Fish and Wildlife Service (FWS) should publish and finalize its proposed rule to update its rights-of-way regulations to allow for transmission improvements to existing transmission infrastructure through official refuges that improve conservation and energy outcomes.		●

RECOMMENDATION SUMMARY TABLE

	DOE and FWS should develop solar energy siting guidelines similar to the FWS Land-Based Wind Energy Siting Guidelines.	●	●
	Mitigate legal liability risks associated with developing renewable energy or storage at a brownfield site.	●	
33	**COORDINATION**		
	Congress should pass ambitious renewable energy targets.	●	
	Congress should increase funding for BLM's Renewable Energy Coordination Offices (RECOs).	●	●
	Congress should increase funding for FWS planning and consultation.	●	
	Congress should resource federal and state agencies and regional commissions to support renewable energy development at brownfield sites.	●	
34	**COMMUNITY ENGAGEMENT**		
	The BLM should involve Tribal and Indigenous communities early and often in all land use planning and project permitting processes.		●
	BLM should utilize conflict resolution procedures to reduce protests, appeals and litigation.		●
	HYDROGEN PIPELINE RECOMMENDATIONS		
37	**SITING**		
	Agencies should work with applicants to identify existing rights-of-way on which hydrogen pipelines can co-locate, including on energy corridors under Section 368.		●
37	**COORDINATION**		
	Congress should harmonize authority across federal agencies to coordinate and issue all necessary approvals for hydrogen infrastructure projects.	●	
	The Pipeline and Hazardous Materials Safety Administration (PHMSA) should promulgate regulations focused on the specifics of hydrogen transportation and safety.		●
	Agencies reviewing hydrogen projects should prioritize local safety concerns.		●
38	**COMMUNITY ENGAGEMENT**		
	Agencies granting permits should encourage and work with project developers to reduce and avoid conflict through robust engagement with stakeholders.		●
	Each regional hydrogen hub granted funding by DOE should develop a Community and Workforce Plan as part of its Community Benefit Plan.	●	●
	CO_2 MANAGEMENT RECOMMENDATIONS		
41	**PLANNING**		
	Enable storage under federal lands by clarifying authorities and incorporating CO_2 storage into federal land management planning.		●
	Ensure the Environmental Protection Agency (EPA) has the necessary resources and is effectively prioritizing resources to efficiently process Class VI well permits and state primacy applications.	●	●
42	**SITING**		
	Congress should address federal jurisdiction over CO_2 pipeline infrastructure.	●	
	Congress should expand the use of Section 368 corridors to include CO_2 pipeline projects crossing federal lands.	●	
	DOE should explore and support the use of existing rights-of-way to enable CO_2 infrastructure deployment.	●	●
	PHMSA should issue rulemakings or guidance related to the safe operation of pipelines for use in expanded Carbon Capture, Utilization and Storage (CCUS) to facilitate the buildout of a more extensive network.		●
43	**COMMUNITY ENGAGEMENT**		
	Ensure safeguards are put in place to avoid creating a process that fails to consider community concerns.		●



2

General Reforms to Improve Siting and Permitting of Infrastructure Projects

2. General Reforms to Improve Siting and Permitting of Infrastructure Projects

INTRODUCTION

The transition to a clean energy economy will require deployment of many different types of projects, including wind and solar generation, transmission lines, hydrogen pipelines, CO_2 management and others. All these types of projects will have to navigate some form of environmental permitting and review processes. This paper documents opportunities to leverage or create efficiencies in the permitting process that would benefit projects across all sectors.

This section details TNC's recommendations to improve the siting and permitting of infrastructure projects across multiple sectors. These generally applicable recommendations address planning and siting, coordination, transparency, community engagement, conflict resolution and process efficiency. Each recommendation includes background and discussion of the related issue, followed by specific suggested legislative and administrative actions. These recommendations are designed to accelerate deployment of clean energy infrastructure, improve environmental outcomes and facilitate community engagement.

RECOMMENDATIONS

Planning

RECOMMENDATION: Undertake annual net zero by 2050 decarbonization planning that balances land use impacts and benefits at the federal and state level.

Congress should provide funding and direct the DOE and its labs to undertake annual decarbonization plans with the goal of reaching economy-wide, net zero emissions by 2050. Funds should be appropriated to relevant agencies to develop and improve existing spatially explicit natural resource, community and cultural data. Such new and existing data should be integrated into existing electricity system modeling to improve our understanding of and solutions to land use trade-offs. These data should include information on sensitive wildlife habitat and species, priority areas for ensuring resilient and connected landscapes, sensitive working lands and those with high potential for co-benefits, cultural resources and environmental justice communities.

Federal-level analysis could inform state-level decarbonization planning, but state agencies may hold more detailed natural resource, community and cultural data and should be encouraged to pursue their own decarbonization planning to inform state-level policies. Congress and federal agencies could support this state-level analysis by providing incentives, funding and technical assistance.

Legislative: Congress should direct DOE, and incentivize and fund states, to undertake annual net zero by 2050 decarbonization planning that utilizes the best available, high-resolution data on sensitive conservation and community resources.

RECOMMENDATION: Agencies should prioritize scale-appropriate mitigation planning in advance of and independent of individual project proposals.

Habitat fragmentation and loss is a critical limitation to healthy populations of many species and habitat resiliency in the face of a changing climate. Federal lead agencies, particularly those that make significant, foreseeable and incremental investments in large infrastructure projects on public lands, can support improved mitigation and conservation planning in advance of project impacts to provide environmental, cost and time-saving benefits to energy infrastructure siting and mitigation decision-making. These processes should involve early, meaningful and robust Tribal consultation to respect Tribal sovereignty and incorporate their deep knowledge of relevant landscapes in decision-making and planning. Through proper analysis and application of Geographic Information System (GIS) technologies, such as the Climate and Economic Justice Screening Tool (CEJST), potential conflicts in project siting can be avoided or minimized and appropriate means of compensatory mitigation can be considered in advance of formal public processes. Several agencies, such as the Federal Highway Administration (FHWA), have recognized the value of proactively planning projects holistically and have successfully taken advantage of streamlined permitting opportunities. FHWA models and case studies have been captured in the agency's Eco-Logical approach and the Environmental Review Toolkit.

Where formal mitigation planning is not readily available, federal agencies can use their scoping and permitting processes to recognize a broad range of public and private partnerships to address cumulative impacts of major infrastructure projects on ecologically important areas. For example, the BLM has used Rapid Ecoregional Assessments (REAs) to identify important resource values and patterns of environmental change that may not be evident when managing smaller, local land areas. REAs and similar landscape-level assessments can provide the foundation for landscape-level planning to address climate and conservation goals. CEQ and the Permitting Council can guide this project-level consideration of cumulative mitigation opportunities through guidance and the examples of project decisions.

Administrative: CEQ should provide for project-level consideration of cumulative mitigation opportunities by updating its regulations based on conservation principles that inform application of permitting authorities under all relevant statutes. CEQ should codify its 2011 guidance on the appropriate use of mitigated actions and Findings of No Significant Impact.[6]

Legislative: Congress should amend Federal Power Act (FPA) Section 216 and related federal land management authorities to require federal agencies to undertake advanced mitigation planning for renewable energy generation, transmission lines and other linear infrastructure development. Congress should make clear that mitigation actions may support a Finding of No Significant Impact, consistent with previous guidance from CEQ.

Programmatic Approaches

RECOMMENDATION: Encourage the use and resourcing of regional programmatic environmental reviews and tiering for project-specific reviews to speed environmental analysis for clean energy projects.

Congress should authorize development of programmatic environmental reviews and approaches to facilitate permitting and environmental reviews for clean energy and transmission infrastructure projects across relevant federal agencies and direct those agencies to tier off those documents to facilitate speedier project development within identified areas.

Priority near-term programmatic reviews include the continued designation of NIETCs under Federal Power Act Section 216, the update to the BLM Western Solar PEIS and the West-Wide Energy Corridors. CEQ should provide guidance on when and how agencies can use such environmental reviews, including defining the applicability of tiered NEPA review documents to expedite site-specific environmental review and programmatic reviews and the relationship between a PEIS and a project-level EIS. Programmatic NEPA analyses must adequately disclose the nature and types of environmental impacts so subsequent project-level NEPA analysis can tier to or incorporate that analysis by reference.

Legislative: Congress should codify CEQ's 2014 guidance on programmatic reviews; direct the development of programmatic environmental reviews to facilitate permitting and environmental reviews for clean energy and transmission infrastructure projects across relevant federal agencies; and direct those agencies to tier off those documents. Congress should also establish incentives for project analyses that tier from a programmatic review (e.g., expedited timelines and judicial review directly by the courts of appeals for projects that implement the PEIS Record of Decision (ROD)).

Administrative: Federal agencies should complete near-term priority programmatic reviews for transmission and renewable energy projects. CEQ should provide additional guidance on the use of programmatic reviews and encourage agencies to provide expedited permitting and review decisions for transmission and renewable energy projects.

Coordination

RECOMMENDATION: The Permitting Council should leverage its existing and new authorities to prioritize timely permitting actions for covered projects in the renewable, electricity transmission, pipeline, carbon capture and related infrastructure sectors.

As originally enacted, Title 41 of the FAST Act (FAST-41) codified the sub-cabinet level organization of federal agencies for efficient infrastructure permitting. Every project covered by FAST-41 is entitled to receive a coordinated project

6 Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact.

plan and tracking of its environmental review and authorization milestones on the Permitting Dashboard. The statutory FAST-41 process is neutral in its procedures and operates regardless of the merits of the proposed project. However, using the policy direction of the Infrastructure Investment and Jobs Act (IIJA), the Infrastructure Reduction Act (IRA), and the Permitting Action Plan, the Permitting Council can provide resources and focus on high-priority projects that will make material progress toward the transition to a sustainable economy.

In addition to tracking covered projects on its Permitting Dashboard, the Permitting Council and its member agencies should focus on day-to-day management of the permitting process for high-priority projects, including coordinating authorities to accelerate environmental reviews. Permitting Council staff should work closely with project managers to ensure priority projects have the resources they need to advance project decision-making in a timely and well-informed manner. In addition, in its capacity as a center for excellence in environmental review and authorization, the Permitting Council should provide substantive expertise to assist agencies in decision-making processes. Similarly, agencies and applicants should engage with the Permitting Council to ensure that the FAST-41 procedures add value to agency decision-making processes beyond merely tracking and enforcing milestones identified in a project's coordinated project plan.

Administrative: The Permitting Council should identify priority projects, direct Permitting Council resources in support of coordinating project plans and work with member agencies to coordinate and accelerate environmental reviews.

Legislative: Congress should direct the Permitting Council to actively work with agencies to accelerate the permitting process for covered projects that reduce GHG emissions and maximize environmental and community benefits. Congress should authorize the Permitting Council to track the monitoring of and compliance with mitigation measures made during the environmental permitting and review process.

RECOMMENDATION: Enhance and secure meaningful and sustained Tribal consultation and collaboration across regulatory and permitting processes.

As reaffirmed in several Presidential Memoranda and federal agency guidance and ensconced in the U.S. Constitution, treaties, statutes, Executive Orders and court decisions, the U.S. government has a unique, legally affirmed Nation-to-Nation relationship with American Indian and Alaskan Native Tribal Nations. The clean energy buildout has the potential to benefit and adversely impact Tribal Nations, who will have a unique role in permitting processes and decisions related to clean energy projects and infrastructure. The outcomes of these decisions should avoid adverse impacts and amplify potential benefits as defined by the Tribal Nations. Realizing these outcomes will require enhancing and maintaining strong relationships with Tribal Nations built on respect for Tribal sovereignty and self-governance, honoring federal trust and treaty responsibilities, protecting Tribal homelands and engaging in regular, meaningful and robust consultation. This engagement should begin prior to the formal scoping phase of NEPA, because project proponents and agencies should consult with Tribal Nations early in clean energy infrastructure and land use planning decision-making. Early review of project routes and discussion of potential impacts fosters an inclusive participatory planning process and better ensures the economic and environmental benefits and burdens from decarbonization are shared equitably.

President Biden issued a *Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships* on January 26, 2021, directing each federal agency to develop a "detailed plan of actions" to implement Executive Order 13175, charging federal agencies to establish regular and meaningful consultation and collaboration with Tribal officials in the development of federal policies that have Tribal implications. In response to the Presidential Memorandum, all agencies subject to Executive Order 13175 submitted plans of action, including over 50 agencies that submitted a consultation plan of action for the first time. Agencies also conducted more than 90 national-level Tribal consultations, focusing specifically on agency Tribal consultation policies. Presidential Memorandum on Uniform Standards for Tribal Consultation, issued on November 30, 2022, outlined a minimum set of standards to ensure more consistency in how agencies initiate, provide notice for, conduct, record and report on Tribal consultations.

Formal Tribal consultations should follow these directives and guidance documents. These executive actions should be codified and built upon to ensure Tribal Nations' rights and sovereignty are respected and perspectives represented in agency planning and permitting decisions and other actions related to environmental reviews and project approvals.

Administrative: The federal agencies should adhere to and improve upon action plans to implement Executive Order 13175.

Legislative: Congress should codify the requirements and principles outlined in the Presidential Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships, and the Presidential Memorandum on Uniform Standards for Tribal Consultation.

RECOMMENDATION: Better leverage technology and establish consistent standards to enable information sharing and coordination for environmental reviews.

Sharing studies and analysis between agencies avoids duplication of efforts, potentially shortening environmental review timelines. Different technological platforms, data files and formats make sharing and coordination across agencies difficult, especially for analysis based in GIS. The Fiscal Responsibility Act (FRA) directed CEQ to conduct a study on the "potential for online and digital technologies to address delays in reviews and improve public accessibility," including centralizing the data, visuals and documents on a single cloud-based system. This study will help identify opportunities and needs, but Congress and CEQ should not wait for the conclusion of the study to act. Establishing more uniform practices and necessary technological upgrades that would be precursors for developing a more centralized system can begin now and would support more efficient interagency collaboration in the absence of a centralized system. These efforts would require funding and expanding agencies' expertise in information technology and data security.

Administrative: CEQ should establish standards for the digital format of environmental reviews and underlying analysis to enhance information sharing and collaboration across agencies.

Legislative: Congress should resource agencies with funding for technological upgrades and sufficient staff capacity and capabilities to facilitate more efficient data sharing and collaboration.

RECOMMENDATION: Provide funding and training to ensure federal and state agencies have sufficient resources in their base budgets to conduct advanced planning and accelerated and coordinated reviews and permit decisions.

The IRA provided a significant investment in the permitting capacity of the federal government, but to sustain this investment agencies need resources to build a skilled workforce that can make decisions efficiently. Congress should create clean energy permit teams/specialist roles within agencies and provide funding for the training, support, salaries and other expenses to ensure agencies have sufficient resources to conduct accelerated and coordinated reviews and processing of environmental permits. This would include, for example, additional funding for BLM RECOs, the FWS planning and consultation program and resources for state and Tribal Historic Preservation Offices and permitting agencies.

Administrative: The administration should seek budgetary authority and appropriations for necessary training, support, salaries and other expenses for staff necessary to ensure agencies have sufficient resources to conduct accelerated and coordinated reviews and processing of environmental permits.

Legislative: Congress should provide budgetary authority and appropriate funding for necessary training, support, salaries and other expenses for staff necessary to ensure agencies have sufficient resources to conduct accelerated and coordinated reviews and processing of environmental permits.

RECOMMENDATION: Expand federal agencies' cultural competency, capacity and capabilities to support more effective stakeholder engagement processes and outcomes.

To be successful in meaningful stakeholder engagement, federal agencies should concentrate on improving cultural competencies and capabilities. Establishing dedicated points of contact and liaison offices (e.g., Chief Public Engagement Officer) with direct connection to and authority from the head of the agency or department can help outline roles, responsibilities and expectations across the organization for community engagement in project development and permitting. Establishing clearinghouses within agencies and between agencies can facilitate information sharing on environmental justice, best practices and opportunities for community engagement. The Interagency Working Group on Environmental Justice and National Environmental Justice Advisory Council help facilitate improvements in stakeholder engagement practices and decision-making to yield more just and equitable outcomes.

Administrative: Agencies should create or maintain dedicated points of contact and liaison offices with the necessary authority and access to improve agency practices and competencies for stakeholder engagement.

Legislative: Congress should codify the Interagency Working Group on Environmental Justice and National Environmental Justice Advisory Council and adequately resource agencies to carry out meaningful stakeholder engagement.

RECOMMENDATION: CEQ should direct federal agencies to adopt clear and consistent mitigation guidelines to support efficient, effective and predictable decision-making.

A wide range of federal agencies have mitigation policies in place designed to support compliance with federal mandates and authorities, including the Clean Water Act (CWA), Water Resources Development Act, Endangered Species Act (ESA), Fish and Wildlife Coordination Act, Federal Land Policy and Management Act (FLPMA) and others.

CEQ should direct and support relevant agencies to develop "step-down" implementation guidance for implementing policies for specific habitat types and species. This would support clear and accelerated permitting and project review processes, increase predictability for industry, invigorate the growing private sector "restoration economy" and reduce the controversies and conflicts, including litigation, that can significantly delay proposed infrastructure projects.

Once developed, mitigation guidelines for specific resources should be incorporated into programmatic environmental reviews, federal land use plans and strategies and other project review and permitting mechanisms.

Administrative: CEQ should issue a memorandum directing federal agencies to adopt clear and reasonably consistent mitigation guidelines to support efficient and effective decision-making.

Agencies should develop implementing regulations or guidance defining mechanisms that are appropriate for delivering compensatory mitigation (e.g., banks, in-lieu fee programs, permittee-responsible mitigation) and the standards that all compensation programs and projects must meet to address cumulative impacts.

Agencies should be encouraged to develop compensatory mitigation guidance for resource types, species, groups of species or habitats to support efficient and effective compensatory mitigation decision making.

Categorical Exclusions

RECOMMENDATION: Encourage continued use of CEs for classes of projects with predictably low to no adverse environmental impacts.

CEs are one type of NEPA review. They define "a category of actions that do not individually or cumulatively have a significant effect on the human environment"[7] and, therefore, do not require an environmental assessment (EA) or EIS. CEs can be time consuming to establish but create greater efficiencies for NEPA reviews by ensuring resource-intensive EAs and EISs are targeted toward proposed actions that truly have the potential to cause significant environmental effects. In the FRA, Congress clarified that CEs established by one agency can be adopted by other agencies, and CEQ included in its NEPA Phase 2 rulemaking similar further clarification of this authority as well as discussion of the ability of agencies to jointly establish CEs and other CE provisions.

Legislative: Congress should encourage agencies to continue establishing CEs, direct CEQ to identify CEs available to agencies and require agencies to act on recommendations within a time frame.

Administrative: CEQ should work with agencies to identify potential CEs that would help accelerate clean energy infrastructure and meet climate goals.

RECOMMENDATION: Establish CEs for projects with significant benefits for climate or biodiversity and that individually or cumulatively are demonstrated not to have a significant adverse effect on the human environment.

Certain classes of projects will have an outsized benefit for enhancing biodiversity and reducing emissions to fight climate change with minimal adverse environmental effects. Reforestation and forest restoration, coastal restoration and other conservation activities to enhance green infrastructure are subject to the same standards and reviews as gray infrastructure, and therefore can experience the same delays. The environmental review burden should be reduced for conservation and restoration projects that will result in long-term net benefits to habitat and increase the resilience of Tribes and rural and underserved communities, correct past environmental harms and empower local communities in support of beneficial outcomes for jobs and local economies. CEQ's NEPA Phase 2 regulations include revisions

7 Council on Environmental Quality. *Establishing, Applying and Revising Categorical Exclusions under the National Environmental Policy Act.* (2020). https://ceq.doe.gov/docs/ceq-regulations-and-guidance/NEPA_CE_Guidance_Nov232010.pdf

clarifying that actions with only beneficial effects and no significant adverse effects do not require an EIS, and CEQ should further work with agencies to establish CEs for such actions.

Zero-emissions wind and solar energy are critical for reaching net-zero by 2050 targets. Although the scale and pace of the renewable energy buildout will require a significant land footprint with related environmental tradeoffs, siting these projects in low impact areas, such as existing highway, rail or transmission rights of way, certain brownfields and active or recently closed mining sites, can minimize this disturbance. Additional costs and permitting complications create barriers that lead energy developers toward lower-risk greenfields.

Establishing clearly defined, tightly constrained CEs for these types of projects with clear benefits and minimal to no adverse impacts will help speed up their delivery.

Legislative: Congress should establish or direct federal agencies to establish CEs for classes of projects that individually or cumulatively do not have a significant adverse effect on the human environment and meet the criteria for CEs in existing NEPA regulations, including beneficial restoration activities and low-impact clean energy.

Administrative: Federal agencies should prioritize establishing categorical exclusions for these classes of projects.

Community Engagement

RECOMMENDATION: Prioritize early and meaningful engagement with impacted landowners and communities before the NOI and formal comment processes.

To achieve NEPA's goal of ensuring public participation, robust public engagement is essential for the credibility and expeditious completion of the siting, permitting and review process. Major infrastructure projects, such as high-voltage transmission lines and pipelines, are likely to trigger potentially conflicting stakeholder interests and have the potential to produce significant impacts on local communities and the environment due to their complexity and scale. Early, consistent and effective engagement with stakeholders and impacted communities can reduce and mitigate conflicts for improved efficiency in decision-making processes, reduce risk of litigation and increase durability in judicial review. For example, BLM should facilitate robust community consultation at every stage of the renewable energy development process. This is especially true for programmatic reviews that will have broad effects across the western U.S. There should be open communication about the potential benefits and drawbacks of prioritizing or excluding renewable energy in certain areas, with communities given various avenues to voice their concerns.

Stakeholders and communities include, among others, industry and technical experts, federal, tribal, state, and local decision-making bodies and representatives of local communities, including underserved, fenceline, Black, Indigenous and People of Color (BIPOC) communities. Stakeholders and communities should represent various sectors: government, industry, business, advocacy, disadvantaged communities, Tribal communities, environmental non-governmental organizations, education, public health and safety, community planning and other concerned members of the public. As recommended in the Permitting Council's FY 2022 Best Practices Report to Congress, engaging with Tribal stakeholders is critical to ensure that project sponsors and agencies identify potential natural, archeological and cultural resources and locations of historic and religious significance in the area of the covered project.

Formal scoping meetings following a NOI under NEPA should not be the first opportunity to engage; instead, some method of engagement should occur earlier in the process. In particular, project proponents and agencies should consult with Tribal Nations and engage frontline communities in guiding clean energy infrastructure and land use planning decision-making. Early review of project routes and discussion of potential impacts foster an inclusive participatory planning process that will better ensure the economic and environmental benefits and burdens from decarbonization are shared equitably.

Engagement can include town hall meetings, open houses, informal targeted meetings, focus groups, one-on-one meetings and virtual workshops. Agency and applicant outreach should include expanded use of listening sessions,

small community conversations, webinars, direct email and other methods to ensure input can be shared in a way that is accessible, comprehensible and convenient.[8]

Administrative: Through NEPA rulemaking, CEQ should direct federal agencies to engage in proactive outreach to communities likely to be affected by proposals for agency action prior to a NOI and affirmatively solicit comments in a manner designed to inform those persons or organizations who may be interested in or affected by the proposed action. In addition, CEQ should review the effectiveness of stakeholder engagement on priority projects during the scoping process before or within a reasonable time after the agency issues a NOI to prepare an EIS, make recommendations to the project manager for the lead agency before the draft EIS is issued and track its recommendations through the completion of the decision-making process.

Administrative: In the programmatic reviews and project-specific decisions, BLM should support the provision of adequate compensation for the impacts of development on communities and their environment.

Legislative: Congress should encourage federal agencies to engage affected communities prior to a NOI and codify NEPA requirements to affirmatively solicit comments in a manner designed to inform those persons or organizations who may be interested in or affected by proposed actions.

RECOMMENDATION: Provide financial and technical resources and improve information accessibility about permitting decisions to affected communities to support their engagement in planning, siting and permitting processes.

Early and meaningful community engagement is critically important for planning, siting and permitting processes to run smoothly and result in a well-designed project. This engagement requires significant time, energy and technical understanding on the part of the community, which may be in short supply. Simply reaching out is not enough to meaningfully include community voices in underserved and overburdened communities. Additional support may be needed to build trust, contextualize the decisions and potential impacts and enhance accessibility. Best practices for community participation—such as arranging for translation services, multi-modal convenings and information dissemination or offering wraparound services such as childcare or transportation—are well documented and continually improving. Providing outreach funds to trusted organizations embedded in the community or technical assistance to better understand the potential impacts of both the project and broader context of the project can build trust and facilitate actionable community input. Every community is unique, and making resources available that can then be tailored to those needs is an important step.

Legislative: Congress should fund grants to state, Tribal and local agencies and to community-based organizations to increase capacity for communities to engage in planning and environmental reviews and decision making.

Administrative: Federal agencies should consider using discretionary funds to develop education or training tools or otherwise support community engagement and enhance opportunities for communities to engage in planning and environmental reviews and decision making.

RECOMMENDATION: Incorporate mechanisms, such as CBAs, in the environmental review process to ensure the economic and environmental benefits and burdens from decarbonization are shared equitably.

Agencies should engage impacted communities, especially frontline and BIPOC communities who have been historically underrepresented in these processes, in guiding clean energy infrastructure and land use planning

8 Examples of early outreach and engagement include:
- *Community Guide to EJ and NEPA methods.* https://www.energy.gov/lm/articles/community-guide-ej-and-nepa-methods-2019
- *Principles for Effective Stakeholder Engagement in Infrastructure Permitting and Review Processes.* https://udall.gov/documents/Institute/UdallInfrastructureStakeholderEngagementPrinciples_Final.pdf
- *Suggested Best Practices for Industry Outreach Programs to Stakeholders.* https://www.ferc.gov/sites/default/files/2020-04/stakeholder-brochure.pdf
- *Promising Practices for Meaningful Public Involvement in Transportation Decision-Making.* https://www.transportation.gov/sites/dot.gov/files/2022-10/Promising_Practices_for_Meaningful_Public_Involvement-in-Transportation_Decision-making.pdf
- *Early Coordination with Indian Tribes During Pre-Application Processes.* https://www.achp.gov/sites/default/files/documents/2019-10/EarlyCoordinationHandbook_102819_highRes.pdf
- *American Indian/Alaska Native (AI/AN) Outreach Responsibilities.* https://www.fsa.usda.gov/Internet/FSA_Notice/ao_1803.pdf
- *Collaboration in NEPA: A Handbook for NEPA Practitioners.* https://ceq.doe.gov/docs/get-involved/Collaboration_in_NEPA_Oct2007.pdf
- *Promising Practices for EJ Methodologies in NEPA reviews.* https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf
- *Procedures for Consultation with Indian Tribes.* https://www.boem.gov/sites/default/files/documents/aboutboem/Chapter 5 DOI Procedures for Consultation with Indian Tribes.pdf,%22

decision-making.9 It is essential that federal agencies fully consider mechanisms for ensuring these communities benefit economically from renewable energy development. Such benefits should be above and beyond any mitigation measures that seek to avoid, minimize or offset impacts to natural or historic resources.

CBAs crafted in partnership with affected communities can help facilitate engagement and focus on community interests and needs. Special attention should be given to developing CBAs that address environmental justice and other historically excluded or overburdened communities. A CBA is a binding agreement between a developer and a community that outlines benefits the developer will provide and ensures the benefits of projects accrue locally and that communities have an opportunity to influence the benefits most appropriate to their specific communities.

NEPA analysis is designed to facilitate cooperation with concerned public and private organizations. NEPA directs federal agencies to use all practicable means and measures to achieve the statute's purposes and authorizes federal agencies to consider public/private arrangements to address the cumulative impacts of infrastructure development on host communities. CEQ regulations implementing NEPA provide for early coordination with private applicants to facilitate coordination with public organizations prior to the commencement of the NEPA process. CEQ and Congress should make clear that CBAs and other community agreements are a necessary part of the environmental review process and consistent with NEPA.

Legislative: Congress should amend NEPA to authorize and direct federal agencies to consider non-federal agreements and actions that address cumulative and historic impacts of proposals for federal agency action to communities, including CBAs.

Administrative: CEQ should issue updated regulations and guidance that recognizes CBAs and other community agreements as a necessary part of the environmental review process and consistent with NEPA Section 101. CEQ should also clarify that in scoping for environmental reviews and final decision-making, agencies should recognize the value of CBAs that help manage resource trade-offs and work to the benefit of affected stakeholders.

RECOMMENDATION: Establish clear timeline goals and track key project information for priority projects.

The May 2022 Permitting Action Plan directs all agencies to establish clear timeline goals and track progress for projects.10 Currently, this is only required for projects covered under FAST-41, as well as many transportation projects authorized by the Fast Act. All federal agencies should adopt this practice for all projects deemed a priority for a clean energy, nature-positive future.

The development of coordinated project plans and publication of timely metrics and milestones for project permitting enables public participation in the permitting process, provides agencies with information to identify and improve permitting and siting processes and increases accountability and predictability. Moreover, consistent, government-wide data will provide actionable insights into current federal permit and review practices and inform efforts to further improve the effectiveness and efficiency of these processes. However, these insights cannot be left to future applications and need to be applied to projects being planned and permitted now.

Administrative: Federal agencies should rapidly implement recommendations to establish and track permitting review timeline goals. CEQ should monitor the timeliness and effectiveness of agency NEPA processes by reporting on both the timing of environmental review processes, with analysis of the full range of factors that affected the timeline for environmental review, and the effectiveness in agency decision-making processes, with analysis of quantity, quality and the actual use of environmental information by the decision-makers.

9 The Nature Conservancy. *Voices From the West: Findings from Interviews regarding Energy on Tribal Lands*. (The Nature Conservancy, 2021). https://www.nature.org/content/dam/tnc/nature/en/documents/TNC_VoicesfromtheWest_Report_FINAL_LR.pdf

10 The White House. *The Biden-Harris Permitting Action Plan to Rebuild America's Infrastructure, Accelerate the Clean Energy Transition, Revitalize Communities, and Create Jobs*. (2022). https://www.whitehouse.gov/wp-content/uploads/2022/05/Biden-Harris-Permitting-Action-Plan.pdf.

Conflict Resolution

RECOMMENDATION: Agencies should employ Environmental Collaboration and Conflict Resolution techniques in aid of priority infrastructure project development.

Environmental Collaboration and Conflict Resolution (ECCR) has been demonstrated to reduce the time and expense of decision-making processes, the likelihood of litigation and the issues in litigation. ECCR has been used successfully in thousands of cases in recent decades. It also documents numerous measurable benefits associated with the use of ECCR to address such conflicts, including saving time and money; strengthening relationships between the government and stakeholder; improving outcomes; and reducing litigation.11 Where priority infrastructure projects cannot avoid environmental conflicts, or the costs of conflict avoidance undermine environmental and economic benefits of the proposed project, federal agencies can employ conflict resolution professionals and other resources to support more efficient and durable resolution to conflicts that otherwise may endanger project implementation.

Administrative: The Office of Management and Budget (OMB) and CEQ should update and reinforce their support for environmental collaboration and conflict resolution by providing the resources and oversight needed for effective alternative dispute resolution solutions directed at priority renewable energy generation and transmission projects.

RECOMMENDATION: The Permitting Council should dedicate resources to conflict resolution and support effective use of environmental collaboration and conflict resolution.

Use of a neutral third party could include assistance with government-to-government consultation between Tribes and federal agencies, interagency and interdepartmental collaborations and conflict resolution on issues involving multiple levels of government and the public. The Permitting Council can help by funding positions dedicated to conflict resolution. For example, BLM could engage the Department of the Interior's (DOI's) Office of Collaborative Action and Dispute Resolution and the National Center for Environmental Conflict Resolution for assistance with multiparty high-conflict decisions where an impartial federal convener is needed to broker participation in a collaborative process or conflict resolution effort.

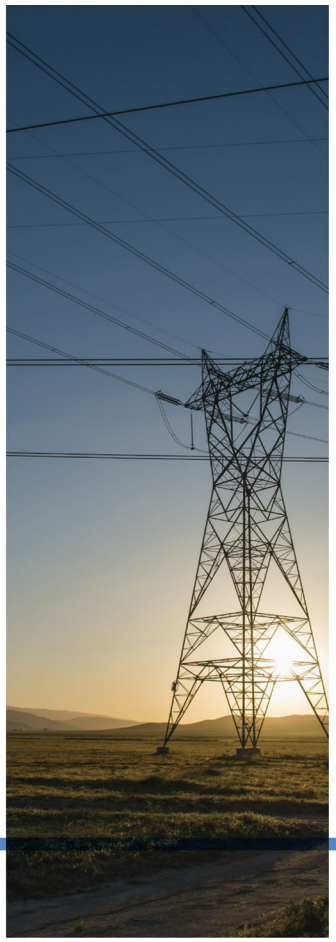
Administrative: The Permitting Council and component agencies should use their authorities and funding to support effective use of environmental collaboration and conflict resolution techniques, including neutral third parties, to reduce conflicts over infrastructure projects, including participation by affected states and Tribes in these dispute resolution processes.

RECOMMENDATION: Congress should encourage negotiated conflict resolution by expediting judicial review of final agency actions on high-priority renewable energy and transmission infrastructure projects.

Amending FAST-41 to limit judicial review to the U.S. circuit courts of appeals for covered clean energy and transmission projects would avoid the unnecessary step of litigation in over-burdened district courts on the way to de novo review by courts of appeals and effectively expedite judicial review of large clean energy infrastructure project decisions. To avoid similarly overburdening courts of appeals, this should be limited to projects of significant size and scope, such as FAST-41 covered projects. If the judicial review provision were modeled on the Federal Power Act, it would provide an opportunity for reconsideration of the decision by the lead agency and other decision-making agencies running from the date of public notice of final agency action and a limitation on court jurisdiction to those plaintiffs that had sought reconsideration and had not received agency action within a specified period. Jurisdiction would be limited to the court of appeals for any circuit where the project proponent is located or has its principal place of business, or in the U.S. Court of Appeals for the District of Columbia. The filing in such court would be required within a specified period after the ROD or upon the application for rehearing, with the petition for review styled as a notice of appeal.

Legislative: Direct judicial review of "covered" clean energy projects under FAST-41 to the U.S. circuit courts of appeals.

11 Federal Forum on Environmental Collaboration and Conflict Resolution. *Environmental Collaboration and Conflict Resolution (ECCR): Enhancing Agency Efficiency and Making Government Accountable to the People*. (2018). https://ceq.doe.gov/docs/nepa-practice/ECCR_Benefits_Recommendations_Report_%205-02-018.pdf.



California Poppy Preserve in Antelope Valley, California. © *Dave Lauridsen*

3

Recommendations to improve transmission project siting and permitting

3. Recommendations to improve transmission project siting and permitting

INTRODUCTION

Transmission is critical to addressing grid stability and climate change through the modernization of the power sector and electrification of transportation and other sectors. Multiple pathways exist for the U.S. to meet clean energy goals, but all require upgrading and expanding the nation's transmission infrastructure. In particular, they require deploying or upgrading interstate high-voltage lines connecting areas with significant renewable energy resources to demand centers and linking together independently operated grid regions.[12]

Successful deployment of these lines, however, faces significant challenges, not the least of which is the environmental review and permitting process. Transmission projects proposed on federal lands that require passage across federal lands or that will involve federal funds are subject to federal permitting or review processes.[13] Permitting and siting must also be coordinated with state, local and Tribal governments that have authority to permit and site transmission projects, with differing levels of authority between various public utility commissions, central siting authorities, local governments and other entities. Proposed long-distance transmission lines that cross state boundaries must coordinate the requirements imposed by multiple states as well as local or Tribal governments. Given the diversity of jurisdictional permit and decision-making responsibilities and authorities, the process to obtain final permits to develop new interstate transmission lines or to upgrade existing lines is inherently lengthy, complicated and costly.

This section details TNC's recommendations for reforms on improving the siting and permitting of transmission projects. These reforms would address planning and siting, interagency coordination and community engagement. Each recommendation includes background and discussion of the related issue followed by specific suggested legislative and administrative actions. Implementing these recommendations should accelerate the transmission project deployment, improve environmental outcomes and facilitate community engagement.

RECOMMENDATIONS

Planning

RECOMMENDATION: CEQ should adopt regulations and issue guidance clarifying that land management agencies can and should rely on and incorporate transmission plans and related analyses developed by transmission planning entities into their environmental reviews of transmission projects and related siting, alternatives and mitigation analyses.

FRA amendments to NEPA provide an opportunity for CEQ to amend its NEPA regulations to clarify the relationship between Federal Power Act environmental review and planning and the environmental review developed by or with federal land management agencies. Under the FPA, entities with primary responsibility for transmission planning and authorizing transmission projects are RTOs, ISOs and state utility regulators for states in which proposed transmission projects will be located. RTOs, ISOs and state utility regulators are uniquely qualified to determine whether a proposed transmission project would best meet future state and regional transmission needs and whether there are alternative means through which these transmission needs could be met (i.e., GETs). In addition, DOE undertakes significant studies on a regular basis to identify transmission needs and plan for future transmission.

Land management agencies have no authority (nor do they have the necessary expertise) to act as a transmission planning authority and override these determinations. Where the purpose and need for a transmission line has been established by an RTO/ISO or state utility regulator, land and natural resource managers should rely on that FPA-based purpose and need in their environmental review of siting alternatives and mitigation measures. Federal land and

12 United State Department of Energy. National Transmission Needs Study. (2023). https://www.energy.gov/sites/default/files/2023-12/National%20Transmission%20Needs%20Study%20-%20Final_2023.12.1.pdf.

13 As set forth in Appendix B (legal authorities), depending on the areas through which a pipeline or transmission line is proposed, there are a variety of Federal permitting or review processes that may apply in addition to state and local permits: Clean Water Act Section 401 water quality certificates (33 U.S.C. §§ 1251–1387), Section 402 National Pollutant Discharge Elimination System Permits (33 U.S.C. § 1342), Section 404 dredge and fill permits from the Army Corps of Engineers (33 U.S.C. § 1344), permits under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403), Clean Air Act permits (42 U.S.C. § 7401 et seq.), the Endangered Species Act (16 U.S.C. §§ 1531–1544), and the National Historic Preservation Act (16 U.S.C § 470). In addition, compliance with the National Environmental Policy Act is always required when a proposed infrastructure project necessitates Federal action (such as funding, permitting, or otherwise approving a pipeline or electricity transmission project).

resource managers should not be expected to develop expertise in the management of the electrical grid but may appropriately defer to expert agencies (including DOE and FERC) in assessing the need for transmission projects.

DOE's Grid Deployment Office (GDO) and labs, as appropriate, should assist lead and cooperating agencies on high-priority projects in using previously completed EA and EIS documents to help satisfy the requirements of NEPA with respect to approving any proposed energy infrastructure project where the new proposed action is substantially similar to a previously analyzed proposed action or alternative analyzed in a previous EA or EIS and the effects of the proposed action are similar to the effects analyzed in such existing EA or EIS documents. GDO should be authorized to speak authoritatively regarding the need for transmission projects and the availability of alternatives and to work with land management agencies on their assessment of site-specific considerations for the authorization of transmission and renewable generation projects.

CEQ should clarify that land management agencies should rely on and incorporate the findings of transmission and renewable energy planning by reference in their NEPA analyses. This will enable land management agencies to appropriately limit their purposes and need statements as well as their alternatives analyses to aspects within their jurisdiction and expertise instead of requiring land management agencies to make technical determinations about the need for transmission and renewable energy projects.

Administrative: CEQ should adopt regulations and issue guidance clarifying that land management agencies can and should rely on and incorporate plans, studies and projections of DOE, RTOs and state utility regulators.

Legislative: Congress should authorize and direct CEQ to adopt regulations and issue guidance clarifying that land management agencies can and should rely on and incorporate plans, studies and projections of DOE, RTOs and state utility regulators.

RECOMMENDATION: FERC should adopt reforms to all regional transmission planning processes, whether led by RTO/ISOs or DOE, to require place-based long-term planning horizons and scenario-based planning, involve all levels of government and incorporate environmental and social factors in deployment of transmission.

To identify the most efficient package of transmission infrastructure needed to accommodate the changing resource mix, transmission providers must clearly articulate project benefits. As FERC identified, there remains a patchwork of practices across transmission providers when it comes to long-range transmission planning. Some regions focus heavily on near-term to mid-term time horizons, while others incorporate long-range planning studies to identify transmission needs over a twenty-year time frame. Ensuring consistent application of long-range planning over a twenty-year time horizon will help identify transmission needs sooner. Moreover, FERC's emphasis on ensuring transmission planning considers changing resource mix and demand on the grid will help ensure that transmission projects needed to connect new clean energy resources to the grid are planned for in the regional transmission planning process in advance of when they are needed. One example of successful implementation of long-range transmission planning is Midcontinent Independent System Operator's (MISO) Long Range Transmission Planning process. The 2022 Long Range Transmission Plan implements a value-based planning process and creates a consolidated transmission plan that delivers regional value over the long term while meeting near-term system needs. Transmission planning that accounts for environmental and social factors in deployment of transmission and the indirect effects of transmission development on energy generation can significantly reduce negative environmental and community impacts of development projects.[14]

Early and engaged participation in the regional transmission planning process by state authorities could streamline siting processes down the road for transmission lines included in regional transmission plans. Providing state authorities with access to information so they understand the basis and need for a particular transmission project, as well as the benefits estimated from constructing such a project, would improve the efficiency of subsequent siting and permitting proceedings and reduce the time it takes to reach decisions on proposed projects. Moreover, state agencies would have the opportunity to advocate in the regional transmission planning process for transmission infrastructure that supports state energy goals, thereby shaping the scope and scale of transmission projects that are ultimately before them in siting and permitting proceedings. FERC's efforts to carve out a more prominent and defined role for states in the regional transmission planning process is a good first step.

14 The Nature Conservancy. *Power of Place National Executive Summary*. (The Nature Conservancy, May 2023). https://www.nature.org/content/dam/tnc/nature/en/documents/FINAL_TNC_Power_of_Place_National_Executive_Summary_5_2_2023.pdf

Administrative: FERC should ensure regional transmission planning supports place-based long-term planning involving state agencies and accommodating changing resource mixes and sensitive ecosystems and communities and requires identification of clear benefits metrics for selection of transmission projects.

RECOMMENDATION: FERC should adopt requirements for minimum interregional transfer capacity.

Multiple studies have demonstrated that increased investment in interregional transmission can significantly reduce costs for customers to allow more flexibility in accessing the lowest-cost energy options at a given time.[15] More interregional transmission also means that different regions of the country will need to build less wind, solar and other generation to accommodate energy demand, further reducing costs for customers and impacts to nature and communities.

Historically, regional transmission planners have not been appropriately incentivized to undertake robust interregional transmission. FERC is currently considering establishing a minimum requirement for interregional transfer capability for public utility transmission providers in transmission planning and cost allocation processes.

Legislative: Congress should require FERC to outline requirements for interregional transmission planning and establish minimum interregional transmission transfer capacity.

RECOMMENDATION: The BLM should complete the current Section 368 Energy Corridors EIS and conduct a PEIS to evaluate Section 368 Corridors.

The BLM is preparing an EIS to evaluate revisions to seven Section 368 Energy Corridors designated in 2009.[16] The energy corridors are the land use plan-level designated areas to which the agency seeks to direct future linear electrical transmission and pipeline projects. The agency prepared a report in 2022, which recommended dozens of revisions to the designated corridors. In 2024, the BLM initiated a NEPA review to amend seven corridors. The agency should complete that EIS and initiate another programmatic planning-level EIS to evaluate other recommended changes. The corridor revisions are essential to reflect recently approved infrastructure and other land use changes since 2009.

RECOMMENDATION: State agencies should be provided with federal funding through Transmission Siting and Economic Development Grants to hire dedicated staff with legal and engineering backgrounds to participate actively in the regional transmission planning process and streamline siting and permitting processes for specific high priority transmission projects.

Under Section 50152 of the IRA, Congress appropriated US$760 million to make transmission siting and economic development grants to siting authorities to facilitate the siting and permitting of interstate onshore and offshore transmission lines.

The receipt of grants under the program are subject to the condition that a siting authority agree to reach a final decision on the application relating to the siting or permitting of the applicable transmission project not later than two years after the date on which such grant is provided, unless extended by the Secretary of Energy. On January 13, 2023, the DOE issued a request for information (RFI) seeking comment on the scope of activities that could be supported with these grants.

The DOE should view the categories of activities covered by the grant program broadly enough to include participation in the regional transmission planning process. Active involvement of state agencies in the regional transmission planning process where a transmission project was selected can improve the chances of, and shorten the time required for, approval by the state siting authority down the road.

Administrative: DOE should provide funding to states to participate in regional transmission planning processes.

15 Brattle Group. *The Benefits of Interregional Transmission: Grid Planning for the 21st Century*. https://www.brattle.com/wp-content/uploads/2022/03/The-Benefits-of-Interregional-Transmission-Grid-Planning-for-the-21st-Century.pdf; Americans for a Clean Energy Grid. Benefits of Interregional Transmission. https://www.cleanenergygrid.org/wp-content/uploads/2023/05/Benefits-of-Interregional-Transmission-Factsheet.pdf

16 Bureau of Land Management. *Approved Resource Management Plan Amendments/Record of Decision (ROD) for Designation of Energy Corridors on Bureau of Land Management-Administered Lands in the 11 Western States*. https://www.corridoreis.anl.gov/documents/docs/Energy_Corridors_final_signed_ROD_1_14_2009.pdf

RECOMMENDATION: Ensure that transmission planners rigorously evaluate use of reconductoring, GETs and other transmission line upgrades to right-size the scope of new build transmission projects approved in the regional transmission plan.

Technical improvements to existing transmission facilities can serve as substitutes or complements to investments in costly expansion for the purpose of supporting new generation capacity and higher levels of variable renewable resource penetration. As the administration recognized in its permitting reform recommendations, under certain conditions, it may be possible for reconductoring, GETs and other transmission line upgrades that could more than double the amount of new renewables to be integrated into the grid.[17]

In addition to acting as solutions to capacity expansion needs, these technologies can complement development of large new lines by effectively multiplying new system capacity and, in turn, enabling more cost-effective absorption of large volumes of renewable resources from regions previously inaccessible to the bulk power system.

On December 16, 2021, FERC adopted Order No. 881, which supports a subset of these technologies by requiring transmission providers and RTOs/ISOs to implement ambient-adjusted ratings and allow for hourly line ratings. In addition, FERC has focused on certain types of GETs that can make existing transmission lines more efficient in transmitting electricity. FERC focused on advanced power flow control, which can move power away from overloaded facilities or drive power to under-utilized facilities, and dynamic line ratings, which adjust the thermal ratings of transmission lines based on real-time monitoring of line performance. FERC should evaluate other opportunities to integrate new technologies or other transmission-upgrades into the transmission planning process.

Administrative: FERC should include consideration of all applicable GETs and transmission line upgrades in its triennial review of transmission capacity constraints and congestion under Section 216 of the FPA and should incorporate requirements to consider GETs in all relevant transmission planning rulemakings.

Legislative: Congress should require FERC to include consideration of all applicable GETs and transmission line upgrades in its triennial review of transmission capacity constraints and congestion under Section 216 of the FPA.

Siting

RECOMMENDATION: Update Section 368 energy corridors and encourage their use for transmission lines and hydrogen pipelines.

Section 368 of the Energy Policy Act of 2005 required DOI, Department of Agriculture (USDA), Department of Commerce (DOC), Department of Defense (DOD) and DOE—in consultation with FERC and Tribal entities—to work together to designate energy rights-of-way corridors for oil, gas and hydrogen pipelines and electricity transmission and distribution facilities on federal lands—first in 11 western contiguous states (Section 368(a)) and later, if warranted, in the remaining states (Section 368(b)). In 2009, DOI and USDA designated more than 6,000 miles of these corridors across 11 western states (otherwise known as West-wide Energy Corridors). Once a Section 368 energy corridor is designated, it is considered to be a preferable pathway for interstate energy transport until it is amended. Although their use is voluntary, project developers and relevant federal agencies have, to varying extents, used portions of the western energy transport corridors for projects since 2009.

Following a multi-year review of the originally designated corridors, on April 20, 2022, the BLM and the U.S. Forest Service (USFS) published a final report that identified potential improvements to the corridors that balance the need for delivering clean energy with protecting America's lands, water and wildlife habitat.[18] The BLM conducted regional reviews as a part of this final report.

17 The White House. *Biden-Harris Administration Outlines Priorities for Building America's Energy Infrastructure Faster, Safer, and Cleaner*. https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/10/fact-sheet-biden-harris-administration-outlines-priorities-for-building-americas-energy-infrastructure-faster-safer-and-cleaner/; Brattle Group. *Unlocking the Queue with Grid Enhancing Technologies*. https://watt-transmission.org/wp-content/uploads/2021/02/Brattle__Unlocking-the-Queue-with-Grid-Enhancing-Technologies__Final-Report_Public-Version.pdf90.pdf

18 West-wide Energy Corridor. *Regional Review Final Report*. https://corridoreis.anl.gov/regional-reviews/report/; Note also that on June 7, 2013, the President issued a separate but related memorandum, directing Federal agencies that laid out principles for designation of energy right-of-way corridors on Federal lands under Section 368 of the Energy Policy Act of 2005. It also directed Federal agencies to re-evaluate existing energy rights-of-way corridor designations to determine the necessity for revisions, deletions, or additions to those energy corridors and to develop interagency mitigation plans, where appropriate, for environmental and cultural resources potentially impacted by projects sited in energy corridors.: The White House. *Presidential Memorandum–Transforming our Nation's Electric Grid Through Improved Siting, Permitting, and Review*. June 7, 2013. https://www.whitehouse.gov/the-press-office/2013/06/07/presidential-memorandum-transforming-our-nations-electric-grid-through-i.

As preferred locations for energy transport projects on federally administered public lands, Section 368 energy corridors are intended to facilitate long-distance movement of oil, gas or hydrogen via pipelines and transmission and distribution of high-voltage electric power. Although project applicants are not required to locate projects in Section 368 energy corridors, applicants who would choose to use them should be able to take advantage of a more efficient application process that provides applicants with a clear set of actions required by each agency to build projects in designated corridors, including: siting options for compatible projects in designated corridors; coordinated corridor designations across agency administrative barriers; coordinating agency administrative processes within corridors; interagency operating procedures that assist in preparing and evaluating right-of-way (ROW) applications; a single federal point of contact for each ROW application; incorporation by reference from the PEIS for project-specific environmental review; and focused project planning data collection and project-specific engineering on issues specific to the proposed project and the associated within-corridor ROW and not on alternative locations. These benefits could expedite the application, authorization and construction of energy transport projects as directed by Section 368.

Because Section 368 energy corridors on federal lands may affect routing of projects on adjacent non-federal lands, robust stakeholder outreach is appropriate when considering site-specific projects utilizing Section 368 energy corridors and proposals to revise, delete or add Section 368 energy corridors. The BLM should expeditiously complete a regional, programmatic environmental review to update prior environmental review for the West-wide Energy Corridors to include stakeholders and better integrate the corridors with current energy conditions, projections for future growth and BLM and USFS land management planning. For priority transmission projects, plan amendments should be incorporated into the environmental review for project decisions.

Legislative: Congress should direct the BLM, as lead agency, to expeditiously complete a regional, programmatic environmental review to update prior environmental review for the West-wide Energy Corridors, to include Tribal rights holders and stakeholders such as underserved communities, and better integrate the corridors with current energy conditions, projections for future growth and BLM and USFS land management planning.

RECOMMENDATION: Identify opportunities and provide funding for co-location in existing highway, rail, utility and federal lands rights-of-way where technically feasible.

DOE should prioritize investments in co-locating transmission lines and reconductoring existing lines while continuing to plan for new low-impact transmission investments when connecting to demand centers.19 Co-location could include existing highway, rail, utility or other rights-of-way.

The National Electrical Manufacturers Association established the Railroad Electrification Council to promote the use of underutilized Class 1 and Class 2 railway rights-of-way for transmission.[20] A 2008 Government Accountability Office report found that co-locating transmission with existing highway and rail rights-of-way provides a number of economic, environmental and visual advantages.[21]

DOT should encourage use of its ROWs for renewable energy generation, electrical transmission and distribution projects, as co-locating transmission in transportation corridors can help mitigate siting and land acquisition conflicts and issues.[22] Addressing electrical transmission and distribution in the ROW of a federal-aid highway can follow two methods, either accommodation as a utility or approval as an alternative use of the highway ROW. Co-location on an existing highway ROW will enable transmission projects to make use of already disturbed rights-of-way. State laws and regulations may be narrower in scope than the federal definition, and states should broaden their state laws and regulations to cover the full scope of the federal definition to ensure transmission projects can be accommodated in highway ROWs as a utility.

19 Federal Energy Regulatory Commission. *Report on Barriers and Opportunities for High Voltage Transmission*. https://www.congress.gov/116/meeting/house/111020/documents/HHRG-116-II06-20200922-SD003.pdf; See also Conservation Groups' Transmission Recommendations to President Biden, December 15, 2022 ("Ensure that, to the extent reasonably feasible but without impairing its mandate to assess and minimize environmental impacts on EJ and Tribal communities, the route makes use of any already disturbed existing rights of way, for any type of infrastructure.").

20 National Electrical Manufacturers Association. *NEMA Launches Railroad Electrification Council*. (February 11, 2020). https://www.nema.org/news-trends/view/NEMA-Launches-Railroad-Electrification-Council

21 United States Government Accountability Office. *Transmission Lines: Issues Associated with High-Voltage Direct-Current Transmission Lines along Transportation Rights of Way*. (February 1, 2008). https://www.gao.gov/assets/100/95342.pdf

22 FERC (2020) indicates, however, that there are barriers to such co-location. "Some state laws prohibit or in other ways restrict the co-location of transmission in highway rights-of-way. Co-location may also increase costs if the highway does not run in the direction compatible with the project. Further, electrical interference can affect the protection systems of oil and gas pipelines and accelerate corrosion, and the induced currents from high voltage lines can also affect railroad signaling systems. These issues could limit co-location of transmission in pipeline or railroad rights-of-ways. Finally, additional safety and security concerns arise when facilities are co-located. Incidents related to one facility can affect the co-located facility due to the physical proximity."

In some cases, utilities may have an opportunity to co-locate transmission capacity in existing transmission ROW that cross federal lands. Transmission projects and upgrades can increase utilization of existing transmission ROW by reconductoring existing lines, increasing line voltage, adding additional circuits or converting the standard alternate current design to direct current. Co-locating transmission in existing ROW minimizes the risks of habitat fragmentation on public lands. It can also reduce the permitting burden on utilities enabling them to get the necessary permits and approvals much faster.

Administrative: DOE should work with DOT, DOI, USFS, other federal and state agencies and utilities to make use of existing rights-of-way, including existing rail and highway rights-of-way, BLM's West-wide Energy Corridors and other existing federal land and utility rights-of-way.[23] Agencies overseeing existing rights-of-way, such as highway and rail rights-of-way, should develop guidance for project developers and state agencies highlighting best practices and procedures for developing in existing rights-of-way. Transmission projects that make use of these existing transmission or other infrastructure corridors should be a priority for agency funding both because of their obvious conservation benefits and their increased ability to get the necessary permits and approvals from land management agencies.

Legislative: Congress should authorize and direct DOE, with DOT, DOI, USFS, other federal and state agencies and utilities to integrate existing rights-of-way into existing rail and highway rights-of-way and other existing federal land and utility rights-of-way. Congress should also direct relevant federal agencies to develop guidance for co-locating transmission within rights-of-way under their jurisdiction.

RECOMMENDATION: DOE should continue to designate NIETCs under Section 216(b) that connect areas of geographically constrained, low environmental impact renewable energy to load.

DOE has proposed utilizing a route-specific, applicant-driven process to designate NIETCs. There is a strong case that an applicant-driven process for a specific project route could benefit from consolidated environmental review. DOE intends to give particular consideration to proposed NIETCs that overlap with or utilize existing highway, rail, utility and federal land ROW. In addition to shortening permitting timelines, this approach has the added benefit of reducing habitat fragmentation. DOE should continue this approach in the designation of new NIETCs that are appropriately tailored to the locations of priority.

When making NIETC designations, DOE should use the authority provided by Section 216(a) to consider how new transmission will benefit customers by connecting areas with geographically constrained high renewable potential to load. Corridors may be designated in any area experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers. Although there is no generally accepted understanding of what constitutes constraints or congestion, DOE can find constraints based on expectations of future congestion and based on the absence of a transmission line that hinders development of desirable generation. Geographic areas with high renewable penetration but little access to customers due to a lack of transmission meet this standard. Similarly, areas facing overloaded generator interconnection queues as a result of insufficient transmission face a constraint that adversely affects consumers by driving up the cost of obtaining clean energy for customers such as large corporate energy users. IIJA amendments specifically allow for a corridor designation to connect intermittent (e.g., renewable) energy to the electric grid. DOE should consider available data on high-priority environmental resources to inform identification of geographic areas of high renewable energy potential and low environmental impact and prioritize these areas for transmission corridors.

Administrative: DOE should continue to designate NIETCs under its Section 216(b) authority through a process that are applicant-driven and geographically specific, reflect both national and community needs and rigorously apply the mitigation hierarchy.

RECOMMENDATION: DOE and FERC should work together to accelerate and consolidate their NIETC designation and project siting decisions.

Under the sequential two-step process where FERC will issue a permit only after DOE has completed its NIETC designation, federal siting would seem to require two separate consultations, two separate NEPA reviews and two separate agency processes before a new transmission project can be completed. This additional process can significantly increase the time it takes to develop critical transmission lines and, as a result, the cost of doing so.

23 DOE NOI Building a Better Grid Initiative; Yixing Xu, et al. *A 2030 United States macro grid–Unlocking geographical diversity to accomplish clean energy goals.* (Breakthrough Energy Sciences, 2021). https://bescdn.breakthroughenergy.org/publications/MacroGridReport.pdf.

In order for Section 216 to be used most effectively, DOE and FERC should work simultaneously to designate project-specific NIETCs and issue a federal permit for each project. The specific responsibilities given to DOE and FERC suggest Congress intended a harmonized process that would lead to additional transmission development.

In some instances, Congress has required DOE, FERC and other federal agencies to coordinate all authorizations required to site a transmission facility, including all environmental reviews, under Section 216 of the FPA. DOE has already taken this broad authorization a step further by establishing a simplified Integrated Interagency Preapplication (IIP) process for the siting of electric transmission facilities. A joint DOE and FERC process can be informed by the IIP process, which, for applicants that opt into the process, requires preapplication coordination with non-federal entities, including state governments.[24]

In order to consolidate the NIETC designation process with the transmission siting process and integrate DOE revisions to its IIP regulations, FERC will have to update its regulations. Currently, those regulations permit prospective developers to submit an application for a federal permit only after DOE has completed a NIETC designation.[25] Instead, FERC should consider issuing joint regulations with DOE. These regulations would incorporate elements of the NIETC designation, including initiation of state consultation and corridor related NEPA review, into the FERC pre-filing process. The regulations should include robust public engagement processes that are accessible to potentially impacted communities. The regulations could align the timing and content of the permit application and permitting decision with the filings, comment opportunities and decision-making required for a project-specific corridor designation.

Administrative: FERC and DOE should align the NIETC designation and transmission siting processes.

Legislative: Congress should direct FERC and DOE to align NIETC designation and transmission siting processes and avoid duplicate environmental reviews.

RECOMMENDATION: DOE should develop an appropriately detailed environmental review of proposed NIETCs.

As part of the NIETC designation process, DOE should develop an appropriately detailed environmental analysis of those proposed transmission corridors. If DOE finds, based on an environmental review, that the corridor designation would not result in significant environmental impacts, it may be able to conclude its environmental review with a finding of no significant impact. However, if DOE expects significant impacts (e.g., that multiple transmission lines would likely be permitted within a single NIETC), it may be more efficient for DOE to conduct a programmatic EIS in which it evaluates potential environmental impacts of constructing transmission throughout the transmission corridor. Although such an approach might extend the time for making specific corridor designations, through interagency coordination and adoption or tiering it would reduce the extent of additional project-specific analysis and therefore time required for FERC to act on individual permit applications within a transmission corridor.

Administrative: DOE, as lead agency, should conduct environmental reviews of NIETC proposals using best practices for procedures for transparency, interagency coordination and issue resolution.

Legislative: Congress should direct DOE, as lead agency, to conduct environmental reviews of NIETC proposals using best practices for procedures for transparency, interagency coordination and issue resolution.

Coordination

RECOMMENDATION: DOE should identify nationally significant transmission projects and work with jurisdictional agencies to utilize the Permitting Dashboard and expedited procedures under the FAST Act to manage their environmental review process.

DOE should work with jurisdictional agencies to recommend nationally significant transmission projects for management of their environmental review and authorization processes through the Permitting Dashboard. Multiple transmission projects have successfully used the Permitting Dashboard and gone through the FAST-41 process, such as the Ten West Link that was added to the Permitting Dashboard in 2016 and completed review in 2022. Following this model, the Permitting Dashboard should be used to enhance coordination, transparency, predictability and

24 *Id.* at 66,507. Early consultation can provide states an opportunity to raise concerns and make suggestions about the specific location of a project that receives a federal permit within the transmission corridor, as well as any appropriate mitigation measures.

25 *The Federal Power Act*, 18 C.F.R. § 50.6(d). https://www.law.cornell.edu/cfr/text/18/50.6. (requiring applicants verify that the proposed route lies within a Transmission Corridor).

accountability of federal environmental reviews and authorizations required prior to construction. The project environmental review and authorization target completion dates for all FAST-41 covered projects must be posted on the publicly available Permitting Dashboard to allow stakeholders to track the status of federal permitting activities to improve coordination, transparency, predictability and accountability throughout the process.

Two DOE efforts hold promise in supporting this approach. DOE has issued an NOI, an RFI and guidance on the designation of NIETCs and is currently conducting its phased designation process that includes public engagement and information gathering. These applicant-driven and geographically specific designations should reflect both national and community needs and rigorously apply the mitigation hierarchy. DOE's rule establishing an integrated and comprehensive Coordinated Interagency Transmission Authorizations and Permits (CITAP) Program also offers an important opportunity to strengthen the transmission permitting process, expanding efforts to ensure pre-construction coordination and providing updated direction to federal agencies in expediting the siting, permitting and construction of electric transmission infrastructure, including robust public engagement elements.

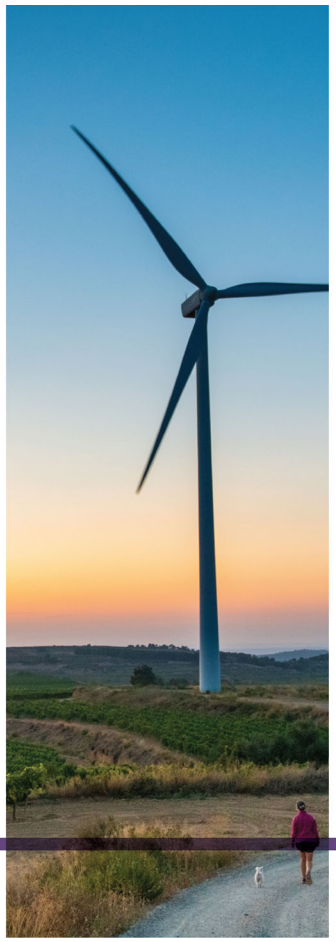
Administrative: DOE should work with jurisdictional agencies to recommend nationally significant transmission projects for management of their environmental review and authorization processes through the Permitting Dashboard.

RECOMMENDATION: The Permitting Council should prioritize completion of transmission projects that meet a transmission need according to their planned in-service dates and generator queues.

For transmission projects necessary to reduce an existing or foreseeable backlog in the renewable energy generation project queue, DOE and the Permitting Council should be tasked with establishing clear timeline goals according to the project's scheduled in-service date and track project permitting milestones information. A transmission project's in-service date is a scheduling concern for project proponents, as well as all the generation capacity that is either constrained by a lack of transmission capacity or resides in queue awaiting the opportunity to connect to the grid. Thus, the in-service date is the dominant consideration against which permitting and authorization milestones should be measured.

FAST-41 does not require covered projects to go through the environmental review and authorization processes "fast," but the Permitting Council can use its oversight of implementation of a coordinated project plan to ensure that nationally and regionally important projects adhere to their timelines. While any project that meets the FAST-41 definition of "covered" project is entitled to have its permitting schedule tracked on the Permitting Dashboard, the Permitting Council should focus its efforts on advancing nationally and regionally significant transmission projects that meet identified transmission needs and set project schedules according to planned in-service dates.

Administrative: The Permitting Council should focus on advancing priority transmission projects with all deliberate speed by using its dispute resolution authorities—including elevation of schedule and methodological disputes to OMB and CEQ—and set schedules according to planned in-service dates.



Woman walks among vineyards and wind turbines at sunset. © *Fábio Maffei*

4

Recommendations to improve onshore wind and solar energy development

4. Recommendations to improve onshore wind and solar energy development

INTRODUCTION

Renewable energy provides tremendous benefits to people and nature—health benefits from cleaner air and water and economic benefits from jobs and local tax revenue—and supports community access to affordable and reliable electricity. Achieving the clean energy build-out necessary to meet our climate goals will require quadrupling our renewable energy capacity in the U.S. by 2050. These goals will not come to fruition absent reasonable improvements to siting and permitting of renewable energy projects on public lands, including a focus on finishing priority projects; bolstering required interagency coordination by leveraging the Permitting Council's authorities under the FAST Act; prioritizing project review and permitting in identified low-impact areas and through programmatic approaches; actively engaging with communities; and sharing benefits equitably.

Between 3,100 and 3,500 GW of wind and solar generation capacity are needed for the U.S. to reach net zero by 2050.[26] The pace of new utility-scale project announcements has been increasing rapidly in recent years and needs to grow further. In general, few utility-scale solar and wind projects on private lands fall under federal jurisdictions for project approvals. Institutional barriers at the state and local level create roadblocks and project delays.[27] Although state legislatures and agencies are best positioned to address these barriers, Congress and federal agencies can support more efficient and effective state processes by contributing resources, sharing information and incentivizing states to act. Developing solar and wind on federal lands is a direct nexus with federal authorities. In April 2024, the Department of the Interior announced it has approved nearly 29 GW of renewable energy on federal lands, surpassing the 25 GW by 2025 target. Perceptions of burdensome permitting processes and other hurdles mean project development on federal lands is not yet reaching its full potential.

This section details TNC's recommendations for reforms to improve the siting and permitting of wind, solar and geothermal energy projects. These reforms would address planning and siting, permitting targets, financial resources and community engagement. Each recommendation includes background and discussion of the related issue followed by specific suggested legislative and administrative actions. Implementing these recommendations should accelerate clean energy deployment, improve environmental outcomes and facilitate community engagement.

RECOMMENDATIONS

Planning

RECOMMENDATION: Land management agencies should identify priority Renewable Energy Zones in their programmatic reviews that seek to maximize community benefits and avoid significant negative environmental and social impacts through meaningful community engagement.

Programmatic environmental reviews developed by public land management agencies should identify spatially explicit priority areas for clean energy that have the least potential to conflict with environmental and community interests, i.e., Renewable Energy Zones.

These zones should be located in areas with minimal resource impacts; right-sized to accommodate the demand for new energy generation; sited to maximize interconnection with the electrical grid; identified through timely and meaningful engagement with impacted communities and Tribes; and distributed geographically to help meet state-specific demand for renewable energy, thereby providing critical regional grid balancing and reducing the need for fossil fuel baseload generation.

In the identification of Renewable Energy Zones with minimal resource impacts, planners should use high-resolution conservation, land use, demographic and cultural data. Where available, agencies should rely upon existing data, such as TNC's Site Renewables Right and Power of Place data, as well as Argonne's Geospatial Energy Mapper.

26 The Nature Conservancy, *Power of Place: National*, (The Nature Conservancy, May 2023). https://www.nature.org/content/dam/tnc/nature/en/documents/FINAL_TNC_Power_of_Place_National_Executive_Summary_5_2_2023.pdf

27 Energy and Environmental Economics. *Assessment of Renewable Energy Siting and Permitting Policies*. (Prepared for Clean Air Task Force, The Nature Conservancy and Natural Resources Defense Council, April 17, 2024). https://www.ethree.com/wp-content/uploads/2024/04/Renewable-Siting-and-Permitting-Policies-E3-04.16.2024.pdf

When determining appropriate zones relative to transmission, agencies should work with DOE for technical skills and modeling. Where not available, investments should be made in developing such resources. The highest priority zones should be previously disturbed areas, such as mine lands and brownfields. In identification of these areas, agencies should consult with the Department of the Interior's Office of Surface Mining Reclamation and Enforcement and EPA's Re-Powering Program, which identifies previously disturbed lands potentially appropriate for renewable energy deployment.[28]

When considering locations for Renewable Energy Zones, public land management agencies should evaluate the potential for grid interconnection as determined by proximity to electrical infrastructure, specifically substations. For example, the BLM Arizona's Restoration Design Energy Project EIS identified new priority areas based on transmission infrastructure proximity. These analyses should take place in collaboration with the DOE and other agencies with expertise on transmission capacity and planning.

Identification of Renewable Energy Zones must also be undertaken with regular engagement with state and county governments and Tribal nations to ensure coordination and robust consideration of environmental justice and equity concerns.

Administrative: Agencies should identify Renewable Energy Zones and take into consideration transmission capacity and needs and least conflict areas.

RECOMMENDATION: The BLM should conduct PEISs for wind and geothermal leasing.

The BLM is updating the agency's 2012 Western Solar Plan, which will help expedite future NEPA reviews while directing projects to least conflict areas. The same opportunity exists for wind and geothermal energy development. The BLM issued the Wind PEIS in 2005 and the Geothermal Leasing PEIS in 2009. Updated programmatic guidance is needed for the efficient permitting of these technologies.

Administrative: Allocate resources to BLM to revise the Wind and Geothermal Leasing PEISs.

RECOMMENDATION: BLM should establish consistent, effective and proportional mitigation requirements that balance wind and solar energy with resource management.

The BLM's Mitigation Policy[29] expressly recognizes and has implemented a mitigation hierarchy as part of its landscape-scale approach to resource protection, directing all agency staff to follow the global mitigation hierarchy by avoiding damage to public lands and resources, minimizing damage that cannot be avoided and compensating for residual impacts.

Programmatic environmental reviews for clean energy should include clear and appropriate mitigation standards to expedite permit review for projects in designated low-impact zones. There is no doubt that utility-scale solar, wind and associated infrastructure will displace habitat and species and disturb landscapes. However, a "smart from the start" approach to development will minimize resource impacts by directing development to areas that are relatively low conflict from an ecological, cultural and social point of view. Unavoidable direct and indirect adverse impacts to resources from present and reasonably foreseeable development should be identified, analyzed and addressed through compensatory mitigation in subsequent project-level NEPA analyses.

One immediate opportunity for the BLM to incorporate appropriate and clear mitigation standards into its programmatic reviews is through updates to the Western Solar Plan PEIS. Ideally, the Western Solar Plan PEIS would provide a regional-scale mitigation framework to ensure minimal compensatory mitigation requirements are needed in priority areas beyond the standard measures identified in the PEIS. Both within and outside of priority areas, impacts should be avoided and minimized to the extent possible through project siting and design. The BLM should, when appropriate, facilitate offsetting any remaining impacts by relying upon well-tested mechanisms for delivering permittee-responsible compensatory mitigation obligations, such as mitigation banks or in-lieu fee programs. As stated in the BLM's mitigation handbook, compensatory mitigation should seek to achieve a no net loss or net benefit outcome. The BLM should strive to achieve a net benefit standard to ensure that the lands restored or preserved for compensatory mitigation more than offsets the areas lost to development and ecological change.

28 Environmental Protection Agency. *What is RE-Powering?* https://www.epa.gov/re-powering/what-re-powering

29 Bureau of Land Management. *Instruction Memorandum 2021-046, Reinstating the Bureau of Land Management (BLM) Manual Section (MS-1794) and Handbook (H-1794-1) on Mitigation,* (2021). blm.gov/policy/im-2021-046.

Administrative: BLM planning, guidance and site-specific decisions should implement a consistent approach to mitigation and ensure that projects will appropriately mitigate impacts, with the result being maintenance of conservation status and net conservation benefit wherever feasible.

Siting

RECOMMENDATION: FWS should publish and finalize its proposed rule to update its rights-of-way regulations to allow for transmission improvements to existing transmission infrastructure through official refuges that improve conservation and energy outcomes.

FWS has indicated its intent to issue a revised proposed rule to update and streamline its regulations for permitting rights-of-way by aligning FWS processes more closely with those of other DOI bureaus, which remains pending. Project decisions such as the BLM ROD for the Sun Zia transmission project demonstrate how transmission projects need to evaluate alternatives to use of existing transmission rights-of-way through refuges, but in some cases the use of an existing transmission ROW is the best alternative. FWS needs the regulatory tools to allow for reasonable uses of valid existing rights with conditions necessary to protect refuge purposes and resources, and regulations should provide for compensatory mitigation, land exchanges and other means to take advantage of opportunities to improve the location of transmission lines in and adjacent to refuge land and waters.

Administrative: FWS should finalize regulations that provide for reasonable uses of valid existing rights with conditions necessary to protect refuge purposes and resources and provide for compensatory mitigation, land exchanges and other means to take advantage of opportunities to improve the location of transmission lines in and adjacent to refuge land and waters, consistent with the applicable comprehensive conservation plan for the refuge.

RECOMMENDATION: DOE and FWS should develop solar energy siting guidelines similar to the FWS Land-Based Wind Energy Siting Guidelines.

FWS has developed federal land-based wind energy guidelines with broad input from state wildlife agencies, conservation and sporting organizations, the wind industry and others. The guidelines discuss risks to species of concern from wind energy projects, including collisions with wind turbines and associated infrastructure; loss and degradation of habitat from turbines and infrastructure; fragmentation of large habitat blocks into smaller segments that may not support sensitive species; displacement and behavioral changes; and indirect effects such as increased predator populations or introduction of invasive plants.

The guidelines assist developers in identifying species of concern that may potentially be affected by proposed projects. In the last decade, having standards and a mitigation framework in place for developers to evaluate potential adverse impacts to fish, wildlife and habitat has proven effective. Critically, the guidelines also set expectations for early consultation with state and federal fish and wildlife agencies to ensure that potential projects are planned and designed with the input of the nation's wildlife professionals.

Although there are no similar national-level siting guidelines for solar energy, many renewable energy developers voluntarily utilize the framework outlined in the guidelines for solar siting decisions. As the solar industry matures and the scientific understanding of its impacts on wildlife and habitat evolves, demand for national solar siting guidelines will increase. A recent survey undertaken by the Association of Fish and Wildlife Agencies found that 88 percent of responding states indicated that solar photovoltaic energy guidelines should be developed, similar to the FWS Land-Based Wind Energy Guidelines.[30]

With the accelerating scale and pace of solar energy development noted above, DOE and FWS should partner in development of solar energy guidelines modeled on the wind energy guidelines. DOE or FWS are appropriate entities to lead development of these guidelines given their expertise and purviews. This process should be undertaken through a formal process directed by the Federal Advisory Committee Act (FACA), which will ensure transparency and engagement of a broad group of stakeholders. Development of federal wind energy guidelines followed this process, which led to broad buy-in, support for and utilization of the recommendations.

30 Association of Fish and Wildlife Agencies. *Solar Siting Survey Final Report*. (2023). https://www.fishwildlife.org/application/files/7616/8053/3632/Solar_Siting_Survey_Summary_AFWA_FINAL.pdf

Administrative/Guidance: DOE and FWS should partner with industry, state wildlife agencies and conservation and sporting organizations in development of solar energy guidelines through a formal FACA process.

Legislative: Congress should direct FWS to develop solar siting guidelines through a formal FACA process and allocate funds to do so.

RECOMMENDATION: Mitigate legal liability risks associated with developing renewable energy or storage at a brownfield site.

Siting renewable energy and storage at a brownfield site, such as a former mine or industrial site, can help reduce pressure to convert valuable natural and agricultural lands. These sites should be prioritized in establishing clean energy zones, categorical exclusion, programmatic approaches and other mechanisms to accelerate project approvals for renewable energy and storage. Even with these steps, other barriers will make developing on brownfield sites more challenging and lead developers to pursue green fields. Legal liabilities, such as risks associated with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), can stymie project financing. Extending existing exemptions from CERCLA liability for a developer of renewable energy or storage at a known brownfield site would help lower this hurdle. Any exemption should be carefully crafted and include detailed qualification criteria to ensure clean-up liability remains with responsible parties and that new project developers exercise the appropriate care in developing the site. Consultation with the appropriate federal, state or Tribal authorities should also be incorporated into the process.

Legislative: Congress should add an exemption from CERCLA liability for a developer of renewable energy or storage at a brownfield site with detailed qualification criteria and a requirement to consult with the appropriate federal, state or Tribal authorities.

Coordination

RECOMMENDATION: Congress should pass ambitious renewable energy targets.

Congress should pass ambitious renewable permitting targets for public lands with goals for 2030 and 2035 to facilitate ongoing identification of zones for development of renewable energy and siting of necessary transmission. Ambitious targets for renewable energy permitting will provide additional incentive to the Department of the Interior to move forward pending priority projects and designate additional ones.

Legislative: Congress should pass ambitious renewable permitting targets for renewable energy zones or other designated low-impact priority areas for public lands with goals for 2030 and 2035.

RECOMMENDATION: Congress should increase funding for BLM's RECOs.

Co-location of energy infrastructure environmental review and permitting staff from multiple federal agencies helps to ensure coordinated, efficient and expeditious permitting. Congress should ensure that the BLM RECOs are provided with adequate resources, including employees who are experts in NEPA, FLPMA, relevant wildlife statutes and historical and cultural resource protection statutes to ensure all decisions are informed and legally supportable.

Congress should provide funding requested in BLM's annual budget request to hire and train additional RECO personnel in BLM Washington Office Headquarters, Western Headquarters and select state and district offices experiencing the highest volume of renewable energy ROW applications. This would accelerate environmental review and permitting of priority renewable energy project site proposals on public land. This funding would facilitate creation of a taskforce of interdisciplinary experts to relieve permitting bottlenecks and challenges, improve interagency coordination and Tribal consultation and provide for additional temporary and contracted support to augment RECO capabilities.

The budget will enable BLM to perform essential activities and studies needed to prepare or review baseline studies, conduct meaningful Tribal consultation, develop programmatic biological assessments, engage with the FWS under Section 7 of the ESA and prepare quality NEPA documents. A coordinated team operating at multiple levels will enable the agency to review ecological regions for appropriate renewable energy deployment scenarios where substantial renewable energy development interest exists and in priority locations identified by BLM.

The proposal also provides funding for dedicated interagency RECO support staff from the Environmental Protection Agency (EPA), FWS, National Park Service (NPS), Bureau of Reclamation, Bureau of Indian Affairs, U.S. Army Corps of Engineers (USACE), and USFS to expedite coordination for environmental review and compliance requirements on renewable energy projects.

Another critical component of RECO success would be funding of state, local and Tribal cost-share positions to support State Historic Preservation Offices and other state, local and Tribal engagement during the NEPA process to increase the efficiency and completeness of permit review.

Legislative: Congress should provide funding requested in BLM's annual budget requests to hire and train additional RECO personnel in BLM headquarters, state and high-permit volume District offices.

Administrative: BLM should ensure funding of state, local and Tribal cost-share positions to support State Historic Preservation Offices, and other state, local and Tribal engagement during the federal agency permitting process.

RECOMMENDATION: Congress should increase funding for FWS planning and consultation.

Congress should provide additional funding to FWS annual budgets to facilitate consultation and increase efficiency, consistency, transparency and effectiveness of environmental review and permitting infrastructure projects. The goal of reaching 25 GW of renewable energy by 2030 and provisions of the IIJA and IRA have significantly increased the workload of FWS and the number of Section 7 consultations and Section 10 permitting activities under the ESA for renewable energy and transmission projects. However, the FWS did not receive dedicated funds under the IIJA or IRA for environmental review. To review, permit and provide technical assistance for renewable energy, including through programmatic consultations and other streamlining efforts, the FWS requires additional funding. This would include additional field office capacity, which is necessary to ensure that FWS project review and permitting functions are not bottlenecks in the environmental clearance process for economic revitalization projects.

Legislative: Congress should provide additional funding to FWS annual budgets to facilitate consultation for renewable energy projects.

RECOMMENDATION: Congress should resource federal and state agencies and regional commissions to support renewable energy development at brownfield sites.

Special attention to renewable energy development on brownfield sites, such as mine lands and former industrial sites, can help accelerate project approvals as these sites have a lower risk of conflicting land use and community interests than green fields. Beyond planning and permitting mechanisms noted elsewhere in this report, federal agencies, state agencies and regional commissions could provide additional support in preparing brownfields for redevelopment, facilitating community engagement, assessing cumulative environmental impacts, providing workforce training and offering other technical and legal assistance to better facilitate renewable energy projects on brownfields and mine lands. This support should include establishing and funding a clean energy function within the Office of Surface Mining, Reclamation and Enforcement (OSMRE) to help facilitate clean energy development on mine lands; ongoing funding appropriations for EPA's RE-Powering America's Land Initiative; extending and expanding DOE's Clean Energy on Mine Lands pilot program; providing federal funding and other incentives to encourage federal-state cooperative agreements; establish state programs to facilitate permitting of clean energy on brownfields and mine lands; and expand capacity for states to enhance brownfield reclamation, management, redevelopment and other activities; and authorizing regional commissions to support the siting, construction, permitting and operation of renewable energy at brownfield sites, including proactive community engagement, workforce development and coordination with state and federal agencies.

Legislative: Congress should direct, authorize and fund federal agencies and regional commissions to provide more support to state agencies and local communities that would facilitate renewable energy development on brownfields.

Community Engagement

RECOMMENDATION: The BLM should involve Tribal and Indigenous communities early and often in all land use planning and project permitting processes.

Critical to the success of the Western Solar Plan PEIS and subsequent project-level NEPA reviews will be identification of solar energy priority areas and measures to avoid impacting culturally significant Tribal resources and maximize

benefits such as local jobs and energy security in rural communities. It is essential that the BLM recognize its unique legal relationship with Tribes and ensure early, ongoing and meaningful consultation with Tribes throughout the PEIS process and during subsequent project-level reviews. This consultation must be consistent with the requirements of Joint Secretarial Order No. 3403, which pertains to federal agencies' trust responsibility to Indian Tribes in the stewardship of federal lands and waters. Indigenous community engagement should follow the Tribal guiding principles and prioritize sovereignty and self-determination, meaningful collaboration, relationship and trust-building through mutual respect and Tribal capacity-building while recognizing that all land is Indigenous land.

Administrative: BLM should conduct frequent and meaningful government-to-government consultations with Tribes during all land use planning and project-level permitting processes to uphold the agency's responsibility to ensure Tribal sovereignty and self-determination, meaningful collaboration and relationship and trust- and capacity-building.

RECOMMENDATION: BLM should utilize conflict resolution procedures to reduce protests, appeals and litigation.

BLM should engage in early participation in projects, plans and decision-making by conducting outreach to stakeholder groups and to Tribal communities. Utilizing its National Natural Resources Policy for Collaborative Stakeholder Engagement and Appropriate Dispute Resolution will help BLM prevent conflict and resolve disputes on public lands. Such collaborative engagement can include one-on-one meetings, meetings with groups and stakeholders, public scoping meetings, town halls, workshops, community-based collaboratives and other methods, including internet, print, phone and mail. Other methods to consider include creation of an ombudsman, increased resources for solicitor staffing and early involvement and communication with Tribes based on trust responsibilities, including formal government-to-government consultation.

Administrative: BLM should engage in early participation in projects, plans and decision-making by conducting outreach to stakeholder groups and Tribal communities and utilize its National Natural Resources Policy for Collaborative Stakeholder Engagement and Appropriate Dispute Resolution to prevent conflict and resolve disputes on public lands.



Jason Whalen | Fauna Creative Wind and Solar farms. © *Fauna Creative*



Wildflowers, pasture and farm at Rodney Meadow in West Virginia. © *Kent Mason*

5

Recommendations to improve hydrogen pipeline siting and permitting

5. Recommendations to improve hydrogen pipeline siting and permitting

INTRODUCTION

Hydrogen is increasingly viewed as critical to a clean energy economy and a key driver of economic growth and significant decarbonization, particularly for economic sectors that are more difficult to decarbonize. Zero- and low-carbon hydrogen offers a cleaner alternative for the industrial sector (e.g., chemicals, steel and refining) and heavy-duty transportation where limited deep decarbonization options exist, and it could support long-duration energy storage complementing renewable energy in a clean, reliable grid. DOE estimates clean hydrogen can reduce U.S. emissions approximately 10 percent by 2050 relative to 2005 and that the hydrogen economy could result in 100,000 net new direct and indirect jobs by 2030. As with the entire suite of decarbonization solutions and clean energy options, multiple factors should be considered alongside the emissions reduction potential, including land and water requirements, potential habitat impacts and opportunities and risks for local communities.

Clean hydrogen can play a role in decarbonizing sectors where electrification proves challenging, such as some industrial processes (e.g., fertilizer production, steel) or shipping. The IIJA provided $9.5 billion for clean hydrogen deployment, and the IRA created a $3/kg production tax credit. Together these incentives are expected to rapidly boost U.S. production and demand. As clean hydrogen grows from a specialty chemical to a globally traded fuel and feedstock, development of midstream transportation infrastructure will need to keep pace, as will laws and regulations governing the expansion and operation of associated infrastructure. Safety and siting are paramount concerns. Currently, authority to permit and regulate hydrogen pipelines is covered by overlapping state and federal jurisdictions that are subject to interpretation. Clarifying these authorities and improving the processes will provide greater certainty to project developers and better ensure communities' and other stakeholders' concerns will be addressed.

This section details TNC's recommendations for reforms on improving the siting and permitting of hydrogen pipelines. These reforms address planning and siting, transparency and accountability and community engagement. Each recommendation includes background and discussion of the related issue, followed by specific suggested legislative and administrative actions. Implementing these recommendations should accelerate the deployment of hydrogen pipeline projects, improve environmental outcomes and facilitate community engagement.

RECOMMENDATIONS

Siting

RECOMMENDATION: Agencies should work with applicants to identify existing rights-of way for co-locating hydrogen pipelines, including energy corridors under Section 368.

To the extent possible, hydrogen project developers should seek to mitigate risk and maximize efficiencies by using existing ROW. Using existing ROW will minimize potential permitting barriers and stakeholder concerns. Siting projects within Section 368 energy corridors updated by DOE could serve this purpose. Those corridors could streamline and expedite the processing of energy-related permits and projects. Federal agency use of these corridors could provide applicants for individual ROW with a clear set of actions required by each of the agencies to implement projects in designated corridors; reduce duplicative assessment of generic environmental impacts by focusing further impact assessment on site-specific environmental studies to determine route suitability and appropriate mitigation; ensure interagency coordination; and encourage new and innovative technologies to increase corridor capacity.

Administrative: Agencies should collaborate with applicants for hydrogen pipelines to identify existing ROW on which to site future projects, including energy corridors under Section 368.

Coordination

RECOMMENDATION: Congress should harmonize authority across federal agencies to coordinate and issue all necessary approvals for hydrogen infrastructure projects.

Existing regulatory structures could provide much-needed clarity on federal authority over hydrogen infrastructure.[31] Proposals to provide FERC jurisdiction over hydrogen pipelines like that which it asserts over natural gas under the Natural Gas Act (NGA) offers one policy option.

Given FERC's expertise in regulating energy markets, the agency is positioned to assume the role of regulating hydrogen pipelines. Under the NGA, FERC is the single federal agency that issues the certificate of public convenience and necessity required for an interstate natural gas pipeline project. Further, FERC serves as the lead agency for the federal environmental review required under NEPA and thereby coordinates with other federal and state agencies with jurisdiction over the project. FERC could begin the process of regulating the blending of hydrogen into interstate natural gas pipelines, an important step for hydrogen demonstrations that aligns with FERC authority under the NGA.[32] However, FERC must determine, and Congress should provide guidance on, the extent to which the agency would regulate hydrogen as a natural versus an artificial gas, a distinction that would provide clarity to project developers and avoid time consuming litigation.

Legislative: Congress should consider how to best harmonize authority among federal, state and local agencies for planning and siting hydrogen transportation infrastructure and clarify the definition of hydrogen as an artificial or natural gas.

RECOMMENDATION: PHMSA should promulgate regulations focused on the specifics of hydrogen transportation and safety.

Under the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Act, the DOT's PHMSA has promulgated regulations for pipelines that transport combustible gases and hazardous liquids. As hydrogen is a flammable gas, it falls within the purview of the PHMSA's regulations, which currently are focused on the unique properties of natural gas pipelines. Hydrogen-specific safety regulations will be required, as hydrogen's chemical characteristics pose unique constraints on pipelines. Hydrogen is colorless, odorless, highly flammable and potentially explosive even in small concentrations. Hydrogen pipelines will need to be constructed out of stronger materials, and more sensitive leak detection systems will be required. As new infrastructure could utilize existing rights-of-way and other designated infrastructure corridors, PHMSA should consider additional safety risks that co-location could pose and potential mitigation measures, while also taking care to avoid inadvertently blocking colocation options that could minimize further fragmenting landscapes or impacting communities.

Administrative: PHMSA should promulgate regulations focused on the specifics of hydrogen transportation and safety.

RECOMMENDATION: Agencies reviewing hydrogen projects should prioritize local safety concerns.

The risks arising from the unique safety considerations with transporting hydrogen will be disproportionately borne by vulnerable communities. Hydrogen infrastructure projects must address frontline communities' concerns around hydrogen safety. Regional hubs should dedicate resources to align safety requirements with frontline community needs and bolster the capacity and capabilities of local first responders.[33]

Administrative: DOE should work with regional hydrogen hub grantees to ensure their projects align safety requirements with frontline community needs and reflect robust community input.

Community Engagement

RECOMMENDATION: Agencies granting permits should encourage and work with project developers to reduce and avoid conflict through robust engagement with stakeholders.

As with all infrastructure projects, hydrogen project developers should seek to mitigate risk and maximize efficiencies in the permitting and environmental review process by reducing and avoiding potential conflicts in projects early in the application process. Through robust engagement with stakeholders, concerns over potential impacts can be identified in advance. The lead agency reviewing applications (e.g., for ROW across federal lands or the designated lead agency if Congress grants authority for all siting) should work with the project developer to identify appropriate project locations and pathways based on best practices and eliminate locations with significant environmental or

31 See Appendix A, Overview of Key Federal Authorities, for a fuller description of how three federal statutes could provide structure to the regulation of interstate hydrogen pipelines.

32 Energy Futures Initiative. *The U.S. Hydrogen Demand Action Plan*. (2023). https://energyfuturesinitiative.org/wp-content/uploads/sites/2/2023/02/EFI-Hydrogen-Hubs-FINAL-2-1.pdf

33 Department of Energy. *Funding Notice: Regional Clean Hydrogen Hubs*. (September 22, 2022) https://www.energy.gov/oced/funding-notice-regional-clean-hydrogen-hubs

environmental justice concerns. Developers should use the climate and economic justice screening tools to identify potentially affected communities.

As hydrogen production and transport is commonly co-located with existing fossil fuel infrastructure, environmental justice communities may face increased burdens and safety risks. Hydrogen project sponsors should coordinate major challenges of building clean hydrogen and its enabling infrastructure with main stakeholders. Engaging in early, frequent and meaningful dialogue with impacted groups can mitigate risks to the project developer and to the surrounding communities, which can, in turn, minimize project permitting and environmental review timelines. Outreach should expand beyond traditional public comment processes and include expanded use of listening sessions, small community conversations, webinars, direct email and other methods to ensure input can be shared in a way that is accessible, comprehensible and convenient. Community members should also be asked how they prefer to receive information and be offered the opportunity to engage in their languages on the technical risks and rewards of hydrogen.

Administrative: The lead agency reviewing applications for hydrogen pipelines (e.g., BLM for ROW across public lands) should work with the project developer to identify appropriate project locations and pathways based on best practices, avoid locations with significant environmental or environmental justice concern and mitigate impacts, if any.

RECOMMENDATION: Each regional hydrogen hub granted funding by DOE should develop a Community and Workforce Plan as part of its Community Benefit Plan.

Projects funded under DOE's regional hydrogen hub solicitation are expected to include a community benefits plan to support meaningful community and labor engagement; invest in America's workforce; advance diversity, equity, inclusion and accessibility; and contribute to the goal that 40 percent of the overall benefits of certain federal investments flow to disadvantaged communities. [34]

Within the community benefits plan, applicants are encouraged to provide specific details about how they intend to deliver measurable community and jobs benefits, e.g., through milestones and the use of tools such as good neighbor agreements, local hire agreements, project labor agreements, other collective bargaining agreements or similar agreements.

Each regional hydrogen hub should develop a community and workforce plan as part of their community benefits plan focused on long-term planning for the regional hydrogen hub and broader hydrogen market creation. In the community and workforce plan, hydrogen hubs should focus on the needs of impacted frontline communities and address environmental justice implications. Such alignment with impacted communities can yield better project decisions, which prevents unnecessary conflict and delay, increases permitting efficiency and creates successful outcomes for communities and project developers.

The community and workforce plan should be crafted in meaningful partnership with potentially impacted communities. Outreach should expand beyond traditional public comment processes, with expanded use of listening sessions, small community conversations, webinars, direct email and other methods to ensure input can be shared in a way that is accessible, comprehensible and convenient. Community members should also be asked how they prefer to receive information and be offered the opportunity to engage in their languages on the technical risks and rewards of hydrogen.

Administrative: Require hydrogen hubs to develop community benefit plans that include a community and workforce plan.

34 Department of Energy. *Regional Clean Hydrogen Hubs.* https://www.energy.gov/oced/regional-clean-hydrogen-hubs



Female operator walks through a Colorado wind farm at sunset. © *TNC*

6

Recommendations to improve carbon dioxide management

6. Recommendations to improve carbon dioxide management

INTRODUCTION

Carbon management—the capture of CO_2, either from a point source like a power generation or industrial facility or from the ambient air, that is then compressed, transported and either used in a range of applications or injected into deep geological formations for permanent storage—can contribute to reaching net-zero by 2050, especially for hard-to-decarbonize sectors. With extended and updated tax credits, significant demonstration and deployment, federal financing and funding and regulatory actions, carbon management technologies and related infrastructure are expected to rapidly expand in the coming decade. In the year after the IRA's passage, which included an increased tax credit for captured and permanently stored CO_2, over fifty new carbon capture and/or storage projects were announced.[35] CCUS capacity in the U.S. is estimated to increase rapidly by 2030.[36] Although potentially helpful in addressing climate change and facilitating decarbonization, industrial-scale development of this technology could result in potential ongoing or new harms to traditionally overburdened communities.

Capture, transportation and storage investments will be pursued in parallel for the industry to scale up, and a lag in one segment of the system will delay other parts from coming online. Project approvals and oversight of each segment is governed by a mismatch of state and federal authorities. CO_2 pipelines, the safest, most reliable form of transport, face a patchwork of permitting processes defined state-by-state, and sometimes county-by-county. The federal PHMSA sets and enforces safety standards for pipeline design, construction, operation and maintenance. Carbon storage projects are largely permitted by the EPA, but the agency has delegated that authority to an expanding list of states. If projects cross federal lands, still other federal agencies may be involved.

Improving current planning and permitting processes within and between federal and state agencies will help coordinate the expected infrastructure buildout and more effectively address potential impacts to nature and local communities. As with any long and linear infrastructure or new industrial project, robust community engagement is a key step to protect and support the interests of local communities, avoid conflicts and meet project timelines.

This section details TNC's recommendations for reforms on improving carbon dioxide management. These reforms would address planning and siting, permanent storage and stakeholder engagement. Each recommendation includes background and discussion of the related issue, followed by specific suggested legislative and administrative actions. Implementing these recommendations should accelerate the review of proposed CO_2 pipelines, improve environmental outcomes and facilitate community engagement.

RECOMMENDATIONS

Planning

RECOMMENDATION: Enable storage under federal lands by clarifying authorities and incorporating CO_2 storage into federal land management planning.

Because of the geographic reach and subsurface dynamics of potential CO_2 storage reservoirs, some underground injection well sponsors will face a choice between entering deals with multiple private land holders, subject to various differing state laws, or engaging in the complex federal permitting process subject to NEPA. By establishing clear, predictable and expedient processes for approving underground injection wells on federal lands, federal land managers can help support the scaling up of CCUS. Altering current restrictions addressing either the type of activities permitted or the terms of agreements permitted will be needed to allow underground injection wells to be developed on lands managed by the BLM, USFS, DOE, DOD and other agencies. USFS has proposed a rule that would allow exclusive or perpetual right-of-use or occupancy of National Forest System (NFS) lands for carbon storage. These activities will also need to be incorporated into land use planning processes to direct carbon storage infrastructure away from sensitive

35 Sheff, E. and Ulama, D. *From Act to action: How the Inflation Reduction Act is accelerating decarbonization in the United States with carbon capture and storage.* (Clean Air Task Force, August 18, 2023). https://www.catf.us/2023/08/from-act-action-inflation-reduction-act-accelerating-decarbonization-united-states-carbon-capture-storage/

36 Boston Consulting Group for Breakthrough Energy and Third Way. *Impact of IRA, IIJA, CHIPS, and Energy Act of 2020 on Clean Technologies.* (2023). https://breakthroughenergy.org/recently-enacted-legislation-can-help-the-us-lead-in-clean-technology/

habitat and address local community input, which will require devoted resources, expanded capacity and interagency collaboration.

Administrative: Federal land management agencies should issue necessary rulemakings or guidance to remove restrictions that bar CO_2 storage under federally managed lands and incorporate siting and distribution of injection wells and CO_2 transportation pipelines into land-use planning.

RECOMMENDATION: Ensure EPA has the necessary resources and is effectively prioritizing resources to efficiently process Class VI well permits and state primacy applications.

As demand for permanent storage increases, EPA's Class VI well permitting process could become a bottleneck in the absence of adequate and focused resources. Delegating authority to states with sufficient regulatory foundation and experience would alleviate some pressure on EPA and potentially yield outcomes that better reflect local input and considerations. EPA should efficiently process state primacy applications. State agencies must also be adequately resourced for efficiencies to be gained.

Administrative: EPA should devote the necessary resources to efficiently process Class VI well permits and state primacy applications in the EPA's Office of Water and regional offices expected to receive an influx of applications.

Legislative: Congress should ensure adequate funding for EPA's Office of Water consistent with influx of applications for Class VI wells and state primacy.

Siting

RECOMMENDATION: Congress should address federal jurisdiction over CO_2 pipeline infrastructure.

Project developers face hurdles where regulations and permit requirements are unclear. Predictable and timely federal and state project permitting processes are needed to be able to take advantage of financial incentives. Although the inclusion of CO_2 pipelines in the FAST Act benefits proponents of transport infrastructure, the lack of clarity about the lead federal agency when pipelines do not cross federal lands or have federal financing causes uncertainty for this key infrastructure sector. Congress should address the siting of carbon dioxide pipelines and storage infrastructure and provide federal siting authority for such infrastructure.[37] Similar to hydrogen pipelines, Congress should determine whether and under what circumstances FERC should be that lead agency.

If FERC were to be granted siting authority over CO_2 pipelines comparable to its authority under the NGA, FERC could follow the process it now utilizes for interstate pipeline certification, which requires environmental review under NEPA as well as any necessary actions under the ESA, National Historic Preservation Act (NHPA) and statutes relating to wetlands, historic preservation and similar matters.

Legislative: Congress should consider how to best harmonize authority among federal, state and local agencies for planning and siting carbon dioxide transportation infrastructure.

RECOMMENDATION: Congress should expand the use of Section 368 corridors to include CO_2 pipeline projects crossing federal lands.

Congress should expand the authority under Section 368 of the Energy Policy Act of 2005 (EPAct 2005) in both prospectively designated and previously designated corridors to include CO_2 pipelines and should require federal agencies to designate CO_2 transport infrastructure corridors on federal lands and incorporate the designated corridors into the relevant agency land use and resource management plans or equivalent plans.

Legislative: Congress should amend Section 368 of EPAct 2005 to expand the use of energy corridors to include CO_2 pipeline projects crossing federal lands.

RECOMMENDATION: DOE should explore and support the use of existing rights-of-way to enable CO_2 infrastructure deployment.

Using existing ROW provides opportunities to quickly scale up CO_2 transport infrastructure. Co-locating CO_2 pipelines on existing ROWs would enable developers to avoid construction on undisturbed land, negotiate with fewer property

37 The White House. *Fact Sheet: Biden-Harris Administration Outlines Priorities for Building America's Energy Infrastructure Faster, Safer, and Cleaner.* (May 10, 2023). https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/10/fact-sheet-biden-harris-administration-outlines-priorities-for-building-americas-energy-infrastructure-faster-safer-and-cleaner/

owners and reduce permitting complexity. DOE could lead a study of the potential use of existing ROWs for CO_2. Many successful energy infrastructure projects have used existing highway or railway ROWs. Opportunities to use existing ROWs for CO_2 pipelines, however, are not well explored compared to other infrastructure such as renewable energy or transmission lines. DOE could explore the opportunities for potential use of existing ROWs in collaboration with DOI and the DOT.[38]

Administrative: DOE should conduct analysis of the opportunities for and supporting policy changes to enable the use of existing ROW for CO_2 infrastructure deployment.

Legislative: Congress should direct DOE to conduct an analysis of the opportunities for and supporting policy changes to enable the use of existing ROW for CO_2 infrastructure deployment and allocate the necessary funding.

RECOMMENDATION: PHMSA should issue rulemakings or guidance related to the safe operation of pipelines for use in expanded CCUS to facilitate the buildout of a more extensive network.

Pipeline safety is established at the federal level under PHMSA, and although states can be authorized as safety inspectors for intrastate pipelines, the responsibility for enforcement of pipeline safety for interstate pipelines remains at the federal level. States may adopt the federal minimum pipeline safety regulations and be authorized to inspect and enforce such regulations for intrastate pipelines by submitting a certification to PHMSA. The federal pipeline safety regulations do not include standards for CO_2 composition or purity.

Administrative: PHMSA should issue rulemakings or guidance related to the construction and safe operation of pipelines for use in expanded CCUS.

Community Engagement

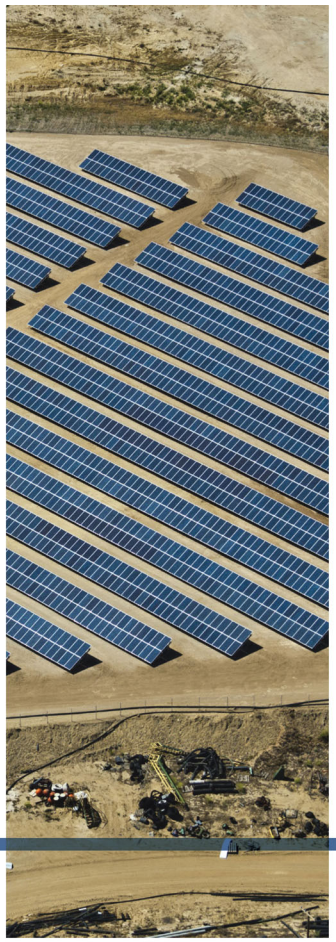
RECOMMENDATION: Ensure safeguards are put in place to avoid creating a process that fails to consider community concerns.

Programmatic review of CCUS deployment offers promising opportunities for essential CCUS infrastructure to be established in ideal geologic areas and geographies where some of the most difficult-to-decarbonize industries predominate. Programmatic environmental reviews can encourage efficient siting and use of critical transport and storage infrastructure; facilitate thorough scoping of regional technical and engineering issues; and help drive down costs by taking advantage of regional-scale analyses of key issues. In its 2022 interim *Carbon Capture, Utilization, and Sequestration Guidance*, CEQ has called out the need for scoping to evaluate all reasonably foreseeable direct, indirect and cumulative effects—including cumulative pollution from numerous sources—and work with communities and Tribes during the scoping phase to identify alternatives to the proposed action, including alternatives that reduce environmental impacts, especially on overburdened and underserved communities. Environmental reviews of CCUS deployment should seek to mitigate risk and maximize efficiencies in the permitting and environmental review process by reducing and avoiding potential conflicts in projects early in the application process. Through robust engagement with stakeholders, concerns over potential impacts can be identified in advance. The federal lead agency should work to identify appropriate project locations and pathways based on best practices and eliminate locations with significant environmental or environmental justice concerns.

Although these steps are essential, agencies must also move to ensure programmatic or regional analyses do not prohibit or avoid investigation of community and social impacts from individual projects. Historic patterns of racial and economic discrimination have resulted in concentrated siting of industrial facilities in and near communities with the fewest resources to influence these decisions. Changes to new and existing infrastructure that impact these frontline communities must receive project-level attention that reflects the circumstances and needs of each community. Historical environmental harms must not be perpetuated, even inadvertently, through use of broad-scale analysis that fails to account for impacts on a community's health and well-being. A robust environmental justice screening process should be used to scope CCUS deployment.

Administrative: When scoping CCUS deployment, agencies must conduct a robust environmental justice screening process.

38 Recommendation of the Energy Futures Initiative. Labor Energy Partnership, *Building to Net-Zero: A U.S. Policy Blueprint for Gigaton-Scale CO, Transport and Storage Infrastructure.* (June 2021).



Aerial image of a crop next the The Maricopa West Solar project site in the San Joaquin Valley, near the town of Taft, California. © *Stuart Palley*

Appendix A

Background on Federal permitting reform initiatives

Appendix A: Background on Federal permitting reform initiatives

BACKGROUND ON GENERAL REFORMS TO IMPROVE SITING AND PERMITTING

Congress and recent administrations have taken action to improve the efficiency of environmental permitting and review of infrastructure projects, taking significant administrative and legislative actions that are broadly applicable to environmental permitting and review across infrastructure sectors or project types. Later sections detail actions with targeted applicability to specific infrastructure sectors or types of projects.

RECENT FEDERAL ADMINISTRATIVE ACTION

Obama Administration Actions

To drive progress in federal reviews of significant infrastructure projects,[39] the Obama administration launched a government-wide initiative to modernize the federal permitting and review process. President Obama signed Executive Order No. 13604, *Improving Performance of Federal Permitting and Review of Infrastructure Projects*, on March 22, 2012, followed by a Presidential Memorandum on May 17, 2013, charging an interagency steering committee to lead development of a plan to turn best practices into standard practice. Federal agencies identified a set of best practices for infrastructure permitting and review, ranging from expansion of information technology tools to strategies for improving collaboration and synchronizing processes across federal agencies. The Obama administration issued several subsequent executive directives to improve the federal permitting and review process.

- On May 17, 2013, President Obama issued a Presidential Memorandum directing an interagency steering committee to develop a plan to turn permitting and review best practices identified by the federal agencies.
- On June 7, 2013, the President issued a separate but related memorandum directing federal agencies to "develop an integrated, interagency pre-application process for significant onshore electric transmission projects requiring Federal approval." That 2013 memorandum also lays out principles for designation of energy right-of-way corridors on federal lands under Section 368 of the EPAct 2005; it also directs federal agencies to re-evaluate existing energy rights-of-way corridor designations to determine the necessity for revisions, deletions or additions to those energy corridors and develop interagency mitigation plans, where appropriate, for environmental and cultural resources potentially impacted by projects sited in energy corridors.

On May 14, 2014, the Obama administration released the *Implementation Plan for the Presidential Memorandum on Modernizing Infrastructure Permitting*,[40] which included strategies, initiatives and best practices to achieve the direction of the administration's previous initiatives.

Trump Administration Actions

One of President Trump's first actions as President was to issue Executive Order 13766, *Expediting Environmental Reviews and Approvals for High Priority Infrastructure Projects* (Jan. 24, 2017), directing CEQ to begin efforts to identify high priority infrastructure projects and expedite federal environmental reviews required by the NEPA. President Trump subsequently issued Executive Order 13807, *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects* (August 15, 2017), which sought to expedite federal review and approval of infrastructure projects by imposing new timelines and procedures, including a two-year deadline for completing reviews under NEPA and issuing permits for major infrastructure projects. Executive Order 13807 establishes the One Federal Decision policy, which, among other things, requires federal agencies to publish all authorization decisions for major infrastructure projects in a single ROD document. In 2020, CEQ issued a comprehensive revision of its NEPA regulations, codifying many of the provisions of the One Federal Decision policy.

39 As defined in the Presidential Memorandum, infrastructure projects included electricity transmission, pipelines, renewable energy infrastructure, water resource projects, ports and waterways, transit systems, broadband Internet, roads, bridges, railways, and airports. Executive Order No. 13604, *Improving Performance of Federal Permitting and Review of Infrastructure Projects* (March 22, 2012).

40 Steering Committee on Federal Infrastructure Permitting and Review Process Improvement. *Implementation Plan for the Presidential Memorandum on Modernizing Infrastructure Permitting*. (May 14, 2014). https://www.permits.performance.gov/sites/permits.dot.gov/files/2021-03/pm-implementation-plan-2014.pdf

On June 4, 2020, President Trump signed an additional Executive Order to expedite the federal permitting process for infrastructure projects, including new mines, highways, pipelines and other projects, to boost the economy. The executive order, titled *Accelerating the Nation's Economic Recovery from the COVID-19 Emergency by Expediting Infrastructure Investments and Other Activities*, directs agencies, including the USDA, DOD, DOI and USACE, to fast-track the permitting processes required under NEPA, ESA and CWA.

Biden Administration Actions

The Biden administration has taken several significant actions to address issues related to climate, environmental permitting and reviews, equity and nature-based solutions.

CLIMATE

President Biden made addressing the climate crisis a national priority in Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*. The Executive Order calls for a "government-wide" approach to the climate crisis, including "to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a government-wide approach that reduces climate pollution in every sector of the economy." Through historic investments under the IIJA and the IRA, there are significant opportunities for large-scale deployment of clean energy and associated transmission infrastructure. To fully realize the potential of these programs and maximize the benefits of clean energy infrastructure, the administration is also engaging in permitting reform efforts to advance federal permitting and environmental reviews.

CEQ published guidance on January 9, 2023, regarding how to evaluate GHG emissions and climate change under NEPA. This interim guidance updates the CEQ's 2016 guidance and states that agencies should quantify a project's reasonably foreseeable direct and indirect gross and net GHG emissions and monetize the social cost of those GHG emissions. The guidance also encourages agencies to avoid and mitigate GHG emissions to the greatest extent possible. The notice and comment period on this new guidance ended in March 2023, and CEQ may still revise this guidance in response to the comments received.

ENVIRONMENTAL PERMITTING AND REVIEWS

Permitting Action Plan

In May 2022, the Biden administration released a permitting action plan intended to accelerate and deliver infrastructure projects, including renewable energy and transmission projects, "on time, on task, and on budget" by strengthening and accelerating federal permitting and environmental reviews.[41] The Permitting Action Plan outlines the administration's strategy to ensure federal environmental reviews and permitting processes are effective, efficient and transparent. The Permitting Action Plan is built on five elements: (1) ensuring early coordination and effective communication across federal agencies; (2) publishing clear timelines and goals and tracking key information to increase accountability; (3) engaging in early and meaningful outreach with states, Tribal nations and local communities; (4) improving agency responsiveness to permit applicants, stakeholders and affected communities; and (5) making better use of skilled agency staff and budgetary resources in environmental reviews.

In 2021, CEQ began a comprehensive reconsideration of the 2020 NEPA revisions through a phased approach.[42] On April 20, 2022, CEQ issued its final Phase 1 rulemaking to amend the revised regulations. In its final Phase 1 NEPA rule, CEQ reverses several changes codified in the 2020 NEPA revisions and clarifies that agencies should continue to apply their existing NEPA procedures while CEQ conducts a more extensive Phase 2 rulemaking. On April 30, 2024, CEQ released its final Phase 2 revisions to NEPA. The Phase 2 NEPA rule includes improvements to NEPA efficiency and flexibility; promotion of better environmental outcomes; restoration of certain longstanding definitions; direction on public engagement and agency coordination; clarification around mitigation and beneficial effects; and consideration of specific issues such as environmental justice and greenhouse gas emissions. The Phase 2 NEPA rule also retains certain provisions of the 2020 NEPA rule, including timelines and other elements of the One Federal Decision Policy.

41 The White House. *Fact Sheet: Biden-Harris Administration Releases Permitting Action Plan to Accelerate and Deliver Infrastructure Projects On Time, On Task, and On Budget*. (May 11, 2022). https://www.whitehouse.gov/omb/briefing-room/2022/05/11/fact-sheet-biden-harris-administration-releases-permitting-action-plan-to-accelerate-and-deliver-infrastructure-projects-on-time-on-task-and-on-budget/.

42 National Environmental Policy Act Implementing Regulations Revisions. 86 Fed. Reg. 55757. (Oct. 7, 2021). https://www.govinfo.gov/content/pkg/FR-2021-10-07/pdf/2021-21867.pdf

EQUITY

Justice40 Initiative

Section 223 of Executive Order 14008 established the Justice40 Initiative, which sets a goal of delivering at least 40 percent of the overall benefits from federal investments in climate and clean energy to disadvantaged communities. Specifically, Executive Order 14008 states that "[a]gencies shall make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts."

Climate and Economic Justice Screening Tool

As directed by Executive Order 14008, CEQ developed a CEJST[43] that uses census tract-level data to identify "disadvantaged communities." Communities are considered disadvantaged if they are in a census tract that meets the threshold for at least one of the tool's categories of burden and corresponding economic indicators, are on the lands of a Federally Recognized Tribe including Alaska Native Villages or are completely surrounded by disadvantaged communities and at or above the 50th percentile for low income. The categories under which a community will be identified as "disadvantaged" include climate change, energy, health, housing, legacy pollution, transportation, water and wastewater and workforce development.

Interim Implementation Justice40 Guidance

To meet the goals of the Justice40 Initiative and make historic levels of investment in supporting environmental justice, the administration is transforming hundreds of federal programs, including those funded or created by the IRA and the IIJA. The CEJST is being used to support consistency and uniformity across all federal agencies as they implement their Justice40-covered programs. In July 2021, the administration released formal interim implementation guidance directing all federal agencies to identify and begin transforming programs covered under the Justice40 Initiative. [44] All Justice40 covered programs are required to engage in stakeholder consultation and ensure community stakeholders are meaningfully involved in determining program benefits. Covered programs are also required to report data on the benefits directed to disadvantaged communities.

Permitting Council Environmental Justice Community Listening Series

In March 2022, the Permitting Council launched an environmental justice (EJ) community listening series in an effort to provide a "seat at the table" for communities of color and low-income communities during the federal infrastructure permitting process. According to the Permitting Council, these listening sessions were dedicated to making sure low-income and minority communities are involved at the very start of the infrastructure permitting process.[45]

Nature-Based Solutions Roadmap

On November 9, 2022, the Biden administration released the Nature-Based Solutions Roadmap. Nature-based solutions are actions to protect, sustainably manage or restore natural or modified ecosystems as solutions to societal challenges, including fighting climate change. Examples of nature-based solutions include protection or conservation of natural areas, reforestation, restoration of marshes or other habitats and sustainable management of farms, fisheries and forests. The Roadmap's policy recommendations include updating permitting processes and agency review methods and clarifying that general permits and programmatic reviews ensure efficient agency review of many types of infrastructure and are ripe for expansion to nature-based solutions. The Roadmap calls for updating benefit cost and accounting guidance to make the economic benefits of investing in nature-based solutions more visible on the nation's balance sheets and in regulatory and funding decisions. For example, natural hazard reduction standards, insurance standards, guidance and risk management tools should be established or updated to pave the way for nature-based

43 Council on Environmental Quality. *Climate and Economic Justice Screening Tool*. (November 22, 2022). https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5; Federal agencies must also use the *Memorandum on Using the CEJST for the Justice40 Initiative* published on January 27, 2023, available here:https://www.whitehouse.gov/wp-content/uploads/2023/01/M-23-09_Signed_CEQ_CPO.pdf; and the *Instructions to Federal Agencies on Using the CEJST* available here: https://static-data-screeningtool.geoplatform.gov/data-versions/1.0/data/score/downloadable/CEQ-CEJST-Instructions.pdf

44 The White House. *The Path to Achieving Justice 40*. (July 20, 2021). https://www.whitehouse.gov/omb/briefing-room/2021/07/20/the-path-to-achieving-justice40/

45 Federal Permitting Improvement Steering Council. *Fiscal Year 2024 Budget Request*. https://www.permits.performance.gov/sites/permits.dot.gov/files/2023-03/FPISC%20FY24%20Budget%20Request%20FINAL_0.pdf

solutions, such as restoring rivers and floodplains. Along with the Roadmap, the administration published a Resource Guide with federal examples, guidance, resource documents, tools and technical assistance.[46]

RECENT FEDERAL LEGISLATIVE ACTION

Fixing America's Surface Transportation Act

In 2015, Congress enacted the FAST Act, which included provisions to improve federal permitting for transportation. The FAST Act also included Title 41 to improve federal permitting for other major infrastructure projects, with a focus on better interagency coordination, accountability and transparency.

The Infrastructure Investment and Jobs Act (IIJA)

The $1.2 trillion IIJA, signed in 2021, set aside historic investments in clean energy, including the allocation of $47 billion toward climate-related funding and $100 million to DOI for development of "more efficient, accurate and timely reviews for the planning, permitting and approval processes."

Section 70801 of the IIJA also amends FAST-41, which reduces environmental review and permitting decision-making timelines for infrastructure projects while improving outcomes for communities and the environment. The amendments to FAST-41 codify some aspects of the *One Federal Decision* policy, allowing Tribal projects to use FAST-41's streamlined environmental review and permitting procedures and placing an increased emphasis on timing and transparency.

Most notably, Section 70801 of the IIJA establishes the Permitting Council as permanent by removing an original seven-year "sunset" limitation. The FAST-41 amendments of the IIJA also establish interim deadlines for agency actions and require agencies to disclose more project information on the Permitting Dashboard, an online database that tracks the status of federal environmental reviews and authorizations for covered projects.[47] Moreover, the IIJA improved access to the benefits of FAST-41 for Tribal-sponsored projects on Tribal-managed lands and gave the Executive Director of the Permitting Council expanded authority to transfer funds directly to state, local and Tribal governments to facilitate timely and efficient reviews of FAST-41 projects. In the interest of transparency, the IIJA also expanded the Executive Director's authority to direct federal agencies to post permitting timetables on the Federal Permitting Dashboard for projects other than FAST-41 covered projects.

The Inflation Reduction Act

The $437 billion H.R. 5376, IRA, signed into law on August 16, 2022, by President Biden, makes historic investments in clean energy and contains significant investment and policy changes aimed at facilitating development of critical clean energy infrastructure. The IRA allocates $369 billion toward energy security, carbon emissions reduction and climate resilience. The IRA also allocates significant amounts to support internal agency processes for permit review, including an additional $150 million to DOI, $125 million to DOE and $40 million to the EPA to "hire and train personnel, support the development of programmatic environmental documents, the procurement of technical or scientific services for environmental reviews, the development of environmental data or information systems, stakeholder and community engagement, and the purchase of new equipment for environmental analysis to facilitate timely and efficient environmental reviews and authorizations."

The Permitting Council also received $350 million under the IRA to advance permitting efficiency and make the federal permitting process more accountable. In December 2022, the Permitting Council announced the allocation of $5 million in funding to be made available to federally recognized Tribes to enhance Tribal engagement in the permitting review and authorization process for FAST-41 covered projects.

The IIJA also set aside funding for internal agency processes, including $160 million to support the USACE's regulatory program, to remain available until 2026.

46 White House Council on Environmental Quality, White House Office of Science and Technology Policy, White House Domestic Climate Policy Office. *Opportunities to Accelerate Nature-Based Solutions: A Roadmap for Climate Progress, Thriving Nature, Equity, & Prosperity*. (Report to the National Climate Task Force, 2022). https://www.whitehouse.gov/wp-content/uploads/2022/11/Nature-Based-Solutions-Roadmap.pdf; White House Council on Environmental Quality, White House Office of Science nd Technology Policy, White House Office of Domestic Climate Policy. *Nature-Based Solutions Resource Guide*. 2022. https://www.whitehouse.gov/wp-content/uploads/2022/11/Nature-Based-Solutions-Resource-Guide-2022.pdf

47 Appendix A, Overview of Key Federal Authorities, provides more details on the IIJA and FAST-41.

Fiscal Responsibility Act of 2023, BUILDER Act Amendments to NEPA

The FRA includes the most substantive amendments to NEPA since Congress enacted the statute in 1969, effectively codifying much of the 2020 CEQ NEPA regulations. These include amendments to the basic requirements for an environmental impact statement in NEPA Section 102(2)(C), with language that tracks the regulatory focus on NEPA's "rule of reason" in the analysis of "reasonably foreseeable environmental effects of the proposed agency action" and analysis of a "reasonable range" of alternatives that are "technically and economically feasible" and meet the purpose and need of the proposed action. These amendments are consistent with the 2022 CEQ amendment to the definition of "effects." However, emphasis is placed on the benefits of agency action with the consideration of a No Action alternative focused on the negative effects of not implementing the proposed action.

The amendments codify the longstanding hierarchy of environmental review in environmental impact statements, assessments and categorical exclusions. The amendments add a new Section 106 to codify the CEQ 2020 rule's provisions for threshold determinations regarding applicability of NEPA, but with treatment of a categorical exclusion as an exception to NEPA documentation. A new Section 107 creates a strong lead agency role with provisions for joint lead agencies and authority to coordinate the preparation of an environmental document and related permits and authorizations. It codifies provisions for appeals of denial of cooperating agency status and the "One Federal Decision" requirement that lead and cooperating agencies evaluate the proposal in a single environmental document. The page limits and time limits provided in the 2020 CEQ regulations are codified without provision for exceptions subject to senior agency official oversight. The bill codifies an abbreviated version of the 2020 provisions for agency responsibility for oversight of an applicant's preparation of an environmental document. The predecessor BUILDER Act provisions for penalties for lead agency delay have been replaced with an unusual provision for an applicant petition for a court-ordered schedule for completion of the environmental document.

Provisions for inter-agency adoption of categorical exclusions are codified with additional requirements for consultation with the originating agency and public notice of the agency plans to use the categorical exclusion. A new definitions section includes a definition of "major Federal action" that adds "substantial" as a limitation on federal control and responsibility that defines the scope of NEPA's applicability. The definition also excludes Small Business Administration loan guarantees and other financial instruments where the agency "does not exercise sufficient control and responsibility over the subsequent use of such financial assistance or the effect of the action."

BACKGROUND ON REFORMS TO IMPROVE TRANSMISSION PROJECT SITING AND PERMITTING

Congress and federal agencies have recognized the need for improvements to the national transmission grid to accommodate anticipated growth in energy generation and demand. Legislative and administrative steps have been targeted at identifying transmission needs, improving transmission facility siting, developing of grant programs, strengthening interregional planning processes and exploring collocation with existing rights-of-way.

Congressional and Administrative Actions

IIJA AND BACKSTOP SITING AUTHORITY UNDER SECTION 216

The IIJA, which became law in November 2021, revised FERC's authority under section 216 of the FPA. As described more fully in Appendix A, EPAct 2005, Congress created section 216 of the FPA with the goal of increasing the buildout of important electric transmission infrastructure. This statutory provision gives DOE power to coordinate all applicable federal authorizations, Tribal consultations and state agency reviews required to designate "national interest electric transmission corridors" and construct needed transmission lines in those corridors.

The IIJA expands FERC's backstop transmission siting authority to cover situations where a state commission has denied a certificate rather than simply failed to act. Specifically, the IIJA provides that FERC can use its backstop permit authority where a state (1) has not made a determination on an application within one year, (2) has conditioned its approval such that the proposed project will not significantly reduce transmission constraints or congestion or is not economically feasible, or (3) has denied an application.[48] In addition, as a precondition to granting a developer eminent domain authority, FERC must determine the developer made good faith efforts to engage with landowners and other

48 Although FERC already has backstop authority, a 2009 federal appellate ruling held that FERC lacked the authority to overturn a state's rejection of power lines planned in DOE sanctioned corridors. See Appendix B. Thus, if a state rejected an application for transmission build-out, there was nothing FERC could do. The Infrastructure Act addresses this loophole by clarifying FERC's backstop siting authority and allowing FERC to overrule state objections.

stakeholders early in the permitting process. The IIJA also expanded DOE's authority to designate national interest electric transmission corridors in areas currently experiencing or that are expected to experience transmission capacity constraints or congestion.

ADMINISTRATION INITIATIVES TO ACCELERATE PERMITTING OF TRANSMISSION

Department of Energy Initiatives

Building A Better Grid Initiative: DOE launched the Building a Better Grid Initiative through an NOI published for public comment on January 12, 2022. Through the Initiative, DOE plans to "identify critical national transmission needs and support the buildout of long-distance, high-voltage transmission facilities that meet those needs through collaborative transmission planning, innovative financing mechanisms, coordinated permitting, and continued transmission related research and development. DOE commits to robust engagement on energy justice and collaboration, including with states, American Indian Tribes and Alaska Natives, industry, unions, local communities, and other stakeholders for successful implementation of the program."

Elements of the required notice include coordination through regional convenings, planning to identify high-priority national transmission needs, national-scale, long-term transmission planning and planning technical assistance.

Transmission Needs Study: In response to the IIJA, DOE issued a 2023 Transmission Needs Study (DOE Needs Study) in October 2023. Formally known as the National Electric Transmission Congestion Study, the DOE Needs Study identifies high impact needs and provides information about current and anticipated capacity constraints and congestion on the nation's electric transmission grid. The DOE Needs Study identifies multiple transmission needs—defined as the existence of present or expected electric transmission capacity constraints or congestion in a geographic area—across the country and notes a steady decline in transmission investment since 2015. Although additional investment is needed in all regions across the country, according to the study, the Midwest and New England regions contributed the most substantial projections for what the study authors described as the most likely future scenario in light of recently enacted laws; the study reflects the need for new transmission deployment growth of 136 percent and 140 percent in those regions, respectively.

Many of the transmission needs identified in the study arise in connection with the effects of climate change and the need for increased resilience, including stresses to the grid from extreme heat and wildfires in the Southwest and Mountain regions and stronger winter storms in the Southeast and Midwest regions. The DOE Needs Study concludes that "interregional transmission investments will help improve system resilience by enabling access to diverse generation resources across different climatic zones, which is becoming increasingly important as climate change drives more frequent extreme weather events that damage the power system."

The transmission needs identified in the DOE Needs Study also reflect continued evolution of the generation mix away from coal and natural gas toward higher concentrations of renewables. The DOE Needs Study is intended to inform the implementation of DOE's Loan Program and Transmission Infrastructure Program, future federal efforts such as the DOE's potential designation of NIETCs under section 216(b) of the FPA and regional transmission planning.

Designation of National Interest Electric Transmission Corridors: On May 9, 2023, the DOE published a combined NOI and RFI that proposes a new applicant-driven, route-specific process to designate NIETCs. Areas designated as a NIETC enjoy certain permitting advantages and unlock funding opportunities for federal investment under the $2.5 billion Transmission Facilitation Program under the IIJA and the $2 billion Transmission Facility Financing Loan Program under the IRA. In addition, sponsors of projects in a designated NIETC can apply to become FAST-41 covered projects, entitling them to permitting timetable management, interagency coordination, transparency and other benefits.

By adopting an applicant-driven, route-specific process, DOE hopes to overcome the gating consultation and environmental review issues it ran into when it previously designated NIETCs of much broader geographic scope. DOE also seeks to streamline and coordinate its NIETC designation process with processes across the federal government for transmission planning, federal funding and backstop siting.

On December 21, 2023, DOE issued final guidance on the four-phase NIETC designation process. On May 8, 2024, DOE released a preliminary list of 10 potential NIETCs based on the results of the DOE Needs Study, other information related to transmission capacity constraints and congestion and numerous comments submitted by a variety of entities and individuals during Phase 1 of the NIETC designation process. DOE intends to narrow the list of potential NIETCs before moving forward to the next phase of the designation process.

Transmission Siting and Economic Development Grants program: Section 50152 of the IRA authorizes the Secretary of Energy to make grants to siting authorities to carry out certain eligible activities that will facilitate the siting and permitting of certain interstate onshore and offshore electricity transmission lines. Section 50152 also authorizes the Secretary to make grants to siting authorities or other state, Tribal or local governmental entities for economic development activities in communities that may be affected by the construction and operation of these transmission projects. Under Section 50152(b)(1), the Secretary may issue grants for:

- Studies and analysis of the impacts of the transmission project;
- Examination of up to three alternative siting corridors within which the transmission project feasibly could be sited;
- Participation by the siting authority in regulatory proceedings or negotiations in another jurisdiction or under the auspices of a Transmission Organization[49] that is also considering the siting or permitting of the covered transmission project;
- Participation by the siting authority in regulatory proceedings at FERC or a state regulatory commission for determining applicable rates and cost allocations for the covered transmission project; and
- Other measures and actions that may improve the chances of, and shorten the time required for, approval by the siting authority of the application relating to the siting or permitting of the covered transmission project, as the Secretary determines appropriate.

The IRA requires that siting authorities that receive a grant for siting activities with respect to a covered transmission project must reach a final decision on the application relating to the siting or permitting of the applicable covered transmission project no later than two years after the date the grant is provided. DOE issued an RFI on January 13, 2023, seeking public input to help inform the implementation of section 50152.

Federal Energy Regulatory Commission (FERC) Initiatives

Revisions to FERC Backstop Siting Authority Under Section 216 of the FPA: On December 15, 2022, FERC issued a notice of proposed rulemaking (NOPR) to update its regulations governing backstop siting authority for electric transmission to reflect recent changes to section 216 of the FPA resulting from IIJA.[50] The NOPR proposed to, among other things, effectuate FERC's authority to supersede a state regulatory body's rejection of a proposed transmission project located in a national interest electric transmission corridor; allow for simultaneous processing of state applications for siting authority and FERC prefiling proceedings; and update FERC's NEPA regulations. The changes proposed in the NOPR could encourage development of needed electric transmission infrastructure and support the build-out of electric transmission envisioned in the IIJA, supporting further development of multistate transmission lines needed to deliver significant wind and solar resources to market.

On May 13, 2024, FERC issued Order 1977, amending its regulations on applications for permits to site transmission lines under Section 216.

Regional Transmission Planning and Cost Allocation: On April 21, 2022, FERC issued a NOPR proposing to reform the regional transmission planning processes it requires individual transmission providers to undertake. The NOPR would require public utility transmission providers to (1) conduct long-term regional transmission planning on a sufficiently forward-looking basis to meet transmission needs driven by changes in the generation resource mix and demand on the grid; (2) more fully consider dynamic line ratings and advanced power flow control devices to help ensure regional transmission planning processes identify more efficient or cost-effective transmission facilities for selection in the regional transmission plan; (3) seek the agreement of relevant state entities within the transmission planning region regarding the cost allocation method or methods that will apply to transmission facilities selected in the regional transmission plan for purposes of cost allocation through long-term regional transmission planning; (4) adopt enhanced transparency requirements for local transmission planning processes and improve coordination between regional and local transmission planning with the aim of identifying potential opportunities to "right-size" replacement transmission facilities; and (5) revise their existing

49 The term "Transmission Organization" means a Regional Transmission Organization (RTO), Independent System Operator (ISO), independent transmission provider, or other transmission organization finally approved by FERC for the operation of transmission facilities as defined in the Federal Power Act. 16 U.S.C. 796(29).

50 For more details on the rulemaking, see Appendix A, Overview of Key Federal Authorities.

interregional transmission coordination procedures to reflect these long-term regional transmission planning reforms. FERC proposes that transmission providers engage in more frequent long-term planning covering at a minimum a twenty-year time horizon and that transmission providers more clearly identify and quantify the benefits criteria used to select transmission projects for development in long-term regional transmission plans.

On May 13, 2024, FERC issued Order 1920, requiring transmission providers to plan for future transmission needs, detailing a new set of requirements for transmission planning, cost allocation, enhanced transparency and improved coordination.

Improvements to Generator Interconnection Procedures: Lawrence Berkeley National Laboratory released a report in April 2023 finding that generator interconnection queue backlogs across the U.S. are ballooning.[51] Over 700 GW of proposed generation was added to interconnection queues in 2022 alone, much of it for carbon-free energy resources, and the federal incentives in IIJA and IRA are expected to increase pressure on queues. At the same time, Berkeley Labs noted that the average time projects spend in interconnection queues has grown substantially to five years from submission of an interconnection request to commercial operation (compared to three years in 2015 and less than two years in 2008). Moreover, only about 20 percent of projects requesting interconnection over the period 2000-2017 reached commercial operation by the end of 2022.

To address these problems, FERC issued a NOPR on June 16, 2022, proposing reforms to its *pro forma* generator interconnection procedures and *pro forma* generator interconnection agreements. These reforms would require transmission providers to transition from a "first come, first served" linear queue to a "first ready, first served" cluster study process, seeking to ensure that the most commercially viable projects are not stuck in the queue behind less viable projects. The reforms would also provide more transparency about transmission constraints to developers before they enter the interconnection queue in a bid to reduce the "churn" effect where developers submit multiple interconnection requests at different points of interconnection to try to determine the most efficient option for a project. Moreover, the NOPR proposes reforms to increase the speed of processing interconnection queues, such as providing structure around affected systems studies required to address potential reliability impacts on neighboring transmission systems from interconnecting a particular project. In addition, FERC proposed to require transmission providers to allow more than one resource to co-locate on a shared site behind a single point of interconnection and share a single interconnection request, thereby removing barriers to co-located resources such as solar + storage or wind + solar sites.

Transmission Planning and Cost Management: On October 6, 2022, FERC held a technical conference to discuss transmission planning and cost management for transmission facilities developed through local or regional transmission planning processes. At that conference, FERC heard from state commissioners and ratepayer advocates, transmission providers from both RTO/ISO and non-RTO/ISO regions and other stakeholders on a wide variety of transmission planning and cost containment issues. Among other things, many states voiced concerns about a lack of staffing and resources necessary to participate meaningfully in regional transmission planning processes, as well as inefficiencies between the regional transmission planning process and the subsequent certificate proceedings at the state level for siting, construction and operation of transmission projects incorporated into regional transmission plans. FERC subsequently requested industry comments on whether it should revisit its transmission planning principles adopted in Order No. 890, whether its planning principles should be made applicable to local as well as regional planning processes, whether there are barriers to state regulators and other stakeholders analyzing information made available in the local and regional transmission planning processes and whether it should require creation of Independent Transmission Monitors to review and evaluate a wide range of elements of the transmission planning process and, if so, what the role should be.

Department of the Interior Initiatives

As detailed above, Section 368 of EPAct 2005 required DOI, USDA, DOC, DOD and DOE—in consultation with FERC and Tribal entities—to designate energy rights-of-way corridors for oil, gas and hydrogen pipelines and electricity transmission and distribution facilities on federal lands.

Following a lawsuit and subsequent multi-year review of the originally designated corridors, BLM and the USFS published a final report that identified potential improvements to the Corridors that balance the need for delivering

51 Joseph Rand, et al. *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection As of the End of 2022.* (Lawrence Berkeley National Laboratory, April 2023), https://emp.lbl.gov/sites/default/files/queued_up_2022_04-06-2023.pdf.

clean energy with protecting America's lands, water and wildlife habitat.[52] The BLM conducted Regional Reviews as a part of this final report.

The Regional Reviews were guided by the following corridor siting principles from the Settlement Agreement, to ensure that:

- Corridors are thoughtfully sited to provide maximum utility and minimum impact to the environment;
- Corridors promote efficient use of landscape for necessary development;
- Appropriate and acceptable uses are defined for specific corridors; and
- Corridors provide connectivity to renewable energy generation to the maximum extent possible while also considering other generation to balance the renewable sources and ensure the safety and reliability of electricity transmission.

An interim step to the agencies' considerations for potential corridor revisions, deletions or additions was the development of corridor abstracts, i.e., an initial analysis of the corridors. Corridor abstracts assisted the agencies and the stakeholders in identifying specific environmental concerns and other challenges, such as pinch points, for each corridor. These abstracts provided a condensed record for each corridor. Stakeholders had the opportunity to review and comment on the abstracts and, subsequently, on any considerations identified by the agencies.

The findings in the report were reached after substantial input from Tribes, states, local governments, conservation community groups, electric utilities, renewable energy developers, oil and gas industry, wildlife organizations, advocacy groups, private landowners and BLM and USFS staff. This final report supports BLM and USFS regulations that direct land use planning efforts to consider existing information (including transportation and utility corridor studies) to determine appropriate placement of utility corridors. Any potential revisions, deletions and additions to the corridors identified through the Regional Reviews will be considered by the BLM and USFS during subsequent land-use planning and environmental review processes.

These energy corridors are designated on federal lands only as directed in Section 368 of the EPAct 2005. Because Section 368 energy corridors on federal lands may affect routing of projects on adjacent non-federal lands, robust stakeholder outreach is appropriate when considering site-specific projects utilizing Section 368 energy corridors and proposals to revise, delete or add Section 368 energy corridors.

Priority Projects: In 2022, three major transmission projects received final approvals for construction from DOI.

In April 2023, BLM announced the approval for construction of the 732-mile TransWest Express Project, a high-voltage transmission line that will extend from south-central Wyoming through northwestern Colorado and central Utah, ending in southern Nevada. TransWest Express will deliver electricity from the Chokecherry and Sierra Madre Wind Energy Project in Wyoming.

In May 2023, BLM announced a ROD for the SunZia Southwest Transmission Project, which, when completed, will transport up to 4,500 megawatts of primarily renewable energy from New Mexico to markets in Arizona and California. The BLM completed the review period for this project—from the NOI to ROD—in less than two years. This is one of the final steps the BLM needs to take before the project proponent can formally break ground. Note that BLM recommended the creation of Cross-Tie, Transwest Express and Gateway West as new energy corridors in the Final Report under the Section 368 Energy Corridor Review.[53]

52 West-wide Energy Corridor Information Center. *Regional Review Final Report*. https://corridoreis.anl.gov/regional-reviews/report/. Note also that on June 7, 2013, the President issued a separate but related memorandum, directing Federal agencies that laid out principles for designation of energy right-of-way corridors on Federal lands under Section 368 of the Energy Policy Act of 2005. It also directed Federal agencies to re-evaluate existing energy rights-of-way corridor designations to determine the necessity for revisions, deletions, or additions to those energy corridors and to develop interagency mitigation plans, where appropriate, for environmental and cultural resources potentially impacted by projects sited in energy corridors. The White House. *Presidential Memorandum–Transforming our Nation's Electric Grid Through Improved Siting, Permitting, and Review*. (June 7, 2013). https://www.whitehouse.gov/the-press-office/2013/06/07/presidential-memorandum-transforming-our-nations-electric-grid-through-i

53 Bureau of Land Management. U.S. Forest Service and U.S. *Department of Energy Energy Policy Act of 2005 Section 368 Energy Corridor Review*. https://corridoreis.anl.gov/documents/docs/Final-Report-Summaries.pdf

Advancing major project reviews: DOI has taken major steps on environmental reviews for several new transmission lines, including initiating review

- For the Greenlink West Transmission Project from northern to southern Nevada, and
- Initiating review for the Cross-Tie 500-kV Transmission Project from Utah to Nevada.

Department of Transportation Initiatives

In April 2021, DOT issued guidance that encourages State DOTs to host transmission lines and build renewable energy projects and electrical transmission and distribution projects on highway ROWs. The guidance document encourages the consistent utilization of ROWs for renewable energy generation and electrical transmission and distribution projects, among other uses. DOT notes that these uses of the highway ROWs also "better utilize the full value and productivity of the existing asset while also reducing or eliminating the ongoing maintenance expenses for State DOTs." Such use of highway ROWs can reduce greenhouse gas and other pollutant emissions; promote energy security by diversifying energy generation and delivery methods; create a potential revenue source for state DOTs to develop projects and negotiate agreements that include land lease or land license payments and power purchase agreements; and reduce or eliminate ongoing maintenance expenses for state DOTs. The guidance document encourages state DOTs to consider addressing renewable energy and electrical transmission and distribution facilities as accommodations as a utility under federal law, to the extent practicable and consistent with state law. The FHWA can also approve alternative uses of a highway ROW if it is determined that such occupancy, use or reservation is in the public interest and will not impair the highway or interfere with the free and safe flow of traffic thereon.

BACKGROUND ON REFORMS TO IMPROVE WIND AND SOLAR ENERGY DEVELOPMENT

Congress recognized the need to rapidly advance renewable energy production when it set a goal in the Energy Policy Act of 2020 to permit 25 gigawatts of renewable energy (wind, solar and geothermal) on public lands by 2025. The IIJA's updates to the FAST Act provided the opportunity for the Permitting Council and other agencies to work toward this goal. Moreover, section 70601 of the IIJA provided $100 million to DOI to remain available until September 30, 2031, for the development of "more efficient, accurate, and timely reviews for the planning, permitting, and approval processes for specified Interior agencies." Funding in the IRA increased appropriations for DOI, DOE and EPA "to hire and train personnel, support the development of programmatic environmental documents, the procurement of technical or scientific services for environmental reviews, the development of environmental data or information systems, stakeholder and community engagement, and the purchase of new equipment for environmental analysis to facilitate timely and efficient environmental reviews and authorizations."

Administrative Actions

To date the BLM has approved more than 126 renewable energy projects, including 42 solar projects with an approved capacity of over 9,000 MW, 36 wind projects with an approved capacity of over 3,000 MW and 48 operating geothermal power plants with federal interest that have an installed capacity of over 2,500 MWs.[54] In pursuit of the goal of permitting 25 GW of renewable energy by 2025, the BLM has approved 35 projects (10 solar, 8 geothermal and 17 gen-ties) on approximately 23,396 acres of BLM-managed lands. These projects are expected to produce 8,160 megawatts of electricity—enough to power approximately 2,618,723 homes.[55] BLM has reported that, as of July 2023, there were 35 wind, geothermal and gen-tie projects on BLM lands expected to produce 8,160 MW megawatts. An additional 26 projects were under review (22 solar, 3 wind and 1 geothermal) with the potential to generate 17,069 MW on 147,443 acres.[56]

RENEWABLE ENERGY COORDINATION OFFICES

On May 31, 2022, DOI established RECOs pursuant to the Energy Policy Act of 2020. In accordance with section 3001(2)(b) of that Act, DOI, USDA, DOD (USACE and the Military Aviation and Installation Clearinghouse), DOE and EPA signed a pursuant to sections 3001-3005 to streamline reviews for renewable energy projects. The BLM RECOs will leverage the interagency agreement under the MOU to implement improved coordination among agencies, help avoid and resolve potential conflicts and bottlenecks, identify best practices, accelerate information sharing and promote efficient and timely reviews to support smart agency decision-making.

54 Bureau of Land Management. *Budget Justification and Performance Information Fiscal Year 2024.* https://www.doi.gov/sites/doi.gov/files/fy2024-blm-greenbook.pdf-508.pdf
55 Bureau of Land Management. *Active Renewable Projects.* https://www.blm.gov/programs/energy-and-minerals/renewable-energy/active-renewable-projects
56 Bureau of Land Management, *Active Renewable Projects, Proposed Renewable Energy Projects in Review*, https://www.blm.gov/programs/energy-and-minerals/renewable-energy/active-renewable-projects - Review

The BLM is actively partnering with key federal agencies to fund dedicated positions for the RECOs to prioritize robust environmental compliance coordination for renewable energy proposals. The coordination offices include a national office at the BLM's headquarters; within state offices in Arizona, California and Nevada; and a regional office led by BLM Utah. The BLM is also actively hiring project managers in other states, such as Idaho and Colorado, to support renewable permitting work. Under the MOU, the FWS committed to prioritize review and permitting coordination and to work with the RECOs to expedite coordination of federal agency reviews, including those required pursuant to section 7 of the ESA, the Migratory Bird Treaty Act (MBTA), the Bald and Golden Eagle Protection Act, the Fish and Wildlife Conservation Act and NEPA, and authorization of eligible projects.

SOLAR PEIS

Secretary of the Interior Deb Haaland announced on December 5, 2022, that the BLM will develop an updated Solar PEIS to help guide solar energy development on public lands throughout the West.[57] The proposed updated PEIS will replace the existing Solar PEIS developed in 2012. The Solar PEIS covered six western states—Arizona, California, Colorado, Nevada, New Mexico and Utah—and provided a comprehensive solar energy program applicable to all utility-scale (20 MW or greater) solar energy development on BLM-administered lands. The Solar Plan also categorized land according to its suitability for solar infrastructure by establishing ,[58] which are areas of land prioritized for development; areas of land that should be excluded from development; and variance zones, or areas of land that are neither excluded nor prioritized. In replacing the Solar PEIS, the new and updated PEIS would, among other things, expand the study area to 11 western states, change exclusion criteria and land use allocations and potentially create a new definition to expand the meaning of utility-scale development.

The BLM, in the 2012 Solar PEIS, developed action plans for each SEZ identifying SEZ-specific actions that could be undertaken to facilitate future development within each SEZ.[59] The analysis from the Solar PEIS informed the BLM in its designation of the SEZs and formed the basis for further evaluation of the potential environmental impacts of the specific projects within each SEZ. In addition to its programmatic analysis, the Solar PEIS contained a comprehensive environmental review of all the SEZs, including direct, indirect and cumulative impacts for each one. The primary purpose of this more rigorous SEZ-specific analysis, which included in-depth data collection and environmental analysis, was to provide documentation from which the BLM could tier future project authorizations, thereby limiting the required scope and effort of project-specific NEPA analyses.[60]

After initial public scoping meetings on the proposed updates to the Solar PEIS, BLM determined that it would not include areas covered by the Desert Renewable Energy Conservation Plan (DRECP) in Southern California. The 2016 DRECP is a landscape-scale planning effort that covers 22.5 million acres in Southern California and was developed to advance conservation goals, meet ESA and FLPMA requirements and facilitate the timely and streamlined permitting of renewable energy projects.[61] The DRECP identified Development Focus Areas (DFAs),[62] Variance Process Lands, Conservation Areas, Recreation Areas and unallocated lands (i.e., lands that did not have a specific land allocation or designation). The DRECP also identified a specific set of Conservation and Management Actions designed to achieve the goals and objectives for activities within the various land use allocations. The BLM decided to exclude the DRECP from the planning area as it believes that the DRECP "supports an acceptable balance between conservation and renewable energy opportunities within its planning area boundary."

The 2012 Solar PEIS did not eliminate the need for site-specific environmental reviews for future utility-scale solar energy development projects. All future projects proposed in SEZs nonetheless were expected to tier to the analysis in the Solar PEIS. The extent of this tiering, however, was expected to vary from project to project, as would the necessary

57 Department of the Interior. *Secretary Haaland Announces New Steps to Accelerate Solar Energy Development on Public Lands in the West*. https://www.doi.gov/pressreleases/secretary-haaland-announces-new-steps-accelerate-solar-energy-development-public-lands

58 The 2012 Solar PEIS designated 17 SEZs on about 285,000 acres of BLM-administered lands. The SEZs are identified as Designated Leasing Areas (DLAs) in BLM's leasing regulations (43 CFR 2800), which allow for the BLM to issue solar energy "leases" (43 C.F.R. § 2809) through a competitive process for utility-scale solar energy development within DLAs. Projects outside DLAs (and others designated as BLM deems would be in the public interest) are authorized with a right-of-way grant issued for up to 30 years.

59 These action plans described additional data that could be collected for individual SEZs and proposed data sources and methods for the collection of those data. For example, for the Dry Lake SEZ, the action plan recommended a Class III survey be completed for cultural resources which the BLM initiated prior to the competitive auction. Solar PEIS at ES-4.

60 In the Solar PEIS, the BLM established a set of proposed programmatic design features that would be required for all utility-scale solar energy development on BLM-administered lands under both action alternatives. In addition to this upfront work in SEZs, the BLM committed to establishing regional mitigation plans for SEZs to "simplify and improve the mitigation process for future projects in these priority areas."

61 Bureau of Land Management. *California 2016 DRECP ROD*. (2016). https://blmsolar.anl.gov/drecp/

62 DFAs are locations which contain a combination of available renewable energy resources including solar, wind, and geothermal areas that have been pre-screened for development potential and minimal resources conflicts, and therefore provide opportunities for streamlined development.

level of NEPA documentation. The level of effort required to review applications for projects in SEZs has been reduced because these areas underwent intensive site-specific analyses and consultations as part of the Solar PEIS. For some of the SEZs, it was expected that development could proceed with limited additional environmental analysis. The range of issues that are evaluated in detail at the project level therefore were reduced to site-specific and species-specific issues and concerns. The Final Solar PEIS included a detailed summary of the environmental impacts that might be associated with solar energy development under the program alternative and the ways in which the impacts would be avoided, minimized and/or mitigated by the programmatic exclusions, policies and design features and whether there were site- or project-specific issues that could be addressed by the programmatic design requirements.

The EA for the Dry Lake Solar Energy Center (Dry Lake SEC EA) provides a good example of effective tiering to a PEIS. The affected environment and the potential environmental impacts resulting from the implementation of the Proposed Action and the No Action Alternative tiered to the analysis in the Solar PEIS and were incorporated by reference to the extent practicable. The issues discussed in the Dry Lake SEC EA focused on those identified through public involvement. Following comments and scoping, the proposed action was presented to the BLM interdisciplinary team, which conducted a review of the application and Plan of Development (POD) and identified additional issues for further consideration (e.g., air quality, vegetation, forestry, wildlife, cultural resources, Native American concerns, visual resources etc.).

Although the Solar PEIS contained the results of a comprehensive environmental review conducted by the BLM for all SEZs, applicants completed additional project-specific resource surveys in support of projects to complement the BLM's environmental review. The BLM then provided a summary of the relevant impacts and related design features that were fully analyzed in the PEIS and were incorporated into the EA. As required by the Solar PEIS ROD, applicants incorporated design features into the Project development process to avoid and minimize impacts to the surrounding environment, including the design features set forth in the EA. In addition, the EA included required mitigation measures, including those set forth in the Solar PEIS and the Solar Regional Mitigation Strategy (SRMS) prepared for the Dry Lake SEZ. The SRMS for the Dry Lake SEZ presents an approach for compensating for the unavoidable impacts that are expected from development of the Dry Lake SEZ. The analysis in the EA relies upon and tiers to the protective measures and design features established in the Solar PEIS and includes updated language with specific Mitigation Measures.

The Dry Lake SEC EA notes impacts to resources that are beyond those described in the PEIS and would require detailed analysis in the EA. The EA also relied on the Solar PEIS programmatic consultation, which recognized that an ESA Section 7 project-specific consultation would have to occur and would tier to programmatic consultation and resulting programmatic Biological Opinion (BO) for SEZs. A Biological Assessment (BA) was prepared for the Project to address impacts to federally listed species and the requisite project-specific consultation concluded with the issuance of a BO and incidental take statement. As expected, the project implemented applicable mitigation measures identified in the BO as part of this decision.

UPDATES TO REGULATIONS AND INTERNAL GUIDANCE

BLM permitting processes for solar and wind projects

BLM has undertaken an update to its application processes for solar and wind applications and nominations/expressions of interest. On March 17, 2022, BLM released an Instruction Memorandum guidance[63] intended to clarify initial screening measures and prioritization methodologies for solar and wind ROW grant applications and lease nominations. The guidance is intended to facilitate accelerated decision-making for projects with the greatest technical and financial feasibility and least anticipated natural and cultural resources conflicts. All new project proposals, including those for projects covered under the FAST-41, are screened and prioritized under this policy. Required pre-application meetings with the BLM are intended to identify potential environmental and siting constraints and clarify where development may not be available.

63 Bureau of Land Management. *Initial Screening and Prioritization for Solar and Wind Energy Applications and Nominations/Expressions of Interests.* (March 17, 2022). https://www.blm.gov/policy/im-2022-027

Mitigation Approaches

In 2021, BLM reinstated its manual and handbook on mitigation.[64] This new guidance directs BLM to implement mitigation through a landscape-scale approach, utilize best management practices, maintain durability for mitigation measures, monitor mitigation measures for compliance and effectiveness and adaptively manage mitigation measures.

On July 27, 2022, the FWS issued an Advanced Notice of Proposed Rulemaking (ANOPR) seeking comments on development of a rule establishing objectives, measurable performance standards and criteria uses consistent with ESA for species conservation banking. In February 2023, FWS proposed to revise permitting under ESA Section 10 to promote species conservation through voluntary agreements and make the process more efficient. The proposed changes would: (1) clarify the appropriate use of enhancement of survival permits and incidental take permits; (2) clarify FWS authority to issue permits for non-listed species without also including a listed species; (3) simplify the requirements for enhancement of survival permits by combining safe harbor agreements (SHAs) and candidate conservation agreements with assurances (CCAAs) into one agreement type, e.g., a "conservation benefit agreement"; and (4) codify the FWS "five-point policies" for SHAs and CCAAs in the regulations to reduce uncertainty. FWS stated that it was doing so to reduce the costs and time associated with negotiating and developing the required documents to support the applications and that "these improvements will encourage more individuals and companies to engage in these voluntary programs, thereby generating greater conservation results overall."

On May 15, 2023, the FWS announced final revisions to their Mitigation Policy and the ESA Compensatory Mitigation Policy. The revised ESA Compensatory Mitigation Policy adopts the mitigation principles established in the FWS Mitigation Policy, establishes compensatory mitigation standards and provides guidance for the application of compensatory mitigation through implementation of the ESA. The ESA Compensatory Mitigation Policy covers all compensatory mitigation mechanisms, including proponent-responsible mitigation, conservation banking and in-lieu fee programs. FWS states that the Mitigation Policy provides a framework for applying a landscape-scale approach to achieve "no net loss of resources and their values, services, and functions resulting from proposed actions." These policies step back from the more aggressive "net conservation gain" approach pursued by the Obama administration.

Environmental Justice

DOI has partnered with agencies across the federal government to develop a strategy to address current and historic environmental injustices and ensure accountability. In 2022, BLM issued guidance for considering EJ in NEPA reviews and when making land management decisions. The guidance applies to all environmental reviews under NEPA, including for land use planning and individual projects.[65]

Tribal Consultation and Engagement

On November 15, 2021, DOI and USDA signed Joint Secretarial Order No. 3403 on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters. On September 13, 2022, DOI released new guidance to improve federal stewardship of public lands, waters and wildlife by strengthening the role of Tribal governments in federal land management. New guidance from BLM and USDA outlines how each bureau will facilitate and support agreements with Tribes to collaborate in the co-stewardship of federal lands and waters.[66]

Geospatial Energy Mapper

In January 2023, Argonne National Laboratory announced the redesign of the Energy Zones Mapping Tool. The Geospatial Energy Mapper is an interactive online mapping tool that can help identify areas suitable for wind, solar and other clean energy infrastructure projects. This includes energy resources and infrastructure and other information that might influence energy infrastructure siting decisions. With over 190 mapping layers—including demographics, boundaries and utilities—users can locate areas for clean power generation, electric vehicle charging stations and more.[67]

64 Bureau of Land Management. *Instruction Memorandum, Reinstating the Bureau of Land Management (BLM) Manual Section (MS-1794) and Handbook (H-1794-1) on Mitigation.* (2021). https://www.blm.gov/policy/im-2021-046; Bureau of Land Management. *BLM Handbook, H-1794-1 – MITIGATION.* (Sept. 22, 2021) https://www.blm.gov/sites/default/files/docs/2021-10/IM2021-046_att2.pdf; https://www.blm.gov/policy/im-2021-046.

65 Bureau of Land Management. *Addressing Environmental Justice in NEPA Documents: Frequently Asked Questions.* (2022). https://www.blm.gov/sites/default/files/docs/2022-09/IM2022-059_att1.pdf.

66 Bureau of Land Management. *Co-Stewardship with Federally Recognized Indian and Alaska Native Tribes Pursuant to Secretary's Order 3403.* (September 13, 2022). https://www.blm.gov/sites/default/files/docs/2022-09/PIM2022-011%20+%20attachment.pdf

67 Marguerite Huber. *A new tool helps map out where to develop clean energy infrastructure.* (Argonne National Laboratory, 2023). https://www.anl.gov/article/a-new-tool-helps-map-out-where-to-develop-clean-energy-infrastructure

BACKGROUND ON REFORMS TO IMPROVE HYDROGEN PIPELINE SITING AND PERMITTING

Large-scale hydrogen transportation infrastructure is in its initial stages of development. Only 25 hydrogen pipelines exist in the U.S., spanning approximately 1,600 miles, compared to 300,000 miles of natural gas transmission pipelines and 200,000 miles of petroleum product pipelines. Most hydrogen pipelines are in the Gulf Coast and used to carry merchant or excess hydrogen to petrochemical users. As noted in the Energy Futures Initiative's U.S. Hydrogen Demand Action Plan, clean hydrogen will depend on new energy infrastructures such as electricity supply systems (e.g., generation, transmission and distribution equipment), natural gas networks and CO_2 and hydrogen storage facilities among others.

Congressional and Administrative Actions

Recognizing the significant opportunities and greenhouse gas emission reductions available from hydrogen infrastructure, the IIJA invests $9.5 billion in clean hydrogen technology development. The IIJA program envisions the widely adopted use of distributed hydrogen generation and storage and focuses on funding the development of factors that support both hydrogen infrastructure and vehicle and electric power for critical consumer and commercial applications.[68]

For example, Section 40314 of the IIJA authorizes and appropriates $8 billion to the DOE to establish a program to support six to ten Regional Clean Hydrogen Hubs (Hydrogen Hubs).[69] The Hydrogen Hubs are designed to be clustered networks of clean hydrogen producers, consumers and connected infrastructure, with the purpose of accelerating hydrogen use as a clean energy carrier. DOE notes that these hubs "will be a central driver in helping communities across the country benefit from clean energy investments, good-paying jobs and improved energy security."[70] The Clean Hydrogen Hubs initiative follows the 2021 launch of DOE's Hydrogen Shot and the release of DOE's draft National Clean Hydrogen Strategy and Roadmap (Hydrogen Roadmap), which provides an overview of the potential for hydrogen to "contribute to national decarbonization and economic development goals." The Hydrogen Roadmap provides a comprehensive overview of the potential for hydrogen production, transport, storage and use in the U.S. and outlines how clean hydrogen can contribute to national decarbonization and economic development goals.

In September 2022, DOE issued a Funding Opportunity Announcement (FOA) for the Hydrogen Hubs. DOE will pick at least one hub centered on "green" hydrogen produced by renewable energy with no associated direct carbon emissions.[71] As required by the IIJA, DOE must prioritize "regional clean hydrogen hubs that are likely to create opportunities for skilled training and long-term employment to the greatest number of residents in the region." Consistent with that requirement, any application must include a CBP.[72] As DOE explains, project planning should include engagement with a wide range of local stakeholders such as labor unions, local governments, Tribal governments and community-based organizations that support or work with disadvantaged communities. Applicants must establish a Justice40 Initiative section within their CBP. DOE is currently assessing the full applications that were submitted on April 7, 2023.

On May 10, 2023, the Biden administration issued a fact sheet outlining priority reforms, including a recommendation that Congress address the siting of hydrogen and provide federal siting authority for such infrastructure."

BACKGROUND ON REFORMS TO IMPROVE CARBON DIOXIDE MANAGEMENT

To reach an ambitious domestic climate goal of net-zero emissions economy-wide by 2050, the U.S. will likely have to capture, transport and permanently sequester significant quantities of carbon dioxide. To prioritize direct reduction or avoidance of emissions of greenhouse gasses, pragmatic applications of CCUS strategies must be deployed as soon as possible with a high priority placed on achieving net emissions reductions from emissions sources that are not likely to be abated or do have not technically feasible alternatives. Even as the U.S. takes all feasible steps to decarbonize the energy

68 The IRA also incentivizes clean hydrogen projects, including through a new 10-year hydrogen production tax credit under 26 U.S.C. § 45V of the Internal Revenue Code (IRC). 42 U.S.C. § 16151 et seq. In October 2022, the U.S. Treasury Department issued a Request for Comment on the credits for clean hydrogen provided for in the IRA. The comments will inform Treasury's regulations or guidance, which must be published by mid-August 2023 (a year after the IRA's enactment).

69 Section 813 of the Energy Policy Act, as amended, requires the development of at least four regional clean hydrogen hubs that: demonstrably aid the achievement of the clean hydrogen production standard; demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen; and can be developed into a national clean hydrogen network to facilitate a clear hydrogen economy.

70 Department of Energy. *Regional Clean Hydrogen Hubs*. https://www.energy.gov/oced/regional-clean-hydrogen-hubs

71 Green hydrogen can be produced by splitting water into hydrogen and oxygen molecules (electrolysis) using renewable energy. Unlike clean hydrogen, which requires the capture and storage of carbon emitted as part of its production, green hydrogen production has no direct carbon emissions.

72 DOE is now requiring that Community Benefits Plans accompany all agency funding opportunity announcements (FOAs)-related projects. These plans advance four of the Administration's policy priorities: invest in America's workforce; engage community and labor; advance diversity, equity, inclusion, and accessibility; and contribute to Justice 40.

system, engineered carbon removal and natural climate solutions will likely be necessary to close the gap in achieving net-zero. Carbon management technologies and related infrastructure must be "responsibly scaled in a timely manner, while maintaining the integrity of public health, the environment, and the economy."[73]

Reaching the necessary scale will require rapid development of projects to capture CO_2 either at the point of emissions or from the ambient air, as well as storage wells to permanently sequester the CO_2 and transport pipelines to connect the two. Each segment of this overall system will be developed and permitted separately—distinct projects subject to different statutes and permitting agencies—but the entire system must be developed in parallel. Storage and transport must be available for companies to invest in carbon capture at industrial facilities and power plants. Conversely, the expected demand for CO_2 transport must be sufficient for companies to invest in pipelines. Permitting delays in one segment could delay development of another.

Overview of Siting and Permitting CO_2 Pipelines and Storage Wells

CO_2 PIPELINES

CO_2 pipeline infrastructure at present totals 5,500 miles and is located mostly within U.S. oil-producing states and Canadian provinces.[74] Current CO_2 pipelines are almost entirely used for enhanced oil recovery.[75]

Where proposed CO_2 pipelines cross federal land, the BLM has authority to grant rights-of-way as a "natural gas" pursuant to the Mineral Leasing Act. There is no comprehensive federal siting and permitting process for interstate or intrastate CO_2 pipelines on non-federal lands.[76] Only safety considerations are subject to comprehensive federal regulation by PHMSA. However, numerous federal laws and regulations influence CO_2 pipeline siting, design or operation. NEPA, the CWA, NHPA and ESA, among other statutes, provide opportunities for federal agencies to influence CO_2 pipeline siting. These opportunities are most abundant where the pipeline crosses federal lands or waterways—as is often true in the western U.S.

Requirements for siting (including the use of eminent domain), construction and operations of CO_2 pipelines are largely handled at the state level.[77] State laws may authorize siting authorities and establish set back, permitting or industrial siting requirements.

Only a few states have CO_2 -specific pipeline siting rules; in some states, regulation of CO_2 pipelines falls within the statutes for other types of pipelines such as those for hazardous waste and oil and natural gas.

Differences in state regulations "have not significantly impeded on interstate CO_2 pipeline development because many interstate pipelines serve single sources and single end users and are in western states that tend to have more developed regulatory frameworks for CO_2 pipelines. However, as CO_2 pipeline networks become more extensive and complex, and more participants enter the market, a clearer regulatory framework will be needed."[78] As with hydrogen pipelines, "developers of interstate CO_2 pipelines may increasingly encounter a range of regulatory obstacles due to inconsistent or unclear regulations of the states a pipeline passes through."[79]

PERMANENT STORAGE WELLS

Once the CO_2 is captured, permanent storage involves injecting the concentrated CO_2 stream underground into a subsurface formation where it will remain safely and permanently stored. The EPA's Class VI well permitting program regulates dedicated geologic storage of CO_2. Like other well classes regulated by EPA, states may apply to EPA and be granted primacy over Class VI wells. As of July 2023, EPA has permitted two Class VI wells with over 50 pending permits. EPA has delegated Class VI implementation authority to North Dakota, Wyoming and Louisiana.

73 Council on Environmental Quality. *Council on Environmental Quality Report to Congress on Carbon Capture Utilization, and Sequestration.* (2021). https://www.whitehouse.gov/wp-content/uploads/2021/06/CEQ-CCUS-Permitting-Report.pdf

74 The major regions in the U.S. that host CO_2 pipelines typically are oil-producing basins of the Northern Rockies, Permian Basin, Mid-Continent, and the Gulf Coast. Comments From the Edison Electric Institute On Request for Comments On The Council On Environmental Quality Carbon Capture, Utilization, And Sequestration Guidance Docket No. CEQ-2022-0001 (April 18, 2022).

75 For a detail analysis of legal authorities governing CO_2 pipeline siting, see Tara K. Righetti, Siting Carbon Dioxide Pipelines, 3 OIL & GAS, NAT. RESOURCES & ENERGY J. 907 (2017); see also U.S. Department of Energy. *Siting and Regulating Carbon Capture, Utilization and Storage Infrastructure Workshop Report.* (2016).

76 CO_2 concurrently falls outside the scope of "natural gas" within the Natural Gas Act (NGA) and within the "gas" exclusion in the Interstate Commerce Act (ICA). Natural Gas Act of 1938 § 1, Pub. L. No. 75-688, 52 Stat. 821 (codified as amended at 15 U.S.C. § 717 (2012); Interstate Commerce Act, 49 U.S.C. §§ 1(4), 2, 3(1) (1887). CO_2 is also excluded from FERC regulation under the ICA.

77 U.S. Department of Energy. *Siting and Regulating Carbon Capture, Utilization and Storage Infrastructure Workshop Report.* (2016). p 25, https://www.energy.gov/fecm/articles/siting-and-regulating-carbon-capture-utilization-and-storage-infrastructure-workshop

78 Labor Energy Partnership. Building to Net-Zero: *A U.S. Policy Blueprint for Gigaton-Scale CO^2 Transport and Storage Infrastructure.* (June 2021). p 29.

79 *Id.*

Congressional and Administrative Actions

INFRASTRUCTURE INVESTMENT AND JOBS ACT

DOE has invited eligible parties to apply for secured or "direct" loans or loan guarantees under the Carbon Dioxide Transportation Infrastructure Finance and Innovation (CIFIA) program established by Section 40304 of the IIJA. The IIJA will invest $2.1 billion to provide federal government financing to large capacity Common Carrier CO_2 transportation infrastructure projects to move CO_2 from points of capture to conversion facilities and/or storage wells.

INFLATION REDUCTION ACT

The IRA provides critical updates to the 45Q tax credit, which incentivizes the use of carbon capture and storage. The law extends the existing 45Q tax credit, adds an enhanced credit for direct air capture (DAC) and lowers the carbon capture threshold requirements for certain facilities to benefit from the credit. Facilities meeting prevailing wage and registered apprenticeship requirements can qualify for bonus credits. This tax credit complements funding in the Bipartisan Infrastructure law for CCUS and DAC, $2.537 billion for the Carbon Capture Demonstration Projects Program, $937 million for Carbon Capture Large-Scale Pilot Programs and $3.5 billion for Regional Clean Direct Air Capture Hubs.[80]

UTILIZING SIGNIFICANT EMISSIONS WITH INNOVATIVE TECHNOLOGIES (USE IT) ACT

FAST-41 Coverage

In 2020, Congress established CCUS as a sector of "covered project" under FAST–41, so both CO_2 pipelines and CCUS projects are covered projects under FAST-41. Construction of infrastructure for carbon capture is a specific sector eligible for FAST-41 coverage even if the project is worth less than $200 million in economic investment. In this context, carbon capture infrastructure includes construction of any facility, technology or system that captures, utilizes or sequesters carbon dioxide emissions, including DAC projects. As described in depth above, AST-41 covered projects are subject to coordinated federal agency review and permitting supervised by the Permitting Council, which requires the establishment and execution of a coordinated project plan and project permitting timetable that is transparent and accountable to the project sponsor and the public through the Federal Permitting Dashboard.

CEQ Regional Task Forces

Under the USE IT Act, Congress directed CEQ to establish regional task forces to: (1) identify challenges and successes that permitting authorities, project developers and operators face to permit CCUS projects in an efficient, orderly and responsible manner; and (2) provide recommendations to improve the performance of the permitting process and regional coordination for the purpose of promoting the efficient, orderly and responsible development of CCUS projects and carbon dioxide pipelines. CEQ established two taskforces: one to address permitting and other challenges for CCUS projects on federal lands and the Outer Continental Shelf and another for permitting and other challenges for CCUS projects on non-federal lands.[81]

The duties of the task forces are to identify challenges; inventory federal and state approaches to facilitate reviews associated with the deployment of CCUS projects and carbon dioxide pipelines; identify gaps in the current federal and state regulatory framework and in existing data for the deployment of CCUS projects and carbon dioxide pipelines; identify priority carbon dioxide pipelines; improve permitting processes; identify priority carbon dioxide pipelines needed to enable efficient, orderly and responsible development of CCUS projects at increased scale; and facilitate regional coordination of CCUS projects and pipelines.[82]

80 The White House. *Building A Clean Energy Economy: A Guidebook to The Inflation Reduction Act's Investments In Clean Energy And Climate Action* (December 2022). https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf

81 On July 28, 2022, CEQ published two notices in the Federal Register requesting nominations for membership on the task forces. 87 Fed. Reg. 45304; 87 FR 45306 (July 28, 2022). CEQ published an additional notice on December 28, 2022, seeking additional members for the federal lands and the OCS. 87 Fed. Reg. 79876 (December 28, 2022).

82 The White House. *CEQ Announces Members of Task Forces to Inform Responsible Development and Deployment of Carbon Capture, Utilization, and Sequestration.* (March 24, 2023). https://www.whitehouse.gov/ceq/news-updates/2023/03/24/ceq-announces-members-of-task-forces-to-inform-responsible-development-and-deployment-of-carbon-capture-utilization-and-sequestration/

CEQ Carbon Capture, Utilization, and Sequestration Guidance

In accordance with the USE IT Act, CEQ also developed and requested comments on its Carbon Capture, Utilization, and Sequestration Guidance to assist federal agencies with the regulations and permitting of CCUS activities. Broadly, CEQ's guidance suggests that "agencies consider developing programmatic environmental reviews, including tiered documents or programmatic environmental impact statements under NEPA, or programmatic biological opinions under the ESA, where such analyses can facilitate more efficient and effective environmental reviews of multiple projects while maintaining strong community engagement."

CEQ recommended that the Permitting Council establish an appropriate facilitating agency for each general CCUS project category; develop recommended performance schedules for each category of CCUS project; and identify the environmental reviews and authorizations most commonly required to help facilitate timely reviews of such projects. Separately, agencies may also consider implementing memoranda of understanding to establish the process by which they will collaborate on anticipated CCUS projects and related activities."

CEQ recommended that agencies with oversight authority for CO_2 pipelines update regulations to address the deployment of CCUS technologies. In developing CCUS projects, CEQ encourages engagement of communities and Tribes in co-development of projects and approaches; protection of communities from pollution; and incorporation of environmental justice and equity concerns, particularly in communities already exposed to multiple pollution sources. CEQ's guidance also noted that agencies should collaborate on studies regarding the effect of carbon capture deployment on air quality in the U.S. Noting that CCUS consists of new technologies, CEQ stressed the importance of increased transparency to build public confidence in the emissions reductions associated with these projects and their durability. Specifically, CEQ recommended preparation of publicly available analyses, including life-cycle analyses and/or establishment of certification or standards for products. Finally, "because multiple Federal and State agencies will be responsible for planning and permitting priority pipeline pathways" under CIFIA (see above), and "in order to ensure that these actions are aligned with climate, economic and public health objectives, CEQ will convene the relevant agencies to assess opportunities for improvement in carbon dioxide permitting."

DEPARTMENT OF ENERGY

On May 17, 2023, DOE selected three projects for a total of $9 million in funding to perform detailed engineering design studies for regional CO_2 pipeline networks.

DEPARTMENT OF THE INTERIOR

In January 2021, the BLM released the ROD and approved resource management plans for the Wyoming Pipeline Corridor Initiative (WPCI),[83] designating almost 1,111 miles of pipeline corridors on BLM-administered public lands within the state of Wyoming across nine BLM field office areas. The WPCI corridors utilize existing corridors designated under section 368; collocate with existing infrastructure to minimize impacts across the landscape; and provide for a contiguous network of corridors for CO_2 and enhanced oil recovery across BLM lands within Wyoming. The corridors designated through the WPCI are reserved for pipelines that transport carbon dioxide and enhanced oil recovery products and for other compatible uses. The trunk corridors would be 300 feet wide and lateral corridors would be 200 feet wide.

83 The Wyoming Pipeline Corridor Initiative (WPCI) is a State of Wyoming-initiated proposal to develop a pipeline ROW network whose goal is to meet future carbon dioxide (CO_2) pipeline needs required for oil extraction.



An array of solar panels at a quarry near Byron CA. © TNC

Appendix B

Overview of key Federal authorities

Appendix B: Overview of key Federal authorities

FEDERAL LAND POLICY AND MANAGEMENT ACT

Under FLPMA, the BLM and USDA's USFS have the authority to issue ROWs for the development of solar and wind energy and electric transmission lines crossing their federal lands. A ROW grants the right and privilege to use a specific piece of land for a specified time and purpose. Per their discretion, BLM and the USFS can grant ROWs on any land in their jurisdiction, except: (1) when prohibited by statute, regulation or order specifically excluding rights-of-way; (2) the lands are specifically segregated or withdrawn from right-of-way uses; or (3) the area is identified in land use plans or in the analysis of an application as inappropriate for right-of-way uses. FLPMA requires BLM to develop land use plans or resource management plans, in partnership with state, local and Tribal governments and the public, to guide BLM's management of public lands and resolve inconsistencies between BLM's land use plans and local land use plans. Per the terms of FLPMA, BLM must manage lands for multiple uses and sustained yield.

Right-of-Ways for Solar and Wind Development on BLM Land

In 2016, BLM amended its FLPMA implementing regulations, creating a competitive leasing program for solar and wind development on public lands. The rule updated the application process, rents, fees, siting of projects and administration of the program. Under the new implementing regulations, BLM designated three categories of land for renewable energy development: excluded areas (where solar and wind energy development is prohibited), designated leasing areas (DLAs) (where energy development encouraged, as BLM has identified few or no likely resource conflicts) and variance areas (energy development is permitted, but the environmental review will be more complex than in designated leasing areas). ROWs granted competitively within DLAs are referred to as "leases" and ROWs granted noncompetitively or outside DLAs are referred to as "grants." BLM can offer lease or grant auctions on its own initiative or upon application by a developer.

To offer leases within DLAs, BLM uses a competitive bidding process and awards a lease to the winning applicant. After BLM awards the lease, the process under NEPA is expedited because the environmental analysis tiers from a PEIS.[84] Outside DLAs, BLM offers grants through competitive auctions or noncompetitive sales, depending on whether competition exists. BLM has not identified designated leasing areas for wind energy but has identified multiple solar designated leasing areas, including SEZs identified in the 2012 Solar Energy Development Programmatic Environmental Impact Statement, which details the potential direct, indirect and cumulative effects of establishing broad Solar Energy Program elements and strategies across the six-state study area.[85] This programmatic analysis considered potential environmental effects over a broad geographic and time horizon and, as a result, was fairly general. In addition to the programmatic analysis, the Solar PEIS contained a comprehensive environmental review of all the SEZs, including direct, indirect and cumulative impacts for each. The primary purpose of this more rigorous SEZ-specific analysis, which included in-depth data collection and environmental analysis, was to provide documentation from which the BLM could tier future project authorizations, thereby limiting the required scope and effort of project-specific NEPA analyses.[86]

On December 5, 2022, Secretary Haaland announced that BLM would develop an updated Solar PEIS. According to the NOI to prepare the new PEIS, technology advances, new resource information and shifts in energy market economics necessitated an updated assessment for renewable energy planning. In replacing the Solar Plan, the new and updated PEIS would, among other things, expand the study area to 11 western states (including Idaho, Montana, Nevada, Oregon and Washington), change exclusion criteria and land use allocations and potentially create a new definition to expand the meaning of utility-scale development. On January 19, 2024, the BLM offered its draft PEIS for public notice and comment.

84 In 2005, BLM published Wind Energy Programmatic Environmental Impact Statement, which explored the potential impacts of utility-scale wind generation in all Western states, except Alaska, identifying 20.6 million acres of public lands with wind energy development potential. The Wind PEIS and accompanying ROD established best management practices for wind development on BLM land. It has not been updated since 2005.

85 In 2012, BLM published a Solar PEIS that evaluated solar development on public lands in California, Nevada, Utah, Colorado, Arizona, and New Mexico, creating seventeen SEZs, which have now been expanded. Final Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States.

86 The detailed analyses are found both in the Draft Solar PEIS and in Volumes 2-5 of PEIS, which update the Affected Environment and Impact Assessment for the Proposed SEZs in the 6 states. The Final Solar PEIS was intended to be used in conjunction with the Draft Solar PEIS.

In its update to the Solar Plan, the BLM is considering modernizing the existing variance process. It is possible that changes to the process would mirror those already announced this year when BLM issued its IMs[87], which helped clarify and streamline the variance process.

The first IM was intended to accelerate decision-making for solar and wind energy development projects that have the greatest technical and financial feasibility and least anticipated natural and cultural resource conflicts to provide consistency and reduce workloads for BLM staff. The IM outlines procedures applicable to initial screening for ROW lease and grant applications and details how BLM officers are to prioritize the processing of each application.

The second IM identifies requirements for assessing applications for solar development on public lands allocated as variance areas under the Solar Plan. This IM clarifies that the procedures should apply only once an application has gone through the initial screening procedures in IM 2022-027. Once the initial screening has been completed, applications that are ranked either as high- or medium-priority would be eligible to move into the variance process. IM 2023-015 states that the variance process should take approximately six months. The process includes reviewing reasonably foreseeable effects of the project and consulting with federal, state, Tribal and local governments. The BLM may also consider whether the proposed project is likely to receive the required permits and authorizations of all other relevant jurisdictions to implement the project. If the BLM determines that the application is appropriate for continued processing, the application will be processed in compliance with NEPA and all other applicable laws, regulations and policies at the applicant's expense.

ROWs for Transmission on BLM Land

Under Title V of FLPMA, BLM can issue a ROW for electric transmission lines crossing BLM lands. Notably, as the developer is not granted a lease, BLM (and the United States) still retain substantial rights, including the right to use the land in question, authorize others to use the ROW for compatible uses, retain ownership of the resources of the land and change the terms and conditions of the ROW as required by changes in law or as necessary. In approving the ROW, BLM can also modify the proposed route and change the location or type of facilities. BLM can also include terms in the ROW that prohibit its use until BLM approves a POD and issued a Notice to Proceed. In holding a ROW, developers are required to pay rents to BLM.

USFS Special Use Authorizations

Developers seeking to build solar and wind energy projects and associated electric transmission lines on USFS lands require a "special use authorization" from the USFS. Permitted authorizations under the special use authorization program include ROWs for the generation, transmission and distribution of electric energy. Upon receipt of an application for a special use authorization, the authorized officer screens the application to ensure the proposed use is consistent with the laws, regulations, orders and policies establishing or governing NPS lands; that the proposed use is consistent with the standards and guidelines in the applicable forest land and resource management plan (RMP); that the proposed use will not create an exclusive or perpetual right of use or occupancy; and that other USFS initial screening concerns are satisfied. After the screening, a formal application is submitted and public comment is solicited. Authorizations issued under FLPMA must be consistent with the applicable land management plan, developed pursuant to the National Forest Management Act of 1976 (NFMA).

Despite granting a ROW to a developer, the United States retains the right to access all USFS lands, including a continuing right of physical entry to any authorized facilities and the right to require common use of the land or to authorize the use by others. Developers must pay an annual rental fee for the ROW. The USFS can suspend, revoke or terminate the ROW.

NATIONAL FOREST MANAGEMENT ACT

NFMA requires that the USFS prepare a comprehensive land and resource management plan for each NFS unit, known as a "forest plan." The forest plan guides management of the plan area by specifying objectives, standards and guidelines for activities and uses. The plans must be revised every 15 years to properly address changing conditions, management goals and public use. Public participation is required in the development, review and revision of land management plans.

The planning rules, which establish the procedures to develop, amend and revise forest plans, were last revised in 2012 and amended in 2016. The 2012 planning rule establishes an adaptive three-phase planning framework to emphasize ecological

87 Bureau of Land Management. Initial Screening and Prioritization for Solar and Wind Energy Applications and Nominations/Expressions of Interests. (2022). https://www.blm.gov/policy/im-2022-027; Bureau of Land Management. Variance Process for Solar Energy Applications. (2022). https://www.blm.gov/policy/im-2023-015

sustainability, landscape-scale restoration and science-based decisions informed by public values. Plans are to also account for potential impacts of climate change. Adaptive management is an integral component of the 2012 rule.

NFMA gives the government latitude to exchange national forest lands for lands owned by others. NFMA grants the Secretary of Agriculture broad authority to exchange national forest lands for lands which, "in his opinion, are chiefly valuable for the purposes of this Act" as long as "public interests will be benefitted," the lands offered will be of equal value to the lands conveyed and the Secretary complies with the statute's notice requirement.

NATIONAL PARK SERVICE ORGANIC ACT

The National Park Service Organic Act (Organic Act), as amended, requires that the NPS follow a dual mission to (1) "conserve the scenery, natural and historic objects, and wild life in the System units" and (2) "to provide for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." NPS laws, regulations and policies emphasize the conservation of park resources in conservation and use conflicts. The 1978 Redwoods National Park Expansion Act amended the Organic Act to state that all park management activities shall be "conducted in light of the high public value and integrity of the NPS and not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress." The Organic Act does not clarify what constitutes "impairment" under its terms.[88]

Courts have held that the NPS has "has broad discretion in determining which avenues best achieve the Organic Act's mandate."[89] And the NPS, under the Organic Act, can promulgate regulations it deems "necessary or proper for the use and management of the parks." The NPS interprets the Organic Act through the development of National Park Service Management Policies.

Each park within the NPS, created by an individual act of Congress, is managed through its own legislation and management systems, recognizing that each park has unique goals and needs. Each park must be managed by the NPS according to the overarching goals of the Organic Act and the park's own policies.

NATIONAL WILDLIFE REFUGE SYSTEM ADMINISTRATION ACT

The National Wildlife Refuge System (NWRS) mission is established in the National Wildlife Refuge System Administration Act (Refuge Act), as amended. Under the Refuge Act, FWS manages the NWRS as a "dominant use" system dedicated primarily to wildlife conservation but tempered by a compatibility doctrine that permits a wide variety of secondary public uses that are deemed compatible with refuge purposes.

Under the Refuge Act, the Secretary of the Interior, acting through the FWS, may authorize numerous activities within a refuge. As part of their broad grant of authority from Congress, the Secretary may "permit the use of any area within the System for *any purpose*... whenever [they] determine that such uses are compatible with the major purposes for which such areas were established." Compatible uses are statutorily defined to include those that, in the Regional Director's opinion, will not "materially interfere with or detract from" the purposes of a refuge.

A decision to "initiate or permit a new use of a refuge or expand, renew or extend an existing use" requires a compatibility determination. For decades, refuge managers have relied on FWS guidance when approving new uses or activities in their refuges. If a proposed use does not "materially interfere" with refuge purposes, the refuge manager may find it compatible and allow the use.

New and expanded powerline rights-of-way are—and have been—an anticipated secondary use of wildlife refuges. The Refuge Act specifically lists powerlines among the uses that may be permitted in a refuge if found compatible. In addition, to implement this statutory authority, FWS has created rules that identify requirements for approving powerlines in refuges.

In addition, the Refuge Act authorizes the Secretary, acting through FWS, to "[a]cquire land... by exchange... for acquired lands or public lands... under his jurisdiction which [they] find to be suitable for disposition." Thus, the Secretary can acquire land outside the refuge system in exchange for land within the refuge system, provided they determine that the latter is "suitable for disposition." FWS must follow a detailed process before exchanging land, including appraisal, environmental review, title review and (depending on the value of the exchange) Congressional review.

88 *S. Utah Wilderness Alliance v. Dabney*, 222 F.3d 819, 826 (10th Cir. 2000) ("It is unclear from the statute itself what constitutes impairment, and how both the duration and severity of the impairment are to be evaluated or weighed against the other value of public use of the park.").
89 *Bicycle Trails Council of Marin v. Babbitt*, 82 F.3d 1445, 1454 (9th Cir. 1996).

WILDERNESS ACT

The Wilderness Act created the National Wilderness Preservation System, reserved to Congress the authority to designate wilderness areas and directed the Secretaries of Agriculture and of the Interior to review certain lands' potential wilderness designation. Under the Wilderness Act, "wilderness" is defined as an area of undeveloped federal land but the Act did not establish the criteria or standards to determine whether an area should be so designated. Wilderness areas are ultimately whatever areas Congress designates as wilderness, regardless of development status.

Under the Wilderness Act, commercial enterprises, permanent or temporary roads, motor vehicles and structures or installations are prohibited in wilderness areas. The Act makes an exception for "activities which are proper for realizing the recreational or other wilderness purposes of the areas," and for some specific commercial activities, including grazing.

As Congress designates wilderness through individual wilderness laws, many wilderness laws have allowed for nonconforming uses and conditions in the designated wilderness. For example, some wilderness laws have authorized the continued operation and maintenance of utility facilities and rights-of-way; other wilderness laws have directed continued energy development while others have withdrawn the wilderness from energy development.

GENERAL ANTIQUITIES ACT

The Antiquities Act authorizes the President to proclaim national monuments on federal lands that contain historic landmarks, historic and prehistoric structures or other objects of historic or scientific interest. The President is to reserve "the smallest area compatible with the proper care and management of the objects to be protected." In designating a monument, existing or future uses of the land may be prohibited or limited depending on the proclamation designating the land, agency policy or how an agency develops a management plan for the monument lands. Recent monument proclamations have included language to withdraw the lands within the monuments from entry, location, selection, sale, leasing or other disposition under public land laws, mining laws and mineral and geothermal leasing laws.

ELECTRIC TRANSMISSION INFRASTRUCTURE—PLANNING, PERMITTING AND ENVIRONMENTAL REVIEW

The federal government does not have general siting authority for transmission lines. States have primary authority over siting, permitting and review of electric transmission projects. Each state has different procedures to follow for approving a transmission line. Interstate lines must comply with the legal requirements of each state. Federal permits may be necessary for portions of some transmission lines, such as those that cross federal lands (e.g., BLM or National Forests, see above) or waters under jurisdiction of the USACE. Congress gave FERC backstop authority for siting transmission lines in areas designated by DOE to be in the national interest. In these cases, FERC can site transmission lines when state or local governments fail to take action or deny an application. To date, no transmission lines have been approved under this authority.

Energy Policy Act of 2005

EPAct 2005, enacted in response to rising energy prices and concern over dependence on foreign oil, was intended to address energy security, environmental quality and economic growth. In EPAct 2005, Congress added provisions addressing federal jurisdiction over and processes for siting electricity transmission.

EPAct 2005 encourages production of energy on federal lands, although it is primarily focused on oil and gas exploration on federal lands. It also provides for the establishment of energy corridors for oil, gas and hydrogen pipelines and electricity transmission and distribution facilities on federal lands.

SECTION 368 CORRIDORS

Section 368 of the EPAct 2005 required DOI, USDA, DOC, DOD and DOE—in consultation with FERC and Tribal entities—to work together to designate energy rights-of-way corridors for oil, gas and hydrogen pipelines and electricity transmission and distribution facilities on federal lands—first in 11 Western contiguous states (Section 368(a)) and later, if warranted, in the remaining states (Section 368(b)). As part of designating Section 368 corridors, the agencies are directed to perform required environmental reviews and incorporate designated corridors into relevant agency land use and resource management plans or equivalent plans. The goal is that designating agency-preferred siting locations will provide industry and the public with greater certainty in infrastructure planning and speed development of future energy infrastructure on federal land with the least impact. Section 368 also directs agencies to consider the

need for upgraded and new infrastructure to prioritize the improvement of reliability, relieve congestion and enhance the capability of the national grid to deliver energy.

DOI and USDA designated more than 6,000 miles of these corridors in 2009 for 11 Western states (otherwise known as West-wide Energy Corridors). Once a Section 368 energy corridor is designated, it is considered to be a preferable pathway for interstate energy transport until it is amended. While their use is voluntary, project developers and relevant federal agencies have, to varying extents, used portions of the Western energy transport corridors for projects since 2009.

Following a multi-year review of the originally designated corridors, on April 20, 2022, the BLM and the USFS published a final report that identified potential improvements to the corridors that balance the need for delivering clean energy with protecting America's lands, water and wildlife habitat.[90] The BLM conducted Regional Reviews as a part of this final report.

As preferred locations for energy transport projects on federally administered public lands, section 368 energy corridors are intended to facilitate long-distance movement of oil, gas or hydrogen via pipelines and transmission and distribution of high-voltage electric power. While project applicants are not required to locate projects in Section 368 energy corridors, applicants who choose to use them can take advantage of a more efficient application process that includes:

- Providing applicants with a clear set of actions required by each agency to build projects in designated corridors
- Providing siting options for compatible projects in designated corridors
- Coordinating corridor designations across agency administrative barriers
- Coordinating agency administrative processes within corridors
- Applying Interagency Operating Procedures that would assist in preparing and evaluating ROW applications
- A single federal point of contact for each ROW application
- Incorporation by reference from the PEIS for project-specific environmental review
- Focusing project planning data collection and project-specific engineering on issues specific to the proposed project and the associated within-corridor ROW and not on alternative locations

These benefits could expedite the application, authorization and construction of energy transport projects as directed by Section 368.

Section 1222

DOE further has the authority under Section 1222 of the Act to engage in or participate with other entities in designing, developing, constructing, operating, maintaining or owning (1) electric power transmission facilities and related facilities needed to upgrade existing transmission facilities owned by the Western Area Power Administration or Southwestern Area Power Administration, or (2) new electric power transmission facilities and related facilities located within any state in which either operates.

Federal Power Act

FERC regulates the transmission and sale of electric energy in interstate commerce under the FPA. The FPA gives FERC broad jurisdiction over "all facilities for such transmission or sale of electric energy" with some exceptions, including facilities used in local distribution or only for the transmission of electric energy in intrastate commerce and many matters subject to regulation by the States." A key focus of FERC regulation under its FPA Section 205 authority is ensuring the rates charged for transmission services are just and reasonable and not unduly discriminatory or preferential.

For many years, FERC has used its broad authority under the FPA to regulate utility transmission planning and interconnection processes and transmission rates. For example, FERC has used its authority under FPA section 205 and section 206 to implement transmission planning reforms intended to prevent undue discrimination that would make transmission rates unjust and unreasonable. In Order 888, FERC required transmission providers to offer open-access transmission service in accordance with an open-access transmission tariff. FERC established in Order No. 888 that "the Commission's power under the FPA 'clearly carries with it the responsibility to consider, in appropriate circumstances, the

90 West-wide Energy Corridor Information Center. *Regional Review Report*. (2022). https://corridoreis.anl.gov/regional-reviews/report/

anticompetitive effects of regulated aspects of interstate utility operations ..." therefore, it had broad legal authority under the mandates of the FPA and federal court precedent "to order the filing of non-discriminatory open access transmission tariffs if we find such order necessary as a remedy for undue discrimination or anticompetitive effects." Over the years, FERC has expanded this concept to further regulate transmission planning and interconnection processes and encourage formation of RTOs and ISOs.

Transmission Planning Reform

In Order 890, FERC required each transmission provider to have a coordinated, open and transparent regional transmission planning process. FERC again relied on the need to eliminate opportunities for undue discrimination, this time in the context of transmission planning. FERC found that "reforms are needed to ensure that transmission infrastructure is evaluated, and if needed, constructed on a nondiscriminatory basis and is otherwise sufficient to support reliable and economic service to all eligible customers," citing concerns for the "critical need for new transmission infrastructure," which largely remains the case today with the rapid development of offshore wind. FERC found that it was necessary to "ensure that the planning process .... is sufficient to prevent undue discrimination and transparent enough to detect any remaining instances of undue discrimination."

In Order No. 1000, FERC implemented further reforms intended to improve regional coordination of transmission planning among transmission providers. FERC concluded that these reforms "are necessary to address remaining deficiencies in transmission planning and cost allocation processes so that the transmission grid can better support wholesale power markets and thereby ensure that Commission-jurisdictional transmission services are provided at rates, terms and conditions that are just and reasonable and not unduly discriminatory or preferential."

The courts have upheld FERC's determination of its authority in Order No. 1000 over the objection of many stakeholders. Notably, the court rejected arguments that Order No. 1000 infringes on the states' traditional regulation of transmission planning, siting and construction.[91] The courts affirmed FERC's broader authority over transmission planning and noted that "because the planning mandate relates wholly to electricity transmission, as opposed to electricity sales, it involves a subject matter over which the Commission has relatively broader authority."[92] The courts also reasoned that "because the [Order No. 1000] planning mandate is directed at ensuring the proper functioning of the interconnected grid spanning state lines ... the mandate fits comfortably within Section 201(b)'s grant of jurisdiction over "the transmission of electric energy in interstate commerce."[93]

Some RTOs and ISOs have adopted innovative categories of transmission upgrades that result in regional cost allocations that consider a wider array of project benefits and beneficiaries. For example, the MISO's transmission planning process includes a category of transmission upgrades called "multivalue projects" (MVPs). MVPs are network upgrades that (1) reliably and economically enable regional public policy needs, (2) provide multiple types of regional economic value, and (3) provide a combination of regional reliability and economic values. If an MVP is selected to be included in the MISO transmission expansion plan, the cost of that MVP is allocated regionally rather than solely to customers in the zone where the project physically exists. This regional cost allocation allows for cost-sharing that has a positive impact on development.

Similarly, the PJM[94] has incorporated into its regional transmission expansion planning process (RTEP) a State Agreement Approach (SAA) intended to take a state's (or a group of states') policy goals into account in transmission planning. The SAA requires that, if a state or group of states selects a state public policy project, the costs associated with that project will be recovered from customers in those states. In early 2021, New Jersey became the first state in PJM to initiate an SAA agreement with PJM that addresses planning studies PJM will perform to identify system improvements to interconnect and provide for the deliverability of offshore wind capacity at certain interconnection points. The SAA thus assists PJM and states like New Jersey in implementing state public policies regarding procurement of renewable generation.

91 South Carolina Pub. Serv. Authority v. FERC, 762 F.3d 41, 62 (DC Cir 2014).
92 *Id.* at 63.
93 *Id.* at 63-64.
94 PJM a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

Interconnection Reform

FERC has used its authority under FPA Sections 205 and 206 to require that transmission providers incorporate *pro forma* interconnection procedures in their tariffs.[95] For example, in Order No. 2003, FERC adopted generator interconnection procedures and *pro forma* agreement for large generator interconnections finding that action "will reduce interconnection costs and time for Interconnection Customers and Transmission Providers; resolve most interconnection disputes; minimize opportunities for undue discrimination; foster increased development of economic generation; and improve system reliability." FERC extended these requirements to small generator interconnections in Order No. 2006.[96]

Currently, FERC policy generally requires a "first come first served" approach in which generator-interconnect requests are studied in an interconnection queue based primarily on application date. In some cases, transmission providers have adopted cluster windows that allow groups of projects to be studied together. This approach can result in great cost uncertainty, as the studies for one project assume that earlier queued projects have been placed in service, and as earlier queued projects drop out, cost allocation for necessary interconnection upgrades can skyrocket. This approach also engenders a first-mover problem for offshore wind, where the first project to seek interconnection to a particular region will shoulder more of the network upgrade costs than projects that come along later.

Developments in Transmission Planning and Generator Interconnection

Beginning in 2021, FERC signaled potential wide-reaching reforms to regional electric transmission planning, cost allocation and generator interconnection processes. In July 2021, FERC issued an ANOPR which examines whether existing approaches adequately account for the transmission needs of a changing resource mix.[97] The ANOPR probes a wide range of topics and appears likely to generate specific proposals for fundamental reform to grid planning. The ANOPR notes that there are presently limited resources at the regional transmission planning level "to proactively plan for the resource mix of the future, including both commercially established resources, such as onshore wind and solar, as well as emerging ones, such as offshore wind." In addition, FERC laid out its concerns with regional transmission planning processes and whether they are "sufficiently integrated with the generator interconnection processes" or too "overwhelmingly focused on relatively near-term transmission needs" to meet emerging energy resources like offshore wind. The ANOPR invited comments on transmission planning, generator interconnection and cost allocation.

In April 2022, FERC issued a NOPR on the topic, exploring wide-ranging reforms to the transmission planning processes and generator interconnection processes of transmission providers across the country. In the NOPR, FERC has proposed a variety of reforms designed to promote long-term regional transmission planning that anticipates changes in generating supply (such as the addition of large quantities of renewables) in the future and attempts to incentivize interregional planning and coordination. As part of these reforms, FERC has proposed new defined roles for relevant state entities within the transmission planning region regarding the cost allocation method or methods that will apply to transmission facilities selected in a regional transmission plan. The NOPR would also permit the exercise of federal rights of first refusal for regional transmission facilities establishing joint ownership of transmission facilities.

In June 2022, FERC issued another NOPR focused on the generator interconnection process. FERC proposed reforms intended to address interconnection queue backlogs, improve certainty and prevent undue discrimination for new technologies. The reforms are intended to ensure that the generator interconnection process is just and reasonable and not unduly discriminatory or preferential.

On May 13, 2024, FERC issued Order 1920, addressing regional transmission planning and cost allocation.

DOE-GDO Transmission Needs Study

In October 2023, the DOE-GDO issued its National Transmission Needs Study (DOE-GDO Needs Study) that identifies multiple transmission needs in every region of the country and suggests these needs could be met through greater interregional transmission development.

95 Standardization of Generator Interconnection Agreements and Procedures, Order No. 2003, 68 FR 49845 (Aug. 19, 2003), FERC Stats. & Regs. ¶ 31,146 (2003) (Order No. 2003) (FERC noting that its authority to require these additions and changes to the OATT derives from its findings of undue discrimination in the interstate electric transmission market that formed the basis for Order No. 888. Order No. 2003 at P 4.).

96 Standardization of Small Generator Interconnection Agreements and Procedures, Order No. 2006, FERC Stats. & Regs. ¶ 31,180, order on reh'g, Order No. 2006-A, FERC Stats. & Regs. ¶ 31,196 (2005), order granting clarification, Order No. 2006-B, FERC Stats. & Regs. ¶ 31,221 (2006) (Order No. 2006).

97 Federal Energy Regulatory Commission. *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection.* (Jul. 15, 2021). 176 FERC ¶ 61,024.

The DOE-GDO Needs Study identifies multiple transmission needs—defined as the existence of present or expected electric transmission capacity constraints or congestion in a geographic area—across the country and notes a steady decline in transmission investment since 2015. While additional investment is needed in all regions across the country, according to the study, the Midwest and New England regions contributed the most eye-popping figures for what the study authors described as the most likely future scenario in light of recently enacted laws; the study reflects the need for new transmission deployment growth of 136 percent and 140 percent in those regions, respectively.

Many of the transmission needs identified in the study arise in connection with the effects of climate change and the need for increased resilience, including stresses to the grid from extreme heat and wildfires in the Southwest and Mountain regions and stronger winter storms in the Southeast and Midwest regions. The DOE-GDO Needs Study concludes that "interregional transmission investments will help improve system resilience by enabling access to diverse generation resources across different climatic zones, which is becoming increasingly important as climate change drives more frequent extreme weather events that damage the power system."

The transmission needs identified in the DOE-GDO Needs Study also reflect continued evolution of the generation mix away from coal and natural gas toward higher concentrations of renewables. The DOE-GDO Needs Study is intended to inform implementation of the DOE's Loan Programs and Transmission Infrastructure Program; future federal efforts such as the DOE's potential designation of National Interest Electric Transmission Corridors (NIETCs); and regional transmission planning.

Federal Power Act Section 216(a): FERC Backstop Transmission Permitting Authority

FERC has limited authority under the FPA to issue construction permits for transmission facilities. This permitting authority has traditionally resided with the individual states. Where a proposed transmission project must cross several state jurisdictions, this has posed a steep and sometimes insurmountable obstacle to getting needed transmission infrastructure built.

In 2005, Congress added Section 216 to the FPA to address this issue. FPA Section 216 directs the DOE to conduct a study of electric transmission congestion triennially in consultation with affected states and RTO/ISOs (see above draft DOE-GDO Needs Study). Based on these studies, DOE may designate "any geographic area experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers" as a "national interest electric transmission corridor." Section 216 enumerated certain broad considerations DOE may consider in designating NIETCs, including that "the economic vitality and development of the corridor, or the end markets served by the corridor, may be constrained by lack of adequate or reasonably priced electricity."

Once DOE has designated NIETCs, Section 216(b) allows FERC to "issue one or more permits for the construction or modification of electric transmission facilities" within such corridors if it makes certain findings. First, it must find that a state in which the transmission facility is to be built either does not have authority or refuses to exercise authority to approve the project.

In addition, FERC must find that the facilities to be authorized by the permit will be used for the transmission of electric energy in interstate commerce; the proposed construction or modification is consistent with the public interest; the proposed construction or modification will significantly reduce transmission congestion in interstate commerce and protects or benefits consumers; the proposed construction or modification is consistent with sound national energy policy and will enhance energy independence; and the proposed modification will maximize, to the extent reasonable and economical, transmission capabilities.

As FERC's authority to issue a construction permit is limited to instances where a state's process is insufficient to allow a transmission project in a national interest electric transmission corridor to proceed, it is often called "backstop" permit authority. DOE acts as lead agency to coordinate all applicable federal authorizations, Tribal consultations and state agency review required to construct the permitted transmission line. Section 216 also grants the power of eminent domain to developers that receive a FERC construction permit under Section 216(b).

Early on, efforts by DOE and FERC to use the authority granted them under Section 216 stalled, and so far, no national interest electric transmission corridors have been established (nor any transmission projects built pursuant to a FERC construction permit). In 2007, DOE made two transmission corridor designations, both of which were successfully challenged on appeal to the Ninth Circuit Court. In *California Wilderness Coalition v. DOE*,[98] the Court found DOE failed

98 *Cal. Wilderness Coalition v. U.S. Dept. of Energy*, 631 F.3d 1072 (9th Cir. 2011).

to meet its statutory obligations in two areas. First, it failed to consult sufficiently with the affected states when developing its congestion study that led to the designation of the corridors. The Court concluded that DOE must disclose the data and technical information DOE relied upon to reach its study conclusions, and that DOE is required to engage with states for sufficient time to provide a "real opportunity for consultation."[99] Second, the court found that DOE failed to conduct an adequate environmental analysis under NEPA. DOE had not performed any NEPA analysis, reasoning that the designation of the transmission corridors did not have environmental impacts (only the actual transmission project siting decisions would have such impacts). The court's majority rejected this argument, finding that designating transmission corridors still "influence[s] the areas in which the transmission facilities will be located."[100] As such, the court directed DOE to take the "hard look" at environmental impacts of such designations required by NEPA by completing either an environmental assessment or environmental impact statement.

The scope of FERC's backstop permitting authority was also questioned by the courts early on, and FERC's recently expanded backstop siting authority under IIJA is untested. The Fourth Circuit Court of Appeals reviewed FERC's rulemaking adopting requirements for applications seeking transmission construction permits and adopted a very narrow reading of FERC's ability to act when a state commission has "withheld approval for more than one year after the filing of an application." FERC had interpreted the statutory language as allowing it to act when a state had denied a permit application as well as when a state had failed to act; the Fourth Circuit reversed, concluding that "[t]he word 'deny' is broad enough to include 'withhold' in its definition, but the world 'withhold' is not broad enough to include 'deny' in its definition."[101] This interpretation had chilled prospects for extensive use of FERC's backstop siting authority, but the IIJA clarified FERC's backstop siting authority and allows FERC to overrule state objections.

The IIJA, which became law in November 2021, revised FERC's FPA section 216 authority. In light of the court decisions described above, the IIJA provides that FERC can use its backstop permit authority where a state (1) has not made a determination on an application by the one-year date, (2) has conditioned its approval such that the proposed project will not significantly reduce transmission constraints or congestion or is not economically feasible, or (3) has denied an application. In addition, as a precondition to granting a developer eminent domain authority, FERC must determine the developer made good faith efforts to engage with landowners and other stakeholders early in the permitting process. The IIJA also expanded DOE's authority to designate national interest electric transmission corridors in areas currently experiencing or that are expected to experience transmission capacity constraints or congestion.

In December 2022, FERC issued a NOPR to update its regulations governing backstop siting authority for electric transmission projects. The proposed rule is intended to account for recent changes to section 216 of the FPA that stem from the IIJA. In the NOPR, FERC seeks to: 1) implement the new electric transmission siting authority it was granted in the IIJA; 2) establish processes that allow concurrent state and federal review of construction permits for new transmission lines; 3) implement a new landowner engagement process and require developers to meet certain conditions to protect landowners; 4) evaluate environmental justice issues in the siting process; and 5) update and revise FERC's NEPA regulations. Overall, the NOPR is designed to effectuate FERC's authority to supersede a state regulatory body's rejection of a proposed transmission project located in a national interest electric transmission corridor, allow simultaneous processing of state applications for siting authority and FERC prefiling proceedings and update FERC's NEPA regulations. The changes proposed in the NOPR could encourage the development of needed electric transmission infrastructure and support the build-out of electric transmission envisioned in the IIJA. This could support further development of multistate transmission lines needed to deliver significant wind and solar resources to market.

In May 2024, FERC issued Order 1977 addressing applications for permits to site interstate electric transmission facilities.

DOE NOI and RFI Regarding Designation of NIETCs

On May 9, 2023, DOE published a combined that proposes a new applicant-driven, route-specific process to designate NIETCs.

Areas designated as a NIETC enjoy certain permitting advantages and unlock funding opportunities for federal investment under the $2.5 billion Transmission Facilitation Program under the Infrastructure Investment and Jobs Act and the $2 billion Transmission Facility Financing Loan Program under the IRA. In addition, sponsors of projects in a designated

99 *Id.* at 1086.
100 *Id.* at 1098.
101 *Piedmont Env't Council v. FERC*, 558 F.3d 304, 313 (2009).

NIETC can apply to become FAST-41 covered projects, entitling them to permitting timetable management, interagency coordination, transparency and other benefits.

UNDERLYING STATUTORY AUTHORITY AND PROPOSED PROCESS

As noted above, section 216(a) FPA authorizes DOE to "designate as a [NIETC] any geographic area that (1) is experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers; or (2) is expected to experience such energy transmission capacity constraints or congestion."[102] Under the process proposed by DOE, applicants can apply for DOE to designate as a NIETC a specific route where one or more potential transmission projects could be sited.

The potential route must be within a geographic area where DOE has identified present or expected transmission capacity constraints or congestion that adversely impacts consumers. DOE is finalizing its Needs Study, anticipated to be released in late summer of 2023, which will catalog both historical and anticipated electric transmission needs and identify high-priority national transmission needs. As noted above, in February 2023, DOE released a draft of the Needs Study for public comment with a comment deadline of April 20, 2023. The results of the Needs Study will thus be a prerequisite to the designation of NIETCs.

DOE expects that proposed routes for NIETC designation may be associated with specific transmission projects under "active development," by which DOE means projects that have progressed beyond preliminary concept to active routing and community and landowner outreach activities. This will allow DOE to designate NIETC's that are "route-specific" and relatively narrow in geographic scope, potentially streamlining the environmental review process compared to broad NIETCs. DOE anticipates that applicants submitting routes for designation will have to demonstrate that their proposed route balances the need to ensure that the potential route is defined with sufficient specificity to allow for meaningful evaluation of the potential energy and environmental impacts of one or more transmission projects along that route, while also sufficient in size and scope to construct, maintain and safely operate one or more transmission projects in accordance with applicable regulatory requirements and reliability standards and accommodate routine route changes that often occur when siting and permitting infrastructure. Interested parties are invited to comment on the appropriate application requirements to achieve this balance.

DOE issued a proposed list of ten NIETCs in May 2024.

Section 216(h) of FPA

Under Section 216(h) of the FPA, Congress granted DOE authority to coordinate applicable federal authorizations and related environmental reviews for transmission projects. In 2009, pursuant to Section 216(h)(4)(C), nine federal agencies signed a memorandum of understanding to expedite the siting and construction of qualified onshore electric transmission infrastructure projects in the U.S.[103]

On June 7, 2013, President Obama issued a Presidential Memorandum—Transforming our Nation's Electric Grid through Improved Siting, Permitting, and Review—directing federal agencies to "develop an integrated, interagency pre-application process for significant onshore electric transmission projects requiring Federal approval."

INTEGRATED INTERAGENCY PRE-APPLICATION PROCESS (IIP PROCESS)

The IIP process published in regulations pursuant to section 216(h) on September 21, 2016, provides transmission project proponents a mechanism for early coordination and information sharing with federal permitting agencies and non-federal entities.

Under the final rule, the IIP process would apply to interstate "non-marine high voltage electric transmission line" projects that cross jurisdictions administered by more than one federal agency or where federal financial assistance would be provided. The proponent of such a project may, but is not obliged to, invoke the IIP process as established in the new regulations. While proponents of transmission line projects that do not meet these criteria may request that DOE invoke the IIP process, DOE is not required to do so.

To initiate the IIP process, the project proponent must submit an application that provides specific details on the project, including descriptions and maps, that (among other things) outline the project goals and impacts and identify

102 Further, DOE may consider additional factors in designating NIETCs including: (A) the economic vitality and development of the corridor, or the end markets served by the corridor, may be constrained by lack of adequate or reasonably priced electricity; (B) (i) economic growth in the corridor, or the end markets served.

103 Department of the Interior, Regarding Coordination in Federal Agency Review of Electric Transmission Facilities on Federal Land," (October 23, 2009).

known potential siting conflicts. This aspect of the IIP process requires the project proponent to make a significant "upfront" investment, and commenters have suggested that the rigor of the application could discourage proponents from using the voluntary IIP process. In response to this concern, DOE states that the burden should be minimal, as this information likely will be required as part of a NEPA review or at some other stage of the federal approval process for the project.

Once initiated, the IIP process involves two meetings: an initial meeting and a close-out meeting. In advance of the initial meeting, DOE will, based on its review of the information submitted by the project proponent, notify other federal agencies; state, local and multistate government entities; and Indian Tribes that DOE identifies "as potentially having an authorization or consultation responsibility or other relevant expertise related to the ... project." DOE has no ability to compel participation of any of these entities, raising concern from some commenters about the usefulness of the IIP process.

During the initial meeting, the project proponent describes the project, and the other participants have an opportunity to provide advice and ask questions to inform project siting to avoid, for example, environmental impacts, impacts to cultural and historical resources and conflicts with military installations. Following the initial meeting, the project proponent has an opportunity to update the materials and information and resubmit them as part of the close-out meeting request. At the close-out meeting, the agencies will identify "remaining issues of concern, ... information gaps or data needs, and potential issues or conflicts that could impact" processing time once the project proponent officially applies for the necessary project permits and approvals. Following the meeting, DOE prepares a "Final IIP Resources Report" to summarize and commemorate the process. The IIP process is intended for a project proponent who has identified potential study corridors and/or potential routes within an established project area and the proposed locations of any intermediate substations for a qualifying project. The IIP process is also intended to accommodate qualifying projects that have been selected in a regional electric transmission plan for purposes of cost allocation or a similar process where an electric transmission plan has been identified and the permitting and siting phase must commence. The IIP process is strictly voluntary, and the agency itself acknowledges "that a project proponent requesting DOE coordination assistance [will have] made the calculation that the request ... is in the best interests of the project proponent."

Pursuant to the IIP and provisions that allow project proponents to engage in early project information sharing and development of an applicant-prepared environmental assessment intended to inform any subsequent environmental review by federal agencies under the NEPA, DOE facilitates initial and close-out meetings.

2023 Memorandum of Understanding

On May 10, 2023, the administration released an update to the 2009 MOU. The 2023 MOU supersedes a 2009 MOU to expand efforts to ensure pre-construction coordination and provide updated direction to federal agencies in expediting the siting, permitting and construction of electric transmission infrastructure under section 216(h). The new MOU is not limited to projects sited on federal lands but would include projects for which federal financial assistance would be provided. DOE will establish prompt and binding intermediate milestones and ultimate deadlines for decisions on federal authorizations and related environmental reviews, including a final decision on all federal authorizations within two years of publishing a notice of intent to prepare an EIS or as soon as practicable. If the qualified project is not a "covered" project under FAST-41, DOE will post and manage project-specific schedules on the Federal Permitting Dashboard as a "Transparency Project." The signatory agencies also agree to proceed with their project authorization schedules according to the schedules established by DOE. Any disagreements will be elevated to the chair of CEQ and director of OMB. The secretary of DOE, FPISC executive director and other signatory agencies will consult to ensure the harmonization of section 216(h), FAST-41 and the MOU.

The MOU requires the Secretary of Energy to update DOE's regulations implementing section 216(h), including those establishing the IIP, within six months, to do the following:

- Make participation by applicants in the IIP process a precondition for a decision under the section 216(h) coordinated permitting process.
- Require applicants to submit applicant-prepared resource reports and public engagement plans for communities that would be affected by the proposed project.
- Require applicants to conduct robust engagement with all Tribes and communities that would be affected by the proposed project.

- Align and harmonize the IIP process and implementation of section 216(h) of the FPA with the process set forth in FAST-41, administered by FPISC.

FPISC and OMB are now signatories to the MOU, while FERC is no longer a party. Additional changes from the 2009 MOU include (1) a limitation that the MOU does not "apply to" the siting of any electric transmission facility within the boundaries of any unit of the NWRS, National Wilderness Preservation System, NPS or National Marine Sanctuary System and (2) at the discretion of the signatory agencies, the inclusion of offshore transmission projects that are authorized under section 8(p) of the Outer Continental Shelf Lands Act and that are independent of any generation project.

In May 2024, DOE finalized the CITAP Program, codifying the MOU into regulation.

State Agencies

State agencies and public service commissions have original authority to site and permit electric transmission infrastructure within state lines, and they continue to play an integral role in the development of offshore wind projects from the bidding phase to the construction of these facilities and transmission lines related to offshore wind projects. However, these agencies' processes are not well coordinated, though some of the PJM states have indicated a willingness to engage in collaborative planning processes and policy developments with RTOs/ISOs and other states.

NATIONAL ENVIRONMENTAL POLICY ACT AND TITLE 41 OF THE FAST ACT

This section provides an overview of NEPA and the central role it plays in renewable energy generation and transmission line development. Whether referred to as "environmental impact assessment" in the international context, "environmental review" under authorities of the FPISC or simply the "NEPA process," NEPA ensures all federal agencies consider the environmental effects of proposed federal actions before making final decisions on the proposal. Used as a framework for interagency coordination, environmental documents serve as the record-of-agency consideration of alternatives that could avoid a proposal's effects on the human environment; of mitigation measures that can reduce environmental effects; or of measures to compensate for effects that cannot be avoided. They also establish the basis for the agency's finding that a proposed activity would comply with applicable statutes and regulations. The evaluation of reasonably foreseeable effects, alternatives and mitigation measures that NEPA prescribes can minimize and sometimes eliminate conflicts over a proposal and is used as a basis for negotiation and conflict resolution.

NEPA Background

NEPA requires federal agencies to evaluate the reasonably foreseeable environmental effects of proposals for actions they would carry out, fund, permit or otherwise authorize.[104] Where a proposed federal action may significantly affect the quality of the human environment, the action agency must prepare a detailed EIS on the environmental impact of the proposed action, any adverse effects that cannot be avoided and alternatives to the proposed action, among other topics. For actions that are designed to avoid significant environmental impacts but are not categorically excluded from NEPA analysis, agencies will typically prepare a less-detailed EA to document their analysis of the reasonably foreseeable effects of the actions, alternatives and mitigation measures designed to ensure that the effects of the action are not significant.

Federal agencies have implemented NEPA for a half century, and the process continues to evolve. NEPA established the CEQ to advise agencies on the environmental decision-making process, review their NEPA implementation and coordinate development of federal environmental policy. CEQ has issued regulations defining the basic terms and steps in the NEPA process, to which the courts have afforded "substantial deference." In accordance with CEQ's regulatory framework, all federal agencies involved in the authorization of renewable energy projects or transmission lines have also promulgated their own regulations or procedures for adapting the NEPA process to their decision-making authorities.

104 administrative decision issued by an agency that is required or authorized under Federal law in order to implement a proposed action." 42 C.F.R. 1508.1(c). See Title 41 of the FAST Act, 42 U.S.C. § 4730m(3) ("any license, permit, approval, finding, determination, or other administrative decision issued by an agency that is required or authorized under Federal law in order to site, construct, reconstruct, or commence operations of a covered project administered by a Federal agency or, in the case of a State that chooses to participate in the environmental review and authorization process in accordance with section 4370m-2(c)(3)(A) of this title, a State agency.").

In 2020, CEQ issued a comprehensive revision of its NEPA regulations. In 2021, CEQ began an equally comprehensive reconsideration of those revised regulations through a phased approach.[105] On April 20, 2022, CEQ issued its final Phase 1 rulemaking to amend the revised regulations. In its final Phase 1 rule, CEQ clarifies that "agencies can and should continue to apply their existing NEPA procedures, consistent with the CEQ regulations in effect, while CEQ completes its review of and revisions to the 2020 regulations in its Phase 2 rulemaking." Amongst other changes, the Phase 1 amendments restore the "purpose and need" regulation for an EIS back to the text that was in effect until the 2020 revisions. CEQ made clear that it had removed the requirement to consider an applicant's goals and agency's statutory authority from the purpose and need regulation, 40 CFR 1502.13, and the definition of reasonable alternatives, 40 CFR 1508.1(z), only because the language is "unnecessary and confusing." CEQ also finalized its definition of "effects" as including direct, indirect and cumulative effects. The final rule revises the definition of "effects" and "impacts" as "changes to the human environment from the proposed action or alternatives that are reasonably foreseeable."[106]

No agency has yet undertaken a comprehensive revision of its NEPA procedures to incorporate the changes made in the 2020 CEQ regulations. In April 2021, the Secretary of the Interior ordered the DOI bureaus to follow the 2020 CEQ regulations, DOI's own NEPA regulations and established policies and procedures. Where compliance with the 2020 CEQ regulations creates a conflict with DOI's NEPA regulations, the Secretarial Order directs bureaus to refer the conflict to DOI for resolution with CEQ. The following discussion of NEPA in the context of renewable energy and infrastructure projects is based on this current patchwork of old, new and evolving requirements. Recommendations for managing NEPA processes through this unsettled regulatory framework are addressed in the Permitting Section of this Report.

On April 30, 2024, CEQ released its final Phase 2 revisions to NEPA. The Phase 2 NEPA rule includes improvements to NEPA efficiency and flexibility; promotion of better environmental outcomes; restoration of certain longstanding definitions; direction on public engagement and agency coordination; clarification around mitigation and beneficial effects; and consideration of specific issues such as environmental justice and greenhouse gas emissions. The Phase 2 NEPA rule also retains certain provisions of the 2020 NEPA rule, including timelines and other elements of the One Federal Decision Policy.

NEPA Lead and Cooperating Agency Framework

NEPA review for renewable energy and infrastructure projects serves as the means for coordination of permitting under numerous federal and state laws and provides the analytical basis for decisions by cooperating agencies. Compliance with these federal laws may also occur in conjunction with reviews required under state "mini-NEPA" statutes such as the Massachusetts Environmental Policy Act, the New York State Environmental Quality Review Act and the California Environmental Quality Act. The federal and state agencies involved in implementing these authorities will typically participate in the lead agency's NEPA review as cooperating agencies.

The decision-making framework of coordinated lead or co-lead and cooperating agencies was established in CEQ's NEPA regulations as a means of ensuring that environmental analysis and documentation is developed efficiently (avoiding redundancy and delay) and consistently (providing a common base of facts and analysis). CEQ guidance has continually encouraged the participation of non-federal cooperating agencies through an EIS-specific MOU that spells out agency roles and responsibilities.[107] In the 2020 update to CEQ's NEPA regulations, these provisions for interagency coordination were expanded to provide for early involvement of states, Tribes and local agencies in the scoping and development of EISs that can serve as a common basis for decision-making by the federal government, states, Tribes and local agencies. CEQ also required development of and adherence to a schedule for the environmental review of—and any authorizations required for—a proposed action and resolution of disputes and other issues that may cause delays in the coordinated

105 *National Environmental Policy Act Implementing Regulations Revisions.* 86 Fed. Reg. 55757 (October 7, 2021). https://www.govinfo.gov/content/pkg/FR-2021-10-07/pdf/2021-21867.pdf. CEQ's proposed rulemaking addressed three modifications: (1) To eliminate language in the description of purpose and need for a proposed action when it is an agency's statutory duty to review applications for authorization (see 40 C.F.R. § 1502.13) and make a conforming edit to the definition of "reasonable alternatives" (see 40 C.F.R. § 1508.1(z)); (2) To remove limitations on agency NEPA procedures for implementing CEQ's NEPA regulations (see 40 C.F.R. § 1507.3); and (3) To return to the definition of "effects" in the prior longstanding NEPA regulations (see 40 C.F.R. § 1508.1(g)).

106 In response to comments, CEQ stated that agencies should treat cumulative effects under the final rule "in the same fashion as they treated cumulative impacts under the 1978 regulations." Id. at 23466. CEQ noted that some commenters requested CEQ issue guidance on analysis of effects, and some indicated that guidance might be more efficient than updating the regulations further in a Phase 2 rule. Id. CEQ is considering these comments in the development of its Phase 2 rulemaking and its guidance on assessing greenhouse gas emissions and climate change in environmental reviews.

107 Council on Environmental Quality. *Memorandum on Designation of Non-Federal Agencies as Cooperating Agencies,* (8/23/99). https://ceq.doe.gov/docs/ceq-regulations-and-guidance/regs/ceqcoop.pdf.

schedule for analysis and decision-making. CEQ explained these regulatory modifications as intended to "improve the efficiency and outcomes of the NEPA process—including cost reduction, improved relationships and better outcomes that avoid litigation—by promoting environmental collaboration."

Title 41 of the FAST Act

Most major renewable energy and transmission infrastructure projects under federal jurisdiction will qualify for coverage under FAST-41, a program designed to facilitate the environmental review and authorization processes for large infrastructure projects. The environmental review and authorization processes of pending projects are tracked on the Permitting Dashboard, either at the initiative of the project proponent or by direction of Executive Order.[108] This section briefly discusses how FAST-41 changed permitting for large infrastructure projects, what it did *not* change and the expected effect of FAST-41 on the permitting process.

FAST-41 is a voluntary program designed to enhance coordination among federal agencies to ensure more timely and efficient project environmental reviews and authorizations. Only a "covered" project can elect to take advantage of the environmental coordination provisions in FAST-41. A FAST-41 "covered" project is any infrastructure project involving a total investment of over $200 million that is subject to NEPA analysis, authorization by more than one agency and in one of several infrastructure categories that include renewable energy production. Several renewable energy and transmission projects currently under federal permitting jurisdiction have initiated FAST-41 procedures as "covered" projects, and future projects should continue to qualify, assuming they exceed the $200 million threshold.

The FAST-41 environmental review framework is intended to provide better coordination, specific deadlines, increased transparency and more effective means for resolving interagency disputes. The statutory framework was further defined in a detailed joint guidance document to federal agencies issued by the OMB and CEQ on January 13, 2017. Importantly, FAST-41 did not substantively amend NEPA or any other federal environmental review law; the existing procedural and substantive requirements of those laws remain in effect. Nor did FAST-41 assume or guarantee project approval. Unless the authorities of FAST-41 are used by agency leadership, the environmental review process for major infrastructure projects remains as complex after passage of the FAST Act as it was before.

Key elements of the FAST-41 framework include:

- **Permitting Council.** The Permitting Council is an interagency council of Deputy Secretaries with responsibility for overseeing federal agencies' implementation of the FAST-41 process. The Executive Director is appointed by the President to serve as chair of the council and given specific responsibilities for maintaining project timelines and assisting in the resolution of interagency disputes. The Director of OMB and Chair of CEQ are also members of the council and are authorized to provide guidance and resolve interagency disputes.
- **Chief Environmental Review and Permitting Officers**. Each federal agency with a role in approving infrastructure projects is required to designate one or more Chief Environmental Review and Permitting Officers (CERPOs). CERPOs report directly to the Deputy Secretary on all matters related to environmental reviews and authorizations, providing accountability for agency performance by giving a specific individual responsibility for overseeing an agency's compliance with FAST-41.
- **Permitting Dashboard**. The Permitting Dashboard is an online database to track the status of federal environmental reviews and authorizations for any covered project. The Executive Director must maintain an entry on the Dashboard of all federal infrastructure projects that are subject to FAST-41 requirements and are actively undergoing an environmental review process.
- **Coordinated Project Plan**. Within 60 days of a covered project's entry on the Dashboard, the lead agency must establish a concise plan for coordinating public and agency participation in, and completion of, any required federal environmental review and authorization for the project. The plan must include a permitting timetable with intermediate and final completion dates for action by each participating agency on any federal environmental review or authorization required for the project. The lead agency is charged with developing the permitting timetable in consultation with each cooperating and participating agency, the project sponsor, any state in which the project is located and with the concurrence of each cooperating agency (subject to dispute resolution by OMB and CEQ). Subsequent modifications of the permitting timetable are allowed by agreement with affected cooperating agencies and, if the modification would extend the final completion date by more than 30 days, by the Permitting Council executive director.

108 Federal Infrastructure Project Permitting Dashboard, https://www.permits.performance.gov/.

- **MOU**. To the maximum extent practicable, the lead federal agency must coordinate the federal environmental review and authorization processes with any state, local or Tribal agency responsible for conducting any separate review or authorization of the covered project and post on the Dashboard its coordination plan with the state, local and Tribal agencies in the form of a MOU.
- **Limitation on Claims**. Any claim for judicial review of an authorization issued by a federal agency for a covered project must be brought within two years after the publication of a notice of the final record of decision. NEPA claims must be filed by a party that submitted a comment during the environmental review, and the comments must have been "sufficiently detailed comment[s] so as to put the lead agency on notice of the issue on which the party seeks judicial review, or the lead agency did not provide a reasonable opportunity for such a comment on that issue."

The IIJA, which became law in November 2021, made FAST-41 permanent law. Meeting the permitting milestones has been challenging for projects involving complex environmental issues or strong disagreements among agencies. However, the IIJA envisions even more aggressive timelines, as follows. Under the IIJA amendments, the Permitting Council must develop performance schedules that do not exceed two years "to the maximum extent practicable, and consistent with applicable federal law." The relevant agencies and Permitting Council must provide an explanation if a recommended performance schedule exceeds two years. Federal agencies must, "to the maximum extent practicable," issue a record of decision within 90 days of issuance of a final environmental impact statement.

Previously, the lead or facilitating agency had 45 days (after the deadline for posting a project on the Permitting Dashboard) to identify all federal and non-federal agencies likely to have financing, environmental review, authorization or other responsibilities with respect to the proposed project and to identify and invite federal agencies to become participating or cooperating agencies. Under the IIJA, this timeframe is shortened to 21 days, and potential participating and cooperating agencies will be required to respond within 14 days of receiving the invitation.

One Federal Decision policy is codified to require preparation of a single, joint interagency environmental impact statement unless the lead agency provides justification in the coordinated project plan that multiple environmental documents are more efficient.

Lastly, the IIJA amendments make the process of amending a permitting timetable more onerous. A permitting timetable may be modified only after the lead agency consults with the executive director of the Permitting Council, which must occur at least 15 days before the lead or facilitating agency and affected cooperating agencies engage in consultation with the participating agencies and the project sponsor to agree upon a different completion date.

NATIONAL HISTORIC PRESERVATION ACT

The NHPA recognizes the national interest in the preservation of historic properties and directs federal agencies to assume responsibility for the preservation of historic properties owned or controlled by the agency or that are potentially affected by agency actions. The NHPA established the National Register of Historic Places, which is maintained by the DOI and includes districts, sites, buildings, structures and objects that are noteworthy in American history, architecture, archeology and culture of national, state or local significance. The NHPA also provides funding for states and Tribes to establish historic preservation programs.

Under NHPA Section 106, federal agencies must consider the effects of their undertakings on historic properties and resources, including on the OCS. The Section 106 process is detailed in regulations established by the Advisory Council on Historic Preservation (ACHP), an independent federal agency established under the NHPA. Section 106 requires federal agencies to identify and assess the effects of their actions on historic properties that are listed, or eligible for listing, in the National Register of Historic Places.

In determining whether there are adverse effects on historic resources, agencies must consult with the relevant State Historic Preservation Officer, Tribal Historic Preservation Officer or the Tribe itself, Native Hawaiian organizations and other parties, including the ACHP, local governments, and members of the public. Agencies must acknowledge that Tribes and Native Hawaiian organizations possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them. Adverse effects can include physical disturbance and noise or visual impacts. The Section 106 process can be coordinated with other required reviews, and an agency can substitute review under NEPA for the Section 106 process through procedures specified in the ACHP regulations.

If a federal agency determines that an undertaking will have adverse effects on historic properties, the agency must attempt to resolve the adverse effects through additional consultation with the relevant parties. If agreement between the consulting parties is reached, a Memorandum of Agreement or Programmatic Agreement establishes binding terms and conditions on the federal undertaking that will avoid, minimize or mitigate the adverse effects on historic properties. Essential elements may include a commitment by the parties to compliance with Section 106 and related authorities; identification of specific individuals tasked with reviewing and acting on information defined as necessary for consultation; and an indicative schedule based on an expected date of the relevant decision that would serve as a guide to the resources and timing necessary to conduct consultation throughout the permitting process. Such agreements are non-exclusive and public, allowing government agencies and stakeholders to assess the degree of support for a project proposal and the timing and resources necessary to conduct the environmental review and authorization process. If no agreement can be reached, the federal agency must consider the comments of the ACHP in making a final decision regarding the undertaking.

Consultation With Federally Recognized Tribes

Various authorities require federal agencies to consult with affected Tribes in the development of renewable energy and transmission infrastructure. Federal agencies must consult with Tribes regarding impacts to cultural resources and other historic properties under the NHPA as mentioned above. More generally, Executive Order 13175 directs all federal agencies to consult with Tribes regarding actions and policies that affect Tribal interests.

Consultation with DOI agencies is subject to the DOI's policies on Tribal consultation.[109] Secretarial Order No. 3317 requires DOI agencies to develop and participate in meaningful consultation with federally recognized Tribes where a Tribal implication may arise. More than simply the opportunity to participate in public comment periods, Tribal consultation is carried out on a government-to-government basis and is intended to be a meaningful dialogue. These consultation requirements afford affected Tribes the opportunity to ensure that Tribal views are fully considered and incorporated into decision-making processes.

ENDANGERED SPECIES ACT

Before approving a project, the lead agency must consult with the National Marine Fisheries Service (NMFS) and FWS ('Services'), depending on the project, to determine whether a project will comply with the ESA at all phases. Past examples make clear that no two projects are alike, and the extent of review and mitigation required under the ESA depends on the potential harm a project may cause to threatened and endangered species or critical habitat within the action area.

Background

The ESA was enacted in 1973 to protect and conserve endangered and threatened fish, wildlife and plant species and their habitats. NMFS administers ESA Section 7 consultations for marine and anadromous species, while FWS administers consultations for select pelagic, terrestrial and freshwater species. It is unlikely that a terrestrial wind, solar or transmission project would need to consult with both Services. The FWS has issued guidance for land-based wind energy development.[110]

The sections of the ESA relevant to renewable energy and transmission development include Sections 7 and 9. Section 7—Interagency Cooperation—requires federal agencies to ensure that any action they authorize, fund or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Section 9—Prohibited Acts—prohibits the taking of endangered species. However, under Section 7(o)(2), the action agency and project proponents are exempt from the Section 9 taking prohibition as long as they demonstrate clear compliance with the implementing terms and conditions of the Services' incidental-take statement.

109 Department of the Interior. Departmental Manual, 512 DM 5, Procedures for Consultation with Indian Tribes. (November 9, 2015). https://www.doi.gov/sites/doi.gov/files/512-dm-5-procedures-for-consultation-with-indian-tribes.pdf

110 U.S. Fish and Wildlife Service. Land-Based Wind Energy Guidelines OMB. (March 23, 2012). https://www.fws.gov/ecological-services/es-library/pdfs/WEG_final.pdf

Section 7 Consultation

The ESA process starts with informal consultation between the lead agency and the Services to determine whether formal consultation or a conference is required. This process can occur both during the identification and assessment of project areas. Once a lease has been issued and the lessee submits an application or plan of development to the lead agency for approval, the lead agency initiates project-specific consultation with the Services. The purpose of informal consultation is to allow the agencies to discuss modifications to the project that might eliminate the need for formal consultation by avoiding, minimizing or offsetting the potential negative impacts of the project. The result of informal consultation is a BA, which evaluates the proposed project and potential effects on listed species and critical habitat. The project developer may be required to conduct additional studies prior to completion of the BA, which can be both time- and cost-intensive. Project applicants often play a direct role during informal consultation when assigned the status of a designated nonfederal representative. If the lead agency determines in the BA that its project "may affect but is not likely to adversely affect" any listed species or critical habitat, and the Services concur with that determination, the consultation is terminated, and no further action is required under Section 7. The Services will issue a Letter of Concurrence (LOC), which includes any conditions to which the lead agency agreed are necessary to avoid adverse effects. Any action that qualifies for a "not likely to adversely affect" determination is consistent with the ESA duty to avoid jeopardy to listed species and adverse modification of critical habitat.

If the BA concludes that the proposed action may adversely affect a listed species or critical habitat, formal consultation is required. Formal consultation results in a BO that states whether the proposed action will jeopardize the continued existence of listed species or adversely modify critical habitat.

Incidental Take Statement

BOs typically include an incidental take statement (ITS).[111] The ITS expresses the amount or extent of anticipated "take"[112] (e.g., death, injury, harm or harassment) of listed species caused by the proposed action and provides an exemption from the Section 9 prohibitions on such take. The ITS's terms and conditions are non-discretionary. Thus, if incidental take is anticipated, the action agency and project proponent must comply with the reasonable and prudent measures and implementing terms and conditions in the ITS to avoid potential liability for incidental take.

Once the Services issue a BO and ITS, the lead agency is required to determine "whether and in what manner to proceed with the action in light of its Section 7 obligations and the Services' biological opinion." 50 C.F.R. § 402.15. Although the BO is not binding on the action agency, it is afforded substantial deference by any reviewing court. Failure to explain in the administrative record how the agency addressed the BO could expose the agencies to a judicial challenge under both the ESA and the Administrative Procedure Act. Further, the protective coverage of Section 7(o)(2) lapses if the action agency and project proponent fail to implement the terms and conditions of the ITS.

MIGRATORY BIRD TREATY ACT

In addition to having a potential impact on protected wildlife, renewable energy and infrastructure development may impact birds that migrate through or live in project areas. When siting and scoping project locations, developers should consider the risks associated with the MBTA and associated regulations.

Congress enacted the MBTA in 1918 to implement the 1916 Convention between the U.S. and Great Britain (for Canada) for the protection of migratory birds. Later amendments implemented treaties between the U.S. and Mexico, the U.S. and Japan and the U.S. and the Soviet Union (now Russia).[113] The MBTA prohibits the taking or killing of over 1,000 species of migratory birds or any action that causes death to a protected bird species. Specifically, the MBTA makes it a crime to "pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess ... any migratory bird ... or any part, nest, or egg of any such bird." The MBTA primarily protects the bird species and families listed in the treaties that it implements.[114]

Unlike the ESA, which explicitly prohibits the intentional and incidental taking of listed species, neither the MBTA nor its legislative history directly addresses whether it was intended to prohibit the incidental take of migratory birds in addition to intentional take of those birds (e.g., hunting). FWS regulations establish permits for various purposes such as import and export and scientific collection, but there is no permit that authorizes the unintentional taking of birds by a wind turbine, solar panel or other industrial activity.

111 ITS are not issued for ESA-listed plant species.
112 "Take" means "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."16 U.S.C. § 1532(19).
113 The MBTA implemented four treaties between the U.S. and Canada in 1916; Mexico in 1936, Japan in 1972; and Russia in 1976 to ensure the sustainability of and protection of migratory bird species.
114 See 50 C.F.R. § 10.13 (includes a list of bird species covered under the MBTA).

The scope of "incidentally" taking migratory birds

In recent years, the MBTA has been subject to changing regulations regarding its applicability to incidental take by industrial sources. Federal courts have been split on this issue and regulations promulgated by FWS have been in flux.

In January 2017, during the final days of the Obama administration, the DOI issued a memorandum concluding that the MBTA applied to both intentional and incidental take. In December 2017, the DOI issued another memorandum stating that the MBTA excluded criminal penalties against companies and individuals who incidentally take migratory birds through fossil fuel production and renewable energy generation. The December 2017 memorandum was codified in a final rule published on January 7, 2021.

On October 4, 2021, FWS published a final rule, revoking the January 2021 final rule, which again states that the MBTA applies to the incidental take of birds by industrial sources. FWS based its reasoning on past agency decisions and a recent federal court decision that reversed the December 2017 legal interpretation, prompting further review of the scope of the MBTA and incidental takings of migratory birds.[115] Further, on October 4, 2021, FWS published an advance notice of proposed rulemaking and notice of intent to propose regulations to authorize the incidental take of migratory birds under prescribed conditions and prepare a draft environmental review pursuant to NEPA.

Developers are advised to review the latest guidance throughout the permitting process. FWS has developed several guidelines pertaining to the take of birds, but compliance does not shield a developer from liability under the MBTA.

The Land-Based Wind Energy Guidelines were developed by FWS in conjunction with the Wind Turbine Guidelines Advisory Committee to provide a process for wind energy developers and federal, state and local agencies to address wildlife conservation concerns at all stages of land-based wind energy development. The guidelines use a "tiered approach" that involves "an iterative decision-making process for collecting information in increasing detail; quantifying the possible risks of proposed wind energy projects to species of concern and their habitats; and evaluating those risks to make siting, construction, and operation decisions."

The Avian Protection Plan Guidelines were jointly developed by the Avian Power Line Interaction Committee and FWS to help utilities develop avian protection plans—a utility-specific document that outlines a program to reduce the operational and avian risks that result from avian interactions with power lines. The voluntary guidelines serve as a reference point from which utilities can pull to tailor their avian protection plans to increase conservation of avian species, decrease avian-caused outages and reduce the risk of enforcement under the MBTA.

When bringing enforcement actions, the government will typically consider whether companies have made "good faith efforts" to avoid impacts on migratory birds.[116] FWS has not given any indication that it intends to implement an incidental-take system like the one under the ESA.

Several agencies, including DOE, BLM and USDA, have entered MOUs with FWS to promote the conservation of migratory birds. The MOUs generally focus on the management of migratory birds and their habitats and ways to strengthen conservation efforts.

BALD AND GOLDEN EAGLE PROTECTION ACT

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles including their parts, nests or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." Regulations further define "disturb" as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." In addition to immediate impacts, this definition also covers effects that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding or sheltering habits, and causes injury, death or nest abandonment.

115 *Natural Res. Def. Council v. U.S. Dep't of the Interior*, 478 F. Supp. 3d 469 (S.D.N.Y. 2020) (holding that the MBTA's plain language encompasses the incidental killing of migratory birds).
116 Adam Vann, *Wind Energy: Offshore Permitting*, (U.S. Congressional Research Service, R40175, 2021), p 11.

In September 2022, the FWS proposed authorizing the issuance of a general permit for qualifying wind-energy generation projects and power line infrastructure. FWS proposed this change as the permitting regime authorizing only specific permits was perceived as too administratively burdensome and creation of a general permit could encourage broader participation in the permitting program; it is likely that there has been unauthorized take of bald and golden eagles without any mitigating conservation. The new rule created (1) separate specific and general permits for incidental take; (2) activity-specific eligibility criteria and permit requirements; (3) new monitoring requirements; and (4) compensatory mitigation, among other changes.

Under the general permit for incidental take for wind energy generation projects, FWS restrictions require the wind energy generation project be in areas with relative abundance values for bald and golden eagles, placed greater than 660 feet from bald eagle nests and greater than two miles from golden eagle nests, with no more than four eagle mortalities of either species at the site. Under the proposed general permit for incidental take for power lines, FWS require that all poles are electrocution-safe, including the development of a reactive retrofit strategy for lines when an eagle electrocution is discovered and implementation of a proactive retrofit strategy to convert all existing infrastructure to electrocution-safe; require consideration of eagle nesting, foraging and roosting areas in siting and design; require implementation of an eagle collision response strategy; and require adequate training of personnel. FWS also established a general permit for disturbance of bald eagle nests (not golden eagle nests) for linear infrastructure construction taken near bald eagle nests.

CLEAN WATER ACT AND RIVERS AND HARBORS ACT

USACE issues permits under Section 404 of the CWA authorizing the discharge of dredged or fill material into waters of the U.S.[117] The Corps also regulates potential obstructions to or alterations of navigable waters of the U.S. pursuant to Section 10 of the Rivers and Harbors Act. Based on these approvals, USACE often participates as a cooperating agency in NEPA review of project-specific approvals.

EPA has authority over proposed USACE permits under Section 404 and has other authorities under the CWA, including section 402, which is also known as the National Pollutant Discharge Elimination System (NPDES). States also have CWA permitting authority under section 401.

State Water Quality Certifications Section 401

Prior to obtaining a CWA Section 404 or Rivers and Harbors Act Section 10 permit for a project, a developer must first obtain a water quality certification under CWA Section 401 for any activities that may result in a discharge to waters of the U.S.[118] The State or Tribe from where the discharge would originate has the primary responsibility for verifying compliance with water quality requirements.[119] The agency approving the project must provide public notice and the opportunity for comment and may add conditions to the certification that must be incorporated into the final federal license.

Applications for state water quality permits are often processed at the same time as the 401 certification since projects that are approved under state standards are also often sufficient to meet 401 water quality standards.[120] Because 401 permit applications are approved by states and Tribes, evaluation criteria are state-specific and waterbody-specific.

CWA Section 404 and Rivers and Harbors Act Section 10

Section 10 requires a permit for activities that involve construction in or over waters of the U.S. It prohibits the unlawful excavation, modification or filling of waters of the USACE will typically adjudicate a Section 10 permit simultaneously with a developer's permit under Section 404 of the CWA. A CWA section 404 permit is required for activities that involve the "discharge of dredged or fill material" into waters of the U.S. USACE has primary permitting authority but jointly runs the section 404 permitting program with EPA. USACE administers the permits and enforces permit provisions, while EPA interprets policies, determines the scope of exemptions and comments on individual applications.[121]

117 The term "waters of the United States" refers to waters that are navigable in fact or waters with a "significant nexus" to navigable waters. Environmental Protection Agency. *About Waters of the United States*. https://www.epa.gov/nwpr/about-waters-united-states. 33 U.S.C. § 1344.

118 Environmental Protection Agency. *Overview of CWA Section 401 Certification*. https://www.epa.gov/cwa-401/basic-information-cwa-section-401-certification. 33 U.S.C. § 1341.

119 Environmental protection Agency. *Overview of CWA Section 401 Certification*. https://www.epa.gov/cwa-401/basic-information-cwa-section-401-certification.

120 See, e.g., Jeff Thaler, *Permitting and Leasing for Main Offshore Wind Energy Projects: Offshore Wind Energy Project Roadmap* (January 2013), 17, https://e2tech.org/Resources/Documents/MOWII_Offshore_Wind_Roadmap_JAN2013.pdf.

121 Environmental Protection Agency, *Permit Program under CWA Section 404*, https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404.

The Rivers and Harbors Act and CWA have different geographical reaches, and only one permit may apply depending on where the project is sited. CWA jurisdiction extends to waters of the U.S. plus "territorial seas." The USACE jurisdiction ends three miles offshore for the purposes of Section 404.[122] The USACE jurisdiction under the Rivers and Harbors Act is generally limited to navigable waters of the U.S. up to three miles off the coast.

The Corps follows its general policies for evaluating permit applications when conducting review for both Section 404 and Section 10 permits. During its public interest review, the Corps considers the "probable impacts, including the cumulative impacts" of the activity on the public interest. The general criteria considered for every application are: (1) the relative extent of the public and private needs for the proposed structure or work; (2) where there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work; and (3) the extent and permanence of the beneficial and/or detrimental effects that the proposed structure or work is likely to have on the public and private uses to which the area is suited.

In addition, the USACE will evaluate project-specific impacts on factors including conservation, economics and aesthetics. The USACE will also account for where the applicant has implemented mitigation measures to minimize adverse project impacts and whether the applicant has complied with other related laws.

When evaluating Section 404 permits, under Section 404(b)(1) guidelines, the USACE must determine that the proposed discharge is the least environmentally damaging practicable alternative; will not violate any state or federal laws; and will not result in a "significant degradation of the waters of the U.S." In addition, no discharge of dredge or fill material is permitted unless all "appropriate and practicable steps" have been taken to minimize the impact of the project. The USACE also investigates the project's potential impacts on the aquatic ecosystem, special aquatic sites and human use characteristics. With respect to aquatic ecosystems, the USACE evaluates the project's impact on the physical, chemical and biological characteristics of the disturbed area.

State Permitting Approval

States may also seek federal approval to issue their own section 404 permits under the CWA. To administer its own individual and general permit program, the governor of the state must submit a description of the program and a statement from the state's attorney general stating that it has the authority to issue permits under state law. Once approved, the state can administer individual permits evaluated under CWA guidance. For example, New Jersey operates its State Freshwater Wetland Protection Act program in place of the federal 404 program for discharges to wetlands or covered waters within its jurisdiction.[123] Unless operating in non-delegable waters, such as rivers used for interstate commerce, applicants need only obtain approval under the state program. Currently, only Michigan, New Jersey and Florida have assumed section 404 permitting authority.[124]

States and localities can also develop their own regional general permits for activities within their coastal zones.[125]

National Pollution Discharge Elimination System Permits Section 402

Projects may be required to obtain a NPDES permit under section 402 of the CWA from EPA or the applicable state for any covered discharges, commonly associated with construction and operations. The NPDES permit program regulates the discharge of pollutants from a point source to waters of the U.S. NPDES permits specify the acceptable amount of pollutants a polluter may discharge and the "best management practices" for achieving those levels.[126] Under the CWA, the definition of "pollutants" covered by NPDES is very broad and includes "any type of industrial, municipal and agricultural waste discharged into water."[127]

122 Jurisdiction, Army Corps. of Engineers, https://www.nwp.usace.army.mil/Missions/Regulatory/Jurisdiction/.
123 The United States Environmental Protection Agency and its relationship with the New Jersey Department of Environmental Protection & The Division of Land Use Regulation, https://www.nj.gov/dep/landuse/lu_epa.html#:~:text=1251%20et%20seq.)%2C%20passed,in%20place%20of%20the%20Federal
124 Environmental Protection Agency. U.S. Interactive Map of State and Tribal Assumption under CWA Section 404. https://www.epa.gov/cwa404g/us-interactive-map-state-and-tribal-assumption-under-cwa-section-404.
125 Army Corps of Engineers. Obtain a Permit. https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit/
126 Environmental Protection Agency. NPDES Permit Basics. https://www.epa.gov/npdes/npdes-permit-basics
127 Environmental Protection Agency. NPDES Permit Basics. https://www.epa.gov/npdes/npdes-permit-basics

Like other CWA permits, there are individual and general permits available, and the public is invited to participate in the permitting process. Individual permits are issued to a single discharger after the evaluation of site-specific conditions. General permits are issued to a group of dischargers with similar operations and types of discharges.[128] Although EPA has the primary permitting authority for NPDES, all coastal states except for New Hampshire and Massachusetts have obtained authorization from EPA to issue their own NPDES permits for discharges into state waters. The application form and approval process will differ depending on the proper permitting authority for the project. Regardless, Section 402 requires that the public be notified of any applications and provided the opportunity to comment.[129]

DEPARTMENT OF DEFENSE AND FEDERAL AVIATION ADMINISTRATION INVOLVEMENT

The DOD and Federal Aviation Administration (FAA) are not permitting agencies but nonetheless can play a key role in the siting process for energy and infrastructure projects. Through the Obstruction Evaluation/Airport Airspace Analysis program and Military Aviation and Installation Assurance Siting Clearinghouse, FAA and DOD assess the compatibility of projects with military assets and aviation activities. DOD also participates in renewable energy task forces, which are key forums for identifying suitable areas for renewable energy development.

FAA Air Hazard Determination

The FAA is required to assess all structures that "may result in an obstruction of the navigable airspace" or interfere with navigation equipment or military operations. This review is conducted under the Obstruction Evaluation/Airport Airspace Analysis program, which requires FAA notification for all projects higher than 200 feet above ground regardless of location and structures near airport runways or approach paths. Structures higher than 499 feet above ground level, structures that interfere with radar or lower structures near airports are presumed to be hazards to air navigation.[130] If the project is likely to present a hazard, the project proponent or FAA may initiate an aeronautical study to assess whether the project will have an adverse impact on aviation. Applications must be submitted to FAA at least 45 days prior to construction.

Although FAA Air Hazard Determinations have "no enforceable legal effect," the DOI has assigned FAA a "significant role in its decision-making process."[131] Courts have also found that an FAA Determination can be a prerequisite to the issuance of a construction permit even though these decisions may be "advisory in nature."[132]

Military Aviation and Installation Assurance Siting Clearinghouse

DOD requires developers to seek review of proposed energy projects because they could impact areas or technologies utilized by DOD, such as radar, installation boundaries, military training routes, special use airspace and other uses. These reviews are required as part of the FAA's Air Navigation Hazard Assessment process and handled by the DOD Siting Clearinghouse (Clearinghouse). The Clearinghouse review process applies to all energy projects submitted for FAA review.[133]

Congress wrote the Clearinghouse review process into law as part of the 2011 National Defense Authorization Act to promote renewable energy and preserve national security. The Clearinghouse must determine whether the project poses "an unacceptable risk to the national security of the United States," which is defined as proposed or actual construction, alteration, expansion or establishment of a structure that would endanger air safety, interfere with the use of navigable airspace or significantly impair or degrade virtually any domestic military activity. DOD is also responsible for identifying mitigation options that the developer or the military may take to lessen the impact of the proposed project.

128 Environmental Protection Agency, NPDES Permit Basics, https://www.epa.gov/npdes/npdes-permit-basics.
129 Environmental Protection Agency, NPDES Permit Basics, https://www.epa.gov/npdes/npdes-permit-basics.
130 See Town of Barnstable, Mass. v. F.A.A., 740 F.3d 681, 689 (D.C. Cir. 2014); 14 C.F.R. § 77.17.
131 Town of Barnstable, 659 F.3d at 32.
132 *Id.*
133 Office of the Under Secretary of Defense. Military Aviation and Installation Assurance Siting Clearinghouse Reviews, Mil. Aviation and Installation Assurance Siting Clearinghouse. https://www.acq.osd.mil/dodsc/contact/dod-review-process.html; Office of the Under Secretary of Defense. Frequently Asked Questions, Mil. Aviation and Installation Assurance Siting Clearinghouse. https://www.acq.osd.mil/dodsc/about/faq.html

The regulations provide for both formal and informal review of projects. Formal project review begins when FAA sends the Clearinghouse a properly filed Obstruction Evaluation/Airport Airspace Analysis application. Some states, such as Texas, also have state-level notification requirements.[134] Proponents of activities anticipated to interfere with radar surveillance or a military training route must file a preliminary project layout at least one year prior to planned construction. The Clearinghouse will distribute the application to other DOD entities that may have an interest in its contents. After receiving comments, the Clearinghouse will then evaluate comments and make a determination on the project. If it determines that the project may have an adverse impact on DOD operations, the Clearinghouse must notify the applicant and initiate mitigation discussions. If a mitigation agreement cannot be reached, the Clearinghouse must request that a senior DOD official make a determination of whether the project poses "an unacceptable risk to the national security of the United States." However, FAA has the final decision on whether the project poses a hazard, and the Clearinghouse's determination is only one of the factors it considers.[135]

Unlike the FAA, DOD has a process for conducting informal reviews of projects when requested and, in fact, encourages developers to seek such review by submitting project information directly to the Clearinghouse. Like the formal review process, the Clearinghouse solicits comments and recommendations from interested agencies during the informal review. Determinations of no impact during an informal review do not equate to a binding determination, but DOD will enter into mitigation discussions with the applicant if the project is expected to have an adverse impact. DOD will also keep any proprietary information confidential during the review process and information provided will be used only for determining the project's potential impact on military activities.[136]

Most onshore wind projects submitted for review by the Clearinghouse have been approved without the need for mitigation measures. Between 2012 and 2015 only 39 out of about 2,000 wind energy projects entered into mitigation discussions, and only 11 resulted in formal mitigation agreements.[137] Over 40 mitigation agreements have been published since 2014.[138]

CLEAN AIR ACT

The CAA was enacted "to protect and enhance the quality of the nation's air resources so as to promote the public health and welfare and the productive capacity of its population." The CAA Amendments of 1990 added a Title V to the Act that requires states to administer a comprehensive permit program for the operation of sources emitting air pollutants, modeled after similar provisions in the CWA. Sources subject to the permit requirements generally include major sources (those that emit or have the potential to emit 100 tons per year of any regulated pollutant) and stationary and area sources that emit or have potential to emit lesser specified amounts of hazardous air pollutants. However, in nonattainment areas, the permit requirements also include minor sources of volatile organic compounds (VOCs), with permit eligibility depending on the severity of the region's ozone nonattainment status.

Although renewable energy development is promoted to alleviate some air pollution concerns associated with the use of conventional fossil fuels in electricity production, renewable energy project development still triggers air quality requirements under the CAA, particularly during the construction phase. The CAA permitting requirements applicable to a project depend on several factors, including the location of the project, the air quality of the ambient area, the number of sources of air pollution and those sources' potential to emit pollutants.

MINERAL LEASING ACT

Under the Mineral Leasing Act (MLA), federal agencies may grant an easement to cross federal land for the pipeline transport of oil, natural gas, synthetic liquid or gaseous fuels or any refined product produced therefrom in accordance with the provisions of Section 28 of the MLA. Under the terms of the MLA, the width of the ROW cannot exceed fifty feet in addition to the ground occupied by the pipeline and its related facilities unless the secretary of the appropriate agency finds a wider ROW is necessary. The agency is also required to issue regulations or impose stipulations applicable to

134 Office of the Under Secretary of Defense. *Military Aviation and Installation Assurance Siting Clearinghouse Reviews, Mil. Aviation and Installation Assurance Siting Clearinghouse.* https://www.acq.osd.mil/dodsc/contact/dod-review-process.html

135 Michael Casillo. *Impacts of Wind Energy.* JAG Reporter. (January 28, 2021). https://www.jagreporter.af.mil/Post/Article-View-Post/Article/2552548/impacts-of-wind-energy/

136 Office of the Under Secretary of Defense. *Military Aviation and Installation Assurance Siting Clearinghouse Reviews, Mil. Aviation and Installation Assurance Siting Clearinghouse.* https://www.acq.osd.mil/dodsc/contact/dod-review-process.html

137 Office of the Under Secretary of Defense. *Report on the Impact of Wind Energy Developments on Military Installations, Dept. of Defense 4.* (April 2016). https://www.acq.osd.mil/dodsc/library/RTC%20Report%20on%20Wind%20Energy%20Impacts%20-%20Letters%20and%20Report%20-%20(USA000910-16).pdf

138 Office of the Under Secretary of Defense. *Library, Mil. Aviation and Installation Assurance Siting Clearinghouse.* https://www.acq.osd.mil/dodsc/about/library.html

every ROW permit that includes requirements for the restoration, revegetation and curtailment of erosion of the surface of the land; requirements designed to control or prevent (1) damage to the environment (including damage to fish and wildlife habitat), (2) damage to public or private property and (3) hazards to public health and safety; and requirements to protect the interests of individuals living in the general area of the ROW or permit who rely on the fish, wildlife and biotic resources of the area for subsistence purposes.

The BLM has promulgated regulations governing various aspects of pipeline ROWs, including requirements as to which lands are available for ROW; qualifications for holding a ROW; and terms and conditions on holding ROW.[139] In addition, other federal land management agencies have promulgated regulations addressing grants of ROW for pipelines across lands they manage, including the USFS[140] and the FWS.[141]

HYDROGEN PIPELINES

Siting Interstate Pipelines

There is no statute that expressly provides for federal regulation of construction or siting of interstate hydrogen pipelines or their rates or services. For lines that do not carry gas in interstate commerce, states have jurisdiction over construction and siting. Where ROWs are needed for crossing federal lands, BLM has the authority to issue permits under the MLA. If the pipeline crosses only USFS lands, USFS issues a special use permit. There are three additional federal statutes that could provide structure to the regulation of siting interstate hydrogen pipelines, depending on how hydrogen is classified:

THE NATURAL GAS ACT

The NGA requires FERC to regulate the interstate transportation of natural gas. The NGA governs any gasses that can be used for energy, giving FERC jurisdiction over "natural" gas and "artificial" gas that is blended with "natural gas," exempting any "artificial" gas not blended with "natural" gas.

FERC could assert jurisdiction over hydrogen pipelines under the NGA if hydrogen is defined as a "natural" gas. Under this interpretation, to construct new interstate gas facilities, a company must obtain a certificate of "public convenience and necessity" from FERC, which, once granted, gives the company eminent domain authority, allowing a pipeline company to condemn private property along its ROW and repurpose it for construction and operation of the pipeline. Operators of interstate pipelines are also required to charge just and reasonable rates and may be required to maintain public tariffs and establish their terms and conditions of service.

If hydrogen is defined as an "artificial" gas, then it would only be subject to the NGA if it was mixed with a "natural" gas. If it is not mixed with a "natural" gas, then a hydrogen pipeline could be constructed only under state regulation. A pipeline would still be subject to federal permitting requirements under other statutes described herein, including the CWA, ESA, NHPA and others.

THE INTERSTATE COMMERCE ACT

The Interstate Commerce Act (ICA) requires FERC to regulate the interstate transportation of oil. FERC regulates liquid sources of energy under the ICA except for liquefied natural gas, which is regulated under the NGA, above. If hydrogen is defined as a "liquid source of energy," then FERC would regulate it under the ICA.

The ICA provides FERC with jurisdiction over rates and services of oil pipelines, which are subject to the same "just and reasonable" standard as natural gas pipelines and are also required to file tariffs providing "just and reasonable," non-discriminatory terms and conditions of service. Further, oil pipelines are considered "common carriers" and must reserve some percentage of their capacity—typically 10 percent—for shippers that do not have long-term contracts with the pipeline. Unlike the NGA, the ICA does not provide for the federal regulation of the construction and siting of pipelines; instead, state and local authorizations for construction and siting must be obtained.

139 The regulations describe ROWs as "nonpossessory, nonexclusive" rights and temporary use permits as "revocable, nonpossessory" privileges. 43 C.F.R. § 2881.5.

140 The Forest Service decides whether to concur in BLM's grants of ROW under the MLA and issue special use authorizations for pipelines transporting fuel products on National Forest System land, consistent with other federal laws. 36 C.F.R. § 251.53(e).

141 50 C.F.R. § 29.21-1; see also 16 U.S.C. § 668dd(d). Specific requirements for ROWs for the pipeline transportation of fuels across FWS lands are located at 50 C.F.R. § 29.21-9.

THE INTERSTATE COMMERCE CLAUSE TERMINATION ACT

The Interstate Commerce Clause Termination Act (ICCTA) requires the Surface Transportation Board (STB) to regulate the interstate transportation of "a commodity other than water, gas or oil." The ICCTA governs non-energy commodities, which hydrogen could be defined as if it does not fall under any of the definitions outlined above. Pipelines under ICCTA are also subject to the same "common carrier" and non-discriminatory requirements as oil pipelines and must charge "reasonable rates" and maintain tariffs providing rates and terms of service. The ICCTA does not provide for the federal regulation and siting of pipelines; instead, state and local authorizations for construction and siting must be obtained. Any eminent domain authority must be obtained from the states.

Corridors through Public Lands

As described above, Section 368 of EPAct 2005 directs the Secretaries of Agriculture, Commerce, Defense, Energy and Interior to designate corridors for hydrogen pipelines on federal lands in 11 Western States. DOI and the USFS designated more than 6,000 miles of these corridors in 2009 for 11 Western states.[142] Once a Section 368 energy corridor is designated, it is deemed a preferable pathway for interstate energy transport until it is amended. While their use is voluntary, project developers and relevant federal agencies have, to varying extents, used portions of the western energy transport corridors for projects since 2009. Following a lawsuit and settlement, DOI and USFS developed and published a final report covering six regions and 420 energy corridors. This final report supports BLM and USFS regulations that direct land use planning efforts to consider existing information (including transportation and utility corridor studies) to determine appropriate placement of hydrogen pipelines, among others.

Safety

Under the Natural Gas Pipeline Safety Act and the Hazardous Liquid Pipeline Act, DOT's PHMSA has promulgated regulations relevant to pipelines transporting combustible gasses and hazardous liquids. As hydrogen is a flammable gas, it falls within the purview of the PHMSA's regulations at 49 C.F.R. Part 192, although the regulations are currently focused on the unique properties of natural gas pipelines. Hydrogen-specific safety regulations will be required.

CARBON CAPTURE, UTILIZATION, AND STORAGE

CO_2 Pipelines

There is no comprehensive federal siting and permitting process for interstate or intrastate carbon dioxide pipelines on non-federal lands. BLM regulates carbon dioxide pipelines under the MLA as a commodity shipped by a common carrier.

The regulation of CO_2 pipelines is currently a joint responsibility of federal and state governments. CO_2 transportation pipelines are subject to federal safety regulations administered by DOT's PHMSA (see above). The administration directly oversees pipeline safety for all interstate lines, while intrastate pipelines are subject to state agency oversight (if the standards are at least as stringent as the federal rules). If a pipeline crosses federal land, then, prior to construction, permits from the relevant federal agency and compliance with NEPA are required. Otherwise, the power of oversight of siting (including the use of eminent domain), construction and operations of CO_2 pipelines is largely handled at the state level.

CCUS

Permitting a CCUS project would follow the process for permitting any industrial activity, with the mix of permitting and review needed for a particular process determined by the project specifics. As applicable to the renewable energy and transmission projects discussed above, federally funded CCUS projects or CCUS activities on federally managed lands will need to comply with NEPA, the ESA, the CAA and other federal land management statutes and environmental regulations. They may trigger obligations under a variety of other statutes including the NHPA, CWA, CAA, Safe Water Drinking Act, Marine Protection, Research, and Sanctuaries Act, Outer Continental Shelf Lands Act, Marine Mammal Protection Act, MBTA, Bald and Golden Eagle Protection Act, the Natural Gas Pipeline Safety Act, the Rivers and Harbors Act of 1899, FLPMA and Hazardous Liquid Pipeline Safety Act.

142 Department of the Interior and Bureau of Land Management. *Approved Resource Management Plan Amendments/Record of Decision (ROD) for Designation of Energy Corridors on Bureau of Land Management-Administered Lands in the 11 Western States.* (2009). http://www.corridoreis.anl.gov/documents/docs/Energy_Corridors_final_signed_ROD_1_14_2009.pdf; U.S. Department of Agriculture Forest Service. *Designation of Section 368 Energy Corridors on National Forest System Land in 10 Western States.* (2009). http://corridoreis.anl.gov/documents/docs/WWEC_FS_ROD.pdf

A CCUS project on federal lands also must procure the appropriate ROWs. Per the Consolidated Appropriations Act of 2021, CCUS projects are covered projects under FAST-41, and construction of infrastructure for carbon capture is a specific sector eligible for FAST-41 coverage even if the project is worth less than $200 million in economic investment.

The USE IT Act

Under the USE IT Act, Congress directed CEQ to establish regional task forces to: (1) identify challenges and successes that permitting authorities, project developers and operators face to permit CCUS projects in an efficient, orderly and responsible manner; and (2) provide recommendations to improve the performance of the permitting process and regional coordination for the purpose of promoting the efficient, orderly and responsible development of CCUS projects and carbon dioxide pipelines. CEQ established two task forces: one to address permitting and other challenges for CCUS projects on federal lands and the Outer Continental Shelf, and another for permitting and other challenges for CCUS projects on non-federal lands. The duties of the task forces are to identify challenges, improve permitting processes and facilitate regional coordination of CCUS projects and pipelines.

In accordance with the USE IT Act, CEQ announced the availability of, and requested comments on, its Carbon Capture, Utilization, and Sequestration Guidance to assist federal agencies with the regulations and permitting of CCUS activities. CEQ's guidance suggests that agencies consider developing programmatic environmental reviews, including tiered documents or programmatic environmental impact statements under NEPA, where such analyses can facilitate more efficient and effective environmental reviews of multiple projects while maintaining strong community engagement. CEQ also recommended that agencies with oversight authority for carbon dioxide pipelines update regulations, as appropriate, to address the deployment of CCUS technologies.

In developing CCUS projects, CEQ encourages engagement of communities and Tribes in co-development of projects and approaches; protection of communities from pollution; and incorporation of environmental justice and equity concerns, particularly in communities already exposed to multiple pollution sources. CEQ's guidance also noted that agencies should collaborate on studies regarding the effect of carbon capture deployment on air quality in the U.S. Finally, noting that CCUS consists of new technologies, CEQ stressed the importance of increased transparency to build public confidence in the emissions reductions associated with these projects and their durability. Specifically, CEQ recommended the preparation of publicly available analyses, including life-cycle analyses, and/or the establishment of certification or standards for products.



Canton Wind Farm in western Maine. © *Phoebe Parker / TNC*

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
170 Russell Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
530 Hart Senate Office Building
Washington, DC 20510-3904

Dear Chairman Capito and Ranking Member Whitehouse,

On behalf of the American Conservation Coalition Action (ACC Action) and our over 60,000 grassroots members nationwide, I am writing to express our strong support for bipartisan permitting reform in the 119th Congress. During the committee's hearing on February 19, 2025, it was emphasized that permitting reform is not about cutting corners—it's about providing regulatory clarity, transparency, and predictability, so we can build a clean, affordable, and reliable energy future. As the largest conservative environmental organization in the country, we commend the committee's leadership and commitment to working together on this critical solution needed to not only grow our economy but also bolster environmental stewardship.

ACC Action has long advocated for permitting reform to unleash clean American energy, allowing us to achieve our energy and environmental goals. Below is a list of reforms that we support to expedite the permitting process for critical energy infrastructure.

- Modernize the National Environmental Policy Act (NEPA) by reducing the analysis required and clarifying when NEPA is triggered.
    - Rep. Bruce Westerman's discussion draft from the 118th Congress to amend NEPA provides a good framework for NEPA reform.
- Set limitations and timelines for the judicial review process to mitigate frivolous lawsuits and prevent the litigation doom loop.
    - Rep. Bruce Westerman's discussion draft from the 118th Congress to amend NEPA provides a good framework for judicial review reform.
- Provide regulatory clarity for critical mineral projects by addressing the *Rosemont* judicial decision, which restricted ancillary, mining-support activities on lands lacking economically viable minerals.
    - Rep. Mark Amodei and Rep. Steven Horsford's Mining Regulatory Clarity Act of 2025 provides a *Rosemont* fix.

    - Sen. John Barrasso and Sen. Joe Manchin's Energy Permitting Reform Act of 2024 also provides an alternative *Rosemont* fix.
- Expedite the modernization and expansion of the electric grid through categorical exclusions for low-impact, grid-enhancing technologies and simplify FERC's backstop siting authority.
    - Sen. John Barrasso and Sen. Joe Manchin's Energy Permitting Reform Act of 2024 includes provisions addressing these reforms.
- Bring geothermal energy permitting to parity with oil and gas to encourage the development of this reliable and abundant energy source.
    - Several bills from the 118th Congress, including H.R.6474, H.R.7370, H.R.7409, H.R.1449, S.3954, and the Energy Permitting Reform Act of 2024, worked to address permitting reform for geothermal energy.
- Modernize the e-permitting process through the use of modern technology, including AI, to streamline approvals and enhance staff efficiency.
    - Rep. Doug LaMalfa and Rep. Katie Porter's Electronic Permitting Modernization Act from the 118th Congress provides a good framework.
- Broaden the application of categorical exclusions for low-impact, well-understood energy projects, as well as for projects on previously disturbed lands.
    - Sen. John Barrasso and Sen. Joe Manchin's Energy Permitting Reform Act of 2024 includes provisions addressing these reforms.
- Expedite the approval process for granting Class VI primacy to states that have applied and meet the regulatory requirements.
- Expedite the permitting and licensing for hydropower projects.
    - Sen. John Barrasso and Sen. Joe Manchin's Energy Permitting Reform Act included key provisions addressing this.
    - Rep. Newhouse is leading a bill in the 119th Congress with similar reforms.
- Remove the NRC's mandatory hearing requirement for uncontested license applications.
    - Sen. Tim Scott, Sen. Chris Coons, and Rep. Morgan Griffith's Efficient Nuclear Licensing Hearings Act from the 118th Congress does this.

Thank you again for your leadership on this issue. Please reach out if you have any questions or concerns regarding our comment. We look forward to working with you this Congress to enact robust, comprehensive permitting reform that will unleash clean American energy.

Sincerely,
Andrew Mills, Managing Director

ACEC
AMERICAN COUNCIL OF ENGINEERING COMPANIES

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment & Public Works
United States Senate
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment & Public Works
United States Senate
Washington, DC 20510

Dear Chairman Capito and Ranking Member Whitehouse:

On behalf of the American Council of Engineering Companies (ACEC), the business voice of the engineering industry, I am pleased to write in support of efforts in Congress to reform permitting to provide greater efficiency, predictability, and timeliness in the delivery of critical infrastructure.

ACEC has long supported efficient and responsible environmental review policies that deliver infrastructure projects while ensuring environmental and safety protections and public engagement. Bipartisan permitting legislation in Congress has the potential to build on the process improvements enacted in the Fiscal Responsibility Act to facilitate more timely and efficient environmental reviews that will allow the United States to continue to address the backlog of infrastructure projects.

It is critical that, to the greatest extent possible, there is consistency and coordination across federal agencies in the implementation of NEPA and federal permitting practices. We support policies like "One Federal Decision" and efforts to streamline the establishment of lead agency and decision-making processes through concurrent environmental reviews and enhanced interagency coordination.

As part of permitting reform efforts, we also encourage Congress to consider policies to facilitate the greater use of modern technology by federal permitting agencies. Technology has the potential to greatly improve the efficiency and transparency of the NEPA process. Congress should implement the recommendations in the Council on Environmental Quality's recent E-NEPA report to maximize technology and data consistency and interoperability across federal agencies. It is also important that agencies have the resources and capacity to manage NEPA-related technology. Implementing the E-NEPA recommendations also provides an opportunity for agencies to partner with engineering firms that have expertise in the use of innovative technologies for environmental reviews.

We also encourage Congress to build on the success of the Federal Permitting Council by lowering the cost threshold for a project to be eligible to be covered under FAST-41. Many complex infrastructure projects cost less than $200 million and would benefit from inclusion on the Federal Permitting Dashboard and the enhanced interagency coordination and collaboration afforded to FAST-41 projects. Additionally, Congress should be explicit that port projects funded through the Maritime Administration are eligible for FAST-41 coverage. Taken together, a lower cost threshold and inclusion of more port projects will support more timely and efficient environmental reviews for projects critical to building our economy and maintaining our position as a global leader in trade and manufacturing.

ACEC and our members stand ready to work with your committee to provide our expertise as you develop permitting reform legislation this Congress. We encourage a bipartisan process that builds on previous legislative efforts to improve efficiency, transparency, and predictability. Thank you for your continued focus on this important issue.

Sincerely,



Linda Bauer Darr
President & CEO

American Clean Power Association
Statement for the Record
Hearing entitled, "Improving the Federal Environmental Review and Permitting Processes"
Senate Environment and Public Works Committee
February 19, 2025

The American Clean Power Association (ACP)[1] applauds the Senate Environment and Public Works (EPW) Committee for holding this critical hearing soliciting input on ways to improve federal environmental review and permitting processes. Clean energy infrastructure, including transmission, like other infrastructure development across the United States, needs more timely, predictable, and reasonable federal environmental reviews and permitting processes. Improving the efficiency of these processes is necessary to achieve President Trump's goal to "make America energy dominant," a goal ACP shares.

America's domestic power generation industry and transmission infrastructure are providing reliable, affordable energy while creating jobs, spurring investment, and driving innovation. After 25 years of stable electricity demand growth, the just-published *U.S. National Power Demand Study* from S&P Global Insights finds electricity demand growth will rise 35-50% between 2024 and 2040.[2] The study was commissioned by the Alliance to Save Energy, American Clean Power Association (ACP), American Petroleum Institute (API), Clean Energy Buyers Association (CEBA), National Electrical Manufacturers Association (NEMA), Nuclear Energy Institute (NEI), and the U.S. Chamber of Commerce. This surge in demand will principally be driven by the significant growth of AI data centers and new manufacturing activity in the short-term and electric vehicles, space-heating electrification, and broader economic growth over the longer term.

To maintain U.S. competitiveness and meet this growing demand, we need an all-of-the-above energy strategy. The U.S. National Power Demand Study finds that an additional (net) 730-765 gigawatts (GW) of renewables, 160-175 GW of storage, 60-100 GW of gas, and 10-25 GW of nuclear and geothermal will be needed by 2040 to maintain grid reliability, with 8% of the nation's energy demand being met through expected energy efficiency savings over 2024 levels of savings.

Due to several factors, traditional resources, while necessary, are not enough to meet our projected near-term demand growth. There is limited availability of gas turbines prior to 2030, and the gas pipeline system must be expanded. Fortunately, wind and solar provide an immediate source of power in a cost-effective and reliable manner, and the growth and cost reduction in energy storage are affordably addressing intermittency concerns across the nation.

The clean power sector is the fastest growing in the U.S. energy economy. The cost competitiveness of wind and solar energy continues to improve with advances in technology, making these resources

[1] ACP is the leading voice of the multi-technology clean energy industry representing energy storage, wind (land-based and offshore), utility-scale solar, clean hydrogen and transmission companies employing Americans in all 50 states, including over 500 clean energy related manufacturing facilities across 48 states. ACP members include manufacturers, component suppliers, project developers, project owners and operators, utilities, financiers, and customers.
[2] Available at: https://cleanpower.org/resources/us-national-power-demand-study/

among the lowest-priced available resources today.[3] These energy resources provide more than 480,000 American jobs, with clean energy jobs present in every state, and deliver $3 billion each year in state and local taxes and landowner lease payments. In the past two years alone, companies have announced over $500 billion in private-sector investments for clean energy projects, including 160 new manufacturing facilities expected to provide over 100,000 new manufacturing jobs. These new investments will add to the 500 manufacturing facilities already serving the clean energy industry today.

ACP appreciates Congress enacting several important reforms to the National Environmental Policy Act (NEPA) in the Fiscal Responsibility Act (FRA) of 2023. While the FRA will help reduce environmental review timelines, other aspects of the permitting process and their timelines must still be addressed. For example, the FRA did not include provisions requiring agencies to publish a notice of intent within a certain amount of time after receiving an application; nor did the FRA include timeline provisions for permits required by other statutes, such as the Endangered Species Act and the National Historic Preservation Act. The FRA also did not sufficiently address transmission permitting necessary to improve this country's aging and overburdened transmission infrastructure that are needed now. Finally, the FRA did not include any provisions related to judicial review that would limit the ability of litigants to file a suit against projects years after the issuance of a permit.

In this testimony, ACP provides recommendations to further improve NEPA for permitting critical energy infrastructure, as well as recommendations to improve permitting under the Endangered Species Act (ESA), which are under the jurisdiction of the Senate EPW Committee. We do so while also emphasizing that any comprehensive, meaningful permitting reform must also include measures under the jurisdiction of the Senate Energy and Natural Resources Committee to improve transmission planning and cost allocation under the Federal Power Act (FPA) and federal lands and waters permitting under the Federal Land Policy and Management Act (FLPMA) and the Outer Continental Shelf Lands Act (OCSLA), respectively, to fulfill the President's energy dominance vision. Any comprehensive permitting reform should apply to all energy infrastructure projects, regardless of fuel source, to ensure we can meet our Nation's growing energy needs and provide affordable, reliable energy to American families and businesses.

Establish Application Processing Timelines for National Environmental Policy Act (NEPA)

While timelines for the issuance of an environmental impact statement (EIS) and an environmental assessment (EA), which ACP supported, were adopted during the Trump Administration's first term NEPA reforms finalized by the Council on Environmental Quality in 2020, and subsequently in law through the Fiscal Responsibility Act (FRA), there are no similar timelines for actions that occur before and after the environmental review process.

[3] Lazard's Levelized Cost of Energy Analysis, Version 17.0, June 2024, available at: https://www.lazard.com/media/xemfey0k/lazards-lcoeplus-june-2024-_vf.pdf

Problem: Delays either at the beginning of the environmental review, such as the issuance of a notice of intent (NOI), or at the end of the environmental review process, such as the issuance of a final decision and additional permits, can allow agency staff to manipulate when the clock starts, undermine the timelines established for issuance of an EIS and EA, undermine transparency and business certainty, and significantly extend project timelines.

Solution: Building on timelines already in law, Congress should adopt legislation that establishes timelines for agencies at the beginning and end of the environmental review process. ACP recommends the following presumptive timelines be established for additional specific steps during NEPA reviews –

- Pre-notice of intent (NOI)-Processing Timelines
    - Establish a default timeline of 30 days for the issuance of a NOI for an EIS and 15 days for issuance of a NOI for an EA (if notice is to be given) after a determination an application is complete. The timeline should be subject to reasonable extension if a senior agency official approves a longer period in writing and establishes a new timeline.
        - Agencies should be required to respond to the applicant within 30 days of receiving an application with a determination of whether the application is complete and if it is missing information, an explanation of what is missing.
        - Subsequent application deficiency notices issued by federal agencies should not be permitted to include issues not previously identified.
    - A record of decision (ROD) or finding of no significant impact (FONSI) shall be issued within 90 days of publication of the final EA or EIS.
- Require any outstanding project authorizations or approvals to be issued no later than 180 days after the issuance of a record of decision (ROD) or finding of no significant impact (FONSI). These shall include, but not be limited to determinations of NEPA adequacy, categorical exclusions, notices to proceed, and plan approvals.
    - Exceptions can be established for authorizations that require a level of engineering detail that is incompatible with the stage of design development during the NEPA process.

Further Tailor the Scope of NEPA Reasonable Alternatives

Problem: Agencies may include alternatives that are outside the scope of their jurisdiction and that do not achieve the goals of the applicant. This analysis is time-consuming and represents an inefficient use of agency resources. In addition, cooperating agencies can make unreasonable recommendations for alternatives and project conditions.

Solution: Consider only alternatives within the jurisdiction (by law) of the lead agency or cooperating agency. To the greatest extent possible, alternatives must consider the goals of the applicant.

Limit the Scope of Environmental Review to NEPA Small Handles

Problem: Some agencies broaden the scope of an environmental review beyond the portion of a project that is within the agency's control. For example, where an energy project on private lands has a transmission line or pipeline that crosses federal lands, the environmental review should be limited to that element of the project on federal lands rather than the balance of the facility being proposed on private lands.

Solution: Amend the definition of "Major Federal Action" to limit the scope of environmental review to only those actions conducted for the "small handle" portion of a non-federal project (*i.e.*, limit NEPA reviews to potential impacts that are under direct federal agency control).

Establish Statutory Limits on Scope and Scale of Mitigation that can be Imposed

Problem: Agencies have essentially unfettered ability to impose mitigation on proposed projects regardless of reasonableness and whether it is commensurate with expected impacts. For example, as explained in the current version of BLM's NEPA Handbook, "Mitigation includes specific means, measures or practices that would reduce or eliminate effects of the proposed action or alternatives. Mitigation measures can be applied to reduce or eliminate adverse effects to biological, physical, or socioeconomic resources. Mitigation may be used to reduce or avoid adverse impacts, whether or not they are significant in nature."

Solution: Require that mitigation must be commensurate with the impacts of the proposed project and allow project proponents to propose alternative mitigation that, if the applicant can demonstrate it is commensurate with the impacts, shall be accepted by the agency.

Clarify that Major Federal Actions for NEPA are not Solely Based on Funding or Offtake Agreements

Problem: Currently, agency action is typically considered to be a major federal action if it receives federal funds. This can mean projects that are largely outside the scope of federal agency action (on private or state lands for example) are required to undergo a lengthy environmental review process even if they receive de minimis federal funding.

Solution: Clarify that agency action may not be determined to be a major federal action solely on the basis of the provision of Federal funds (grant, loan, loan guarantee, and funding assistance).

Provide that Federal Actions are Not Major Federal Actions if in Existing Rights of Way

Problem: Agencies often undertake lengthy reviews for activities that have minor impacts when they occur in previously developed or disturbed areas, such as existing Rights-of-Way (ROWs).

Solution: Provide that an action by the agency concerned with respect to certain covered activities shall not be considered a major federal action under NEPA, including transmission infrastructure upgrades and meteorological towers in existing energy ROWs.

Clarify When New Scientific Review is Needed

Problem: Under existing law and regulations, it is not clear whether agencies are required to undertake or consider new scientific or technical research after an application has been submitted to the agency. Such research can significantly extend project review timelines, and open NEPA reviews to litigation.

Solution:

- Provide that an agency shall not undertake new scientific and technical research after the receipt of a complete application.
- Provide that an agency shall not consider any new scientific or technical research that becomes publicly available after either the receipt of a complete application, or the publication of a notice of intent of decision to prepare an environmental document.

Prevent Duplicate NEPA Reviews – Allow the Use of Previously Completed Reviews

Problem: Under existing regulations, an agency is not relieved from conducting a NEPA analysis even if it or another agency was required to already conduct substantially similar reviews under another statute.

Solution: Direct the agency concerned to use previously completed environmental assessments and environment impact statements to satisfy NEPA requirements if the Secretary concerned determines that the new proposed action and impacts are substantially similar.

Allow Funding from Non-Federal Entities to Process Permits and Develop Information Technology

Problem: Agencies often lack funding necessary to hire dedicated staff and to upgrade technology for permit reviews. This lack of resources extends project review times.

Solution: Building on the provision in the Fiscal Responsibility Act that directs agencies to prescribe procedures for allowing project sponsors to prepare EAs and EISs, allow the Secretary concerned to accept and expend funds contributed by non-federal entities to pay for dedicated staff and technology upgrades to expedite permits, biological opinions, concurrence letters, and consultations for energy projects.

Define Reasonably Foreseeable Effects

Problem: NEPA requires agencies to provide a detailed statement on reasonably foreseeable effects of a proposed agency action that is a major Federal action. Because the parameters of the term reasonably foreseeable is not well defined, agencies often include effects analysis that consider effects that go well beyond "reasonably foreseeable," and that are outside of their jurisdiction or control. Such analysis is both timely and costly to agencies and project proponents.

Solution:

- **Scope of Review**: Provide that in developing an environmental document, a Federal agency shall only consider the effects of the proposed agency action that are subject to the Federal agency's jurisdiction or control and responsibility.
- **Definition of "reasonably foreseeable"**: Provide that the term "reasonably foreseeable" means:
    - not speculative and based on sound scientific evidence;
    - likely to occur over the life of the major federal action;
    - in an area directly affected by the major federal action (such that an individual of ordinary prudence would take such an occurrence into account in reaching a decision);
    - is directly under the control of the agency; and,
    - has a reasonably close causal relationship between a change in the environment and the major Federal action.
- Note: This issue is currently being litigated in Seven Country Infrastructure v. Eagle County Colorado. If the Supreme Court rules in favor of the plaintiffs, this issue may be resolved.

Reform Judicial Review

Problem: Litigation risk is high for federal agency NEPA decisions and judicial review takes too long to reach a conclusion, which raises costs, slows down infrastructure buildout, and creates uncertainty, all of which depress private investment.

Solution: ACP recommends the following reforms related to judicial review –

- **Vacatur/Remand**
    - **Problem:** If a court finds an agency action unlawful, it typically vacates the action and remands it back to the agency. The agency must then address the deficiencies in its NEPA analysis prior to re-approving/approving the final agency action. While courts may impose a deadline by which time an agency must address the deficiencies, they are not required to do so. This outcome significantly extends project timelines, even if the final agency action is ultimately the same as the final agency action proposed prior to vacatur.
    - **Solutions:**



        - Provide that if the agency action will not pose a risk of "proximate and substantial harm," a court may not vacate the decision and may only remand the document, such that the action may progress while the agency addresses errors or deficiencies in the NEPA document, so long as such activity does not directly impact such errors or deficiencies.
        - Require courts to set a deadline for an agency to act on remand which does not exceed 180 days from the date on which the order of the court was issued.
- **Statute of Limitations**
    - **Problem:** Litigation significantly slows down many projects, even though the agency often prevails. Moreover, under the Administrative Procedure Act plaintiffs can sue up to six years after agency action (and potentially more under *Corner Post).*
    - **Solutions:**
        - Set a 150-day statute of limitations for filing a claim against agency action.
        - Require any filing party to have participated in the administrative proceedings regarding the action.
        - Require a reviewing court to set for expedited consideration any civil action arising under Federal law seeking judicial review of a final agency action granting or denying an authorization.

Ensure Coordination of NEPA and Consultations Pursuant to the National Historic Preservation Act (NHPA) and Archaeological Resources Protection Act (ARPA)

Problem: Sequential, rather than concurrent reviews when feasible, add to project review and approval timelines.

Solution: Congress should require coordination of consultation under NEPA, NHPA, and ARPA as many of the processes require similar studies to identify affected resources, and similar levels of tribal consultation and public engagement. While consultation should be complete on the same timeframe as NEPA, implementation may occur at a later date. As part of this concurrent review, when feasible –

- NHPA and ARPA reviews should start at the same time as the NEPA process whenever feasible (note: there may be circumstances in which partially concurrent review may be all that is feasible, such as when a preferred alternative is still being developed, which will delay the formal NHPA process);
- The same agency should act as lead agency under both NEPA and NHPA section 106 and ARPA;
- The lead agency should develop plans and schedules for cultural and archaeological resource identification studies, consultation and public engagement, and other requirements common to NHPA, ARPA, and NEPA;
- The lead agency should define the Area of Potential Effects for both section 106 of the NHPA, ARPA and NEPA analysis, when possible, like language at 36 C.F.R. § 800.8; and,
- Exempt projects that are in previously disturbed ROWs from NHPA and ARPA review.

Establish Timelines and Adopt Other Improvements to Endangered Species Act (ESA) Reviews and Permitting

Problem: Securing legal and economic certainty via incidental take permits (ITPs) under the ESA takes too long, is too complex and uncertain, and often imposes conditions on projects related to mitigation and/or monitoring that are based on worst-case scenarios and pessimistic assumptions leading to measures that are too costly and not commensurate with expected impacts.

Solution: ACP recommends the following be included in permitting reform legislation –

- Establishing presumptive timelines to complete Section 10 habitat conservation plan (HCP) reviews and to issue an incidental take permit. (Note: timelines already exist in statute for Sec. 7 interagency consultations). To do so, ACP first recommends establishing a notice of intent to apply for an ITP process, which once filed and deemed complete would start the timeline clock. This is important because the formal ITP application often comes only after a habitat conservation plan (HCP) has been discussed with the agency and developed through a process without timelines and which can be dragged out or delayed indefinitely by the agency. To be deemed complete, the notice of intent to apply would include: (1) applicant name and address (2) if a business, the type of business and name/title of the person responsible for the business (3) a description of the project, its location, and relevant facilities and (4) the names of the species sought to be covered by the permit and a statement justifying the applicant's determination that potential incidental take of the species is likely.
    - Once confirming the notice is complete, legislation should establish a presumptive timeline to be run concurrently with the NEPA review of the HCP.
    - For an HCP with an EA, the timeline should be no more than one year for completion of the development of a habitat conservation plan (HCP), notice of intent to prepare an EA for the HCP, and publication of the final EA and HCP. The ITP should then be issued within 90 days.
    - For an HCP requiring an EIS, the timeline for publication of the FEIS should be no more than two years. The ITP should then be issued within 90 days.
- Clarifying Section 10 is an applicant driven process with permit applications evaluated solely as to whether the ESA Section 10 issuance criteria are met.
- Clarifying that the requirement to minimize and mitigate the impacts of take "to the maximum extent practicable," which already exists in statute, does not equate to a requirement to fully offset take, such measures must be commensurate with the expected impact, and impacts considered must not be speculative.
- ACP further recommends codifying that practicability can involve insufficient implementation options and/or financial constraints (both are included in the Service's HCP Handbook). For the financial constraint pathway, legislation should clarify this is sufficiently demonstrated through financial analysis certified by the project proponent and that such analysis is considered confidential business information and not subject to release under

the Freedom of Information Act. The Service should not conduct its own independent financial analysis as they are not qualified to assess.

- Codifying and expanding the use of research as mitigation.
    - Congress should clarify that a permittee's commitment to invest or carry out research, which is likely to provide benefits to a species covered under a permit, be counted toward the mitigation requirements thereunder.
- Encouraging the development and use of low-effect habitat conservation plans (HCPs), 4(d) rules, and/or general permits to expedite coverage and improve certainty for projects with limited impacts.
- Codifying the DC Circuit Court ruling in *Maine Lobstermen's Association v. National Marine Fisheries Service* that ESA consultations must focus on likely outcomes and not worst-case scenarios. Consistent with this case, ESA consultations should be based on the best available scientific data and not the most pessimistic. The court in this case made clear that agencies may not use the precautionary principle unless explicitly directed to by congress. Codifying the fact that NMFS and FWS may not use the precautionary principle will remove any doubt and help ensure the proper implementation of the ESA.
- Codifying availability of and criteria for general conservation plans (GCPs, currently included in the HCP Handbook), with clarification that: (1) the appropriate mitigation threshold is "maximum extent practicable" and GCPs are not required to result in no net loss to a species or a conservation benefit (2) GCPs are an appropriate tool where an industry has a generally accepted approach to minimization measures (3) GCPs are appropriate where the primary threats to a given species is not driven by anthropogenic causes and can best be addressed by coordinated conservation and/or research efforts and (4) development of a GCP by the Service should include industry and other stakeholders with knowledge of the practical aspects of project construction, operation, maintenance, and financing, and, if completed, must also include an ongoing advisory committee to provide technical and practical expertise to ensure the GCP remains workable for the subject industry.
- Clarifying lands covered by Enhancement of Survival Permits; Conservation Benefit Agreements; Habitat Conservation Plans; and other voluntary conservation agreements are excluded from critical habitat designations.

Conclusion

Thank you for your consideration of the recommendations included above. Please do not hesitate to let ACP know if we can provide any additional information as the EPW Committee continues your deliberations.

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

DISPELLING THE MYTHS OF PERMITTING REFORM AND IDENTIFYING EFFECTIVE PATHWAYS FORWARD

by David E. Adelman, Sommer Engels, Andrew Mergen, and Jamie Pleune

David E. Adelman is the Harry M. Reasoner Regents Chair in Law at the University of Texas at Austin. Sommer Engels is a Clinical Instructor at the Emmett Environmental Law and Policy Clinic, Harvard Law School. Andrew Mergen is a Visiting Assistant Clinical Professor of Law and Faculty Director at the Emmett Clinic. Jamie Pleune is Associate Professor of Law (Research) at the S.J. Quinney College of Law, University of Utah, and Fellow at the Wallace Stegner Center for Land, Resources, and the Environment.

SUMMARY

Four myths are distorting the national debate over permit reform. First, it is misconceived as a singular issue, with the National Environmental Policy Act (NEPA) at its center. Second, reformers assume that federal reviews and permitting cause most project delays and failures. Third, there is a widespread belief that environmental laws are routinely weaponized against new infrastructure through obstructive litigation. Fourth, critics assert that environmental procedures and standards must be sacrificed to enable timely climate action. This Article debunks these myths and asserts that permitting efficiency is not incompatible with strong environmental standards, rigorous analysis, transparency, or public engagement. An empirically grounded approach would address the true causes of delay and reject the prevailing perspective that assumes deregulation is the only option. Increasing agency capacity through adequate funding, staffing, and training improves the permitting process for everyone. Interagency coordination reduces delays caused by inconsistent or redundant standards. Early, meaningful public engagement avoids delays by proactively addressing community concerns and mitigating harms. Agencies have already adopted these types of programs, improving efficiency without compromising regulatory standards. The Article proposes several principles that should guide permitting reform, describes established programs that should serve as models, and identifies future work that would promote an informed and constructive national debate.

Today's polarized politics rarely leave room for agreement, but the promise of "permit reform" could be an exception. On the right, proposals to shrink the federal government and eliminate regulations are nothing new. In 1981, during his inaugural address, President Ronald Reagan stated, "government is not the solution to our problem; government is the problem."[1] In 2024, shortly after his reelection, president-elect Donald Trump took up this common refrain by announcing a "Department of Government Efficiency" with a mandate to "dismantle Government Bureaucracy, slash excess regulations, cut wasteful expenditures, and restructure Federal Agencies."[2]

On the left, recent support for permit reform is founded on a fear that federal environmental laws are stifling efforts to address climate change.[3] In short, they believe that envi-

Authors' Note: While at the U.S. Department of Justice, Andrew Mergen and Sommer Engels worked on several of the cases cited in this Article. The Article relies solely on public information. They have since left federal employment, and contributed to this Article in their personal capacities. The Wallace Stegner Center is funded in part by the Wilburforce Foundation and the ESSR Wallace Stegner Endowment; neither funder exercised editorial or substantive control over the content or development of this Article.

1. Ronald Reagan's Inaugural Address (Jan. 20, 1981), https://www.reaganfoundation.org/ronald-reagan/reagan-quotes-speeches/inaugural-address-2/ (last visited Dec. 5, 2024).
2. Robin Bravender, *Wanted: "Small-Government Revolutionaries" for DOGE Team*, E&E News (Nov. 14, 2024), https://www.eenews.net/articles/wanted-small-government-revolutionaries-for-doge-team/.
3. *See, e.g.*, Press Release, Sen. Joe Manchin, Manchin Supports Inflation Reduction Act of 2022 (July 27, 2022), https://www.manchin.senate.ov/newsroom/press-releases/manchin-supports-inflation-reduction-act-of-

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

ronmental regulations are preventing rapid deployment of renewable energy projects, electrical transmission lines, and other critical infrastructure.[4] As legal scholar Michael Gerrard put it, "[s]ociety has run out of time to save everything we want to save, and to mull things over for years."[5]

The narrative that regulations cause delay resonates, because everyone has experienced permit-related frustration. Whether it is waiting for a building permit that took months to issue, wandering through bureaucratic hallways to obtain a business license, or watching a local infrastructure project mired in obscure government processes, we have all been there. The mere mention of permitting evokes images of sticky red tape and unhurried, out-of-touch bureaucrats.[6] The solution, in this light, is obvious—cut procedures and relax protections.

While this sense of urgency is understandable, the focus on deregulation is grounded on four myths that are distorting public perceptions and policymaking. The four myths embody a zero-sum mentality that pits essential environmental procedures and protections against the exigency of addressing climate change. The four myths are that: (1) federal environmental permitting is a rigid monolith with the National Environmental Policy Act (NEPA)[7] at its center; (2) federal environmental reviews and permitting are the primary reason that infrastructure projects are delayed or cancelled; (3) environmental laws are systematically weaponized against the construction of new infrastructure via obstructive litigation in federal courts; and (4) federal environmental procedures and standards must be sacrificed for the green energy transition to proceed at the scale and speed required to address climate change.

Each of these myths is premised on misperceptions of the law, the facts, or both. The available empirical record shows that environmental reviews and permitting rarely delay or block utility-scale renewable energy projects, that environmental litigation (outside specific locations and types of projects) is seldom a factor, and that permitting reform does not have to occur at the expense of environmental procedures and standards. While environmental laws certainly play a role in shaping the pace and scale of infrastructure development, in practice, they are one among many factors, and rarely the rate-limiting one.[8] Indeed, the fixation on environmental laws often obscures other more important challenges, such as the growing patchwork of state and local regulations that make development difficult to navigate, unpredictable, or impossible. Local opposition is fueling this gridlock and exposing tensions in our federal-state system, which recent U.S. Supreme Court decisions limiting agency authority will exacerbate.

The problems that have been documented with environmental programs typically have little to do with how they are structured, but instead derive from prosaic administrative problems. For example, limited agency budgets lead to insufficient staff, or an inadequate number of staff with the necessary expertise. Inconsistent policies across regions, offices, and personnel reduce the predictability and speed of the permitting process. Similarly, antiquated technology and data management can exacerbate inefficiency. By skirting these issues, the public debate misses the most pressing sources of administrative delays. Effective permit reform must prioritize understanding and addressing these administrative and resource deficiencies.

This Article's goal is to shift the debate over permitting reform away from the presumption that deregulation is desirable, and toward policies that substantively and practically improve permitting processes for project proponents, communities, and the environment. We begin by debunking the four myths that are driving the calls for deregulation and undermining effective reforms. We then examine the actual sources of delay before proposing several principles that should guide permitting reform, describing model programs already being implemented, and identifying future work that would promote informed policymaking.

Finally, a note about footnotes. We have tried to keep the tone of the Article conversational. In some places, this means that we summarize how an area of law tends to be implemented, describe a practical nuance about project development, make litigation-related observations, or distill a larger conversation into a brief summary without providing comprehensive footnotes covering each assertion. We have taken this approach deliberately. Prioritizing succinctness allowed us to more effectively communicate our shared observations and perceptions about the myths and realities surrounding the permit reform debate.

2022; Ezra Klein, *What America Needs Is a Liberalism That Builds*, N.Y. Times (May 29, 2022), https://www.nytimes.com/2022/05/29/opinion/biden-liberalism-infrastructure-building.html (urging policymakers "to reform or waive large sections of the National Environmental Policy Act to speed the construction of clean energy infrastructure"); *see also* Jerusalem Demsas, *Not Everyone Should Have a Say*, Atlantic (Oct. 19, 2022), https://www.theatlantic.com/ideas/archive/2022/10/environmentalists-nimby-permitting-reform-nepa/671775/ (characterizing the National Environmental Policy Act (NEPA) as the "weapon of choice" for "grouchy people with time on their hands" and a desire to block "*everything*").

4. J.B. Ruhl & James Salzman, *The Greens' Dilemma*, 73 Emory L.J. 1, 9 (2023) (warning that the "use of environmental laws now presents a core challenge to the rapid [deployment of infrastructure] needed to achieve our national climate . . . goals").

5. Michael Gerrard, *A Time for Triage*, 39 Env't F. 38, 40 (2022).

6. *See* Eric Biber & J.B. Ruhl, *The Permit Power Revisited: The Theory and Practice of Regulatory Permits in the Administrative State*, 64 Duke L.J. 133 (2014), describing Prof. Richard Epstein's concern that bureaucrats:

> entrench and abuse the permit power by promulgating elaborate sets of administrative procedures, imposing onerous conditions for the granting of a permit, manufacturing excuses for delay, retaining the power to revise or terminate permits virtually at will, adopting amorphous substantive standards that justify any outcome the agency prefers, and piling up the need to obtain multiple permits for the most mundane of activities

as a "caricature."

7. 42 U.S.C. §§4321 et seq.

8. Robi Nilson et al., Survey of Utility-Scale Wind and Solar Developers Report 12-13, 47, 54 (2024), https://live-etabiblio.pantheonsite.io/sites/default/files/w3s_developer_survey_report_-011824_version.pdf; *see also* Ann Ferris et al., *The Impacts of Environmental Regulation on the U.S. Economy* (U.S. Environmental Protection Agency National Center for Environmental Economics, Working Paper No. 17-01, 2017) (providing a literature review of studies analyzing the impacts of environmental regulations on the economy).

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

I. Four Myths Undermine Effective Permitting Reform

A. *Myth 1: Environmental Permitting Is a Monolith With NEPA at the Center*

Proponents of "permitting reform" tend to speak in generalities that elide the complexity of infrastructure development and obscure the principal sources of delay. The misconceptions overshadowing permitting reform are exemplified by two "permit reform" proposals in the U.S. Congress last fall.[9] The U.S. Senate bill (The Energy Permitting Reform Act of 2024), sponsored by Sens. Joe Manchin (I-W. Va.) and John Barrasso (R.-Wyo.), focused on restricting judicial review and expediting categories of projects through reduced or altered regulatory requirements.[10] The U.S. House of Representatives bill, sponsored by Rep. Bruce Westerman (R-Ark.), focuses on overhauling NEPA by raising the threshold to trigger an environmental review, reducing the scope of analysis, and restricting litigation.[11]

These proposals mirror some of the NEPA amendments that Congress recently included in the Fiscal Responsibility Act.[12] The nominal objective of these amendments was to limit the scope and timing of environmental reviews.[13] Above all, this effort reflected a myopic focus on one statistic: the 4.5-year average time it takes to complete an environmental impact statement (EIS).[14] This figure is not representative of all NEPA processes or their utility. Indeed, among many other factors, it does not reflect the decades-long decline in EISs required annually or the predominance of streamlined procedures—EISs are prepared for roughly 1% of the federal actions subject to NEPA.[15]

Nor is NEPA representative of "environmental permitting" as a whole. NEPA may be a part of a broader permitting process, but efforts to reform NEPA in the name of permitting reform cannot address issues with substantive permitting programs, such as those under the Endangered Species Act (ESA)[16] or the Clean Water Act (CWA).[17] To the contrary, those efforts could undermine other permitting processes because NEPA procedures provide a structure for coordinating permitting decisions and other approval processes across federal agencies. According to the Congressional Research Service, "[m]ost agencies use NEPA as an umbrella statute—that is, a framework to coordinate or demonstrate compliance with any studies, reviews, or consultations required by any other environmental laws."[18] Ironically, this coordinating role can lead NEPA to be blamed for project delays when the procedures necessary to comply with other laws were in fact to blame.[19]

Several recent studies suggest that the coordinating framework provided by NEPA facilitates decisionmaking.[20] Environmental reviews are designed to expose preventable environmental impacts through effective redesign or engineering that avoids, reduces, or mitigates impacts.[21] By exposing avoidable impacts, NEPA procedures can reduce project development times and costs by identifying mitigation options before a project is implemented. A study for the Transportation Research Board emphasized this role of NEPA procedures: "[s]pending more monies during planning and design will reduce the time and cost required for construction by avoiding unforeseen conditions, reducing to a minimum design errors and omissions, and developing schemes that will support the most efficient approach to construction."[22] The focus on NEPA procedures in isolation ignores the time-saving gains that are often achieved at other stages of the development process.

Other permitting reform efforts have targeted other federal environmental statutes, such as the National Historic Preservation Act (NHPA), the ESA, and CWA wetland protections under §404, and lumped them together with

9. Kelsey Brugger, *Westerman's NEPA Bill Shakes Up Permitting Talks*, E&E News (Sept. 12, 2024), https://www.eenews.net/articles/westermans-nepa-bill-shakes-up-permitting-talks/.
10. Press Release, Senate Committee on Energy and Natural Resources, Manchin, Barrasso Release Bipartisan Energy Permitting Reform Legislation (July 22, 2024), https://www.energy.senate.gov/2024/7/manchin-barrasso-release-bipartisan-energy-permitting-reform-legislation.
11. Garrett Downs, *Natural Resources Committee Gears Up for NEPA Brawl*, E&E Daily (Sept. 9, 2024), https://www.eenews.net/articles/natural-resources-committee-gears-up-for-nepa-brawl/. Draft H.R. ___, To Amend the National Environmental Policy Act of 1969, and for Other Purposes (Rep. Westerman) (118th Cong.).
12. Pub. L. No. 118-5, div. C, tit. III, §321(a), 137 Stat. 10, 38-39 (2023); *see generally* Daniel A. Farber, *Rewriting NEPA: Statutory Continuity and Disruption in a Polarized Era*, Mich. J. Env't & Admin. L. (forthcoming) (manuscript at 7-19), *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4710933.
13. Congressional Research Service, IF12417, In Focus: Environmental Reviews in the 118th Congress (2023).
14. *See, e.g.*, Ezra Klein Show, *The I.R.A. Passed a Year Ago. Here's a Progress Check.*, N.Y. Times (July 7, 2023), https://www.nytimes.com/2023/07/07/opinion/ezra-klein-podcast-robinson-meyer.html (publishing Ezra Klein's interview of Robinson Meyer).
15. Government Accountability Office (GAO), GAO-14-370, National Environmental Policy Act: Little Information Exists on NEPA Analyses 8 (2014) [hereinafter GAO, Little Information Exists on NEPA].
16. 16 U.S.C. §§1531 et seq.
17. 33 U.S.C. §§1251 et seq.
18. Congressional Research Service, RL33152, The National Environmental Policy Act (NEPA): Background and Implementation 1 (2011).
19. *Id.*; *see also* John C. Ruple et al., *Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation*, 46 Colum. J. Env't L. 273, 317-22 (2022) (exploring this dynamic with the National Forest Management Act).
20. John C. Ruple et al., *Does NEPA Help or Harm ESA Critical Habitat Designations? An Assessment of Over 600 Critical Habitat Rules*, 46 Ecology L.Q. 829, 842 (2019) (finding that critical habitat designations subject to NEPA review were completed an average of 93 days faster than those that were not subject to NEPA review).
21. Mark C. Capone & John C. Ruple, *NEPA and the Energy Policy Act of 2005 Statutory Categorical Exclusions: What Are the Environmental Costs of Expedited Oil and Gas Development?*, 18 Vt. J. Env't L. 371, 391-93 (2017) (finding that oil and gas wells that utilized a statutory categorical exclusion (CE) rather than a more rigorous environmental analysis had significantly greater environmental impacts, in part because piecemeal approvals led to inefficient well-pad and road construction).
22. Linda Luther, Congressional Research Service, R42479, The Role of the Environmental Review Process in Federally Funded Highway Projects: Background and Issues for Congress 36 (2012) (citing H. Randolph Thomas & Ralph D. Ellis, National Research Council, Avoiding Delays During the Construction Phase of Highway Projects (2001) (NCHRP 20-24)).

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

NEPA as major barriers to rapid deployment of renewables and other green infrastructure.[23] This finger-pointing is misguided for reasons we discuss in the next part. But it is doubly misguided because it fails to appreciate the practical differences between these statutes. NEPA and the NHPA, for example, are purely procedural; others, like the ESA, have both substantive and procedural requirements. These statutes are categorically different and present fundamentally different regulatory challenges.

The debate over permitting reform presumes that deregulation is a global solution. Yet, "permitting" covers an extraordinarily broad range of infrastructure and resource development projects that are constructed in divergent geographic and legal settings. For example, the regulatory programs (local, state, and federal) applicable to a large solar project on private land in Texas are very different than those for a copper mine on public land in Arizona. The nature and severity of environmental impacts, and the degree to which they can be mitigated, differ in magnitude and type, as does the jurisdiction of federal environmental laws.

Broadly speaking, the relative importance of federal versus state and local laws is often determined by whether a project is located on federal or private land—if the former, federal laws control; if the latter, state and local laws are often most important. Thus, federal environmental reviews and permits are nearly unavoidable for most copper mines in Arizona, but most solar projects in Texas do not require either. In other words, the nature and setting of a project are critical to whether and how federal laws will apply.

What is "permitting," then? To address permitting constructively, we need to have a clear understanding of its scope, functions, and purposes. We will define a "permit" broadly as a legal authorization to undertake an otherwise prohibited activity if specific conditions are met, consistent with the governing statute and regulations.[24] Permits are, in effect, legal contracts that agencies use to implement, administer, and enforce environmental statutes.[25] As such, they create substantive rights and obligations, are subject to procedural and due process requirements, and must be adequately enforced.

Substantively, they either provide access to public resources (e.g., oil and gas, mining, grazing permits) or they regulate conduct with detrimental environmental impacts (e.g., air, water, wetland permits) consistent with the governing statutes. Procedurally, permitting decisions are public, transparent, reasoned, and grounded on statutory and regulatory criteria. Where appropriate and legally mandated, permitting processes will include public outreach and provide time for public comment. For purposes of due process, the terms and conditions of permits should be clear and consistent, which ensures that they are both fair and readily enforceable. Finally, the enforcement should be principled and designed to ensure that regulatory compliance is rewarded and violators do not receive an unfair advantage. In short, permitting should not stifle good projects, and it should not rubber-stamp bad projects.

B. *Myth 2: Environmental Permitting Is the Primary Source of Project Delays and Failures*

Anecdotes about federal environmental reviews and permits obstructing deployment of green infrastructure do not match reality. Data from the past 14 years show that most renewable projects and transmission lines either do not require federal environmental reviews or permits or, if they do, are able to benefit from streamlined processes, often ones compatible with the shortest timelines conceivable, roughly two to five years, for major projects.[26]

Direct experience and understanding of the laws prove this point. Utility-scale wind and solar projects, for example, tend to affect lands including wetlands and species habitat, and endangered and other protected species. The principal environmental statutes include environmental reviews under NEPA, wetlands protections under CWA §404, and wildlife protection under several overlapping laws, including the ESA.[27] All of those statutes have tiered structures for calibrating the stringency of procedures and permitting, and, because one project can create obligations under other statutes, interact and complement each other.[28]

Take reviews under NEPA, for example. At the outset, NEPA applies broadly—to all "major Federal actions significantly affecting the quality of the human environment."[29] However, the rigor of the analysis and disclosures required depend on the significance of a project's impacts.[30] Only projects with significant impacts require rigorous review under an EIS.[31] Empirical studies have long found that

23. *See, e.g.*, Nikki Chiappa, *NEPA Nightmares: Tales From the Litigation Doom Loop*, Breakthrough Inst. (Aug. 28, 2024), https://thebreakthrough.org/journal/no-20-spring-2024/nepa-nightmares (arguing that the "National Environmental Protection [sic] Act" is a "major source of delay" but discussing a project implicating both NEPA and CWA §404); Nikki Chiappa & Elizabeth McCarthy, *NEPA Nightmares II: The North Sky River Wind Energy Project*, Breakthrough Inst. (Sept. 11, 2024), https://www.breakthroughjournal.org/p/nepa-nightmares-ii-the-north-sky?utm_source=publication-search (same, but discussing a project implicating both NEPA and the ESA, as well as several state statutes).
24. *See, e.g.*, Biber & Ruhl, *supra* note 6, at 137.
25. *See, e.g.*, Mid Valley Pipeline Co., L.L.C. v. Rodgers, 103 F.4th 1114, 1119-20 (5th Cir. 2024) (summarizing the general framework for determining whether a permit should be considered a contract, which considers whether the permit creates affirmative obligations on the government's behalf, whether it is transferable, whether the government reserved the right to cancel the permit, whether it includes "contract-like language," and whether it contemplates expensive investments that would typically be protected through a mutually binding agreement).
26. David E. Adelman, *Permitting Reform's False Choice*, 51 Ecology L.Q. 134-35, 173 (2024); Nilson et al., *supra* note 8, at 9-12 (survey of wind and solar project developers finding that environmental regulations were the cause of project delays or cancellations in less than 15% of the projects).
27. The NHPA, and particularly the §106 consultation process, can impact project timelines as well, but there are virtually no data and no empirical studies of NHPA consultations, despite their close connection with NEPA procedures.
28. Section 404 permitting may also be integrated with the ESA's §7 consultation process.
29. 42 U.S.C. §4332(2)(C).
30. *Id.* §4336(b); 40 C.F.R. §1501.3 (2022).
31. 40 C.F.R. §1502.1 (2022).

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

EISs are required in only about 1% of the federal actions subject to NEPA.[32] The number of EISs issued annually has also fallen for decades, from more than 2,000 in the 1970s, to roughly 600 in the 1990s, to fewer than 200 in the 2020s.[33]

All other federal actions are subject to less burdensome reviews.[34] If a project does not have significant impacts, an environmental assessment (EA) and accompanying "finding of no significant impact" (FONSI) will suffice.[35] Developers often alter projects (or adopt mitigation measures) to reduce impacts below the level of significance that would require an EIS.[36] Categorical exclusions (CEs), the other streamlined process, exempt general "categories of actions which do not individually or cumulatively have a significant effect on the environment."[37]

When a CE is applicable, the review process is limited to a cursory analysis to ensure that a project fits within the defined exclusion and that no "extraordinary circumstances" exist that could cause significant impacts.[38] Thousands of CEs have been promulgated under agency regulations across the federal government.[39] For the streamlined EA and CE processes, the average completion times are estimated to be one to 1.5 years, and one to two days to half a year, respectively.[40]

Streamlined procedures dominate ESA reviews too. Under §7 of the ESA, federal agencies must ensure that their actions are not likely to jeopardize listed species. These "actions" can include infrastructure projects undertaken or funded by a federal agency, or projects undertaken by states or municipalities that require a federal approval. Before taking an action that agency biologists determine may affect a listed species, the responsible federal agency must "consult" with either the U.S. Fish and Wildlife Service (FWS) or National Marine Fisheries Service (NMFS), depending on the species at issue.[41] But the stringency of this consultation varies.

Projects that may affect, but are not likely to adversely affect, a listed species are subject to only "informal consultation," which typically culminates in a letter confirming that jeopardy is unlikely to occur.[42] Projects that are likely to adversely affect a listed species undergo "formal consultation," which ends in a biological opinion articulating the consulting agency's assessment of whether the action is likely to jeopardize the affected species.[43] A comprehensive study of §7 consultations for the years 2008-2015 found that 81,461 were informal, an average of 11,113 per year, and 6,829 were formal, an average of 932 per year, or 8% of the total.[44] On average, the informal consultations studied were completed in just 26 days (median 13 days), and formal consultations averaged 111 days (61 days median).[45] None of these consultations resulted in project cancellation.[46]

The trends for wetland permitting under CWA §404 mirror those for NEPA and the ESA—most projects are processed under streamlined processes or avoid federal environmental reviews or permitting altogether. The overarching objective of §404 is to prevent the "net loss" of wetlands.[47] The wetland permitting program therefore limits impacts on wetlands by requiring permit applicants to create, enhance, restore, or preserve other wetlands for any impacts that are unavoidable.[48] The U.S. Army Corps of Engineers (the Corps) issues about 60,000 wetland permits each year,[49] but the vast majority of these (roughly 97%) are

32. GAO, Little Information Exists on NEPA, *supra* note 15, at 8-9 (estimating that 94% of federal actions were under CEs and about 5% require an environmental assessment (EA)); see also *Council on Environmental Quality (CEQ). The National Environmental Policy Act: A Study of Its Effectiveness After Twenty-Five Years* 19 (1997) (estimating that the number of EAs prepared annually was closer to 50,000).
33. Adelman, *supra* note 26, at 139. This trend may explain, in part, why the average completion time for EISs, 4.5 years (median 3.5 years), has been difficult for agencies to lower. If the threshold for triggering an EIS has risen over time, leading to fewer EISs completed annually, then the complexity and significance of project impacts addressed in the few remaining EISs may have also increased and driven up average completion times.
34. 40 C.F.R. §1501.5 (describing EAs, which are required for projects that are not likely to have significant effects or where the significance is unknown); *id.* §1501.4 (describing CEs). Recent amendments to NEPA, adopted through the Fiscal Responsibility Act, incorporated these two practices (EAs and CEs) directly into the statute. 42 U.S.C. §106(b).
35. 40 C.F.R. §1508.9 (1978).
36. Daniel R. Mandelker, *New Directions in Environmental Law: The National Environmental Policy Act: A Review of Its Experience and Problems*, 32 Wash. U. J. L. & Pol'y 293, 298 (2010).
37. 40 C.F.R. §1508.4 (1978).
38. *Id.*
39. CEQ, *Categorical Exclusions*, https://ceq.doe.gov/nepa-practice/categorical-exclusions.html (last visited Dec. 5, 2024) (providing a link to download a central database of CEs organized by agency and available in an excel spreadsheet). Other CEs are created by statute. The Healthy Forests Restoration Act, 16 U.S.C. §6554(d)(1), and the Energy Policy Act, 42 U.S.C. §15942, for example, both created statutory exemptions, and Congress is frequently urged to create others. One downside to this approach is that Congress may lack the expertise to say with certainty that the excluded action is without environmental significance—the appropriate standard for issuance of a CE. Regulatory CEs, by contrast, are intended to reflect the issuing agency's real-world expertise.
40. CEQ, *supra* note 32, at 19 (these numbers include draft, revised, supplemental, and final EISs).
41. 16 U.S.C. §1536(a)(3)-(4).
42. 50 C.F.R. §402.13.
43. *See* 16 U.S.C. §1536(b); *see also id.* §1532(19), §1538(a)(1)(B); 50 C.F.R. §§17.21(a), 17.31(a) (2018) (further defining "take" and extending the take provisions to protect threatened species under 33 U.S.C. §1533(d) authority); *see also* Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or., 515 U.S. 687 (1995) (defining the scope of "take").
44. Jacob M. Malcom & Ya-Wei Li, *Data Contradict Common Perceptions About a Controversial Provision of the US Endangered Species Act*, 112 PNAS 15844, 15845 (2015), https://www.pnas.org/doi/epdf/10.1073/pnas.1516938112. These numbers exclude 110,850 consultations recorded as technical assistance over the same time period. *Id.*
45. *Id.* It is notable that the duration of formal consultations in 90th percentile was still less than one year. *Id.*
46. *Id.* (a court overturned the jeopardy finding in one case and the other involved a California water project and the Delta smelt, and the project was ultimately allowed to proceed).
47. J.B. Ruhl & James Salzman, *Gaming the Past: The Theory and Practice of Historic Baselines in the Administrative State*, 64 Vand. L. Rev. 1, 29-35 (2011).
48. U.S. Environmental Protection Agency (EPA), *Section 404 of the Clean Water Act: Permitting Discharges of Dredge or Fill Material*, https://www.epa.gov/cwa-404 (last updated Dec. 2, 2024).
49. Congressional Research Service, 97-223, The Army Corps of Engineers' Nationwide Permits Program: Issues and Regulatory Developments 2-3 (2017). During the years 2012 through 2015, the Corps authorized an average of 63,000 actions impacting wetlands each year; roughly 50,000 were authorized under nationwide permits (NWPs), and of these, 31,000 did not require an application or prior approval by the Corps. *Id.*

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

general permits covering broad categories of projects rather than standard permits for specific projects.[50]

The Corps currently issues about 1,900 standard permits annually.[51] In a study of wetland permitting for 2016, nationwide permits that require Corps approval were, on average, processed in 40 days, whereas standard permits averaged 217 days to process from the date of the public notice.[52] However, if you include the period prior to the public notice, processing times for standard permits are likely closer to two to three years.[53]

In summary, most green infrastructure has not been subject to federal environmental reviews or permits. The most important exceptions to this general rule are projects located on federal land or in federal waters. When federal environmental laws apply, streamlined processes predominate and processing times are typically less than one year. Little evidence exists that federal environmental laws are the primary source of project delays or cancellations.

C. *Myth 3: Environmental Laws Are Being Weaponized Against New Infrastructure*

High-profile "impact" litigation has been a staple of environmental advocacy since the 1960s, and it has recently overshadowed the debate over permitting reform. Many of the most celebrated environmental victories have involved lawsuits to delay or stop the construction or operation of major facilities, infrastructure, and resource extraction projects.[54] Notable examples include the famous "snail darter" cases against the Tellico Dam in Tennessee,[55] the landmark "spotted owl" litigation that shut down logging in the Pacific Northwest,[56] and climate litigation against fossil fuel infrastructure.[57]

It is therefore no surprise that proponents of permitting reform believe that NEPA, the ESA, and other "look before you leap" statutes must be weakened if green infrastructure projects are to proceed without delay.[58] And their warnings are not merely speculative, as the notorious Cape Wind example demonstrates.[59] Recent litigation against lithium mines in Nevada and the SunZia interstate transmission line in the Southwest provide further support for this narrative.[60]

Concerns about environmental litigation rest on assumptions about the perceived environmental impacts of new infrastructure and the actual threat of litigation. Yet, the environmental footprint of most green infrastructure is different in kind and significance from the industrial projects and extractive activities that were the subject of earlier litigation campaigns.[61] The capacity to avoid or mitigate the environmental impacts of green infrastructure is reflected in a recent Nature Conservancy study, which found that the scale of renewable development required to address climate change could be met without unduly impacting sensitive and critical ecosystems.[62]

By contrast, prior environmental litigation focused on industries with outsized impacts on human health or the environment, or on protection of unique and vulnerable natural resources. The severity of the impacts was integral to the strength of the cases, the motivation for filing them, and the injunctive relief the plaintiffs obtained. The

50. *Id.*; *see* Dave Owen, *Regional Federal Administration*, 63 UCLA L. Rev. 58, 82 (2016); Ryan W. Taylor, *Wetlands Protection: The Forgotten Agenda*, *in* Widening the Scope of Environmental Policies in North America: Towards Blue Approaches 94 (Gustavo Sosa-Nunez ed., Springer 2018); *see also* Congressional Research Service, *supra* note 49, at 6-7, 18-19. The most important NWPs for renewables and transmission lines are NWP 57, which covers utility lines and associated facilities; NWP 14, which covers linear transportation projects; and NWP 51, which covers land-based renewable energy projects. U.S. Army Corps of Engineers Headquarters, *2021 Nationwide Permit Information*, https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/ (last visited Dec. 5, 2024). Each of these NWPs is self-certifying, but General Condition 18 requires nonfederal actors to provide notice to the Corps if a listed species is found in the vicinity of a project, and this triggers the ESA §7 consultation process. *Id.*

51. Adelman, *supra* note 26, at 171.

52. Congressional Research Service, *supra* note 49, at 2.

53. This estimate is based on discussion with practicing attorneys.

54. Ezra Klein, *Government Is Flailing, in Part Because Liberals Hobbled It*, N.Y. Times (Mar. 13, 2022), https://www.nytimes.com/2022/03/13/opinion/berkeley-enrollment-climate-crisis.html; Klein, *supra* note 3 (using the history of environmental activism to argue that there is "an entire branch of liberalism . . . dedicated to criticizing and then suing and restraining government").

55. Zygmunt J.B. Plater, *Endangered Species Act Lessons Over 30 Years, and the Legacy of the Snail Darter, a Small Fish in a Pork Barrel*, 34 Env't L. 289, 293-94 (2004) (describing the snail darter case as an "extraordinary legal marker . . . in the development of . . . environmental law").

56. William H. Rodgers Jr., *The Most Creative Moments in the History of Environmental Law: "The Whats,"* 2000 U. Ill. L. Rev. 1, 21-22 (2000) (quoting the lead attorney's characterization of the case as "unprecedented in its geographic scope, diversity of legal theories, political controversy, and effective ecological impact").

57. James W. Coleman, *Pipelines & Power-Lines: Building the Energy Transport*, 80 Ohio St. L.J. 263, 279-80 (2019) (describing the litigation against gas and oil pipelines under several environmental laws); Michael Grunwald, *Inside the War on Coal*, Politico (May 26, 2015), https://www.politico.com/agenda/story/2015/05/inside-war-on-coal-000002/ (describing the Sierra Club's litigation campaign, which was largely funded by Michael Bloomberg).

58. *See, e.g.*, Nikki Chiappa et al., Breakthrough Institute, Understanding NEPA Litigation: A Systematic Review of Recent NEPA-Related Appellate Court Cases 2 (2024) (asserting that "NEPA litigation overwhelmingly functions as a form of delay, as most cases take years before courts ultimately rule in favor of the defending federal agency").

59. Public Emps. for Env't Resp. v. Hopper, 827 F.3d 1077, 1090 (D.C. Cir. 2016) (vacating Cape Wind Project's EIS and incidental take statement).

60. Alana Semuels, *Is Your Electric Car Worth the Extinction of a Species?*, Time (Apr. 27, 2023), https://time.com/6274915/lithium-mining-ustiehms-buckwheat/; Scott Sonner, *9th Circuit Denies Bid by Environmentalists and Tribes to Block Nevada Lithium Mine*, AP News (July 17, 2023), https://apnews.com/article/nevada-thacker-pass-lithium-mine-4ad772a6940eb8edd507b50a179202f2.

61. Admittedly, there are elements of green infrastructure, such as critical mineral mines or battery processing plants, that have large environmental footprints akin to those of traditional extractive industries. These projects deserve rigorous analysis and should be required to meet environmental standards. As discussed in more detail below, rigor need not be the enemy of efficiency. Our point here is that most renewable energy projects have dramatically smaller environmental footprints—a reality the permit reform debate has not grappled with substantively.

62. Grace C. Wu et al., *Minimizing Habitat Conflicts in Meeting Net-Zero Energy Targets in the Western United States*, 120 PNAS 1 (2023); Grace C. Wu et al., *Low-Impact Land Use Pathways to Deep Decarbonization of Electricity*, 15 Env't Rsch. Letters 1 (2020).

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

litigation also required large sources of funding, and this was particularly true for campaigns involving suits against numerous defendants.[63]

The categorical differences in the nature and significance of environmental impacts are reflected in the relatively low number of green infrastructure projects that have required an EIS or project-specific permits. These attributes also make it much harder to identify viable claims under federal environmental laws. For example, if neither a federal environmental review nor a permit is required for a project, there is no final agency action to challenge. While a project opponent could file a case asserting that an environmental review or permit was required, prevailing in such cases is exceedingly difficult.

Further, if an environmental review or permit is issued, a project opponent could challenge this procedurally or substantively, but, again, the modest environmental impacts will make this an uphill battle and obtaining injunctive relief will be even less likely. For these reasons, as described in more detail below, the fear of federal litigation as a systemic source of delay is overblown.

1. Most Green Infrastructure Projects Are Not Challenged in Federal Court

The legal and factual barriers to litigation are consistent with the strikingly low numbers of cases filed against wind and solar projects between 2010 and 2021.[64] Over this period, the generating capacity of utility-scale solar projects grew by 270 times and wind capacity rose by a factor of three.[65] Yet, only 28 cases were filed against 21 wind projects and 14 cases against eight solar projects; overall, about 3% of wind projects and less than 1% of solar projects were subject to litigation under a federal environmental statute.[66]

Although the small number of cases makes generalizing difficult, the cases appear to track unique ecosystems and endangered species, particularly desert species for solar and bats for wind. The litigation over wind projects in the Midwest and Northeast, largely around offshore wind, include clear examples of environmental laws being leveraged against green infrastructure, but the total number of projects challenged (12) is small.[67] The litigation over solar projects was even more localized—all 14 cases were filed in California and involved projects sited in sensitive desert habitats, tribal issues, thermal solar projects with greater environmental impacts, or combinations of all three.[68] In the past two years, new federal cases filed against wind projects have exclusively targeted offshore projects in the Atlantic and no new cases have been filed against solar projects.[69]

A recent study of public opposition to wind and solar projects found that litigation under federal environmental laws occurred in just 12% of the projects subject to public opposition.[70] The data highlight two classes of projects that are mirror images of each other: those on federal land, where public opposition is limited to challenges under federal laws; and those on private land, where public opposition centers on state or local permitting authorities or state courts. This dichotomy is driven by three reinforcing factors: (1) state land use regulations do not apply to federal lands; (2) projects on private land rarely require federal environmental reviews or project-specific permits; and (3) state and local forums are faster, easier to navigate, and more sensitive to local political pressure than federal courts in which cases are decided by judges with lifetime appointments.

Most of the public opposition to infrastructure centers on preserving the aesthetics of landscapes for humans or protecting property values, whereas protection of natural resources is often incidental to these concerns. In other words, the conflicts at the center of local opposition to most green infrastructure are not foremost about conventional environmental issues. The aesthetic nature and property rights orientation of their concerns are an important reason that project opponents favor state and particularly local forums founded on traditional principles of local land use law. The types of concerns that underpin their objections fall squarely within the jurisdiction of these laws and are salient to the local commissions and boards that oversee them.

This dynamic demonstrates two points. First, eliminating pathways to the federal courthouse will not stop public opposition or legal challenges to green projects in state and local fora. Second, identifying strategies to reduce community opposition—like early engagement with stakeholders—is critical to achieving the goals of the energy transition.

2. Trends for Other Infrastructure Projects Demonstrate That Even When Litigation Occurs, Projects Are Rarely Delayed

The practical and legal limits of litigation are illustrated by experience in other similarly situated sectors of infrastructure development. For example, transportation projects involving roadways or airports have large footprints and often trigger community opposition. Like green infrastructure, their environmental impacts often can be mitigated

63. Lisa Friedman, *Michael Bloomberg Promises $500 Million to Help End Coal*, N.Y. Times, June 6, 2019, at A14 (describing the multi-stage Beyond Coal campaign led by the Sierra Club that by 2019 had already received $150 million in funding from Michael Bloomberg and would now receive another $500 million).
64. Adelman, *supra* note 26, at 159.
65. *Id.* at 134.
66. *Id.* at 134, 159.
67. *Id.* at 160-61.
68. *Id.*
69. In an update of the data from *Permitting Reform's False Choice* for the period January 2022 through June 2024, David Adelman identified 13 new federal cases filed against eight offshore wind projects located along the Atlantic Coast; three new cases involved transmission lines, and no new solar litigation.
70. Adelman, *supra* note 26, at 164.

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

through design modifications or relocation. However, unlike most renewable projects, a federal nexus often exists for project opponents to challenge them.

Essentially all airport infrastructure must be authorized by the Federal Aviation Administration (FAA), and NEPA or other federal environmental laws are almost always triggered due to impacts associated with noise, air pollution, wetlands, and environmental justice concerns. Similarly, although typically state-led, roadway construction or expansion projects are subject to federal environmental laws, such as NEPA and the ESA, based on federal funding. Thus, understanding litigation trends for these types of projects provides unique insight into the likelihood that federal litigation will delay renewable energy projects.

Most major airport and roadway projects can be challenged under federal environmental laws. But experience finds that such litigation is rarely a significant source of project delay. Representative cases involving projects at Dallas Fort Worth International Airport, Seattle-Tacoma's Sea-Tac Airport, Albuquerque International Airport, and Los Angeles International Airport all ultimately proceeded without court-ordered delay.[71] Similar patterns are observed for roadway projects, over which the U.S. Department of Transportation (DOT) and its subagency, the Federal Highway Administration, have a consistent record of success in the courts.[72]

Permit reform advocates tend to overlook this experience when they claim that federal permitting offers powerful legal hooks for would-be litigants to delay or halt projects. In practice, most large infrastructure projects do not become mired or delayed in litigation.[73] What accounts for these seemingly incongruous outcomes? In part, this success reflects the efficacy of agencies' permitting processes, which result in material changes to projects that both mitigate their harmful effects and make them difficult targets for lawsuits.

Another factor is that agencies are effectively addressing public concerns and objections. Concerns about airport projects, for example, are driven by noise impacts. Building on decades of experience and expertise, FAA has a standardized procedure for assessing noise levels and mitigating them.[74] The agency also has developed effective measures for supporting local participation.[75] The legitimacy of these processes carries dividends in federal court. Judges reviewing agency permits and environmental reviews for major infrastructure projects are often reticent to flyspeck agency decisions and reasoning.[76] They are also aware that transportation infrastructure serves the public and should not be subject to a heckler's veto.[77]

To be sure, some projects are subject to multipronged litigation campaigns. As noted above, that is especially true in the case of extractive development and adjacent infrastructure. Yet, even in high-profile cases supported by ample resources, litigation has its limits. Consider the legal battle over the Dakota Access Pipeline, which was among the highest profile environmental cases of the 2010s. During the litigation, the district court held that the Corps had violated NEPA in granting an easement over Corps-managed lands within an Indian reservation.[78] This led the court to vacate the easement and to enjoin operation of the pipeline pending the Corps' completion of an EIS on remand.[79]

The U.S. Court of Appeals for the District of Columbia (D.C.) Circuit affirmed on the merits but reversed on the injunction.[80] It agreed that the district court did not abuse its discretion in vacating the easement, but concluded that it erred in requiring the pipeline to be shut down pending completion of the remand.[81] The district court later denied a subsequent request by plaintiffs to enjoin use of the pipeline pending remand, concluding that the remote threat of a spill was not enough to demonstrate irreparable injury.[82] In the end, notwithstanding a violation of the law, injunctive relief was denied despite the high profile of the case and large scale of the opposition to the project.

Courts have reached similar results in other energy and infrastructure cases. For example, judges tend to resist vacating permits for oil and gas drilling solely because a violation of NEPA or another environmental statute has occurred.[83] In this regard, ongoing litigation can cloud the permitting process but may not serve to meaningfully obstruct or delay it.[84] Where infrastructure has been fully

71. *See* City of Grapevine, Tex. v. Department of Transp., 17 F.3d 1502 (D.C. Cir. 1994) (Dallas-Fort Worth); City of Normandy Park v. Port of Seattle, 165 F.3d 35 (9th Cir. 1998) (Sea-Tac); Airport Neighbors of All. v. U.S. Dep't of Transp., 90 F.3d 426 (10th Cir. 1996) (Albuquerque); Morongo Band of Mission Indians v. Federal Aviation Admin., 161 F.3d 569 (9th Cir. 1998) (LAX).

72. *See, e.g.*, Maryland Chapter of the Sierra Club v. Federal Highway Admin., No. DKC 22-2597, 2024 WL 1194382, at *1, 24 (D. Md. Mar. 20, 2024) (upholding federal review of highway project intended to address "extreme congestion" that reflected both a thorough examination of issues and mitigation).

73. *See, e.g.*, Luther, *supra* note 22, at 27 (noting that despite the concern about environmental litigation delaying transportation projects, the actual rate of lawsuits filed annually against the Federal Highway Administration was low); John C. Ruple & Kayla Race, *Measuring the NEPA Litigation Burden: A Review of 1,499 Federal Court Cases*, 50 Env't L. 479 (2020) (finding that only a small percentage—roughly 1 out of 450—NEPA decisions are challenged through litigation).

74. Andrew Mergen, *The Changing Nature of Airport Environmental Litigation*, 18 Air & Space Law. 1 (2004).

75. Communities Against Runway Expansion, Inc. v. Federal Aviation Admin., 355 F.3d 678, 690 (D.C. Cir. 2004) (noting fair consideration given to local interests).

76. *See, e.g.*, City of Olmstead Falls, Ohio v. Federal Aviation Admin., 292 F.3d 261, 273 (D.C. Cir. 2002); *see also* Protect Our Communities Found. v. Jewell, 825 F.3d 571, 582 (9th Cir. 2016) (distinguishing between "fly specking" and the identification of consequential flaws).

77. *See* North Carolina v. Federal Aviation Admin., 957 F.2d 1125, 1134 (4th Cir. 1992) (explaining that the heckler's veto plays no role in the review of NEPA analyses).

78. Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs, 471 F. Supp. 3d 71 (D.D.C. 2020).

79. *Id.*

80. Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs, 985 F.3d 1032, 1050 (D.C. Cir. 2021).

81. *Id.*

82. Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs, 540 F. Supp. 3d 45 (D.D.C. 2021).

83. *See, e.g.*, Diné Citizens Against Ruining the Env't v. Haaland, 59 F.4th 1016 (10th Cir. 2023).

84. Even when vacatur is granted, this may be because project proponents have failed to argue for remand without vacatur. *See, e.g.*, Eagle Cnty. v. Surface Transp. Bd., 82 F.4th 1152 (D.C. Cir. 2023) (no party argued that vacatur of underlying approvals would be disruptive).

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

constructed, as illustrated by the Dakota Access Pipeline, the courts are even more reluctant to order vacatur.[85] The key point is that even where a violation of the law is established, injunctive relief is often the exception rather than the rule, and progress on construction or operations need not—and routinely does not—come to a standstill.[86]

The frequency and outcomes of litigation also evolve over time. Wind energy projects, for example, initially struggled in court, but have largely sailed through since—including offshore wind projects along the East Coast that are subject to much higher rates of litigation.[87] This is to be expected, in part because agency responses to concerns raised in public comments improve with time and experience. Judges' understanding of the issues surrounding new infrastructure also progresses.

Underlying all of this is a dose of legal realism. Just as judges who are familiar with airport delays or traffic congestion are more likely to adhere to deferential standards of review, judges mindful of the stakes surrounding clean energy are less likely to second-guess agency judgments. As retired Justice Stephen Breyer is fond of noting, courts should never respond to the weather of the day but will inevitably "be influenced by the climate of the era."[88]

The debate over permitting reform often appears to assume that challenges to infrastructure projects are inherently illegitimate and destructive. Yet, legal challenges are often driven by high-stakes disputes over conflicting values where the law is ambiguous. The recent lawsuit over a lithium mine at Rhyolite Ridge in Nevada is illustrative. *Time* magazine aptly summarized the conflict in a recent piece as "Is Your Electric Car Worth the Extinction of a Species?"[89] In litigation over another Nevada lithium mine, Thacker Pass, the judge noted that the case "encapsulates the tensions among competing interests and policy goals."[90]

Parties turn to litigation because they want to ensure the law is upheld. Access to courts benefits all of society by clarifying legal standards, protecting the rights of interested parties, and fostering trust in government through independent judicial oversight. Litigants who believe that they have "had their day in court" can often accept a fair decision, even if they dislike the outcome. Permit reform proposals that seek to close the door to the courthouse risk losing these benefits, without clear evidence that litigation was a systemic cause of delay.

D. *Myth 4: Environmental Procedures and Protections Must Be Sacrificed to Enable Timely Action on Climate Change*

The long timelines and high costs commonly associated with environmental reviews and permitting are presumed to be inherent to these processes. Proponents of permitting reform infer from this understanding that the only option is to restrict or foreshorten environmental protections and procedures. As discussed above, most permitting is conducted through streamlined processes, but even when it is not, and projects are subject to rigorous review and oversight, substantial evidence exists that lengthy delays are not inherent to environmental permitting itself.

Multiple studies have found that environmental reviews under NEPA are rarely the primary cause of delay, even though delays may be reflected in the NEPA process.[91] Instead, a project review may stop and restart for external reasons such as funding, engineering requirements, changes in agency priorities, delays in obtaining nonfederal approvals, or political opposition to the project.[92] These delays create the appearance of a long NEPA process, even though the NEPA analysis did not cause the delay.[93]

If environmental procedures and protections were the sole cause of delay, all similarly situated projects would encounter similar lengthy delays. For example, all projects attempting to connect to the grid must wait in the interconnect queue for roughly 2.5 years.[94] While there is significant variation in waiting periods across electricity markets, there is relatively little variation by type of project within each market. The same is not true for environmental permitting. A close look at the available data regarding environmental permitting reveal that permitting timelines often vary widely, even for similarly situated projects.

85. National Parks & Conservation Ass'n v. Semonite, 422 F. Supp. 3d 92 (D.D.C. 2019) (declining to order vacatur where transmission lines were providing electric power).

86. *Contra* Chiappa et al., *supra* note 58, at 12 (contending that NEPA litigation delays projects by 3.9 years on average, but reviewing only appellate cases and failing to consider the issuance of injunctive relief or lack thereof). To be sure, the issuance of injunctive relief to preserve the status quo—that is, injunctions prior to ground-breaking activity and intended to give a court the opportunity to rule—are not uncommon, but these injunctions can be of short duration and are frequently coupled with expedited briefing processes.

87. In 2016, federal agencies lost two significant wind power cases in the D.C. Circuit. Public Emps. for Env't Resp. v. Hopper, 827 F.3d 1077 (D.C. Cir. 2016); Union Neighbors United, Inc. v. Jewell, 831 F.3d 564 (D.C. Cir. 2016). More recently, federal agency authorizations have been consistently approved by the courts. Fisheries Survival Fund v. Haaland, 858 F. App'x 371 (D.C. Cir. 2021); Melone v. Coit, 100 F.4th 21 (1st Cir. 2024); Nantucket Residents Against Turbines v. U.S. Bureau of Ocean Mgmt., 100 F.4th 1 (1st Cir. 2024).

88. Stephen Breyer, Reading the Constitution: Why I Chose Pragmatism, Not Textualism 245 (2024) (quoting the legal scholar Paul Freund).

89. Semuels, *supra* note 60.

90. Bartell Ranch LLC v. McCullough, No. 3:21-cv-00080-MMD-CLB, 2023 WL 1782343, at *1 (D. Nev. Feb. 6, 2023).

91. Ryan Sud et al., The Brookings Institute, How to Reform Federal Permitting to Accelerate Clean Energy Infrastructure: A Nonpartisan Way Forward 14 (2023).

92. GAO, Little Information Exists on NEPA, *supra* note 15, at 15; Luther, *supra* note 22, at 9 ("The environmental review process may start, stop, and restart for reasons unrelated to environmental issues. Local and state issues have shown to have the most significant influence on whether a project moves forward relatively quickly or takes longer than anticipated.").

93. Executive Office of the President, CEQ, Environmental Impact Statement Timelines (2010-2018), at 2 (2020) ("For some EISs, the timeline does not represent continuous activity. Delays may be attributable to the agency, the applicant, Congress, the needs of cooperating agencies, States, Tribes, and local interests, or public controversy."); Ruple et al., *supra* note 19, at 304 (conducting a detailed analysis of NEPA decisionmaking times and observing that complex projects can be completed quickly and simple projects subject to a truncated NEPA analysis may encounter delays).

94. Joseph Rand et al., Lawrence Berkeley National Laboratory, Queued Up: 2024 Edition—Characteristics of Power Plants Seeking Transmission Interconnection as of the End of 2023, at 34-36 (2024), https://emp.lbl.gov/sites/default/files/2024-04/Queued%20Up%202024%20Edition_1.pdf.

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

This dynamic is most clearly demonstrated in a study conducted by the Office of Inspector General into Bureau of Land Management (BLM) permit processing times for oil and gas wells.[95] BLM receives approximately 5,000 new applications for permits to drill each year, which are processed at 33 different field offices. According to BLM, the average processing time in 2012 was 228 days, but this number only tells part of the story. Even though each field office is governed by the same legal standard, the permit processing times varied widely. Buffalo, Wyoming, and Miles City, Montana, took more than 300 days to process permits. In contrast, five field offices took less than 100 days. Anchorage, Alaska, averaged 37 days.

This dramatic variation in permit processing times cannot be blamed on NEPA or environmental standards, because each field office was applying the same legal standard to the same activity. The variation in timing was attributed to a lack of staff, poor data management, and weaknesses in oversight and accountability.[96] This insight—which is important for improving permitting efficiency—was only achieved by identifying the wide variation in performance and asking what made the difference.

The permitting reform debate has focused almost exclusively on simple statistics, like the average time to complete an EIS. This singular focus ignores the rich opportunity for insight provided by a deeper consideration of available data. For example, while it is true that the average time to complete an EIS was 4.5 years between 2010 and 2018, it is also true that one-half of the EISs during this period were completed in 3.5 years or fewer, and one-quarter in fewer than 2.2 years.[97] These statistics indicate what is possible within the existing legal framework.

The data also reveal that extremely lengthy EISs—which often dominate headlines—are outliers. In a 2020 Council on Environmental Quality (CEQ) study of all EISs across the federal government from 2010-2018, only 25% took longer than six years.[98] Further, while this variation could be driven solely by NEPA procedures (i.e., more complex analyses taking longer to complete), a recent study of U.S. Forest Service NEPA documents challenged this assumption.[99] Looking at 16 years of NEPA decisions at all levels of analysis, the study found that completion times for environmental reviews are not consistently determined by the level of review—a surprising percentage of EISs took less time than EAs, and the same dynamic was seen between EAs and CEs.[100]

This variation in NEPA completion time suggests that analytical rigor is not the primary driver of NEPA completion times. If it were, there would be distinct differences in time frames between EISs, EAs, and CEs, which each impose different procedures and levels of analysis. Like the study of BLM oil well permit processing times,[101] the Forest Service study found that external factors, including a lack of agency capacity, delays attributable to the operator, and compliance with other laws, often caused delay.[102] If environmental standards and analytical rigor do not drive delay, they should not be sacrificed to achieve efficiency. The permit reform debate should grapple with these findings, which suggest that efficiency can be improved without sacrificing environmental standards, analysis, or transparency.

Focusing on isolated statistics also ignores important social factors that may affect project timelines. Public opposition to a project can extend project timelines, drive up costs, and even trigger cancellation.[103] While commonly dismissed as NIMBYism ("not in my backyard"), public opposition to infrastructure projects is often driven by deeply rooted values, including fear of health risks, concern about lost property values, personal connections to local landscapes, procedural fairness, and mistrust of government authority (especially for tribal communities).[104] Although it rarely originates from a single source, if concerns are left unaddressed, groups with different underlying motives will unite to strengthen their opposition.[105]

Researchers have found that the most effective antidote is early engagement with all stakeholders, and that this ultimately saves both time and money.[106] A recent study found that project developers are embracing the view that enhanced community engagement decreases opposition.[107] They highlighted "early local government engagement, maintaining a local office, and making project

95. Office of Inspector General, Department of the Interior (DOI), Onshore Oil and Gas Permitting (2014) (Report No. CR-EV-MOA-0003-2013).
96. *Id.* at 6.
97. CEQ, Environmental Impact Statement Timelines (2010-2018), at 4 (2020), https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Report_2020-6-12.pdf (showing the median time to completion was 3.5 years).
98. *Id.*
99. Ruple et al., *supra* note 19, at 289.
100. *Id.* at 300-06 (describing the variation in data); *id.* at 303-04 ("[T]he fastest 25% of EAs are completed more quickly than the longest 25% of CEs. Likewise, the shortest 25% of EISs are completed more quickly than the longest 25% of EAs.").
101. Office of Inspector General, *supra* note 95.
102. Ruple et al., *supra* note 19, at 306-22.
103. *See, e.g.*, Jed J. Cohen et al., *Re-Focusing Research Efforts on the Public Acceptance of Energy Infrastructure*, 76 Energy 4 (2014).
104. Lawrence Susskind et al., *Sources of Opposition to Renewable Energy Projects in the United States*, 165 Energy Pol'y 112922, at 2 (2022) (studying 53 renewable energy projects that were delayed or blocked between 2008 and 2021 in 28 states, and identifying the multiple drivers of community opposition); *see also* Joseph Rand & Ben Hoen, *Thirty Years of North American Wind Energy Acceptance Research: What Have We Learned?*, 29 Energy Rsch. & Soc. Sci. 135, 142 (2017) (observing that the "process around wind project planning and development can significantly affect public acceptance"); Christoph Emanuel Mueller, *Examining the Inter-Relationships Between Procedural Fairness, Trust in Actors, Expectations, Perceived Benefits, and Attitudes Towards Power Grid Expansion Projects*, 141 Energy Pol'y 111465 (2020) (listing "procedural fairness and process characteristics" as one of several features that affect public acceptance of new high-voltage transmission lines); Cohen et al., *supra* note 103, at 5 (describing welfare-decreasing aspects of new infrastructure that trigger opposition as "diminished viewshed, safety concerns, noise, pollution, landscape destruction, ecological change, decreased property values, and procedural injustice").
105. Susskind et al., *supra* note 104, at 2.
106. *Id.* at 13 ("Better to deal with perceptions of possible risks and potential benefits before opponents have made up their minds, and banded together, to block the project.").
107. Nilson et al., *supra* note 8, at 3; *see also* Susskind et al., *supra* note 104, at 10 (acknowledging that NEPA guarantees public participation, but noting that its requirements "are often poorly or inconsistently" used by federal and state agencies, as well as developers).

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

design changes directly based on community feedback."[108] Rather than being a source of delay, the analysis and public transparency afforded by the NEPA process could be leveraged to facilitate community engagement and reduce the degree and likelihood of public opposition.[109] Meaningful permit reform would encourage earlier public participation, when projects are still in the design phase and alterations are less expensive.

The NEXUS gas transmission pipeline provides an example. This 250-mile natural gas pipeline traverses four eastern states.[110] Leveraging early community outreach supported by an alternative permitting process offered by the Federal Energy Regulatory Commission (FERC), the project sponsors incorporated 239 route alternatives and variations in the pipeline design to address landowner requests, avoid sensitive resources, or respond to engineering restraints.[111] Engaging with communities at the design phase—when it was still feasible to make such significant changes—improved the project design and effects on communities. This is not to say that it eliminated opposition, but it certainly reduced the size of the crowd. If we are thinking about permit reform, strategies like these present a win-win: a better project for the community, and less opposition for the project proponent.

We also know what happens when public processes and environmental protections are absent. The Manhattan Project and the federal Interstate Highway System are often cited as models for rapidly deploying infrastructure. Yet, their legacies are cautionary. The Manhattan Project left an archipelago of highly polluted sites where the components of nuclear weapons were produced, as well as a multibillion-dollar liability taxpayers continue to pay.[112] The Interstate Highway System destroyed many communities of color and low-income neighborhoods, and is a testament to the importance of public processes.[113]

II. Realities

We just explained why the myths currently surrounding the public debate over permitting reform are wrong. But we can all agree that permitting processes are subject to needless delays. What causes those delays, then? Federal agencies, congressional research offices, and independent technical analyses have identified two principal culprits.

A. *Limited Agency Capacity Causes Delay*

A familiar refrain from the incoming Trump Administration is the need to achieve efficiency by reducing agency staff and slashing agency budgets.[114] In reality, limited agency capacity causes delay. This can take many forms, including meager or unstable budgets, understaffing, and insufficient staff with relevant expertise. This simple explanation to a complex problem has been repeatedly identified as a cause of delay in implementing NEPA and processing other permits.[115]

For example, in 2003, CEQ convened an Environmental Policy Task Force to investigate the implementation of NEPA.[116] The task force, composed of representatives from nine different agencies, conducted extensive research into the "nuts and bolts" of NEPA implementation that included interviews, literature review, and more than 650 comments from federal, state, and local governments, tribes, organizations, and individuals.[117] One persistent issue that arose in several different contexts was the delay caused by insufficient agency resources.[118]

Limited agency capacity tends to go unnoticed because it is hidden. The internal workings of agencies are less visible and less accessible than statutes or regulations, which are contested and publicized. Staff capacity only becomes visible when it is studied and the results are made public. Studies conducted by the nonpartisan U.S. Government Accountability Office (GAO) and other entities provide unique insights into agency operations; however, those

108. Nilson et al., *supra* note 8, at 66.

109. *See, e.g.*, Cohen et al., *supra* note 103, at 6:

> Procedural aspects of the project have been shown to drive social acceptance in many contexts. These involve the way developers interface with the locals and are summarized as the following: trust in governments or energy providers, procedural justice, public awareness, rhetoric, and inclusion of the public in the decision-making process.

110. Office of the Executive Director, Federal Permitting Improvement Steering Council, Recommended Best Practices for Project Review and Permitting for Infrastructure Projects for Fiscal Year 2018, at 17 (2017).

111. Jamie Pleune & Edward Boling, *This Permit Reform Already Works. Why Aren't More Mine Permit Applicants Using It?*, 53 ELR 10463, 10479 (June 2023), https://www.elr.info/articles/elr-articles/permit-reform-already-works-why-arent-more-mining-projects-using-it.

112. Susan Montoya Bryan, *In a Nod to Oppenheimer's Legacy, US Officials Vow to Prioritize Cleanup at Nuclear Lab*, AP News (July 20, 2023), https://apnews.com/article/manhattan-project-los-alamos-contamination-cleanup-72f927ac643c9ac7c023d882ba57eba4 (reporting that an official from the U.S. Department of Energy (DOE) characterized the multibillion-dollar cleanup program as "the third largest liability on the books for the federal government"); GAO, GAO-23-105665, Nuclear Waste Cleanup: DOE Needs to Address Weaknesses in Program and Contractor Management at Los Alamos 1 (2023) (estimating that the remaining cost of cleaning up Manhattan Project-era waste at Los Alamos is $7 billion).

113. Luther, *supra* note 22, at 5-7.

114. *See, e.g.*, Michael Doyle et al., *Trump Team Could Bring Both Ax and Scalpel to Interior*, E&E News (Nov. 20, 2024), https://www.eenews.net/articles/trump-team-could-bring-both-ax-and-scalpel-to-interior/.

115. *See, e.g.*, Congressional Research Service, *supra* note 18, at 26-27 (summarizing studies investigating causes of delay and noting that many identified "challenges faced by agencies with regard to budget, training, and staffing constraints").

116. NEPA Task Force, Executive Office of the President, Modernizing NEPA Implementation (2003).

117. *Id.* at 2.

118. *Id.* at 7 (noting that insufficient staff, including experts, led to delays and poor coordination); *id.* at 9-10 (noting that agencies often lack the resources, staff, or knowledge to leverage information technologies that could improve efficiency in the NEPA process); *id.* at 11 ("Insufficient availability of resource experts inhibits the ability of agencies to stay abreast of current research, which in turn causes agencies to 'reinvent the wheel' rather than leverage existing information resources."); *id.* ("Federal agencies noted that they are often hindered by financial and staffing limitations"); *id.* at 62 (noting that limited resources often dictate the timing and quality of an agency's NEPA actions); *id.* at 77 (noting widespread concerns about the "availability of dollars and skills to prepare quality environmental analyses and documents"); *id.* at 84 (recommending an increase of staff to implement the recommendations in the report).

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

studies must be requested by Congress.[119] For that reason, the visibility of this problem can ebb and flow with politics, even if the condition is chronic. Despite this challenge, careful research reveals ample evidence across time and context demonstrating the influence of agency capacity on permit processing times.

One high-profile context is highway planning. In 2003, GAO investigated causes of delay in the environmental review of highway projects.[120] They interviewed stakeholders from both the transportation and environmental sectors to identify common causes of delay.[121] Both groups agreed that undue delay was frequently added to environmental reviews because agencies "lack sufficient staff to handle their responsibilities in a timely manner."[122]

Five years later, after Congress had passed a bill designed to improve the efficiency of the environmental review process for highway planning,[123] GAO conducted another study to evaluate the efficacy of the bill's streamlining measures.[124] Even though there was broad agreement that coordination would improve transportation planning, participants at all levels of government stated that the primary barrier to success was a lack of resources.[125] Without sufficient staff, agencies lacked the capacity to engage in proactive efficiency measures, like early planning and improved coordination.[126] To achieve efficiency, the participants recommended that funding for the agencies responsible for protecting environmental resources be expanded.[127]

Ten years later, in 2018, GAO conducted another study of environmental review timelines for federal highway projects.[128] At this point, Congress had passed two additional acts designed to streamline the environmental review process.[129] There was mixed evidence on whether the streamlining measures targeting the NEPA process improved timelines.[130] However, one measure stood out. In 2000, Congress passed the Water Resources Development Act.[131] An obscure provision authorized the Corps to accept funds contributed by nonfederal public entities to expedite the evaluation of permits.[132] A similar provision expanded this authority for federal-aid highways.[133]

GAO's investigation revealed that 21 of the 23 selected state DOT and federal agency field offices used this provision to expand staff capacity through liaison positions that facilitated coordination with state DOTs on highway permitting and environmental reviews.[134] GAO found that the liaisons increased administrative efficiency and avoided delays.[135] As one state DOT explained, having a dedicated liaison created "a responsive point of contact, helped address workload concerns . . . , and enabled [federal agency] office staff to attend interagency coordination meetings."[136] In 2018, 32 out of 52 state DOTs had used this provision to create liaison positions, and the majority (23 out of 32) stated that it sped up project delivery within their states.[137]

Mine permitting is another comprehensively studied context in which agency capacity has long been identified as a significant cause of delay. In 1999, Congress directed the National Research Council (NRC) to investigate hard-rock mining on federal lands, including causes of delay in the permitting process.[138] One of their findings was that "[s]taff shortages are likely to be at least partially responsible for the excessive delays experienced in NEPA reviews and issuance of permits."[139] The NRC went on to note:

> Some land management offices report that they have too few people to conduct inspections, review proposed operating plans, process appeals, and conduct other required activities. This concern extends beyond the numbers of people. . . . Offices responsible for regulating mining projects may not always have access to the trained and experienced personnel required.[140]

In other words, there are two distinct elements to agency capacity: (1) staff availability and (2) expertise or institutional knowledge. As the NRC recognized, both elements affect permitting times.

In 2016, GAO did a separate investigation of hard-rock mine permitting on federal lands.[141] One of the primary causes of delay GAO identified was "limited resources."[142] Both BLM and Forest Service officials explained that a

119. GAO, *What the GAO Does: Reports & Testimonies: The Report Process*, https://www.gao.gov/about/what-gao-does/reports-testimonies (last visited Dec. 5, 2024).
120. GAO, GAO-03-534, Highway Infrastructure: Stakeholders' Views on Time to Conduct Environmental Reviews of Highway Projects (2003).
121. *Id.* at 20.
122. *Id.* at 22 (noting that this was cited as a cause of delay by 69% of the transportation stakeholders and 50% of the environmental stakeholders).
123. Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59, 119 Stat. 1144 (2005).
124. GAO, GAO-08-512R, Highways and Environment: Transportation Agencies Are Acting to Involve Others in Planning and Environmental Decisions (2008).
125. *Id.* at 17 ("The primary challenge is limited resource agency resources, including funding, staff, and time."); *see also id.* at 14, 21, 23.
126. *Id.* at 23.
127. *Id.* at 21.
128. GAO, GAO-18-536, Highway and Transit Projects, Better Data Needed to Assess Changes in the Duration of Environmental Reviews (2018).
129. *Id.* at 2; Moving Ahead for Progress in the 21st Century Act (MAP-21), Pub. L. No. 112-141, 126 Stat. 405 (2012); Fixing America's Surface Transportation (FAST) Act, Pub. L. No. 114-94, 129 Stat. 1312 (2015).
130. GAO, *supra* note 128, at 3, 8-9.
131. Pub. L. No. 106-541, 114 Stat. 2572.
132. *Id.* tit. II, §214, 114 Stat. at 2594 (codified as amended at 33 U.S.C. §2352).
133. 23 U.S.C. §139(j) (authorizing the Secretary of Transportation to allow a public entity receiving financial assistance from DOT to provide funds to federal agencies, state agencies, and Indian tribes participating in the process for the project or program in order to expedite or improve the permitting and review process).
134. GAO, *supra* note 128, at 10.
135. *Id.*
136. *Id.* at 11.
137. *Id.*
138. NRC, Hardrock Mining on Federal Lands 1 (1999).
139. *Id.* at 74.
140. *Id.* at 115.
141. GAO, Hardrock Mining: BLM and Forest Service Have Taken Some Actions to Expedite the Mine Plan Review Process but Could Do More 6-7 (2016).
142. *Id.* at 22 (listing those resources as "number of staff, staff expertise, funding, infrastructure training and/or computer technology").

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

lack of staff in certain critical positions, like archeologists and biologists, delayed NEPA analyses by causing "bottlenecks" in the review process.[143]

This problem has persisted over time. In 2022, the Interagency Working Group on Mining Laws, Regulations, and Permitting (IWG) was charged with studying the permitting process for hard-rock mining.[144] One of the report's overarching "hard truths" focused on the delays caused by a lack of agency resources.[145] The report found that "[s]taffing shortages undermine efforts to coordinate across agencies, inviting inconsistency, redundancy, inefficiency, and delay."[146] The report concluded that "inadequately staffed and under-resourced agencies are ill-equipped to swiftly process permit applications and associated environmental reviews."[147]

The consistency of these observations—across agencies, practices, and time—demonstrates that advocates of permitting reform must address the limits of agency capacity to achieve meaningful improvements in the timing and predictability of permitting processes. Permit reform proposals should address this reality.

B. *Inconsistent and Overlapping Standards Across Jurisdictions Cause Delay*

Inconsistent and overlapping permitting and approval processes that have nothing to do with environmental restrictions are a major source of delay.[148] In the context of renewable development, for example, there is widespread agreement that obtaining approval to interconnect projects to transmission grids is the greatest obstacle to deployment.[149] This process involves complex modeling to determine whether a project is compatible with existing grid capacity and, if it is not, the upgrades that will be required to accommodate it.[150] While these studies are essential to maintaining grid reliability, they are difficult and time-consuming to conduct.[151]

Nationally, the average time it takes to obtain an interconnection agreement is 2.5 years, and it has been rising as interconnection queues have been flooded with new projects.[152] In a recent survey of wind and solar developers conducted by researchers at the Lawrence Berkeley National Laboratory, more than 70% of solar developers and 65% of wind developers surveyed identified "grid interconnection" as the leading cause of delays exceeding six months.[153] By contrast, only 12%-16% of them named "environmental restrictions" as a source of significant delays.[154]

Local approval processes and zoning ordinances are also increasingly a major barrier to renewable energy development.[155] In a 2022 study published in *Nature*, the authors identified more than 1,800 ordinances for wind projects and 800 ordinances for solar projects that either precluded development or strictly limited it, often through large set-back requirements or height limits.[156] The authors concluded that the growing number of restrictive zoning ordinances could reduce wind and solar resources by up to 87% and 38%, respectively.[157] Local laws also increased the potential for delays associated with conflicting state and local regulations.[158]

In most states, renewable projects must obtain a permit at either the state or local level. While several states have elevated permitting of renewable projects to a state agency,[159] project developers typically must obtain "special use permits" through a county or municipal commission. Further, where permitting at the state level is guided by technical legislative criteria and the decision-makers have relevant expertise and experience, local commissions are usually staffed by elected laypeople, the decisions are discretionary, and the process is open to political pressure. Accordingly, even where restrictive zoning ordinances have not been enacted, permit requests are increasingly being rejected by local commissions responding to public pressure.[160]

Opposition at the state and local levels raises difficult questions about the appropriate balance of local, state, and

143. *Id.* at 25-26.
144. IWG, Recommendations to Improve Mining on Public Lands, Final Report 3 (2023).
145. *Id.* at 4.
146. *Id.*
147. *Id.* at 4-5.
148. Nilson et al., *supra* note 8, at 12-13 (a survey of developers that found most delays and cancellations of wind and solar projects were attributable to local ordinances and zoning, grid interconnection approvals, and community opposition; environmental restrictions were cited by only 12%-16% of the project developers).
149. Ryan Block, *Lost in Transmission: How to Bring More Clean Energy Onto the Grid*, 53 ELR 10726, 10732 (Sept. 2023), https://www.elr.info/articles/elr-articles/lost-transmission-how-bring-more-clean-energy-grid (providing a succinct and readable description of the interconnection process); *see also* Rand et al., *supra* note 94, at 3 (finding that the "typical project built in 2023 took nearly 5 years from the interconnection request to commercial operations, compared to 3 years in 2015 and <2 years in 2008").
150. Block, *supra* note 149, at 10733 ("The feasibility study, impact study, and facilities study must be completed in the order listed, successively, without overlap.").
151. *Id.*
152. Rand et al., *supra* note 94, at 34-36.
153. Nilson et al., *supra* note 8, at 12.
154. *Id.* at 11-12.
155. Matthew Eisenson, Sabin Center for Climate Change Law, Opposition to Renewable Energy Facilities in the United States: May 2023 Edition 6 (2023) (concluding that "'not in my backyard' and other objections to renewable energy continue to occur throughout the country and can delay or impede project development").
156. Anthony Lopez et al., *Impact of Siting Ordinances on Land Availability for Wind and Solar Development*, 8 Nature Energy 1034, 1034-35 (2023).
157. *Id.*
158. Steve Ferrey, *Flipped Constitutional Supremacy: Inferior Local Law Blocking Federal Policy*, 23 Utah L. Rev. 65, 66, 94-108 (2023) (noting that federal renewable energy tax incentives are being "eclipsed by municipal governments legally 'zoning out' such sustainable infrastructure"); Danielle Stokes, *Renewable Energy Federalism*, 106 Minn. L. Rev. 1757, 1761 (2022) (describing how siting renewable energy projects can be "costly and time consuming given the fragmented regulatory regime").
159. *See* Uma Outka, *Renewable Energy Siting for the Critical Decade*, 69 U. Kan. L. Rev. 857, 864-68 (2021) (describing the primary features of a New York law centralizing siting decisions in a new state agency).
160. Nilson et al., *supra* note 8, at 11-12 (citing local opposition as among the top three causes of project cancellations and delays); Eisenson, *supra* note 155, at 1 (observing that local opposition "is widespread and growing, and represents a potentially significant impediment to achievement of climate goals").

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

federal control.[161] Similar conflicts between different levels of government are playing out across a host of issues, including federal protections for wetlands and local regulations for promoting greater density in cities. Public opposition to renewable energy projects and transmission lines, and the resulting conflicts with state and federal authorities, are examples of this broader phenomenon around federalism that shows few signs of resolution. By comparison, the potential delays and barriers associated with federal environmental permitting appear to be less acute and more tractable, as demonstrated by the regulatory streamlining already in place.

The regulatory barriers to infrastructure projects should also not be viewed in isolation. Project development has many nonregulatory steps that must be completed, including technical assessments (e.g., resource, grid interconnection, electricity market), land acquisition, financial modeling, project design, financing, equipment procurement, and construction. Developers must balance multiple factors (availability of land, quality of resource, access to the grid, regulatory mandates) to select a project, and it is rare that a single factor will be determinative.

The number and complexity of these steps require significant time to work through (typically four to six years), and this is true of even relatively straightforward projects in favorable settings. For example, in Texas, there is almost no federal land, grid interconnection is relatively quick, virtually no projects are subject to NEPA or require a federal permit, local permitting is rarely required, and land is relatively inexpensive to lease and plentiful. Yet, solar projects in Texas currently take three to five years to develop. Thus, while navigating federal environmental laws is an important factor, it is one among a multitude and for many projects it is not the rate-limiting one.

III. Promising Pathways and Models for Permit Reform

While the external public debate and recent legislative action have focused largely on NEPA, the permitting action plans within the federal executive branch are both broader and focused on concrete opportunities for enhancing the efficiency and speed of permitting processes. The two tracks overlap in important respects, such as their focus on improving coordination within and across federal agencies, but they diverge in their underlying premises and strategies. Another difference is that the permitting action plans have received minimal media coverage or academic attention—a reality that has stifled meaningful discussion about permit reform possibilities.

The permitting action plans within the federal government are much more holistic in their approach and priorities. The premise of the action plans developed during the Barack Obama and Joseph Biden Administrations is that the principal problems are with interagency and intra-agency coordination, public outreach, agency resources, and information management.[162] Importantly, the strategies they propose are not grounded in specific statutes but are instead trans-substantive. The most prominent ones include the following:

1. Creating administrative frameworks for interagency and intra-agency coordination;

2. Establishing meaningful performance indicators;

3. Identifying and implementing "best practices" and "lessons learned";

4. Employing proactive planning to limit or avoid federal environmental reviews and permitting, such as use of programmatic EISs and biological opinions;

5. Making scientific, environmental, and other key information readily available to agency decisionmakers, developers, and stakeholders;

6. Ensuring agencies have adequate personnel and resources, including personnel with sufficient training and experience; and

7. Embracing proactive public outreach and engagement, particularly with state and local governments, tribes, and environmental justice communities.

Individual agencies have also adopted innovative practices to improve the functionality of their permitting processes. These efforts demonstrate that improvements to efficiency and quality can go hand-in-hand. With deliberation and creativity, permit reform could achieve better timeliness and transparency while also strengthening the regulatory tools intended to protect public safety and natural resources. Below, we discuss three examples of actions that agencies have already taken to improve transparency, predictability, timeliness, and coordination.

A. *FAST-41 and the Permitting Council*

The success of the structures created under Title 41 of the Fixing America's Surface Transportation Act (FAST-41) demonstrates that permitting speed need not come at the expense of careful analysis and meaningful public engagement.[163] FAST-41, passed in 2015, includes structures, procedures, and tools intended to facilitate timely,

161. Outka, *supra* note 159, at 862-64.

162. *See* The White House, Biden-Harris Permitting Action Plan to Rebuild America's Infrastructure, Accelerate the Clean Energy Transition, Revitalize Communities, and Create Jobs (2022), https://www.whitehouse.gov/wp-content/uploads/2022/05/Biden-Harris-Permitting-Action-Plan.pdf; Steering Committee on Federal Infrastructure Permitting and Review Process Improvement, Implementation Plan for the Presidential Memorandum on Modernizing Infrastructure Permitting (2014), https://www.permits.performance.gov/sites/permits.dot.gov/files/2021-03/pm-implementation-plan-2014.pdf.

163. Pub. L. No. 114-94, div. D, tit. XLI, §41003, 129 Stat. 1312, 1747-55 (2015) (42 U.S.C. §§4370m-4370m-11).

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

transparent, and predictable federal authorizations and environmental reviews.[164] It also created a process to facilitate timely permitting processes for individual projects in defined sectors.[165]

FAST-41 vested responsibility for the oversight and management of these initiatives in the Federal Permitting Improvement Steering Council (Permitting Council).[166] The Permitting Council is led by an executive director appointed by the president,[167] and members of the Permitting Council include the chair of the White House CEQ and the director of the White House Office of Management and Budget, as well as designees of major regulatory agencies.[168]

The Permitting Council is responsible for recommending policies and administrative structures that can be employed by all Permitting Council agencies to foster accountability, coordination, efficient conflict resolution, and information-sharing.[169] For example, FAST-41 requires that the Permitting Council "aim to develop recommended performance schedules . . . of not more than 2 years," or explain why that timeline cannot be met.[170] The Permitting Council must publish an annual "Recommended Best Practices Report" for Permitting Council agencies and prepare quarterly and annual reports to Congress summarizing their compliance with the Permitting Council's recommendations.[171] The Permitting Council's website aggregates useful information for permitting entities, project proponents, and stakeholders, such as an inventory of permitting requirements across the federal government.[172]

FAST-41 establishes a program to facilitate timely, transparent, and streamlined environmental reviews and authorizations for covered projects.[173] Entry into the program is voluntary, and initiated by a project sponsor submitting a notice to the Permitting Council and Permitting Council-identified "facilitating agency" of its intent to develop a covered project and to seek FAST-41 coverage.[174] A series of timed obligations promptly follows. Within 14 days, the Permitting Council must verify that the project is eligible for coverage.[175] If it is eligible, then information about the project must be posted to the Permitting Dashboard, a searchable online database that tracks the status of all FAST-41 covered projects.[176] The Permitting Council then has an additional 21 days to identify cooperating and participating agencies to join in the permitting process.[177]

Within 60 days after the project's eligibility is confirmed, the facilitating or lead permitting agency must work with other participating agencies to establish a "coordinated project plan" (CPP).[178] The CPP is a "concise plan for coordinating public and agency participation in, and completion of, any required Federal environmental review and authorization for the project."[179] The CPP must also include a permitting timetable.[180] Once a CPP is in place, the responsible agencies must adhere to the plan, and timetable dates can be modified only if particular procedures are followed, including the submission of a written extension request and justification for any delay.[181] Throughout the process, the project's progress is tracked on the Permitting Dashboard.[182]

To date, the FAST-41 process has been effective but underutilized.[183] In fiscal year 2023, 33 FAST-41 projects were in the program.[184] Permitting Council agencies prepared CPPs for 11 projects, and all CPPs were submitted by the 60-day deadline.[185] Most completion dates identified in the permitting timetables were either met on time or modified in accord with established procedures.[186] During the first quarter of fiscal year 2024, of the 27 federal deadlines, 15 were met, 7 were modified, and only 5 were

164. 42 U.S.C. §4370m.
165. *Id.* §4370m-2.
166. *Id.* §4370m-1. The Permitting Council was initially subject to a seven-year sunset; the Bipartisan Infrastructure Law (formally called the Infrastructure Investment and Jobs Act) repealed the sunset provision. Pub. L. No. 117-58, div. G, tit. VII, §70801(h), 135 Stat. 429, 1294 (2021).
167. 42 U.S.C. §4370m-1(b)(1).
168. The agency members include the Secretaries of Agriculture, Army, Commerce, Interior, Energy, Transportation, Homeland Security, and Housing and Urban Development; the Administrator of EPA; the Chairman of the Nuclear Regulatory Commission; the Chairman of the Advisory Council on Historic Preservation; and the head of any other federal agency the Permitting Council's executive director invites to participate. *Id.* §4370m-1(b)(2)(B).
169. *See* Pleune & Boling, *supra* note 111, at 10468 (describing the Permitting Council's four primary benefits); *see also* Federal Permitting Improvement Steering Council, Annual Report to Congress: Fiscal Year 2023, at 3 (2023), https://www.permits.performance.gov/sites/permits.dot.gov/files/2024-04/Permitting%20Council%20FY23%20Annual%20Report%20to%20Congress.pdf (explaining that the Permitting Council has embraced its role "as a Federal center for permitting excellence" by "provid[ing] resources and tools to [its] Federal partners that will help them conduct the necessary environmental reviews and authorizations effectively and efficiently").
170. 42 U.S.C. §4370m-1(c)(1)(C)(ii)(II).
171. *Id.* §4370m-1(c)(2)(B); *see also* Permitting Dashboard, *Reports and Publications*, https://www.permits.performance.gov/fpisc-content/reports-and-publications (last updated Nov. 21, 2024).
172. Permitting Dashboard, *Federal Environmental Review and Authorization Inventory*, https://www.permits.performance.gov/tools/federal-environmental-review-and-authorization-inventory (last updated Sept. 10, 2021).
173. 42 U.S.C. §4370m-2. Covered projects are those that meet defined criteria and fall within at least one of several sectors defined in FAST-41: "renewable or conventional energy production, electricity transmission, surface transportation, aviation, ports and waterways, water resource projects, broadband, pipelines, manufacturing, semiconductors, artificial intelligence and machine learning, high-performance computing and advanced computer hardware and software, quantum information science and technology, data storage and data management, cybersecurity, carbon capture, [or] energy storage." *Id.* §4370m. The Permitting Council added mining as a covered sector in 2021. Adding Mining as a Sector of Projects Eligible for Coverage Under Title 41 of the Fixing America's Surface Transportation Act, 86 Fed. Reg. 1281 (Jan. 8. 2021).
174. 42 U.S.C. §4370m-2(a)(1) (describing project initiation process); *see* Permitting Dashboard, *Project Type and Facilitating Agency*, https://www.permits.performance.gov/tools/project-type-and-facilitating-agency (last updated Dec. 11, 2024) (identifying facilitating agencies by project type).
175. 42 U.S.C. §4370m-2(b)(2)(C).
176. *Id.* §4370m-2(b)(1)(A).
177. *Id.* §4370m-2(a)(2), (3).
178. *Id.* §4370m-2(c)(1).
179. *Id.*
180. *Id.* §4370m-2(c)(2) (the timetable must include "intermediate and final completion dates for action by each participating agency on any Federal environmental review or authorization required for the project").
181. *Id.* §4370m-2(c)(2)(F).
182. *Id.* §4370m-1(b)(4).
183. Pleune & Boling, *supra* note 111, at 10469.
184. Federal Permitting Improvement Steering Council, *supra* note 169, at 9-10.
185. *Id.* at 28-29.
186. *Id.* at 30-31.

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

missed.[187] The initial trends suggest that FAST-41 projects are permitted more quickly than projects subject to traditional procedures.[188]

Notably, these efficiencies were achieved not by removing statutory or regulatory requirements, but by transparently tracking permitting processes and facilitating coordination both within and outside the federal government.[189] Indeed, FAST-41 states expressly that nothing within it "supersedes, amends, or modifies any Federal statute or affects the responsibility of any Federal officer to comply with or enforce any statute."[190] Nor does it "create[ ] a presumption that a covered project will be approved or favorably reviewed by any agency."[191] The efficacy of FAST-41 demonstrates that it is not necessary to sacrifice regulatory rigor in order to improve timeliness and predictability, even for complex infrastructure projects.

B. *FERC's Integrated Licensing Process: Fostering Early Public Participation*

The Federal Power Act requires hydropower projects occurring on lands or waters under federal control to operate under licenses granted by FERC.[192] The licensing and relicensing processes are comprehensive and time-consuming. Licenses must comply with a host of federal and state environmental statutes, including NEPA, the CWA, the ESA, and others. In addition to the licensee and FERC, many other agencies and parties may be involved, including federal wildlife and land management agencies, tribes, state agencies, and affected stakeholders.[193]

For decades, FERC processed requests for licenses and license renewals under what is now called the "traditional licensing process." That process proceeded sequentially, with associated deadlines for each step.[194] The licensee would generate a plan to study the project's effects based on stakeholder recommendations but without involvement from FERC, which typically became involved only after the licensee filed its application.[195] Formal stakeholder engagement and environmental reviews occurred at specified stages during the relicensing process.[196]

In 2003, FERC adopted a new "integrated licensing process" intended to address the principal causes of delay associated with the traditional process—namely, "the need for additional information or studies after the application is filed," the untimely receipt of environmental studies from federal and state agencies, failures to resolve disagreements over requests to gather information or conduct additional studies, and requests for extensions of time.[197]

Unlike the sequence-driven traditional process, the integrated process includes several concurrent steps and substantial coordination before the application is filed. Under the integrated process, all prospective license applicants begin by preparing two documents—a notification of intent and a pre-application document. These are distributed to FERC, state and federal agencies, tribes, local governments, and public stakeholders.[198] The pre-application document includes information about the hydropower facilities, potential effects on the environment, preliminary issues and studies, and an appendix describing contacts with stakeholders to date.[199]

The submission of the notice and pre-application document triggers several deadlines. Within 30 days, FERC staff must meet with any tribe likely to be affected by the proposed project.[200] And after the pre-application document is filed, FERC must file a notice that triggers a 60-day period in which stakeholders can comment and make study requests.[201] While these processes proceed, the applicant and FERC engage in project scoping.[202] There is also a formal mechanism for resolving study disputes prior to the application filing date.[203] Only after the applicant, FERC, and interested third parties have engaged in this iterative planning process will the application be filed.[204]

The integrated licensing process was designed to incorporate FERC staff input earlier in the planning process, to increase public participation at each stage, and to coordinate environmental review processes and avoid delays.[205] In many respects, it has succeeded. Feedback FERC collected from licensees, other agencies, and stakeholders indicates that the process reduces uncertainty and results

187. Office of the Executive Director, Federal Permitting Improvement Steering Council, Quarterly Agency Performance Report: Fiscal Q1 2024 (October-December) 15 (2024), https://www.permits.performance.gov/sites/permits.dot.gov/files/2024-03/Permitting%20Council%20FY24Q1%20Quarterly%20Performance%20Report.pdf; *see also* Pleune & Boling, *supra* note 111, at 10469-70 (identifying similar consistency in prior years).

188. Pleune & Boling, *supra* note 111, at 10470 (recognizing that, on average, EISs subject to the FAST-41 process are completed years earlier than EISs completed across all agencies under traditional processes).

189. *Id.* at 10469 ("Notably, the procedures in FAST-41 and the duties of the Permitting Council do not elevate speed over excellent deliberation.").

190. 42 U.S.C. §4370m-6(d); *see id.* §4370m-11 ("Nothing in this subchapter amends the National Environmental Policy Act of 1969 . . . .") (internal citation omitted).

191. *Id.* §4370m-6(d).

192. 16 U.S.C. §797(e); *see* 18 C.F.R. pt. 5.

193. 18 C.F.R. §§4.34, 4.38, pt. 16; *see also* Kelsi Bracmort et al., Congressional Research Service, R42579, Hydropower: Federal and Nonfederal Investment 25-26 (2015), https://crsreports.congress.gov/product/pdf/R/R42579.

194. *See* 18 C.F.R. §§4.38 (original licenses), 16.8 (relicense); *see also* Bracmort et al., *supra* note 193, at 25-26.

195. Bracmort et al., *supra* note 193, at 25; *see also* Aaron Levine & Austin Flanagan, National Renewable Energy Laboratory, FERC Hydropower Licensing: A Review of Utilization of the ILP, TLP, and ALP xc (2019), https://www.nrel.gov/docs/fy19osti/71982.pdf.

196. Levine & Flanagan, *supra* note 195, at 3.

197. Hydroelectric Licensing Under the Federal Power Act, 68 Fed. Reg. 13988, 13990-91 (Mar. 21, 2003); *see* 18 C.F.R. pt. 5.

198. 18 C.F.R. §§5.5 (describing notification of intent), 5.6 (describing pre-application document).

199. *Id.* §5.6(d).

200. *Id.* §5.7.

201. *Id.* §5.9.

202. *Id.* §§5.8-.9.

203. *Id.* §5.14.

204. *Id.* §5.17.

205. Hydroelectric Licensing Under the Federal Power Act, 104 FERC ¶ 61109 (2003). The integrated licensing process became the default for all licenses and relicenses sought after July 2005. *Id.*

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

in better outcomes overall.[206] Recent studies also show that the integrated licensing process generally takes less time,[207] and that its collaborative foundation produces licenses that respond to a broader variety of stakeholder concerns and include protective measures that are more likely to be implemented.[208]

Despite these important benefits, a 2021 study conducted by the National Renewable Energy Laboratory highlights several continuing challenges, including staff turnover, inadequate agency resources, and inadequate stakeholder resources to stay engaged during a lengthy process.[209] The success of the integrated licensing process demonstrates that the permitting processes can be improved and made more efficient without sacrificing regulatory standards. In particular, encouraging and facilitating early public engagement at the design phase of a project has yielded benefits enjoyed by both project proponents and communities. Conversely, the challenges faced by the integrated licensing process further underscores the importance of ensuring adequate agency staff and the importance of making public engagement as easy and accessible as possible.

C. *FWS' "Information for Planning and Consultation" System: Incorporating Environmental Considerations Into Project Design*

As explained in Part I, permitting processes can be undermined by inadequate agency expertise and experience, delays associated with time-intensive data collection, and the friction associated with interagency coordination. FWS' Information for Planning and Consultation (IPaC) decision support system was developed to mitigate these types of barriers to efficient implementation of §7 consultations under the ESA. As discussed in Section I.B, federal agencies must consult with FWS if an action it is taking, funding, or approving may affect a listed species under the ESA.

The consultation process can be delayed by a variety of resource and staffing constraints. Staff at the consulting agency and FWS may lack the time and resources necessary to initiate and complete consultation in a timely manner.[210] Inconsistent training and standards across FWS offices and among field-office personnel may yield inconsistent results or interagency disagreement.[211] And uncertainty about whether certain impacts meet a given statutory or regulatory threshold can create additional delays, inconsistent results, and litigation risk.[212]

The IPaC system was designed to address these issues.[213] The system, which was created in 2010 and subsequently evolved significantly, is a free web-based geospatial tool that provides scientific information to inform compliance with §7.[214] Once the action agency submits information about the site of the proposed project and affected area, the IPaC system provides a list of threatened and endangered species in the area and identifies critical habitat. It also recommends measures to minimize impacts on listed species and, if appropriate, provides an automated concurrence letter confirming that no consultation is necessary. In some instances, the system can determine whether a project will affect a listed species (or critical habitat) and provide a biological assessment that initiates the formal consultation process.[215]

By aggregating existing scientific information for automated access, the system ensures that agencies do not waste time re-collecting data. By making the information available online and on-demand, the system eliminates lags associated with coordinating interagency communications. By generating biological assessments for submission to the consulting agency, the system allows busy agency staff to devote their time to other tasks.

The system also yields a simpler, more effective application process. Use of the system decreases uncertainty associated with data collection and ensures compliance with

206. FERC, Integrated Licensing Process Effectiveness Evaluation Feedback 2010, at 7, 10 (2011), https://www.ferc.gov/sites/default/files/2020-04/Summaryofcomments.pdf.

207. Brenda M. Pracheil et al., *Influence of Project Characteristics, Regulatory Pathways, and Environmental Complexity on Hydropower Licensing Timelines in the US*, 162 Energy Pol'y 1, 8-10 (2022) (describing observation that the average relicensing timeline is on average two years shorter under the integrated licensing process than under the traditional process and that timelines were less variable overall); *but see* Nicola Ulibarri, *Does Collaboration Affect the Duration of Environmental Permitting Processes?*, 61 J. Env't Plan. & Mgmt. 617, 628 (2017) (concluding that the integrated licensing process "incentivized better coordination between the various authorizing agencies" but "did not lead to faster application development").

208. Nicola Ulibarri, *Tracing Process to Performance of Collaborative Governance: A Comparative Case Study of Federal Hydropower Licensing*, 43 Pol'y Stud. J. 283, 299 (2015).

209. Aaron Levine et al., National Renewable Energy Laboratory, An Examination of the Hydropower Licensing and Federal Authorization Process 81-82 (2021), https://www.nrel.gov/docs/fy22osti/79242.pdf.

210. Malcom & Li, *supra* note 44, at 15848 (confirming that in 2015, a "substantial portion" of formal consultations conducted by FWS took longer than the statutory maximum, and that, in 2014, less than 30% of the NMFS' consultations were completed on time).

211. *See* Donald C. Baur & Michael J. Bean, *A Recovery Plan for the Endangered Species Act*, SR021 ALI-ABA 77, 82 (2009).

212. Erin H. Ward & Pervaze A. Sheikh, Congressional Research Service, R46867, Endangered Species Act (ESA) Section 7 Consultation and Infrastructure Projects 1-2 (2021), https://crsreports.congress.gov/product/pdf/R/R46867.

213. FWS, *IPaC Information for Planning and Consultation*, https://ipac.ecosphere.fws.gov/ (last visited Dec. 5, 2024).

214. The IPaC tool is specific to projects that would require consultation with FWS, but NMFS also offers several online mapping tools for specific regions. *See, e.g.*, NMFS National Oceanic and Atmospheric Administration (NOAA) Fisheries, *The Greater Atlantic Region ESA Section 7 Mapper*, https://www.fisheries.noaa.gov/resource/map/greater-atlantic-region-esa-section-7-mapper (last updated June 22, 2023); NMFS NOAA Fisheries Alaska Region Protected Resources Division, *Species Distribution Mapper*, https://alaskafisheries.noaa.gov/portal/apps/webappviewer/index.html?id=446543503a2e4660b0f5ee55e6407d27 (last visited Dec. 5, 2024); NMFS NOAA Fisheries West Coast Region, *Protected Resources App*, https://www.webapps.nwfsc.noaa.gov/portal/apps/webappviewer/index.html?id=7514c715b8594944a6e468dd25aaacc9 (last visited Dec. 5, 2024); NMFS NOAA Fisheries, *Resources: Science & Data*, https://www.fisheries.noaa.gov/resources/maps (last visited Dec. 5, 2024).

215. FWS, Now Available in IPaC: Develop a Biological Assessment Using "Consultation Package Builder," https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd923405.pdf (describing IPaC's "consultation package builder" function).

Copyright © 2025 Environmental Law Institute®, Washington, DC. Reprinted with permission from ELR®, http://www.eli.org

various legal and regulatory requirements. It also produces better environmental outcomes by ensuring that regulated entities are aware of the potential effects of their actions upfront and allowing agency staff to focus their attention on the consultations that merit additional attention.

The IPaC system has been well received and has saved users and agency staff significant time.[216] FWS estimates that use of the system saved FWS staff 123,714 hours—more than 14 years—of time between October 2018 and July 2022.[217] In fiscal year 2022, the IPaC program produced 103,500 official species lists and 23,425 streamlined consultation documents,[218] "sav[ing] the equivalent of 22 employees" and providing substantial "assist[ance] with about 25% of the consultation workload."[219] The IPaC example demonstrates that leveraging technology is another way to simplify and streamline the permitting process without compromising regulatory standards. Permit reform proposals should include funding and support for similar solutions in other fields.

IV. Conclusion: A Call for More Research

We agree that permit reform should continue to be a high priority. However, deregulatory approaches, such as arbitrary limits on NEPA processes, exemptions from environmental review, and eliminating agency staff, are fundamentally misconceived and misdirected. They compromise community input, enforcement of health and safety standards, and environmental safeguards, without providing meaningful progress in the race to mitigate climate change.

Deregulation does not address the institutional, technical, and administrative causes of delay. Managing a team of experts, interfacing with affected community members, coordinating the requirements of different permitting authorities, reconciling conflicting legal authorities, and recognizing competing state and local laws are hurdles that cannot be solved by eliminating environmental standards. Practical problems like insufficient budgets, a lack of staff to process permits, antiquated data management systems, and onerous procurement policies for external contractors also contribute to delay. Permit reform should target these functional problems.

On the policy side, permit reform should focus on strengthening administrative tools to mitigate conflicting regulatory standards, consolidate duplicative requirements, and align overlapping jurisdictions. Future research should investigate recent reforms targeting these problems and develop metrics for assessing efficacy. Programs like FAST-41 and the Permitting Council, FERC's integrated licensing process, and FWS' IPaC system are examples of promising developments that target the root causes of delay, and should be used as models for programs in other agencies.

Finally, permitting reform should not lose sight of the values served by permitting and the risks associated with compromising those values. First, hasty permitting reforms, especially those aimed at NEPA, risk eliminating public involvement. Without public involvement, it is inevitable that environmental justice and tribal communities will be disadvantaged.

Second, permitting ensures the safety of everything from buildings to airplanes to mines, and sloppy permitting processes lead to accidents. Recently, this was seen during the earthquake in Turkey, when 3,000 buildings, including new construction, collapsed due to a failure to enforce building regulations.[220] It was seen in the Boeing 737 Max scandal, where the permitting process was rushed, and federal regulators lacked capacity to provide meaningful oversight.[221] And it was seen in the Mount Polley mine disaster, where a poorly designed tailings dam at a copper and gold mine in Canada broke, sending 24 million cubic meters of mine waste into nearby lakes and rivers.[222] The root cause of this calamity was lax enforcement by the regulating ministry, which did not enforce permitting standards at the design, building, or operational phase.[223]

In summary, permitting is not just red tape, and permit reform should be careful to improve rather than dismantle the valuable government service it provides.

---

216. DOI, Budget Justifications and Performance Information: Fiscal Year 2024: Fish and Wildlife Service ES-11 to ES-12 (2023), https://www.fws.gov/sites/default/files/documents/fy2024-fws-greenbook.pdf-508.pdf; *but see* Alejandro E. Camacho et al., *Six Priority Recommendations for Improving Conservation Under the ESA*, 51 ELR 10785, 10787 (Sept. 2021), https://www.elr.info/articles/elr-articles/six-priority-recommendations-improving-conservation-under-esa (explaining that inconsistent funding has hindered full deployment of the IPaC system in the decade post-rollout); Center for Environmental Excellence by the American Association of State Highway and Transportation Officials, *Research Idea Details*, https://environment.transportation.org/teri-idea/inefficiencies-of-the-us-fish-and-wildlife-services-ipac-system/ (last visited Dec. 5, 2024) (2012 proposal from state DOT employee urging study of IPaC's inefficiencies).

217. FWS, *IPaC 101 Presentation (Slides Only)*, YouTube (July 21, 2022), https://www.youtube.com/watch?v=sm4o8J88n14 (minutes 9:16, 9:37-9:42).

218. DOI, *supra* note 216, at ES-11 to ES-12.

219. *Id.*

220. Jake Horton & William Armstrong, *Turkey Earthquake: Why Did So Many Buildings Collapse?*, BBC (Feb. 9, 2023), https://www.bbc.com/news/64568826 (describing political practice of granting "construction amnesties," which were exemptions from building permits that could be obtained for a fee); Ceylan Yeginsu et al., *Earthquake-Proof, Not Corruption Proof: Turkey's Needless Deaths*, N.Y. Times (May 4, 2023), https://www.nytimes.com/2023/05/04/world/europe/turkey-earthquake-corruption.html (providing in-depth reporting on the failure to enforce building codes and its contribution to building collapses during the earthquake).

221. Majority Staff of the Committee on Transportation and Infrastructure, Final Committee Report: The Design, Development & Certification of the Boeing 737 MAX 57 (2020) (detailing how FAA's delegation of its permitting authority to Boeing eroded oversight effectiveness and compromised safety); John Cassidy, *How Boeing and the FAA Created the 737 Max Catastrophe*, New Yorker (Sept. 17, 2020), https://www.newyorker.com/news/our-columnists/how-boeing-and-the-faa-created-the-737-max-catastrophe.

222. Carol Bellringer, Office of the Auditor General of British Columbia, An Audit of Compliance and Enforcement of the Mining Sector (2016).

223. *Id.* at 8.

Modernizing NEPA Challenge

Submission Title: San Gregorio Creek Bridge Restoration Project

Submission Category: Category 1 – Public-Facing Interactive Documents

Project and NEPA Document Overview

The California Department of Transportation (Caltrans) is currently in the process of preparing a joint Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment (IS MND/EA) to satisfy the requirements of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) for the San Gregorio Creek Bridge Restoration Project. The project is being funded in part by the State Highway Operation and Protection Program (SHOPP), which is known as the "Fix it First" program, and in part, with federal funding. The federal funding is the trigger requiring compliance with NEPA. Caltrans is serving as the lead agency under CEQA and also as the lead agency under NEPA. The Federal Highway Administration's (FHWA) responsibility for NEPA environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being carried out by Caltrans pursuant to 23 United States Code Section 327 and the Memorandum of Understanding dated May 27, 2022, executed by FHWA and Caltrans. This includes serving as a NEPA lead agency.

The project is a bridge project on California Highway 1 subject to NEPA under the jurisdiction of FHWA, being carried out by Caltrans.

The San Gregorio Creek Bridge is located on California State Route (SR) 1 (also known as Highway 1 or Pacific Coast Highway) in unincorporated San Mateo County. Highway 1 is a major north-south highway that runs along most of the pacific coastline of California. The San Gregorio Creek Bridge crosses over San Gregorio Creek at the estuary formed by the confluence of the creek and the Pacific Ocean. The bridge is adjacent to the San Gregorio State Beach (a California State Park) and serves an average of 6,500 local residents and recreation travelers daily.

The bridge was originally built in 1941 as a five span, reinforced concrete bridge that stretches 265 feet across the creek. The bridge is located 1,500 feet from the San Gregorio fault, an active, 130-mile-long fault located on the California coast between San Francisco and Monterey Bay. The bridge was inspected in 2015 and was found to have substantial vulnerabilities to seismic events. As a plan was being developed to seismically retrofit the bridge, several other condition issues were identified, such as degradation of the concrete and rust on the anchors and restraining cables. This project proposes to fix both the condition issues and seismic vulnerabilities of the bridge or construct a new bridge in the same location.

The project is located in the California Coastal Zone proximate to the Pacific Ocean and is subjected to coastal sea spray and fog. The project limits include biologically unique terrestrial and aquatic

resources and resources important to identified Native American tribes. Therefore, it is anticipated that the project will require permits from federal, state, and local agencies including the United States Fish and Wildlife Service, National Marine Fisheries Service, United States Army Corps of Engineers, California Transportation Commission, California Department of Fish and Wildlife, San Francisco Bay Regional Water Quality Control Board, California Coastal Commission, and San Mateo County Local Coastal Program. These permits will be requested during the next phase of project development. The project will also be required to consult with the California State Historic Preservation Officer.

The project is currently in the "Project Approval and Environmental Document phase", which is the phase in the Caltrans delivery process in which environmental clearance is obtained. At the time of application submission, technical studies for engineering and environmental specialties are nearly completed and the first administrative draft of the environmental document (IS MND/EA) is being prepared. Since the project is subject to the provisions of CEQA and NEPA, the project team (Caltrans with support from their environmental consultant AECOM) is preparing a joint environmental document that will circulate publicly for a minimum of 30 days. Circulation is currently anticipated to occur in late-October 2024.

Caltrans, serving as both the CEQA and NEPA lead agency, routinely circulates joint documents that combine the requirements of both CEQA and NEPA. This project plans to do the same in order to provide the public and regulatory agencies a meaningful but streamlined opportunity to provide comment just once. Many California residents are generally familiar with CEQA and NEPA documents. This is especially true of residents who live in the California Coastal Zone, who in our experience pay closer attention to local development than populations elsewhere in California. The California Coastal Commission is a small agency with a national reputation for requiring public input. Therefore, Caltrans expects the project will have the interest of the diverse nearby community and the long list of regulators as well. Residents of San Mateo County speak more than 100 languages with English, Spanish, Chinese, and Tagalog (Filipino language) being the most common. The importance of the project and the anticipated level of public interest (in numerous languages) makes this a great project to feature the first in the State interactive web-based environmental document. When it is published in the fall, the interactive web-based environmental document will contain the same content as the hardcopy edition and the PDF edition (required for all CEQA projects). All three editions will be circulated simultaneously to allow for maximum public input.

The project area contains sensitive resources and a diverse community with a history of public participation.

This submission to the Modernizing NEPA Challenge contains a preview of the forthcoming content in the environmental document (IS MND/EA) and demonstrates the layout, tools, and general experience that public with see when the document is published. It is not yet available for public release and all information should be considered draft until Caltrans releases the full IS MND/EA on its website at https://dot.ca.gov/caltrans-near-me/district-4/d4-popular-links/d4-environmental-docs. The preview for award consideration is focused on NEPA content. Additional information will be added as it becomes available.

Interactive Web-Based Environmental Document Features

The interactive web-based environmental document (IS MND/EA) is being built on a platform called **PlanEngage**. The platform was developed by Caltrans' consultant on this project—AECOM—specifically to present large and complex environmental documents interactively. All content and features on the platform are designed to be ADA accessible. The platform is compliant with both Section 508 of the Rehabilitation Act and the Web Content Accessibility Guidelines (WCAG) version 2.1 (Level AA). It is fully compatible with mobile devices as well as common third-party internet browser language translation applications (e.g. Google Translate).

The San Gregorio Creek Bridge Restoration Project IS MND/EA is being written and developed with the hardcopy, PDF, and interactive web-based editions in mind.

The main factors that have contributed to the selection of features being used in the interactive web-based environmental document include:

- The prevalence of increasing smartphone use, and the lack of home desktop computers in the project area.
- The diversity of languages spoken at home in the project area.
- The basic need for ADA accessible environmental documents.
- The public familiarity of interactive mapping for navigation.
- The complexity of terminology associated with the seismic restoration of a bridge.
- The history of public engagement in the community.
- Caltrans' core values, which include improving engagement, equity, and innovation throughout their work.

Access the site and follow along while you read.

- On your desktop computer, navigate your favorite browser to: https://us.planengage.com/unpublished/sangregoriobridge/page/home
- On your mobile device, scan the QR code with your camera to open the URL.

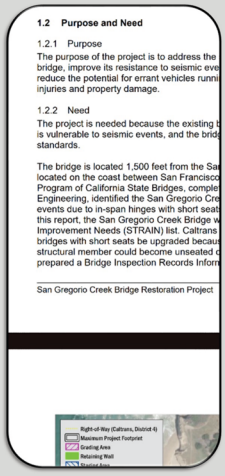
- Once there, enter the following credentials:

Email address: hello@planengage.com
Password: PlanEngage24*

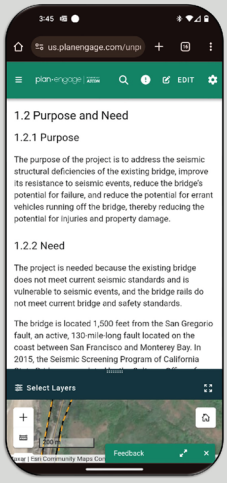
The site contains nine features to enhance accessibility, access, and efficiency. Each is explained in detail.

1. **Mobile-Friendly:** We encourage you to scan the QR code provided and explore the interactive web-based edition using your mobile device (e.g. smartphone or tablet). A 2019 Pew Research study found 57% of adults only read news on their mobile devices. Therefore, if information is hard to access on mobile devices, it is likely not getting read by a large sector of the public. As you can see from **Figure 1**, the left image features content viewed on a mobile device from the traditional PDF edition and the right image features the same content from the interactive web-based edition. Not only is the text easier to read, but zoomable maps, the interactive navigation button ☰, and the feedback tool allow for readers to quickly access multiple subjects and comment before navigating away from the environmental document and moving on to their next task of the day.

Figure 1. Mobile-Friendly



Mobile view of traditional PDF edition



Mobile view of interactive web-based edition

2. **Automatic Language Translation:** With over 100 languages spoken in the county where the project is located, lots of people are reading the internet in languages other than English. However, a hardcopy edition or even a PDF isn't easily translated by web browsers. As shown in **Figure 2**, the interactive web-based edition is automatically displayed in the language that the browser is set to by the reader using third-party extensions (Microsoft Edge browser showcased in this example). The top image shows the English version, and the bottom image shows the Spanish version. Notice how the map legend and feedback button are automatically translated as well. Everything that is text is translated by the browser with the click of a button (or in many cases without the user having to do anything at all). This allows for a deeper saturation of information within the community being affected by this project.
3. **Interactive Project Location Map:** Once you access the interactive site, you should be able to navigate to the Project Description page (using the credentials provided on page 3). The project description is one of the most important parts of the environmental document and one that can be most aided by the interactive web-based edition. As you will see, the project

Figure 2: Automatic Language Translation



View with default browser language set to English



View with default browser language set to Spanish

location is automatically displayed on this page. Users can slide the size of the map left or right to meet their needs. To start, the location of the bridge, the California Department of Transportation property boundaries, and the maximum project footprint for all alternatives are all shown. As the reader scrolls through the text, the map changes to display information most pertinent to that section. The user can zoom in or out and change the layers being shown on the map at any time, but the map display will automatically reset to the preselected layers and zoom once they return to the text.

The interactive map allows users to immediately understand where the project is in relation to locations that matter to them, like their property, their route to work, or their favorite State Beach. The general public is accustomed to viewing information in interactive maps such as for navigation with Google Maps or Apple Maps. The interactive maps work with both the desktop and the mobile versions.

Environmental documents, such as this IS MND/EA are often complicated and use terminology and concepts not necessarily familiar to the general public. The clarity provided through the interactive map enhances project understanding and allows for more user time to be spent on the environmental effects of the project instead of creating frustration over trying to figure out where the project is located.

4. **Location-Based Comment Tool:** On the project description map, you may notice an option to provide a comment. Commenting directly on the map allows users to provide more clarity about their comment, especially if their comment is location-based.



For example, a user might want to tell the project team that they saw a rare plant in a particular location, and they want to share that location as part of their comment. Comments are moderated to avoid inappropriate content and the platform can be enabled to allow all comments to be viewed by other commenters and the public. This allows for efficiency if someone has already made the comment (i.e. avoid duplication). We invite the reviewers to leave a comment to let us know what you think of this feature by clicking the comment box directly on the project description interactive map.

5. **Map Pop-Up Pictures:** On the project description map, you may notice an icon for a picture to appear as you scroll through the project description text. If you click on this icon, a thumbnail picture of the San Gregorio Creek Bridge will appear on the map. This feature is helpful on this map to orient readers to exactly which bridge we are discussing. In the future, we will use this feature to show images

Figure 3: Map Pop-Up Pictures



Selected text is defined for the user by hovering the cursor over the blue text.

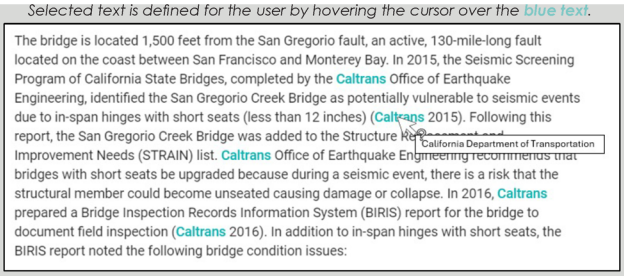
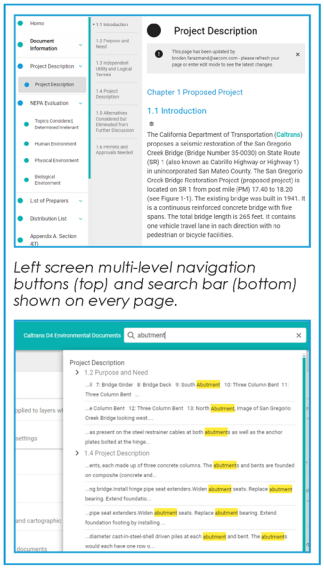


Figure 4: Jargon Explainers

of special-status biological resources (fish, frogs, snakes, and plants) that are present within the project area, important visual elements and views, as well as other project areas and landmarks to help orient the reader.

6. **Jargon Explainers:** Transportation projects and NEPA documents, in general, use a lot of abbreviations and technical jargon. The interactive web-based edition provides a tool to help with this. We have set up and will continue to implement text that is blue to designate that you can hover your mouse over the text and the abbreviation or technical term can be spelled out or defined (**Figure 4**). This tool will be available across the entire document so a term that is defined in one location but is used again in other sections can be easily understood.
7. **Navigate and Text Search:** The interactive web-based edition makes it easier than ever for the reader to navigate complex documents and search for exactly what content is most interesting, relevant, or important to them. Multi-level navigation controls are featured to the left side of each page helping the reader to easily move back and forth between

Figure 5: Navigate and Text Search



Left screen multi-level navigation buttons (top) and search bar (bottom) shown on every page.

sections. The interactive web-based edition also features a search bar that is shown at the top of every page to allow an individual to search for content of interest to them. These two features are shown in the following images.

8. **Before and After Slider:** While the environmental document is still in development and we do not have all of the text ready yet, we wanted to demonstrate some features that we intend to use when we release this to the public. One such feature is the before-and-after slider in the Visual/ Aesthetics section of the IS MND/ EA. Visual resources are important to this project because NEPA, CEQA, and the California Coastal Act all require investigation of effects, and this project is located in an area of high scenic value. This environmental document will feature five key views and three alternatives. The before-and-after sliders will provide a critical tool to help the public understand what is being proposed and what the end result might look like. As part of the submission, we have included one example (**Figure 6**). It shows the existing condition of the bridge from the roadway and a simulation of an alternative to retrofit the existing bridge. You may notice the barrier rails are updated in the simulated condition.



Figure 6: Before-and-After Slider

9. **Tag Along Feedback:** One of the most important functions the interactive web-based edition offers is the ability to comment more easily. As you can see from **Figure 7** (and is explained on the site's home page), readers can submit a comment on the desktop or mobile version of the site from any page. Comments follow the user from one page to the next so users can make comments on more than one section or compare different sections of the document (e.g. reference something in the air quality section and the greenhouse gas section) without losing their comment. Users don't need to open another window or navigate away from the document in order to comment. This improved efficiency encourages readers to become commenters. We expect that the increased access to clear information on the interactive web-based edition will provide for clearer questions and more useful comments. The settings can be configured to allow all visitors to see comments made so far, just like on the map feedback, once they are approved by a moderator. Commenters are also able to comment in any language.

Reiterating the Benefits of the Interactive Edition

As noted above, the interactive web-based edition will be circulated alongside the hardcopy and traditional PDF editions. All formats of the environmental document will include the same text and basic information. The maps will include the same layers. Comments will be accepted by the lead agency through mail, email, and interactive document submission. Some members of the public will prefer to read a hardcopy. Some members of the public will prefer to interact with the PDF edition. However, anyone wishing to access information about this important project on a mobile device, in another language, or just simply in less time may benefit from the interactive web-based edition. It is our goal that we receive more informed comments from more of the public so they can shape the outcome of this project.

With the interactive web-based edition, agencies can learn more about connecting with individuals who don't leave a comment.

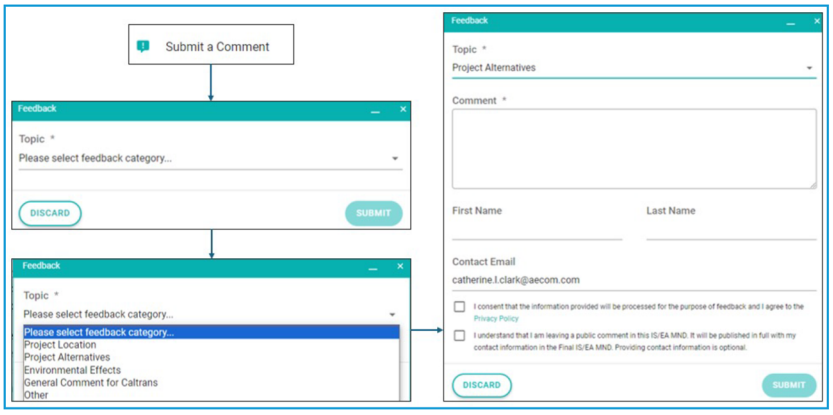


Figure 7. "Submit a Comment" Process

The PlanEngage platform comes with Google Analytics built in so the project team can track what information is being read the most (e.g. what pages are people spending the most time on), what websites are generating the most referrals to the document (e.g. newspaper advertisement, State Clearinghouse, social media, etc.), how people are accessing the information (e.g. mobile vs desktop), and where the commenters are located (e.g. near the project or further away). This will provide valuable feedback to the Caltrans to inform not just this project but all future projects. With only the hardcopy and PDF editions of an environmental document, information is only available about the audience when they submit a comment or come to a public meeting to ask a question. With the information available from the interactive web-based edition, the lead agency can start to learn more about who reads their documents, even when they don't comment or attend a public meeting. Since this is likely the largest portion of document readers, it will be helpful to interact with them in more meaningful ways.



M-37 Improvement Project Environmental Assessment Document
PlanEngage: Modernizing the NEPA Process
Category 1: Public-Facing Interactive Documents

Abstract: *PlanEngage was designed to provide the public an online platform to access, review, and provide real time feedback on NEPA projects. PlanEngage is intended to be utilized throughout the entire life of a project. The platform is easily customized to fit the needs for public comment and participation for NEPA documents ranging from a Planning and Environmental Linkages Study (PEL) to an Environmental Impact Statement (EIS).*

Technical Description of Interactive Document

Brief Overview of the NEPA Review Process for the M-37 Improvement Project

The Michigan Department of Transportation (MDOT), project sponsor, in cooperation with the Federal Highway Administration (FHWA) Michigan Division, is pursuing the **M-37 Improvement Project** to enhance and widen a 2.7-mile section of M-37 in Kent County, Michigan. M-37 is an urban state trunkline connecting Grand Rapids to the north with the rapidly-growing areas of Caledonia, Middleville, and Hastings to the south.

The **purpose** of the proposed improvements to M-37 in Kent County is to improve traffic flow, reduce heavy congestion, enhance traffic safety, and reduce the rate of crash incidents in the area. Project **needs** include transportation deficiencies related to traffic volumes, growth and development, safety, pedestrian and nonmotorized connectivity, pavement and culvert condition, and access to adjacent land uses.

An Early Preliminary Engineering Process (EPE) was conducted by MDOT in partnership with Caledonia Township from 2021 to 2023 to determine and evaluate alternatives. Seven (7) stakeholder meetings and one (1) public meeting (February 2023) were held during the EPE process. Alternatives were evaluated in a three-step process, including Illustrative, Practical, and Preferred stages, with additional detail and level of analysis performed at each stage. As part of the process, a No-Build/No Improvements alternative has been included as a basis of comparison for the Practical Alternatives.

The state of Michigan granted MDOT a state earmark to build the Preferred Alternative selected which drove the required **Environmental Assessment (EA)** under the National Environmental Policy Act (NEPA) to be prepared. The project is also funded in part by federal funds through FHWA and local funding. Currently, the EA is in draft format, to be published on August 8, 2024, online using **AECOM's PlanEngage** platform and distributed throughout the community as hard copies. MDOT will host the link to PlanEngage for the public through MDOT's M-37 Improvement Project website here: https://www.michigan.gov/mdot/projects-studies/studies/traffic-and-environmental-linkages-studies/m-37-project. This publicly accessible, online format will serve as an additional method for public review and comment during the **public comment period,** as prescribed by the NEPA process. The intent of hosting the EA on an online platform is to allow the public easier access to the document by allowing on-demand availability for the duration of the public comment period. PlanEngage enhances the EA public comment experience by offering an additional and more convenient method of review but does not replace the traditional method of review for those that prefer reviewing the static document. The online document affords easier and more efficient agency coordination and comment as well, especially for state and federal agencies whose offices may not be located conveniently to the project location.

Detailed Technical Description of Interactive Features of PlanEngage

PlanEngage was designed to provide the public an online platform to access, review, and provide real time feedback on NEPA projects. PlanEngage is intended to be utilized throughout the entire life of a project. The platform is easily customized to fit the needs for public comment and participation for NEPA documents ranging from a Planning and Environmental Linkages Study (PEL) to an Environmental Impact Statement (EIS).

The specific project that this **Category 1** submission focuses upon is the draft EA for the M-37 Improvement Project and related documents. PlanEngage offers a more digestible form of the EA document by providing the public with a clickable Table of Contents, links to appendices and reference resources, interactive maps associated with the concepts discussed within certain EA sections, and the ability to leave comments about specific topics directly on the topic page. In addition to PlanEngage, the public comment review process includes a paper copy of the EA at various public locations. However, the paper copy may cause issues for those that cannot get to the locations due to a mobility barrier or the location's operating hours. For persons who may not be able to read the written text or may need extra time interacting with the document than the hours of availability afford, the on demand and online PlanEngage EA offers potentially underrepresented populations an opportunity to be included in the NEPA process. Conversely, others may only be able to access a paper document due to barriers to electronic devices or internet. Therefore, an equitable approach to engagement, particularly for reaching historically underserved populations, requires providing multiple options for the public to review and comment on the EA. The PlanEngage platform may be used on a desktop, laptop, tablet, or mobile device, removing the barrier of inaccessibility due to device compatibility issues. For a view of the mobile experience interface, please see Appendix A. Additionally, the PlanEngage EA is compliant with Americans with Disability Act (Section 508) requirements and is screen reader compatible.

After the comment review process closes and the project has a published ruling, such as an anticipated Finding of No Significant Impact (FONSI), the public may come back and view all the documentation and the FONSI on PlanEngage, allowing for greater transparency. The ability to continuously follow-up with the public throughout the process, including FONSI availability, is a step that may not be readily and easily achieved during the traditional EA process. The solution is PlanEngage, which allows the public to be informed on the project through EA completion.

There are many analytics available within PlanEngage. One of the most important features, is the Accessibility Report. This report analyzes the entire PlanEngage document for Revised 508 Standards compliance and identifies pages that do not comply to show the project team the steps to take to ensure compliance. PlanEngage has Google Analytics 4 (GA4) to report on usage and has a capability to create a zip code usage heatmap. Both of these tools work to provide the project team with valuable insights into the user's interests and engagement preferences. The analytical tools will also help the team understand where users are coming from and, what areas could be considered of high importance due to the high usage rates. The ability to interact with the public and see how the public interacts with PlanEngage will produce a better, more collaborative, and more equitable final project. The more people that are at the table to review, engage, and comment on a project's impacts to their daily life, the better the project team can confidently manage project outcomes to fit the specific project community, especially historically underserved populations, through the powerful analytic capabilities.

For projects where both project sponsor and agencies need to review content before it is publicly published, PlanEngage allows user assignments to view the document before it is released. These

assignments have varying levels of permissions and allow users to fully experience the EA as the public will interact with it, prior to official publication. PlanEngage, much the same as Microsoft products, has a grammar and spellcheck built into the platform. It can track changes, a feature that may be toggled on and off in the editor mode, which allows multiple users from different organizations and locations to work on and review the EA simultaneously. The ability to monitor progress allows continuous transparency between sponsor and agencies and makes it easier to note areas that need refinement, fix any errors, and ensure that all levels of project sponsor and agencies are comfortable with the final product before, the public comment period begins.

For more details on all that PlanEngage supports, please visit Appendix A.

Visuals/Illustrative Examples

Overview of the PlanEngage Platform

The following images provide an illustrative view of PlanEngage, specifically for the Project case study. Below, Figure 1 shows the instructions on how to navigate through PlanEngage, highlighting key features.

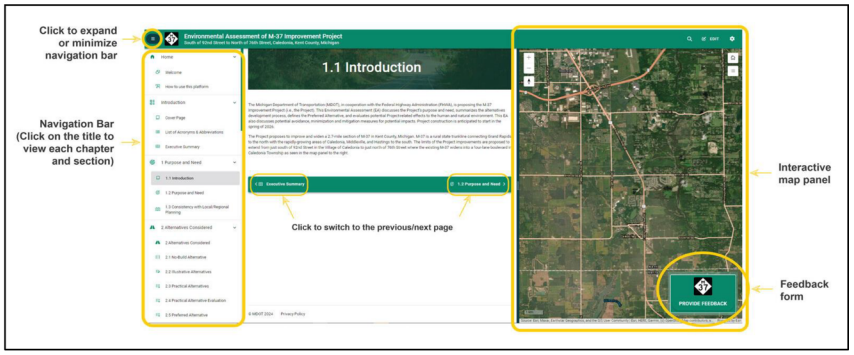


Figure 1 PlanEngage Key Features

Public Feedback Tool

A feedback form is available on all pages, as seen in Figure 2. When the public finds a section in which they feel a comment is appropriate, the public can provide feedback by clicking the button on the lower right corner.

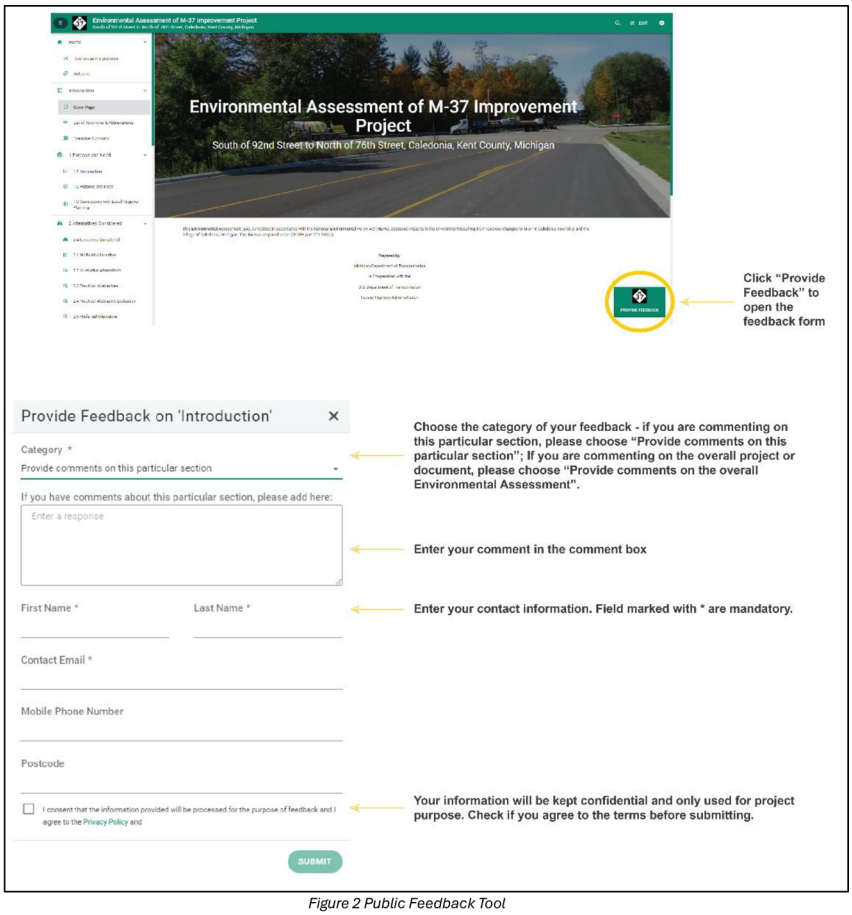


Figure 2 Public Feedback Tool

Interactive Maps

For those that are visual in nature or would like to know where specific project improvements are planned, some pages also include an interactive map panel on the right side of the page. The map can be adjusted by clicking the icons and turning on/off the map layers. This feature is not available for the public during the static document review. While the interactive maps are printed and included as figures for the public that are not accessing PlanEngage, the interactive maps allow for more detailed and personal exploration of the project visually and spatially. This will help members of the public who struggle with written word and prefer to see project impacts visually.

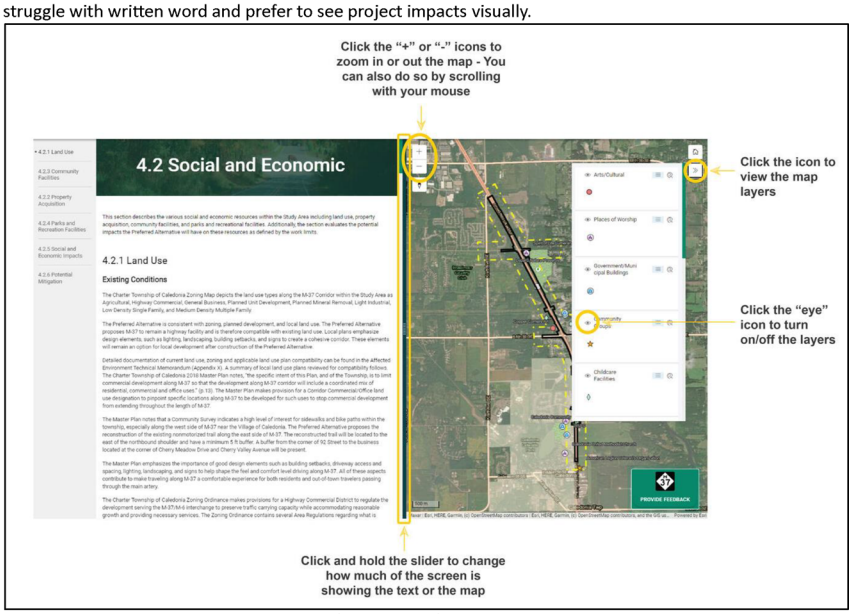


Figure 3 Interactive Map

Matching concepts to locations spatially is another important goal for the team during the outreach phase of the Project. There are places within the EA document that are highlighted in green, and, for these concepts, the public may click the highlighted text, and the map will zoom in to the referenced location, as seen in Figure 4. The ability to visualize the impact of what is being discussed will help all, including populations who have been traditionally underserved or people with special needs for viewing.

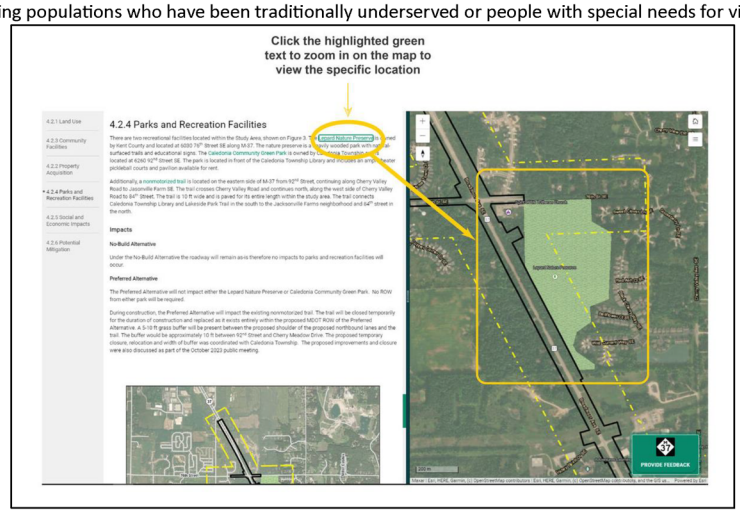


Figure 4 Green Highlighted Text, Mapped Concept

Finally, should the public want to see a specific layer on the map to learn more, the public may click the feature and a pop-up window will show up with more details as demonstrated in Figure 5.

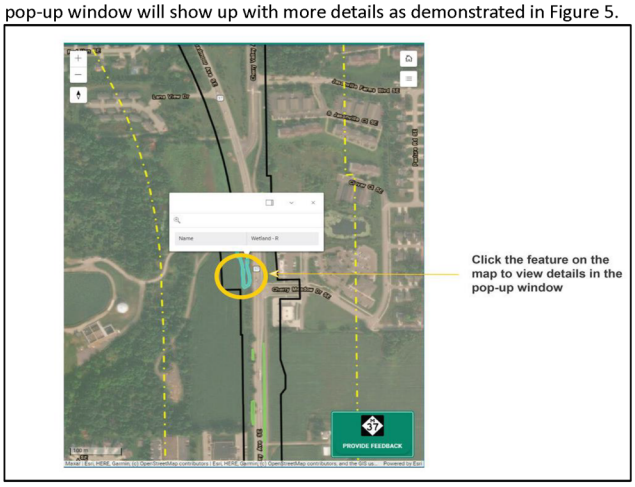


Figure 5 Details of a Feature

Editing Features

PlanEngage allows a project team member to simultaneously edit and/or view the platform by toggling on and off the edit button as seen in Figure 6.



Figure 6 Editing Toggle Button (off, on)

This allows for many users to work on the document at the same time, both in and out of editing sessions, independent of one another, all in real time. The ability for multiple editors allows for efficient and effective editing, comment response, and review and further ensures the final product is accurate and complete. Editing and viewing at the same time may take place within the same organization or across multiple organizations accessing the platform. There are no limits to editing sessions or permissions which makes PlanEngage a more economic choice than similar word processing software platforms that allow for multiple editing sessions to occur at the same time. And, with the use of the comment feature and the ability to track changes as demonstrated in Figure 7, duplicative efforts are avoided making PlanEngage more efficient than a static word processing document or portable document format (.pdf) for reviewing and editing.

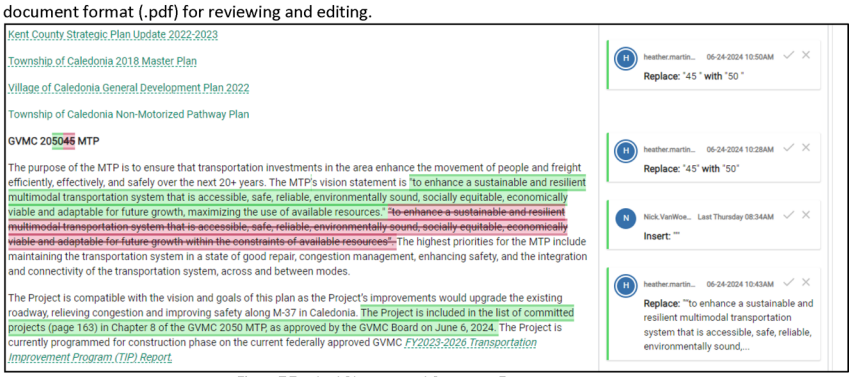


Figure 7 Tracked Changes and Comment Feature

Backend Features

Backend features are parts of a website not meant to be public facing. These features include the analysis and design tools that make up PlanEngage. There are tools for use before the EA is released to the public, like the Accessibility tool to ensure that the EA complies with Section 508 accessibility requirements, as shown in Figure 8. The Accessibility tool shows the project team where additional alternative text, table formatting, and figure text is needed to ensure compliances with 508 Standards. There is also an option for the project team to display the Section 508 compliance needs directly in the document, displayed when editing is turned on for each individual section. As seen in Figure 8, the report can be re-run as many times as needed, to provide the project team with confidence that the accessibility features added are compliant.

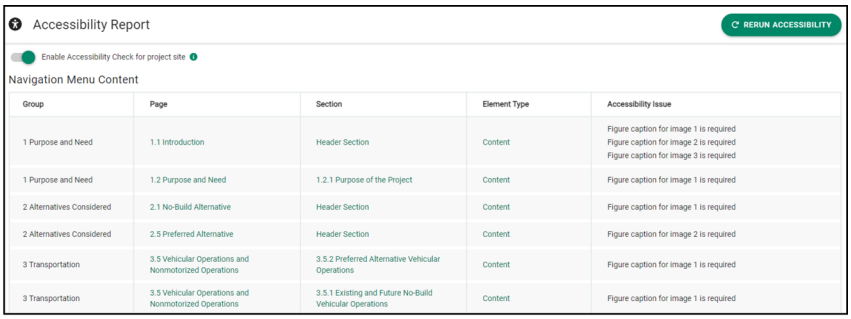


Figure 8 Sample Accessibility Report

When all the editing participants, from sponsor to agencies to consulting firms have completed and satisfied the review of the EA and it is ready to be published, PlanEngage allows the entire report to be exported as a pdf. This ensures that all the information being shown to the public who choose to access the draft EA via PlanEngage is the same as the pdf placed at various public locations for review. There are some formatting changes that may be made once the pdf is created, however, other than adding the alternative text to the pdf and formatting for spacing and image clarity, the documents are identical. While the pdf does not contain the interactive maps, static versions of every interactive map featured on PlanEngage are found in the pdf.

After the EA is published for public comment, additional backend tools allow the project team to understand more about how the public is engaging the project, like the GA4 capabilities. Figure 9 features the GA4 report, though because the EA has not been published at this time, none of the data points are populated.

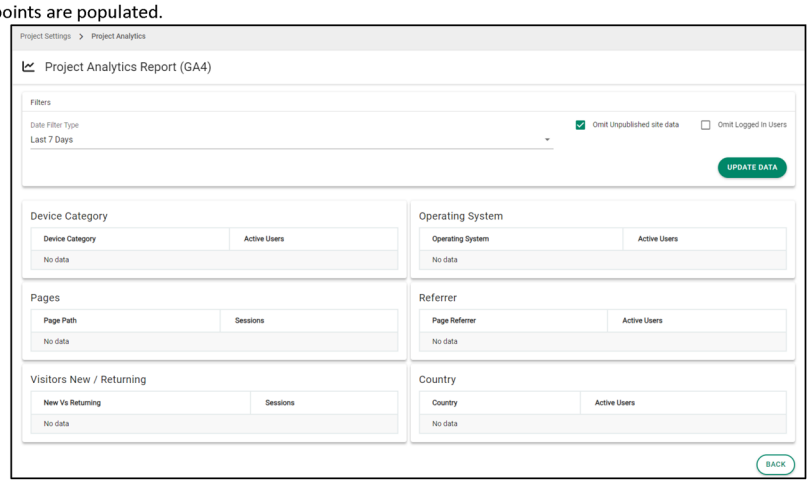


Figure 9 GA4 Report Example

The heat map feature discussed above shows where interactions are located using post-code data. This will help inform where responses are coming from and where the public that cares about the project lives. As equally important, the heatmap may show the project team where there is little interaction with PlanEngage, such as specific communities or corridors along the roadway segment. These locations may include public who are historically underserved and provides the project team with valuable feedback that the public living or working in these areas may need additional, targeted outreach. Because the EA is not yet published, the heatmap is not able to be generated with data.

Benefit/Impact

There are many benefits that arise from giving the public multiple platforms to review a project, specifically during the draft EA public comment period as prescribed by NEPA. PlanEngage allows for an enhanced user experience by offering more detailed information, beyond just the EA text or static maps. Interactive maps, a table of contents with navigable links to each section, additional resources, and links to relevant documents guiding the draft EA are all available in real time, during the public review period. This allows for the public to focus on areas that they have strong passions for or, to browse the document casually.

Providing a platform that works for all users, including complying with Section 508 Standards, is critical for modernizing the NEPA processes. Bringing as many diverse populations as possible within the EA study area together will afford the project team a broader understanding of the user experience throughout the M-37 corridor and to hear from traditionally underserved communities. With the ability to track where users are accessing PlanEngage from, the team can also identify critical gaps in response locations and provide more specialized outreach, ensuring that all voices are heard. PlanEngage allows the project team to export a pdf of the exact document, saving time and money by not having to create two separate documents to satisfy NEPA requirements. The static document and the PlanEngage online platform are ensured to be identical because the pdf intended for placement at public locations for those with a preference to review this way, is the same document presented to those engaging with PlanEngage online.

On the backend of the platform, PlanEngage offers much more to the project team, sponsor, and agencies. An advantage of receiving public comments through the platform is that the project team may see the nature of comments in real time. This allows the project team more time to consider and respond thoughtfully to comments, rather than sorting through at the end of the public comment period. There are many project tools on the backend that allow PlanEngage to be completely customizable to meet a community and project's need, allowing each community to feature its own character through color schemes, images, and any other options that would be important to a specific community.

Allowing for multiple users to edit at the same time within the online platform also ensures no duplicate efforts as the team can work simultaneously to address comments and edits. The accuracy afforded through the collaborative creating and editing experience adds transparency and confidence in the document created for public review. There is also an economic benefit because the program can be used throughout the entire NEPA process, without reinventing the platform every time a new phase is initiated. PlanEngage contains features of multiple project editing platforms, including simultaneous editing, tracked changes, spelling and grammar edits, and mapping all under one technology.

Accessibility is a major barrier to the traditional way NEPA documents are reviewed; a static document available at various public locations. Individuals who are unable to read the document for a variety of reasons cannot meaningfully participate in the NEPA process, which is a very large injustice as all voices deserve to be heard. PlanEngage allows for full accessibility and transparency for all. Bringing diversity to the public comment process is the main goal of PlanEngage and is the future of NEPA documentation and processing.

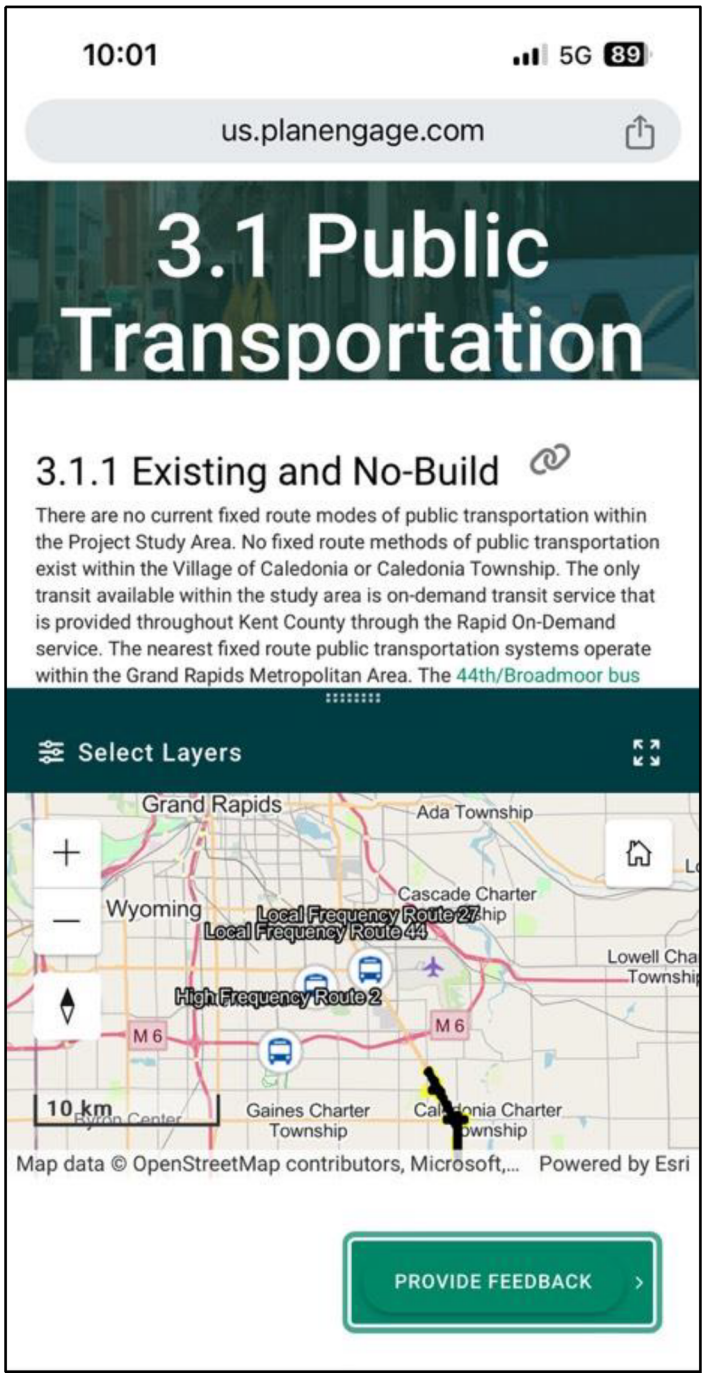
Conclusions

The implementation and use of the PlanEngage on the M-37 EA project in Caledonia, MI has streamlined and modernized the NEPA process for MDOT. The interactive nature of the PlanEnage document, including clickable links, zoomable interactive maps, and the ability to leave comments in real-time on each EA section enhances the interactivity of the document compared to traditional hard copy NEPA documents. Appendix A contains the PlanEngage white paper titled *The Case for Interactive Cloud-based NEPA Documents*, which provides additional details on the way PlanEngage may serve and enhance the needs of projects throughout the NEPA process.

Furthermore, the accessibility feature built into PlanEngage, allow for viewing of the EA on various platforms including smartphones and tablets, which allow for greater reach to the public at large compared to traditional hard copies, which are typically housed at only a few locations within the community. The interactive nature of the document allows for users to identify key points that are of concern to the reader, and callout boxes within the page describe key concepts. The interactive maps allow for users to zoom in on impacts or areas of concern. Use of the PlanEngage, and the various public facing and back-end capabilities can be used across projects and thus can be used to streamline both the development of future projects, as well as provide a consistent look and feel. Public comment is increased via the use of both page-specific and general comment forms, as well as the use of integrated back-end capabilities to track zip code and other metrics. As noted throughout the document, PlanEngage is Section 508 compliant, and allows the use of screen readers. Therefore, based on the complete package of innovative solutions delivered by PlanEngage, the M-37 Improvement Project EA has modernized the NEPA process for MDOT, the sponsoring agency, and is poised to provide greater reach to the community as compared to traditional hard copy documents.

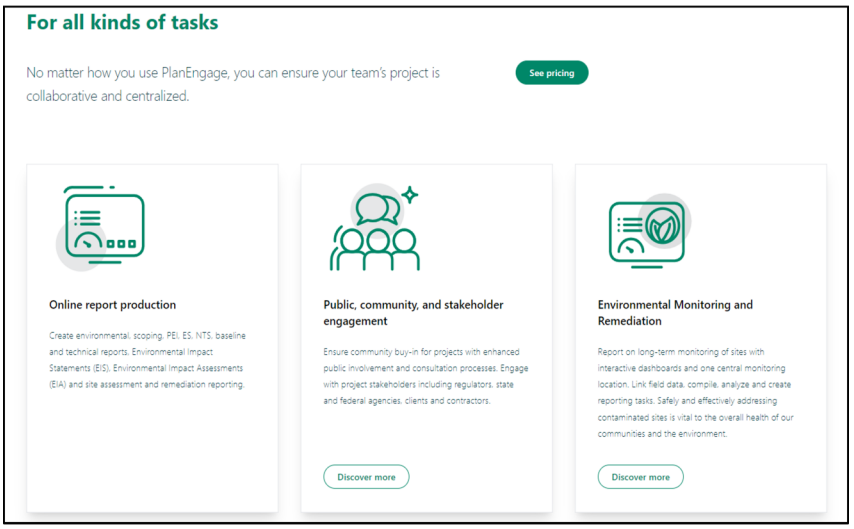
Appendix A: Supplemental Materials

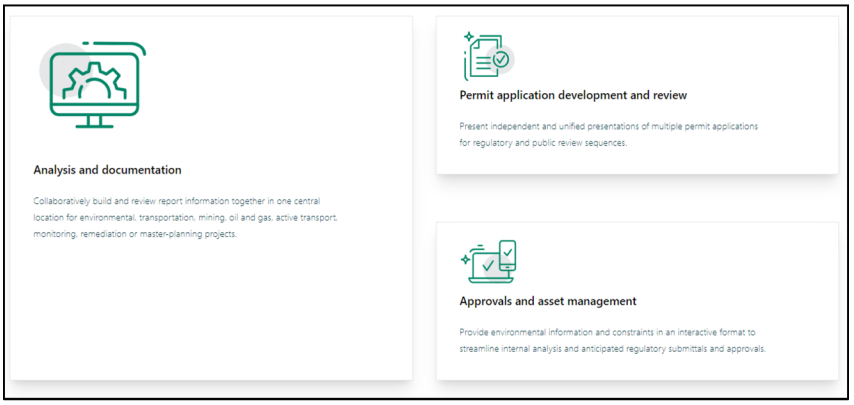
PlanEngage Mobile Experience

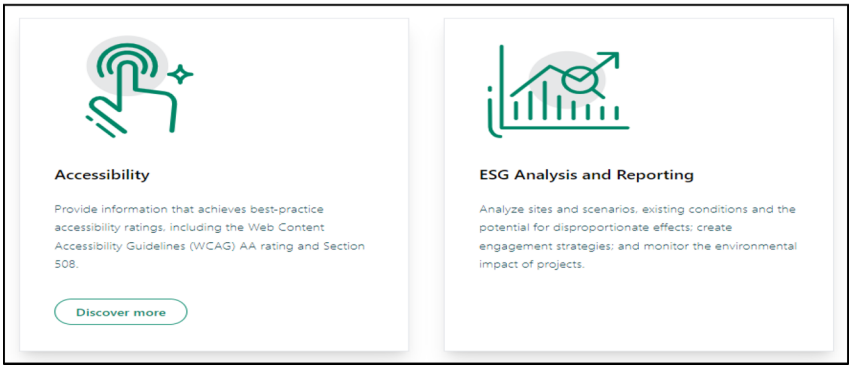


Tasks PlanEngage Supports

AECOM - PlanEngage - Use cases - Tailor the PlanEngage platform to your needs







Useful Links to Discover PlanEngage for NEPA

The EA for the M-37 Improvement Project, hosted on PlanEngage, will be available for review when it is released for public comment on August 8, 2024 and will be navigated from MDOT's website here: M-37 Project (michigan.gov)

For non-project specific PlanEngage demonstrations, content capabilities, and overviews please see the following links:

PlanEngage Homepage and Demonstration: AECOM - PlanEngage - Home | Transforming the way we prepare and share information with the communities we serve.

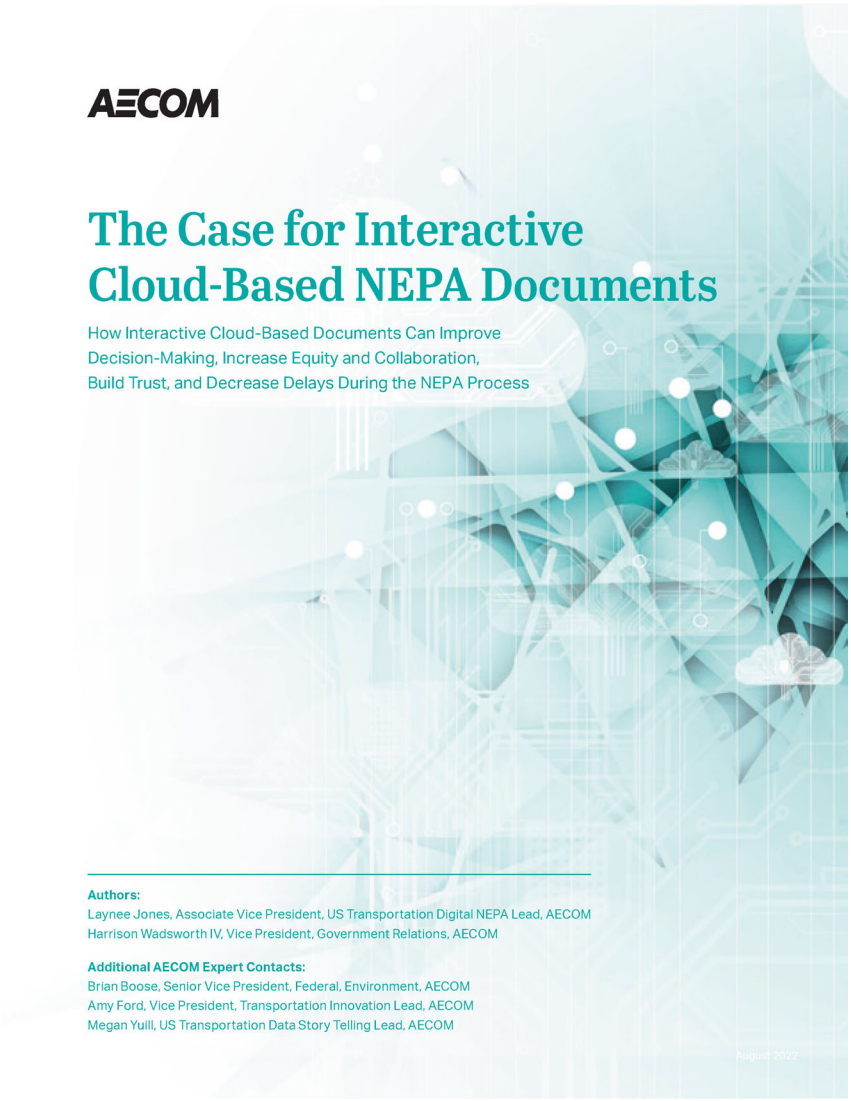
PlanEngage Features: AECOM - PlanEngage - Features - Intuitive and accessible from start to finish

PlanEngage for the Environmental Sector: AECOM - PlanEngage - Environment

PlanEngage for Public, community, and stakeholder engagement: AECOM - PlanEngage - Public, community, and stakeholder engagement

PlanEngage for Interactive NEPA Documents: AECOM - PlanEngage - PlanEngage™ for Interactive NEPA Documents

The Case for Interactive Cloud-Based NEPA Documents


AECOM
The Case for Interactive Cloud-Based NEPA Documents
How Interactive Cloud-Based Documents Can Improve Decision-Making, Increase Equity and Collaboration, Build Trust, and Decrease Delays During the NEPA Process
Authors:
Laynee Jones, Associate Vice President, US Transportation Digital NEPA Lead, AECOM
Harrison Wadsworth IV, Vice President, Government Relations, AECOM
Additional AECOM Expert Contacts:
Brian Boose, Senior Vice President, Federal, Environment, AECOM
Amy Ford, Vice President, Transportation Innovation Lead, AECOM
Megan Yuill, US Transportation Data Story Telling Lead, AECOM
August 2022

Average time for an EIS currently at 4.5 years

Key Delay Factors

1. Increased demand for public input
2. Lengthy and complex environmental documents
3. Time it takes regulatory agencies to complete reviews
4. Lack of transparency and accessibility
5. Threat of lawsuits
6. Understaffed regulatory agencies
7. Complexity of decisions involving multiple jurisdictions

> *Delivering an ambitious infrastructure program requires a new approach – one that not only promotes engagement but also decreases the time required to make decisions on transportation projects that increase accessibility for all while decreasing our carbon footprint. Online, interactive, digital solutions like PlanEngage will be essential to deliver these projects on task and on time with better outcomes for all.*
>
> **– Jennifer Aument, Global CEO, Transportation, AECOM**

The Infrastructure and Investment Jobs Act (IIJA) solidifies the One Federal Decision policy for the National Environmental Policy Act (NEPA), including coordinated federal approvals, page limits and time constraints. This highlights an immediate need for documents that better communicate details about projects to stakeholders, as well as more real-time collaboration between federal agencies.

The impetus for the new NEPA requirements includes well-documented delays during the infrastructure approval process (which are highlighted in several recent articles at the end of this article). To date, environmental documents have been hard copy- or PDF-based.

Cloud-based, interactive, digital platforms for NEPA reviews are necessary to support project sponsors and federal agencies in meeting the 2-year environmental review schedule included in current law.

With the average time for an EIS currently at 4.5 years, these digital tools will shorten the cumulative amount of time spent reviewing documents on traditional schedules by 50% through real-time concurrent reviews by agencies and more rapid (better) understanding of the NEPA materials and projects. Public reviews are also more meaningful and transparent.

On Time, On Task

Deliver EISs in 2 Years with Cloud-Based, Interactive NEPA Documents

Save time shuffling documents between agencies and across firewalls - cloud-based platforms are accessible with a log-in and give all agencies the opportunity to review the same information in real time.

Faster, more effective reviews - engaging and interactive content with all components linked together allows for faster reviews. Agencies log in to see all text, technical map content, and supporting technical studies in one place. Reviewers can interact with highly technical geospatial data, adjacent explanatory text, and ever-present table of contents on one screen.

Real-time, inter-agency collaboration with concurrent editing and commenting

Earlier resolution of conflict - collaboration between agencies allows for identification and resolution of conflicts earlier in the process, which also reduces the number of formal comments on the Draft EIS requiring responses

Thorough and high-quality community engagement – more accessible and transparent to stakeholders, agencies, and the public

Deeper and **consistent understanding** of project from onset

Workflows and reviews are **streamlined** with editing and commenting capability

Less time for consultants to organize inherently complex information into a static 2D format

Digital Technology Critical to the Success of the Biden Permitting Action Plan

Permitting Action Plan Goal	Cloud-Based, Interactive Digital Platform Capabilities
Early cross-agency coordination	✓ Enables real-time online collaboration
Clear timeline goals and tracking of project info to improve transparency, accountability and certainty	✓ Cloud-based interface and workflow management ensure all entities are working off the same document
Early and meaningful outreach state/local/tribal and community stakeholders	✓ More accessible, intuitive, and interactive format to enable earlier and deeper engagement.
Improved agency responsiveness and technical assistance	✓ Real-time communication paired with visualization of proposals and alternatives improves understanding and enables higher quality of engagement.
Adequate resourcing of agencies so review processes improve environmental and community outcomes	✓ Digital solutions reduce paperwork burden and improve workflow management



1 Increased Demand for Public Input

Context

- Recognized need for more equitable ways to participate
- Demand for more public voice in government actions
- Social media and the ease of organizing opposition
- Accessibility of information about a proposed project from online sources other than the sponsor
- More empowered public



How cloud-based, interactive documents can help

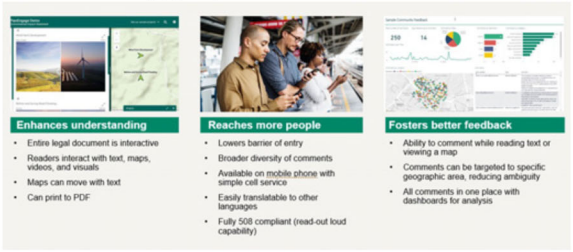
- **Interactive documents** include zoomable/clickable maps, before and after visualizations, photos, videos, sound demonstrations, and dashboards alongside explanatory, narrative text; this leads to a deeper understanding of the proposed project, its benefits, and impacts
- **Display of key findings** on a visually appealing, on an intuitive collaboration platform that allows stakeholders to clearly view proposed projects, potential alternatives and impacts, and relevant documents
- Interactive documents bring more opportunities to quickly **simplify complex technical topics**, bringing more robust insights and project understanding - the public can focus in on specific areas of interest in a friendly, accessible way
- **More equitable community engagement** through mobile phone-friendly documents make documents accessible to a wider demographic, even those without computers or high-speed internet
- Built-in compliance with Section 508 (read out loud capability) and Web Content **Accessibility** Guidelines improve accessibility
- Interactive, **mobile-phone friendly** documents draw higher level of interest, reach a broader audience, and allow for a wider diversity of voices

The increasing need for equitable engagement

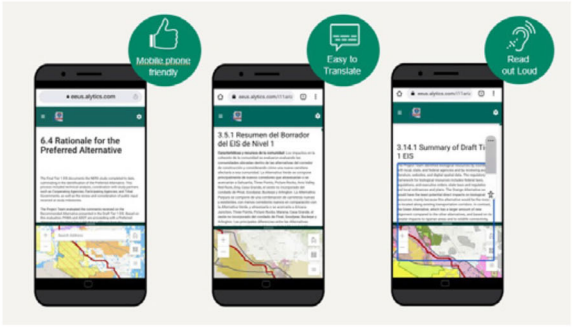
The Vox article states that "judicial, statutory, and administrative changes — in particular the passage of the National Environmental Policy Act (NEPA) in 1970 — have led to increased power for citizens. This isn't inherently an issue — while it raises costs to engage with lawsuits, if it stops the government from taking harmful action, that could be a good thing. But often, we're just paying for wealthy individuals to exert their preferences over everyone else".

(https://www.vox.com/22534714/rail-roads-infrastructure-costs-america)

Interactive documents are engaging, transparent, acessible



More equitable engagement



2 Lengthy and Complex Environmental Documents

Context

- NEPA documents, including appendices, are thousands of pages long
- Regulatory agencies (e.g. USFWS, EPA, USACE) must find information specific to their jurisdiction amid thousands of pages of static text and maps
- The public is faced with myriad PDF documents to navigate, inaccessible on mobile phones (see below)
- The complexity of the documentation leads to frustration and inability to find information pertinent to the review at hand

NEPA documents have become behemoths

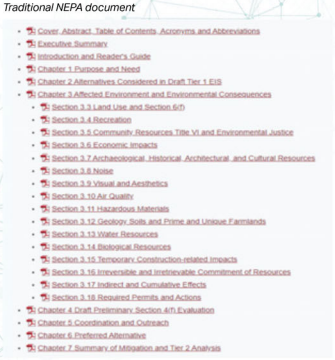
"In the early days, NEPA's procedural requirements were modest: An EIS could be as short as 10 pages, and the legislation didn't provide for a private right of action. Courts soon declared a private right of action, though, and under the pressure of litigation the law's demands grew ever more onerous: Today the **average EIS runs more than 600 pages**, plus appendices that typically exceed 1,000 pages…And remember, no ground can be broken on a project until the EIS has made it through the legal gauntlet – and this includes both federal projects and private projects that require a federal permit."

https://www.niskanencenter.org/faster_fairer/reviving_innovation_and_dynamism.html#Overhaul_Environmental_Review

How cloud-based, interactive documents can help

- Interactive, cloud-based documents can facilitate page limits by **succinctly summarizing** the issues at hand for a particular chapter, and providing links to more detailed Appendices
- A **seamless online interface**, where multiple users can add content, can replace or complement traditional PDF-based and hardcopy formats, reducing version control errors and anxiety, and reducing the time it takes to review a document
- The **interactive menu** is always present, easing navigation through dense technical information - readers can drill down into substance without losing navigating away from the table of contents A built-in comment feature allows the public to comment at any time, on the same screen as the information at hand, rather than navigating to a different screen or comment tool
- **Location-specific comment** feature allows comments to be places on a map to improve context and efficiency of public commenting
- Comment features allow for more targeted input, capturing the specific section the reader was reviewing at the time, and **reducing ambiguity in public comments**
- Interested parties can view and comment on relevant information in an **understandable format**
- Less time for consultants to organize inherently complex information into a static 2D format

Traditional NEPA document



Interactive NEPA document



3

The Time It Takes for Regulatory Agencies to Complete Reviews

Context

- The environmental review process is lengthy and complex, in part to defend against potential lawsuits
- Regulatory agency review time is a major factor in the schedule; while NEPA regulations set minimum timeframes for certain milestones (45-days for review of a Draft EIS), the agencies and public regularly request more review time for one reason – the length and complexity of the documents
- In addition, regulatory agencies (in particular cooperating and participating agencies) are engaged in reviewing information from the beginning of the project (as it should be), so their reviews comprise a much larger component of the project schedule than simply the Draft EIS review time

How cloud-based, interactive documents can help

- Agencies log in to see all text, technical map content, and supporting technical **studies in one place**
- Engaging and **interactive content** with all components linked together allows for faster reviews
- Cloud-based documents, that simply require logging onto a website to view content, **reduce the need to transfer documents from one agency to another**, eliminating the time and risk associated with delivering word or mapping (Google Earth or ArcGIS) files across firewalls and ensuring all entities are working of the same document
- **Reviewers can interact** with highly technical geospatial data, adjacent explanatory text, and ever-present table of contents on one screen
- Reviews are not only faster, they are higher quality - **getting to the substance of the issue faster** and resolving conflict earlier in the process

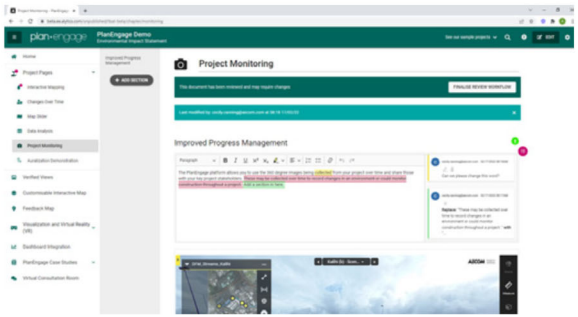


Federal agencies must review volumes of documents

"The infrastructure law takes some initial steps at reforms, including codifying a Trump executive order to name a lead federal agency for each project, reducing the number of chefs in the kitchen, said Diana Furchtgott-Roth, a George Washington University adjunct professor. A key factor is the amount of time federal agencies spend to review environmental reports and issue records of decision, she said. In many cases, projects are put on hold for years, while agencies review voluminous documents."

https://www.nytimes.com/2021/11/28/us/infrastructure-megaprojects.html

Cloud-based reviewing and commenting



4 Lack of Transparency and Accessibility

Context

- The length and complexity of NEPA documents and difficulty in navigation means stakeholders who are not experts at NEPA or infrastructure cannot easily find information
- If stakeholders cannot find information readily, it leads to distrust, lack of credibility, and a perception of lack of transparency
- Some project websites include public-friendly interactive maps, reader-friendly fact sheets, videos, or story-mapping which is helpful; however, NEPA regulations require commenting on the actual environmental document, not summaries of it
- Converting and summarizing the legally binding technical document into an additional suite of public-friendly information can lead to misinterpretations and differing perceptions of the project (not to mention increased effort and project costs)

How cloud-based, interactive documents can help

- Transforming the actual legal environmental document into something readily consumable and engaging to the public and regulatory agencies alike **ensures everyone is basing their reactions, comments, and decisions off the same information**, thereby increasing both accessibility and transparency

Transparency and Delays

Joseph Schofer, a Northwestern University civil engineer and originator of the "Infrastructure Show" podcast says delays plague nearly all major infrastructure projects. The mistakes related to delays, he said, include a lack of transparency to the public.

http://theinfrastructureshow.com/

5 The Threat of Lawsuits

Context

- The threat of lawsuits has impacted the way environmental documents are prepared - from their length to the regulatory jargon that is used
- Long documents full of jargon may help defendants persevere in the courtroom, they do not build trust with stakeholders

How cloud-based, interactive documents can help

- Creating an **interactive document** that allows stakeholders and review agencies to easily drill down into the information they need and interact with highly technical geospatial information builds trust and credibility
- **Building trust** with interactive and collaborative features reduce project risk
- **Collaborative reviews** facilitate conflict resolution
- Highly technical analysis (jargon) can be easily referenced with the click of a mouse, while **plain-English explanations** take center stage

Federal agencies must review volumes of documents

Per SPUR's transportation policy director Laura Tolkoff, there are egregious examples of project delays by lawsuits from a minority few. "One person sued the San Francisco bicycle plan over parking losses which basically held up 34 miles of bike lanes for over four years. Over 2,000 individuals were injured during that same time period due to collision while riding their bicycle."

https://www.vox.com/22534714/rail-roads-infrastructure-costs-america

SPUR is a nonprofit public policy organization in the San Francisco Bay Area known for independent and holistic approach to urban issues.

6 Understaffed Agencies

Context

- Regulatory review agencies at the state and federal level are understaffed, meaning a project may have to 'get in line' for a general agency review, or for a specific resource specialist (for example, an expert on avian endangered species)
- Agency reviews are not a singular event, agencies are engaged from the onset of a project, and therefore review times compound over time

How cloud-based, interactive documents can help

- Shorter and more effective reviews **improve agency efficiency**
- Agencies can reach better, **more informed decisions** in a shorter period of time due to the collaborative nature of the document and review process
- Cloud-based documents facilitate **more efficient reviews during remote work periods** or for project teams from various locations



7 The Complexity of Decisions Involving Multiple Jurisdictions

Context

- Multiple jurisdictions introduce a complexity in decision-making that the One Federal Decision process is attempting to address
- The federal government often provides funding for a project that requires multiple cities or counties to coordinate, sometimes without a clearly defined decision-making entity
- The intent of NEPA is to allow for collaboration across agencies; however traditionally this has been done through in-person meetings

How cloud-based, interactive documents can help

- Cloud-based documents allow federal and state agencies to **concurrently review and comment on the same document** as well as see each other's comments, consolidating issues quickly
- Online interactive documents allow for concurrent reviews, enabling **greater collaboration among agencies**
- **Improved decision-making outcomes** in terms of timeliness, quality, and innovation – agencies are able to view and comment on relevant information in an understandable format and view other parties' comments in real time
- **Better understanding of project** leads to more substantive comments, less ambiguity, and reduction in comments related to not being able to find information

Testimonial

"The Interactive EIS was a first for ADOT and the State of Arizona, and it was a huge accomplishment for the I-11 study team. It allowed ADOT and FHWA to explore an alternative method for virtual public involvement, while providing tools such as shapefiles and map layers to help the public and agencies fully understand the Final Tier 1 Environmental Impact Statement document. The success of the Interactive EIS and the number of views that it has received has clearly demonstrated its value to ADOT and the necessity to implement this kind of interactive tool for other studies."

Steven Olmsted, ADOT Program Delivery Manager

PlanEngage™ for Interactive NEPA Documents

Digital AECOM's PlanEngage brings an innovative cloud-based approach to the EIS process, strengthening communication between stakeholders, improving decision-making, and speeding up review cycles. This helps to eliminate unnecessary delays and ensure project milestones are met on time and on budget – ultimately delivering better outcomes for impacted communities and the environment.

PlanEngage Key Benefits

Collaborative Reporting and Review

Create a coordinated approach for everyone involved in the EIS process.

- Cloud-based technology unifies all project information in a centralized platform, ensuring everyone is working off the same set of documents.
- With versatile and easy-to-use collaboration tools, multiple agencies can review and comment in real-time, allowing information to be evaluated and edited faster and more effectively.
- Reports can be worked on simultaneously and submitted with transparency, not only saving time for everyone involved, but also ensuring stakeholders have access to the most up-to-date information.

Inclusive Public Engagement

Enable all stakeholders – from public agencies to community members – to review projects that are being proposed in their cities, towns, and neighborhoods more intuitively, and more inclusively.

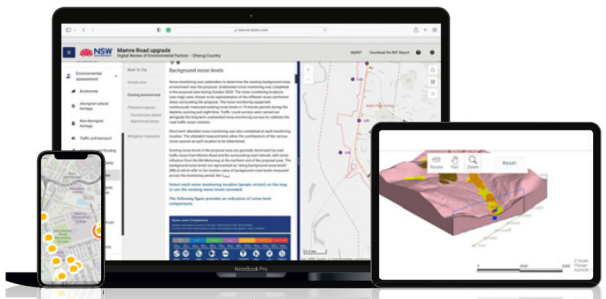
- Everyone can access and review the information they need effortlessly through a user-friendly online interface.
- Documents are easy to navigate and can include interactive visualizations like maps, multimedia, 3D modeling, and before & after sliders to provide robust insights and enhance project understanding – simplifying even the most complex technical topics – and bringing them to life.
- Mobile-friendly information sharing allows community members to participate and ask questions from any device at any time drawing higher levels of interest, reaching broader audiences, and enabling a wider diversity of voices.

Faster Permitting

Streamline effective communication and decision-making, eliminating unnecessary delays.

- Implementing intuitive tools allow stakeholders to provide direct feedback more quickly and easily, fostering greater clarity and reducing review cycles.
- A collaborative approach for multi-agency reviews ensure that issues and questions can be addressed promptly and efficiently. By bringing all information together in a unified platform, potential delays are avoided, objections are reduced, and resolutions are achieved in real-time.
- Interactive public engagement solutions that are easily accessible enable diverse perspectives to be leveraged, resulting in well-informed decisions that align with the expectations of all stakeholders. Proposed projects can be monitored transparently and tracked through to final approval faster and with more certainty.

Schedule a demo to learn more about how PlanEngage can be used for interactive NEPA



Articles Highlighting Delays in Infrastructure Approval Process

Two Years Not Ten Years, Redesigning Infrastructure Approvals, CommonGood, Philip K. Howard, 2015

(https://static1.squarespace.com/static/5db4d0eacb29b173254203d2/t/5ee3a6f2072df850bd9a0aa3/1591977716039/2YearsNot10Years.pdf).

Overhaul Environmental Review to Bring Down Sky-High Infrastructure Costs, Niskanen Center, Brink Lindsey & Samuel Hammond

https://www.niskanencenter.org/faster_fairer/reviving_innovation_and_dynamism.html#Overhaul_Environmental_Review

Why does it cost so much to build things in America? This is why the US can't have nice things. Vox, Jerusalem Demsas, June 28, 2021

(https://www.vox.com/22534714/rail-roads-infrastructure-costs-america

Years of Delays, Billions in Overruns: The Dismal History of Big Infrastructure - The New York Times (nytimes.com), November 2021

https://www.nytimes.com/2021/11/28/us/infrastructure-megaprojects.html

Biden's $1.2 trillion infrastructure bill could take years to transform U.S., Washington Post, Jeff Stein and Michael Laris, August 10, 2021

https://www.washingtonpost.com/us-policy/2021/08/10/infrastructure-senate-spending-nepa/

AECOM

Caltrans NEPA Assignment Fact Sheet

Approvals and Time Savings

Number of Environmental Approvals under NEPA Assignment[1]

23 USC 326 CEs	23 USC 327 CEs	Draft EAs	FONSIs	Draft EISs	Final EISs	RODs	Total
16,738	236	356	332	26	22	18	17,728

Data: July 1, 2007 through December 31, 2024 for Capital and Local Assistance programs.

Median Times Savings for Caltrans Environmental Approvals and Section 7 Formal Consultation Processes Completed under NEPA Assignment Program

NEPA Environmental Approval Processing Milestones	Pre-NEPA Assignment Program Median Duration[2] in Months (# of approvals)	NEPA Assignment Program Median Duration in Months (# of approvals)	Median Time Savings Realized in Months
Begin Environmental Studies to Draft Environmental Assessment Approval	42.3 (31)	30.6 (356)	11.7
Begin Environmental Studies to Finding of No Significant Impact Approval	54.1 (31)	39.5 (332)	14.6
Notice of Intent to Draft Environmental Impact Statement	69.9 (8)	38.6 (26)	31.3
Notice of Intent to Final Environmental Impact Statement Approval	193.9 (5)	71.5 (22)	122.4
Submittal of FESA Section 7 documentation to USFWS/NMFS to the Biological Opinion	11.0 (25)	6.0 (213)	5.0

Data: July 1, 2007 through December 31, 2024 for Capital and Local Assistance programs.

Program Highlights

- California, Texas, Florida, Ohio, Utah, Alaska, and Arizona have been assigned NEPA responsibilities under the 327 MOU with FHWA.
- California, Arizona, Nebraska, and Utah have been assigned NEPA responsibilities under the 326 MOU with FHWA. Maine has submitted an application/draft MOU to the FHWA.
- Combined MOUs are being used by Texas, Alaska, Ohio and Florida
- Caltrans has saved significant time in reviewing and approving its NEPA documents since undertaking NEPA Assignment. A median time savings of 11.6 months has been achieved in approving draft EAs; 14.7 months for final EAs (FONSIs); 31.3 months for DEISs; and 122.4 months for FEISs.
- Caltrans works closely with its partners – local agencies, consultants, and FHWA – in delivering on the Congressional mandate to accelerate project delivery of its projects.

---

[1] The number of Draft EA, Draft EIS, FONSI, Final EIS documents and RODs includes only projects under which the environmental studies phase was initiated after NEPA Assignment began.

[2] Median duration was calculated using a sample "baseline" set of projects reviewed and approved prior to initiation of NEPA Assignment.

American Lung Association.

Chairman Shelly Moore Capito
Senate Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

Ranking Member Sheldon Whitehouse
Senate Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Capito and Ranking Member Whitehouse:

Thank you for the opportunity to provide comments for the record following the February 19 hearing, "Improving the Federal Environmental Review and Permitting Processes." The American Lung Association offers the following short comment, and we highlight a letter (attached) signed by fourteen national health organizations from December of 2024. We urge the Committee to ensure that health voices are considered when discussing changes to the nation's permitting processes.

We want to address a frequent talking point that is often used during conversations around building out new energy sources: the idea that we can't have both economic prosperity and a clean, healthy environment. This is a false choice. The nation has enjoyed much cleaner air, for example, since the passage of the Clean Air Act in 1970 while GDP has continued to go up. There's still a lot of work to do, but children today are breathing easier than children 55 years ago, while cities across the country simultaneously saw economic growth.

Public health laws like the Clean Air Act and the National Environmental Policy Act (NEPA) are foundational in protecting and improving health for families nationwide. The ability under these laws to ensure that polluting new or expanded facilities do not add to the burden of pollution in an area is crucial, particularly for communities that are facing increased pollution that would impact their health. Furthermore, the right of communities to have a meaningful say in local projects that impact them is fundamental. Families with children that go to school near the site of a new power plant, for example, have a right to make their voice heard. Simply put, we oppose efforts that would curtail that right.

Lastly, we cannot address permitting improvements without also addressing the chaotic downsizing happening across federal agencies. As Ms. Pavia shared in her remarks, lack of funding, staffing shortages and agency coordination were cited as bigger barriers to new source deployment than the fundamentals of NEPA. Over the past two months, thousands of federal workers have been fired, placed on leave or otherwise prevented from doing their jobs. For successful improvements to the permitting process to truly happen, there must be a solid federal workforce to implement policies.

We urge the Committee to reject the notion that we can either have economic prosperity or clean air, and to instead chart a path towards policies that greater support the buildout of clean energy technology while also protecting the vital right of every person in the country to clean air.

Advocacy Office: 1331 Pennsylvania Avenue NW, Suite 1425 North | Washington, DC 20004-1710 | 202-785-3355

55 West Wacker Drive, Suite 1150 | Chicago, IL 60601 | 1-800-LUNGUSA | **Lung.org**



December 2, 2024

Dear Senator/Representative:

With proposals to reform energy permitting processes under discussion, the undersigned health organizations write to share concerns over potential public health impacts. Our organizations support a transition to renewable, non-combustion energy sources and recognize the importance of ensuring that clean energy can be deployed in an efficient way. We are concerned, however, that some of the policies under discussion would have harmful long-term public health impacts and hinder public participation.

Dependence on fossil fuels has worsened air quality and intensified climate change. Burning fossil fuels emits particle pollution, nitrogen oxides and volatile organic compounds, and results in the formation of ground-level ozone pollution. Air pollution can trigger asthma attacks, worsen respiratory diseases, and cause heart attacks, strokes, cancer and even premature death. With daily reminders about the devastating impacts of climate change, such as longer and more intense storms, flooding, wildfires and extreme heat, it is imperative that fossil fuel combustion is phased down, not reinforced. A transition to zero-emissions electricity and transportation will deliver the most health and climate benefits.

We believe that health and equity must be centered in any policy adopted to transform and update energy permitting processes. To that end, as the undersigned groups evaluate policies, we will do so with an emphasis on the following principles.

- New energy projects should not be permitted if they will significantly contribute to local air pollution. Oftentimes, energy projects are sited in areas already facing elevated air pollution, and new projects should not increase the burden of pollution.
- Communities that will be most impacted by a proposed project must be heard and they must have a seat at the table early and often. Information about the project – including its approval or denial – should be made publicly available, easily accessible and easy to understand, including in multiple languages when necessary.
- Should an individual or a community want to oppose a granted permit, there should be ample time to file a challenge. Arbitrary changes to shorten statute of limitations, or provisions that default to approval, would leave the concerns of communities unheard.

Unfortunately, policies under consideration as part of discussions about energy permitting include trade-offs that threaten to lock in pollution and uproot longstanding processes of public engagement and judicial review. The undersigned health organizations are deeply concerned about expediting review of projects without adequate environmental and human impact analyses.

Everyone deserves access to clean, healthy air. The ability of the public to engage in decisions involving the air and health in their communities is a pillar of the regulatory process. Prioritizing health and health equity, particularly in communities that are already overburdened by poor air quality, must be the starting point for any discussions of new energy permitting processes.

We urge you to safeguard the health of those who face the greatest burden of air pollution and climate change and heed the principles above as conversations continue.

Sincerely,

Allergy & Asthma Network
Alliance of Nurses for Healthy Environments
American Lung Association
American Public Health Association
Asthma & Allergy Foundation of America, MidStates Chapter
Asthma and Allergy Foundation of America
Carolina Advocates for Climate, Health, and Equity
Children's Environmental Health Network
Climate Psychiatry Alliance
George Mason University Center for Climate Change Communication
Georgia State Medical Association
Health Care Without Harm
Idaho Clinicians for Climate and Health
Medical Students for a Sustainable Future
Missouri Chapter of the American Academy of Pediatrics
Missouri Public Health Association
Medical Society Consortium on Climate and Health
National Association of Pediatric Nurse Practitioners
National Association of Pediatric Nurse Practitioners, San Francisco Bay Area Chapter
National League for Nursing
Oncologists United for Climate and Health - International
Physicians for Social Responsibility
Physicians for Social Responsibility Maine
Physicians for Social Responsibility Pennsylvania
Physicians for Social Responsibility Texas Chapter
San Francisco Bay Physicians for Social Responsibility
Vermont Climate and Health Alliance

AMERICAN RIVERS

March 21, 2025

The Honorable Shelly Moore Capito
Chair
Committee on Environment and Public Works
U.S Senate
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and Public Works
U.S. Senate
Washington, D.C. 20510

Dear Chair Capito and Ranking Member Whitehouse,

On behalf of American Rivers and our nearly 400,000 members, supporters, and volunteers across the country, I write to express our appreciation for the Committee's hearing titled *"Improving the Federal Environmental Review and Permitting Processes"* on February 19, 2025. Your attention to addressing water infrastructure barriers and advancing common-sense modernization solutions is critical to safeguarding our nation's rivers and water resources.

Since 1973, American Rivers has been the nation's most trusted and influential river conservation organization, working to protect wild rivers, restore damaged rivers, and conserve clean water for people and nature. As we face rising challenges from aging infrastructure, climate stressors, and chronic underinvestment, we must prioritize reforms to ensure clean, reliable water for all Americans.

The Clean Water Act (CWA) protects the nation's water resources. It establishes sensible regulations for preventing water pollution and improving water quality. The law includes several programs designed to address different aspects of water protection. While the Clean Water Act programs have been an essential tool for supporting water infrastructure projects, significant barriers to funding and permitting remain, particularly for smaller, rural, tribal, and economically distressed communities. These communities often struggle to navigate complicated application processes, and green infrastructure

projects remain underfunded despite their proven long-term benefits for water conservation and climate resilience.

Recent failures in water systems across the country underscore the urgent need for federal action. From Jackson, Mississippi's water crisis in 2022 to the E. coli contamination in Baltimore in 2023, these events highlight the vulnerabilities of our infrastructure. The East Palestine, Ohio derailment in February 2023 not only demonstrated the dangers of hazardous materials but also the long-term contamination risks to surrounding water systems. Communities like San Francisco, California, and Flint, Michigan, continue to grapple with aging infrastructure, further emphasizing the need for modernization. Collectively working together to ensure that the nation's waters remain clean and safe for all Americans is in our national interest.

Federal investment in water infrastructure is not only essential for river health and public safety but also for our nation's economic stability. Every dollar invested in water systems creates jobs, stimulates local economies, and ensures access to clean water. However, proposed cuts to the Environmental Protection Agency (EPA) by 65% would severely hinder these efforts, particularly in municipalities already facing budget constraints.

We urge the Committee to prioritize the following:

1. **Oppose drastic cuts to the EPA**, which would undermine efforts to improve and secure safe drinking water for all Americans.
2. **Increase funding for water infrastructure projects**, particularly in economically distressed communities.
3. **Ensure efficient allocation of federal funds** to prevent unused funds from sitting idle, exacerbating existing disparities.
4. **Integrate and support permitting policies that promote long-term climate resilience and infrastructure modernization.**

Stormwater Permitting Reform Recommendations

We also urge the Committee to consider key stormwater and wastewater policy reforms to strengthen permitting processes and ensure cleaner water systems nationwide:

1. **Base all stormwater and wastewater discharge permits on watershed boundaries** instead of political boundaries.
2. **Require permitting authorities to adopt minimum goals** in every watershed to prevent further loss or degradation of designated beneficial uses, with additional goals aimed at recovering lost beneficial uses. Establish a new monitoring program to assess progress, diagnose reasons for lack of progress, and ensure compliance by dischargers.

3. **Implement a pilot program through the EPA** to address impediments to watershed-based permitting, including the limitations of urban municipalities within larger watersheds.
4. **Integrate the three stormwater permitting types** (industrial, construction, and municipal) to ensure that construction and industrial sites fall under the jurisdiction of their associated municipalities.
5. **Establish a national database** to compile and collect quality industrial stormwater effluent data and stormwater control measure (SCM) effluent quality data.
6. **Require the EPA to develop numerical expressions** of the Municipal Separate Storm Sewer System (MS4) standard of "maximum extent practicable."
7. **Request a report from the General Services Administration (GSA) and EPA** on the progress of federal facilities in complying with stormwater management requirements outlined in Section 438 of the Energy Independence and Security Act.
8. **Codify language** that builds upon the Clean Water Act's "Residual Designation Authority" to require the EPA to create a "Commercial, Industrial, and Institutional" stormwater permit system, closing the regulatory gap for stormwater pollution sources not currently covered under the three existing permit types.
9. **Ensure that Total Maximum Daily Load (TMDL) waste load allocations** are fully incorporated into stormwater permits, requiring compliance with waste load allocations and water quality standards, with accountability measures for states failing to enforce these provisions.
10. **Strengthen the industrial stormwater program** with improved monitoring and stronger connections to TMDLs and water quality standards.
11. **Implement measures to prevent fats, oils, and grease (FOG) pollution** in stormwater systems, including proper disposal guidelines, public education campaigns, and stricter enforcement on businesses that contribute to FOG-related blockages.

Additional Recommendations for Permitting Reform

In light of recent developments, including the *Sackett* decision and its implications for federal jurisdiction over wetlands, we recommend the following additional reforms to protect rivers and wetlands:

1. **Expand Compensatory Mitigation Requirements**: Require compensatory mitigation for impacts to non-jurisdictional wetlands and streams, ensuring their protection even if they fall outside federal jurisdiction.
2. **Promote Watershed-Based Mitigation**: Encourage mitigation projects that address watershed-scale needs, such as reconnecting floodplains, restoring riparian buffers, and improving hydrologic connectivity.

3. **Fast-Track Permits for Green Infrastructure**: Create an expedited permitting process for projects that incorporate green infrastructure (e.g., rain gardens, permeable pavements, wetlands restoration) to encourage their adoption.
4. **Strengthen Monitoring and Enforcement**: Require long-term monitoring of permitted projects and increase penalties for non-compliance to ensure accountability.
5. **Support Rural, Tribal, and Economically Distressed Communities**: Provide technical assistance and simplified permits for small-scale projects in underserved communities, reducing the administrative burden while ensuring environmental protections.

Access to clean, safe water is not a partisan issue—it is an American issue. Our economic future, public health, and national security depend on the decisions made today. We strongly urge you to advance funding and permitting policies that strengthen America's water infrastructure while ensuring fiscal responsibility and local control.

Thank you for your leadership on this critical issue. We look forward to your efforts to safeguard our nation's water security and economic prosperity.

Sincerely,

Jaime D. Sigaran
Associate Director, Policy and
Government Relations
Email: jsigaran@americanrivers.org
Phone: (240) 593-3433

Gary Belan
Senior Director, Clean Water Supply
Email: gbelan@americanrivers.org
Phone: (703) 786-3442

From: Susan Howard
To: Permitting@epw.senate.gov
Cc: Joung Lee
Subject: AASHTO Statement for the Record on Improving the Federal Environmental Review and Permitting Process
Date: Thursday, March 20, 2025 2:50:17 PM
Attachments: AASHTO Statement for the Record to Senate EPW on Environmetal Permitting 2025-03-20.pdf

---

Hello,

Please find attached a statement for the record from the American Association of State Highway and Transportation Officials (AASHTO) following the February 19, 2025 hearing held by the U.S. Senate Environment and Public Works Committee on Improving the Federal Environmental Review and Permitting Process.

We appreciate the opportunity to submit information on the state department of transportation experience with the existing environmental review and permitting process.

If you have any questions or want to follow up on any items included in this statement, please do not hesitate to reach out.

Thank you,
Susan Howard

Susan Howard
Director of Policy and Government Relations
AASHTO | American Association of State Highway and Transportation Officials
O: 202.624.3698 | M: 202.487.4847| showard@aashto.org | www.transportation.org

From: Sarah Rosa
To: Permitting@epw.senate.gov
Cc: Andrew Mills; Chris Barnard; Karly Matthews
Subject: ACC Action"s Comments for the Record
Date: Friday, March 21, 2025 10:02:31 AM
Attachments: ACC Action"s Permitting Comments.pdf

Hi,

Attached are ACC Action's comments for the record regarding the February 19th hearing, "Improving the Federal Environmental Review and Permitting Processes." Please let us know if you have any questions or concerns. Thank you!

Best,
Sarah

--

American Conservation Coalition Action
Sarah Rosa
Policy Manager

Phone 408-722-8774
Email sarah@accaction.eco

Follow us on

DONATE TO ACC ACTION'S MISSION HERE

From:	Amanda L. La Joie
To:	Permitting@epw.senate.gov
Cc:	Annie Russo; Greg Cota
Subject:	ACI-NA Public Input on Improving the Federal Environmental Review and Permitting Processes
Date:	Thursday, March 20, 2025 4:49:59 PM
Attachments:	image001.png image003.png ACI-NA Public Input- Improving the Federal Environmental Review and Permitting Processes.pdf

Good afternoon,

Thank you for the opportunity to provide input on improving the federal environmental review and permitting processes. ACI-NA's formal comments are attached. We are more than happy to answer any questions as we all work toward improving the review and permitting process as it relates to our nation's airports.

All the best,
Amanda La Joie

Amanda La Joie
Director, Government and Political Affairs
Airports Council International – North America
1615 L Street NW, Suite 300 | Washington, DC 20036
Main 202.293.8500 | **Direct** 202.861.8094 | **Mobile** 949.939.1000
alajoie@airportscouncil.org | airportscouncil.org

From: Steven Coyle
To: Permitting@epw.senate.gov
Cc: Billie Kaumaya
Subject: ACP Statement for the Record - Permitting Reform
Date: Friday, March 21, 2025 9:19:52 AM
Attachments: image001.png
Final ACP Statement for the record - Senate EPW 2-19-25 permitting hrg.pdf

---

To Whom It May Concern,

On behalf of the American Clean Power Association, please allow me to submit our statement for the record with respect to the U.S. Senate Committee on Environment and Public Works' February 19th hearing titled, "Improving the Federal Environmental Review and Permitting Processes."

Thank you,
Steve

Steve Coyle
Federal Affairs Director, Offshore Wind
American Clean Power Association
Cell: 631-827-3245
Email: scoyle@cleanpower.org

This electronic message and its contents are intended solely for the use of the addressee(s) and may be confidential or otherwise protected from disclosure. If you are not the intended recipient of the message, any dissemination, distribution, copying, or action taken in relation to this message and its contents is strictly prohibited and may be unlawful. If you have received this electronic message in error, please notify the sender immediately and destroy the original message and all copies.

From: Caudill, Brian
To: Permitting@epw.senate.gov
Subject: AGA Permitting Reform Material Submission (March 20, 2025)
Date: Thursday, March 20, 2025 5:08:18 PM
Attachments: EPW Permitting Hearing - Letter for the Hearing Record Submission (March 17 2025).pdf

---

The American Gas Association submits the attached letter for the hearing record for the *Improving the Federal Environmental Review and Permitting Processes* hearing (February 19, 2025). Please let us know if we can provide any additional information and/or answer any questions.

Thank you for the opportunity.

Kind regards,

Brian Caudill | Associate Vice President, Governmental Affairs & Public Policy
American Gas Association
400 N. Capitol St., NW | Washington, DC | 20001
P: 202-824-7029 | M: 202-215-6484 | bcaudill@aga.org

The American Gas Association represents more than 200 local energy companies committed to the safe and reliable delivery of clean natural gas to more than 74 million customers throughout the nation.

From: Jameson, Booth
To: Permitting@epw.senate.gov
Cc: Jackson, Ryan; Eisenberg, Ross
Subject: American Chemistry Council submittal on Permitting Reform to Senate Environment and Public Works Committee
Date: Thursday, March 20, 2025 5:46:21 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png
ACC 2025 permitting refom submittal to Senate EPW Committee.pdf

---

Thank you for considering the American Chemistry Council's perspectives on future congressional permitting reform legislation. We commend the Committee for its continued drive to address permitting reform, and look forward to continue to work with it on our shared permitting goals.

Kind regards,

Booth

Booth Jameson
Senior Director, Federal Affairs
O: (202) 249-6204 C: (202) 355-8627
booth_jameson@americanchemistry.com
700 2nd Street NE | Washington, DC | 20002
www.americanchemistry.com

++++++++++++++++++++++++++++++ This message may contain confidential information and is intended only for the individual named. If you are not the named addressee do not disseminate, distribute or copy this email. Please notify the sender immediately by email if you have received this email by mistake and delete this email from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message which arise as a result of email transmission. American Chemistry Council, 700 – 2nd Street NE, Washington, DC 20002, www.americanchemistry.com

From: Katie Mabry
To: Permitting@epw.senate.gov; Ayrea, Maggie (EPW); Perlstein, Andrew (EPW)
Cc: Ward W. McCarragher; Stacie H. Tiongson
Subject: APTA Letter to EPW Testimony for the Record Permitting Reform
Date: Thursday, March 20, 2025 11:23:27 AM
Attachments: image001.png
APTA LTR to EPW Testimony for the Record Permitting Reform (03.21.2025).pdf

---

Dear Maggie and Andrew:
Please see attached comments from the American Public Transportation Association (APTA) to be submitted for the record for the U.S. Senate Committee on Environment and Public Works hearing on February 19, 2025, titled, "*Improving the Federal Environmental Review and Permitting Processes.*" Included are policy recommendations for streamlining regulatory and administrative requirements that APTA believes will go a long way toward expediting projects of importance to public transit agencies.

We appreciate the opportunity to comment and look forward to continuing to work with your Committee.

Very best,

Katie Mabry | Legislative Representative
American Public Transportation Association

1300 I Street NW | Suite 1200 East | Washington, DC 20005
O: 202-496-4877 | C: 301-641-6133 | kmabry@apta.com | www.apta.com

From: Daniel Elizalde
To: Permitting@epw.senate.gov
Cc: Xan Fishman; Lori Pickford
Subject: BPC EPW Permitting Submission
Date: Thursday, March 20, 2025 3:25:40 PM
Attachments: Outlook-Image.png
BPC_Report_Goldilocks-Zone-Permitting-Reform.pdf
BPC 2025 Senate EPW Committee Permitting Letter.docx

Good afternoon,

The Bipartisan Policy Center is pleased to submit the two attached documents to EPW's open record from your recent bipartisan hearing on permitting and NEPA reform. We look forward to continuing to work with the Committee on these issues.

Best,

Daniel Elizalde
Policy Analyst | BPC Energy Project
(707) 799-0085 | bipartisanpolicy.org

Bipartisan Policy Center

From:	Crystal Cavalier-Keck
To:	Permitting@epw.senate.gov
Subject:	Comments Bipartisan Permitting Reform
Date:	Monday, March 17, 2025 2:53:55 PM
Attachments:	Letter_Senate_Environment_and_Public_Works_Committee_-_Personal_Letter_(1)_(1).pdf

The Honorable Shelley Moore Capito
Chair, Committee on Environment and Public Works
United States Senate
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member, Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Subject: Support for Bipartisan Permitting Reform to Advance Energy Development

Dear Chair Capito and Ranking Member Whitehouse,

I am writing to express my ideas on permitting reform that facilitates the responsible and efficient development of energy infrastructure across all traditional and renewable sectors.

As detailed in the statement I've attached, a well-structured permitting framework should reduce unnecessary delays while upholding essential environmental protections.

Thank you for your leadership on this crucial issue. I appreciate your attention to this matter and welcome discussing how permitting reform can catalyze a more resilient and diversified energy future.

Sincerely,

--
Dr. Crystal A Cavalier, Ed.D, MPA
Graduate Student in the Master of Legal Studies
Indigenous Peoples Law program
University of Oklahoma
Mobile: 336.639-2454
www.7directionsofservice.com

From: Liz Scott
To: Permitting@epw.senate.gov
Subject: Comments from American Lung Association on Permitting
Date: Friday, March 21, 2025 1:35:12 PM
Attachments: image001.png
Comments from the American Lung Association to EPW Committee on Permitting.pdf

---

Good afternoon,

Please see the attached comments from the American Lung Association in response to the hearing “Improving the Federal Environmental Review and Permitting Processes”.

Thanks and have a great weekend.

Liz Scott
Director, Federal Clean Air Advocacy
American Lung Association
1331 Pennsylvania Ave, NW, Suite 1425 | Washington, DC 20004
O:202-481-7668
Lung HelpLine: 1-800-LUNGUSA
Lung.org | Liz.Scott@Lung.org
Pronouns: She, Her, Hers



From: Leila Kimbrell
To: Permitting@epw.senate.gov
Cc: Johnson, Erin (Sullivan); Byrnes, Joe(Sullivan); Connor Hajdukovich
Subject: Comments on Federal Permitting Reform Efforts
Date: Thursday, March 20, 2025 4:35:27 PM
Attachments: RDC Ltr re Senate EPW Federal Permitting Reforms 3-20-25 FINAL.pdf

---

Please consider the attached comment letter and include for your record for the hearing on "Improving the Federal Environmental Review and Permitting Process."

Please let me know if you have any questions.

Thank you,

Leila Kimbrell
Executive Director
Resource Development Council for Alaska
301 W. Northern Lights Blvd., Ste. 406
Anchorage, Alaska 99503
(o) 907-276-0700 (m) 907-406-5198
www.akrdc.org



From: Jaime Sigaran
To: Jaime Sigaran
Subject: For the EPW Permitting Record: American Rivers Letter and Recommendations 03.21.2025
Date: Friday, March 21, 2025 6:49:52 PM
Attachments: image001.png
Letter to EPW on Permitting 03.21.2025.docx

Good evening,

Please see the attached letter from American Rivers sharing our thoughts on how we can improve permitting in practical and programmatic ways together.

We urge the committee to consider the following:

- **Base all stormwater and wastewater discharge permits on watershed boundaries** instead of political boundaries.
- **Codify language** that builds upon the Clean Water Act's "Residual Designation Authority" to require the EPA to create a "Commercial, Industrial, and Institutional" stormwater permit system, closing the regulatory gap for stormwater pollution sources not currently covered under the three existing permit types.
- **Expand compensatory mitigation requirements**: Require compensatory mitigation for impacts to non-jurisdictional wetlands and streams, ensuring their protection even if they fall outside federal jurisdiction.
- **Fast-track permits for green infrastructure**: Create an expedited permitting process for projects that incorporate green infrastructure (e.g., rain gardens, permeable pavements, wetlands restoration) to encourage their adoption.
- **Support rural, tribal, and economically distressed communities**: Provide technical assistance and simplified permits for small-scale projects in underserved communities, reducing the administrative burden while ensuring environmental protections.

Thank you for your review and consideration,

Jaime D. Sigaran
Associate Director, Policy and Government Relations, American Rivers
Advocacy Director, American Rivers Action Fund
240-593-3433
AmericanRivers.org
AmericanRiversActionFund.org

AMERICAN RIVERS
Life Depends on Rivers℠

AMERICAN RIVERS ACTION FUND

From:	Permitting@epw.senate.gov
To:	Permitting@epw.senate.gov
Subject:	FW: EPW Permitting Reform
Date:	Friday, March 28, 2025 11:53:50 AM
Attachments:	3-12-25 NRECA Permitting Priorities EPW.docx

From: Thomas, Hill H. <Hill.Thomas@nreca.coop>
Sent: Wednesday, March 19, 2025 2:21 PM
To: Ayrea, Maggie (EPW) <Maggie_Ayrea@epw.senate.gov>; Finkel, Louis <Louis.Finkel@nreca.coop>; Permitting@epw.senate.gov
Cc: Hamill, Bobby <Bobby.Hamill@nreca.coop>; Kirlin, Mary Katherine <MaryKatherine.Kirlin@nreca.coop>
Subject: RE: EPW Permitting Reform

Maggie,

Attached are some thoughts on permitting reform, for the Committee's consideration. I've cc'ed the permitting@epw.senate.gov address too. We'd be pleased to dive deeper on any of these items with you or your team.

Thank you for letting us be part of this conversation. Looking forward to keeping in touch.

Hill

Hill Thomas
Vice President, Legislative Affairs
NRECA
202-676-6530

From: Mike Holland
To: Permitting@epw.senate.gov
Subject: Improving the Federal Environmental Review and Permitting Processes - Potential Improvement
Date: Friday, March 14, 2025 3:00:58 PM
Attachments: image001.png
Safe Harbor Language-11-20-24.docx

Attached please find proposed legislative language that would provide a measure of certainty to in permitting process to proponents. Specifically, the language would provide a safe harbor for projects to guard against the situation that could occur if an endangered or threatened species or species of interest moves into a reclaimed portion of a project.

Please let me know if you have any questions or wish to discuss this matter further. Thank you.

Best,

Mike Holland
Director, Government Affairs
Bayer U.S. – CropScience
Public Affairs, Science and Sustainability (PASS)
801 Pennsylvania Avenue, NW – Suite 900
Washington, DC 20004
Mobile: 1 202 400 1350
E-mail: Mike.Holland@Bayer.com

We work flexibly at BAYER. I am sending this email now because it suits me and my working hours might not be yours. I do not expect that you will read or respond to it outside of your usual working hours. Thank you.

mindful matters
Certified Bayer Facilitator

The information contained in this e-mail is for the exclusive use of the intended recipient(s) and may be confidential, proprietary, and/or legally privileged. Inadvertent disclosure of this message does not constitute a waiver of any privilege. If you receive this message in error, please do not directly or indirectly use, print, copy, forward, or disclose any part of this message. Please also delete this e-mail and all copies and notify the sender. Thank you.

From: Robert Mosher
To: Permitting@epw.senate.gov
Subject: INGAA submission for the EPW permitting hearing record
Date: Wednesday, March 19, 2025 2:21:56 PM
Attachments: image001.png
03.19.2025 INGAA EPW permitting hearing letter.pdf

Please see the attached Interstate Natural Gas Association of America (INGAA) submission for the Senate Environment & Public Works Committee "Improving the Federal Environmental Review and Permitting Processes" hearing record identifying potential solutions to the energy infrastructure permitting challenges experienced by the gas pipeline sector.

Thank you for your consideration, and INGAA's stand ready to collaborate with the Chairwoman to enact needed permitting reform policies.

Rob Mosher
Vice President of Government Affairs
Interstate Natural Gas Association of America
25 Massachusetts Ave. NW, Suite 500N | Washington, DC | 20001
P: (202) 216-5912 | C: (703) 980-5936
rmosher@ingaa.org
www.INGAA.org



From: Julian Gonzalez
To: Permitting@epw.senate.gov
Subject: Letter from environmental NGOs, on water and permitting
Date: Wednesday, March 19, 2025 5:22:18 PM
Attachments: image001.png
CWFA final letter on Permitting, Public Protections, and the Clean Water Act.pdf

---

Dear Chair Capito, Ranking Member Whitehouse, and committee staff:

Thank you for an opportunity to provide comments and resources on the topic of permitting and public safeguards for our valuable environmental resources. Attached to this email, on behalf of 23 members of the Clean Water For All coalition, is a letter.

The letter is about the importance of the Clean Water Act as a public protection which ensures predictability for our water systems, reliability for our economic and environmental resources, and dependability for cultural practices depending on clean water. The letter also discusses commonly circulated misinformation related to Clean Water Act permitting.

Thanks again for creating a space to weigh in on this critical subject.

Sincerely,
Julian Gonzalez

- - -

Julián González *(he/him/his)*
Senior Legislative Counsel

EARTHJUSTICE | EARTHJUSTICE ACTION

1001 G St NW, Suite 1000
Washington, DC 20001
T: 646.316.5035
earthjustice.org
earthjusticeaction.org
facebook.com/earthjustice
twitter.com/earthjustice

From: bear6@verizon.net
To: Permitting@epw.senate.gov
Subject: Letter submitted for 2/19/24 Hearing
Date: Friday, March 21, 2025 5:24:00 PM
Attachments: SenateEPWltr.docx

Please find attached a letter submitted for the record in the February 19, 2025 hearing on Improving the Federal Environmental Review and Permitting Proces.

Thank you for your consideration.

Dinah Bear
bear6@verizon.net
(202) 906-9407

From: Ryan Mulvenon
To: Permitting@epw.senate.gov
Subject: Marine Carbon Dioxide Removal
Date: Wednesday, March 19, 2025 4:47:58 PM
Attachments: image001.png
2025-03-19 - ACI Letter to EPW re marine CDR Permitting.pdf

Please find the attached letter from Advocates for Climate Innovation re: marine carbon dioxide removal.

Thank you for keeping the public record open to allow interested parties to engage with you on this matter.

Best,

****

Ryan Mulvenon
Executive Vice President
Cassidy & Associates
607 14th Street, NW, Suite 400
Washington DC 20005
D: 202-585-2305
C: 202-257-6555
rmulvenon@cassidy.com

CASSIDY&ASSOCIATES

From: Matthew Allen
To: Permitting@epw.senate.gov
Cc: Carr, Baxter (EPW); Brown, Joe (EPW); Michael Purdie; Brittney May
Subject: National Hydropower Association - Permitting Reform Public Input Submission for the Record
Date: Tuesday, March 18, 2025 9:50:43 AM
Attachments: Outlook-qzpuvhai.png
Final - NHA Letter to Senate EPW on Permitting Reform - March 2025.pdf

---

Good morning,

Please find attached the National Hydropower Association submission for public input to the record for the hearing titled, **Improving the Federal Environmental Review and Permitting Processes**.

Please do not hesitate to reach out to either myself, or NHA's Director of Regulatory Affairs and Markets, Michael Purdie(cc'd), with any questions you may have. We are available at your convenience to continue discussing the matters outlined in NHA's testimony submission.

Thank you for this opportunity to work with the Environment & Public Works Committee and we look forward to further collaboration together.

Matt

Matthew G. Allen
Director of Legislative Affairs
National Hydropower Association
200 Massachusetts Ave NW, Suite 320
Washington, DC 20001

202-993-0660 (mobile)
matthew@hydro.org

INFORMATION ON NHA EVENTS
HYDRO ACADEMY - Knowledge is Power
HYDROPOWER FACTS - Explore the Data

NHA does not sell information. We deeply respect the privacy of our attendees and we have never nor will we ever reach out to anyone with offers to sell our mailing lists. Any communications that say otherwise are scam attempts and should be deleted and/or blocked.

From: Lukas, Richard
To: Permitting@epw.senate.gov
Cc: Tomlinson, Adam (EPW); Barrett, Murphie (EPW); Moore Lund, Caryn (EPW); Ayrea, Maggie (EPW); Dudis, Dan (EPW); Perlstein, Andrew (EPW); Boyce, Mayely (EPW); Howard, Alexis; Lukas, Richard
Subject: NGA Submission for EPW Permitting Open Record Solicitation
Date: Tuesday, March 18, 2025 9:39:59 AM
Attachments: 2025 Fed Priorities resolution APPROVED.pdf

Good morning,

In response to the Senate Environment and Public Works Committee's bipartisan effort to review actions or recommendations for the National Environmental Policy Act (NEPA) and permitting reform, please find attached a resolution codified at the National Governors Association's Winter Meeting in February 2025.

As you will see, Governors have made "Streamlining permitting processes" and "Accelerating infrastructure project delivery" federal priorities for 2025.

Additionally, Oklahoma Governor Kevin Stitt and Pennsylvania Governor Josh Shapiro announced the formation of a bipartisan permitting working group to explore critical issues surrounding permitting reform, infrastructure acceleration, and energy resilience, with a particular focus on the National Environmental Policy Act (NEPA), judicial review, and transmission siting.

We look forward to engaging the committee in this important work.

Best regards,

Richard

Richard Lukas
Legislative Director
444 North Capitol St NW, Ste 267
Washington, D.C. 20001
o: 202.624.3623 | m: 202.903.8105
rlukas@nga.org



From: JL Andrepont
To: Permitting@epw.senate.gov
Subject: Permitting "Reform" Comment-350.org
Date: Thursday, March 20, 2025 7:15:23 PM

Dear Chairman Capito, Ranking Member Whitehouse, and Members of the U.S. Senate Committee on Environment & Public Works,

Our organization's mission is to combat the climate crisis by promoting real clean energy solutions, like wind and solar, and through fighting the proliferation of the fossil fuel industry that is destroying our planet and disproportionately displacing and killing Black, Brown, and Native communities. We are only able to do this good work because of environmental laws like the National Environmental Policy Act and Clean Water Act that allow the public to participate in government decision-making and to fight projects that will harm the most marginalized and overburdened communities in court. 350.org is very concerned about continued discussions on permitting as previous discussions have centered around weakening environmental laws and eroding opportunities for public participation. The Fiscal Responsibility Act of 2023, for example, codified the most significant damages to the National Environmental Policy Act since its enactment. As you consider further gutting our country's bedrock environmental legislation, we urge you to honor the precautionary principle and refrain from destroying the laws we all depend upon to protect our climate and environment.

Weakening Environmental Protections is Bad Politics

Americans from all ends of the political spectrum value clean air, clean water, and a home safe from climate disasters. It's a mistake to imagine fast-tracking environmental reviews will come without consequence. And it's a mistake to assume the public won't notice Congress further disenfranchising them from decision-making in a system that already favors the fossil fuel industry and the wealthy. Prior attempts to weaken the National Environmental Policy Act (NEPA) have been met with unanimous opposition from the environmental justice community, and further attempts will be no different. With diminishing approval ratings for both the Democratic and Republican parties in recent weeks, it is unclear why the Committee would pursue such proposals.

Furthermore, We appreciate Senator Whitehouse's commitment not to move forward any legislation while the current constitutional crisis continues. Neither political party benefits when the authority of Congress and the Judiciary is meaningless. It may be a Republican seeking to become a monarch now, but the political pendulum will inevitably swing. All committee members should urge the President to respect our governmental system of checks and balances and refuse to move any legislation until he does so.

Create Justly Implemented Climate Solutions

We hope you'll consider the recommendations explaining how our government can create the clean energy future we need without sacrificing communities or our environment. We urge Committee members to support the following actions:

1. Please pass legislation similar to the A. Donald McEachin Environmental Justice for All Act to increase community approval of projects.

2. Please increase funding for permitting agencies so they have the resources to conduct thorough environmental reviews promptly.

3. Please maximize distributed energy resources including distributed solar, battery storage, and microgrids.

We, also, urge you, at minimum, to not do the following:

1. Do not weaken opportunities for public participation. For example, we strongly oppose shortening comment periods and shortening the length of time communities have to challenge projects in court.

2. Do not weaken environmental laws. For example, we strongly oppose lessening the amount and type of projects that require NEPA review. We also strongly oppose provisions that will inevitably weaken the quality of required environmental reviews.

3. Do not expand fossil fuel production. Fossil fuel production is the leading cause of the climate emergency. A deal that expands fossil fuels is a deal that harms the climate.

Thank you for your attention to our concerns.

Sincerely,

350.org

--
JL Andrepont
Senior Policy Analyst
350.org
Pronouns: they/them
Hours: ~11am-7pm ET (no Weds)
Email: jl.andrepont@350.org

From: ACEC GA
To: Permitting@epw.senate.gov
Subject: Permitting Letter to Senate EPW March 2025
Date: Friday, March 21, 2025 3:37:54 PM
Attachments: FINAL Permitting Letter to Senate EPW March 2025.pdf

---

Hello,

Please see the attached letter regarding permitting reform.

Best,

Danny Winslow
Advocacy Coordinator
ACEC/PAC
Phone: 202-682-4334
1400 L Street NW, Suite 400
Washington, DC 20005-3529

From: Nora Privitera
To: Permitting@epw.senate.gov
Subject: Permitting Reform
Date: Wednesday, March 19, 2025 12:33:15 AM

Dear Senate Committee on Environment and Public Works:

Everyone agrees that permitting reform is necessary. Our transmission lines are old and cannot meet the demands of our current needs, much less the future.

However, how permitting reform is implemented is critical.

You must not vote for expediency over a thoughtful, well crafted plan for expanding grid infrastructure, and you must not weaken the National Environmental Policy Act or the Clean Water Act in order to achieve it. These acts are there for a purpose; they are to insure that we don't face unforeseen consequences and adverse health impacts as a result of a desire to cut costs or processes. The old saying: "Sin in haste, repent at leisure" applies equally to projects that are rushed through for the sake of a short term benefit that ultimately causes irreparable harm.

In addition, please remember that we are in the midst of an energy transition. The future is in renewable energy. Therefore permitting reform must be designed to accommodate not just traditional energy sources like oil and gas; it also must accommodate renewable energy needs. Otherwise we risk getting left behind as the rest of the world moves forward.

Our economy depends upon our ability to adapt to the changing energy landscape. Let's not fail in this critical endeavor.

Very truly yours,
Nora Privitera, Chair
Federal Team
350 Bay Area Action

Sent from my iPhone

From: Mergen, Andrew C
To: Permitting@epw.senate.gov
Subject: Permitting Reform
Date: Friday, March 21, 2025 5:22:13 PM
Attachments: Myths.pdf

To whom it may concern:

The authors of the attached paper submit it for consideration as EPW moves forward on permitting reform. Thank you!

Andrew C. Mergen *(he/him)*
Faculty Director | Emmett Visiting Assistant Clinical Professor of Law
Emmett Environmental Law & Policy Clinic | Harvard Law School
6 Everett St., Suite 5116, Cambridge, MA 02138
amergen@law.harvard.edu | 617.998.1677
clinics.law.harvard.edu/environment

From: Kathy Kerridge
To: Permitting@epw.senate.gov
Subject: Permitting
Date: Thursday, March 20, 2025 2:01:27 AM

Hi,
Permitting should be streamlined for projects that produce renewable energy, like solar, wind, geothermal and natural carbon sequestration. Anything that will produce greenhouse gas emissions or pollution should have to go through the normal permitting process. We must consider GHG emissions if we are to have a plant that is like the one humanity has called home for thousands of years. If we don't get GHG under control we are headed for a dire future. In addition, controlling emissions makes the air cleaner, creates jobs, and is better for our health.

Kathy Kerridge
771 West I Street
Benicia, CA 94510

From: Ian Gansler
To: Permitting@epw.senate.gov
Cc: Cary Davis; John Bressler
Subject: Port Industry Permitting Reform Proposals
Date: Friday, March 21, 2025 10:34:10 AM
Attachments: Outlook-frx4es4r.png
Outlook-kvodc4u1.png
Outlook-buedb1ka.png
Outlook-uiiesoq0.png

Dear Senate EPW Committee staff,

Thank you very much for the opportunity to submit feedback on proposals to reform the nation's permitting rules and for extending the public record from your recent hearing to allow us to contribute. My name is Ian Gansler, and I am the Director of Government Relations for the American Association of Port Authorities (AAPA), the nation's trade association for public port authorities, representing over 80 ports from coast to coast.

At the conclusion of 2024, several proposals to expedite permitting for Port Infrastructure Development Program (PIDP) projects from the AAPA-drafted PORT Act (H.R.7587-118) were included in the National Defense Authorization Act and passed into law. Included in this bill were changes to streamline and expand the use of categorical exclusions at the Maritime Administration (MARAD). The fact that legislation was necessary to allow MARAD to use more CEs from other DOT modal agencies point to the need to reform the CE process to expedite their use.

The port industry also supports several other specific proposals to expedite and refine the permitting process:

- Implement One Federal Decision rules requiring one agency to lead NEPA permits, with other Federal Agencies following instructions and timeline of the lead agency. Many ports have gone through duplicative NEPA studies at the Army Corps of Engineers and DOT.
- Allow port projects to come under Federal Permitting Improvement Steering Council (FPISC) jurisdiction by reducing the project size threshold from $200m to $50m and eliminating the exclusion of WRDA and DOT projects from FPISC jurisdiction.
- The Department of Transportation Office of the Secretary (OST) should commit to faster processing times for a number of actions that slow down grant administration. In these cases, MARAD staff approve documents that must be signed by OST but often take weeks or months to get this extra level of approval. Examples include:
    - Grant contracts that have already been approved by MARAD;
    - Notices of Funding Opportunity (NOFOs) for PIDP and USMHP; and
    - Budget amendments when ports' projects make small scope changes post-award.
- In accordance with Section 3511 of the FY25 NDAA, DOT must:
    - Instruct the Maritime Administration (MARAD) to begin applying FRA, FHWA, and FTA categorical exclusions to MARAD-administered grant projects when applicable. Instruct FRA, FHWA, and FTA not to deny MARAD the use of categorical exclusions when consulted; o Instruct MARAD to issue a list of its existing CEs in the Federal Register;
    - Instruct MARAD to begin a survey on its past use of CEs and issue a Notice of Proposed Rulemaking to adopt new CEs;

- Delay the application deadline for PIDP NOFO when the content of the NOFO is amended; and
- Report to Congress and make public any data on average permitting timelines and any staffing shortages exacerbating delays.

- Build America, Buy America (BABA) reforms:
  - Decisions to approve or reject a BABA waiver application should be made by Agencies, not the Made in America Office at OMB, which is not required by law. The Made in America Office provides no transparency into its decision-making process or timelines, leaving projects in limbo.
  - BABA waiver applications should be adjudicated within two months of the day in which the agency begins its determination. Federal Agencies can make this commitment to expedite infrastructure projects without an act of Congress.
  - If a Federal Agency rejects an application for a BABA waiver, it should be required to inform the project sponsor from which company it can obtain the relevant material or equipment in sufficient quantity and at a reasonable price. If the product is not available from American manufacturers, the wavier should be granted, as allowed by law.

Thank you very much for the opportunity to submit these proposals, and AAPA would welcome further opportunities to engage with the Senate EPW Committee as you continue to work on this important issue.

Sincerely,
Ian Gansler

AAPA
ESSENTIAL. RESILIENT. UNITED.
SEAPORTS DELIVER

Ian Gansler
Director of Government Relations
American Association of Port Authorities
C: 508-654-4264
E: igansler@aapa-ports.org

From: Alexander, Douglas W
To: Permitting@epw.senate.gov
Cc: Gorham, Ryan C; Waller, Joshua; Mujkanovic, Alma; Duff, Eric; McMurry, Russell; Pirkle, Meg; Purcell, Ann
Subject: Re: EPW Hearing on "Improving the Federal Environmental Review and Permitting Processes"
Date: Wednesday, March 19, 2025 8:42:11 AM
Attachments: image001.png
Senate EPW Committee Request for Permitting Reforms.pdf

To whom it may concern:

On behalf of the Georgia Department of Transportation, please see attached document for the US Senate Committee on Environment and Public Works' consideration on "Improving the Federal Environmental Review and Permitting Processes".

Respectfully,

Douglas Alexander
Business Support Analyst

GDOT Georgia Department of Transportation

Office of Performance Based Management & Research
5th Floor
One Georgia Center
Atlanta, GA, 30308
404-347-0552 office

Human trafficking impacts every corner of the globe, including our state and local communities. Georgia DOT is committed to end human trafficking in Georgia through education enabling its employees and the public to recognize the signs of human trafficking and how to react in order to help make a change. To learn more about the warning signs of human trafficking, visit https://doas.ga.gov/human-resources-administration/human-trafficking-awareness/trafficking-in-georgia. To report any suspicious activity, call the Georgia Human Trafficking Hotline at 866-363-4842. Let's band together to end human trafficking in Georgia.

From: Wadsworth, Harrison
To: Permitting@epw.senate.gov; Ayrea, Maggie (EPW)
Subject: Recommendations for Improving the Federal Environmental Review and Permitting Process
Date: Friday, March 21, 2025 2:36:47 PM
Attachments: San Gregorio Creek Bridge Restoration Project 071524.pdf
20240715 PlanEngage Modernizing NEPA Challenge.pdf
nepa-factsheet-a11y.pdf

Improving the Federal Environmental Review and Permitting Process

AECOM is the global infrastructure leader, committed to delivering a better world. As a trusted professional services firm powered by deep technical abilities, we solve our clients' complex challenges in water, environment, energy, transportation and buildings. Our teams partner with public- and private-sector clients to create innovative, sustainable and resilient solutions throughout the project lifecycle – from advisory, planning, design and engineering to program and construction management. AECOM is a Fortune 500 firm that had revenue of $16.1 billion in fiscal year 2024. Learn more at aecom.com.

AECOM has experience across thousands of infrastructure projects that moved through the traditional federal NEPA process, and similar state processes (e.g. California's CEQA), often working in a multi-jurisdictional environment. This response is intended to support the Committee's efforts to improve the federal environmental review and permitting processes.

Recommendation 1: Encourage More Use of E-NEPA Technologies
The federal government should continue encouraging project sponsors and lead agencies to leverage interactive, cloud-based, digital platforms (E-NEPA) to develop and circulate NEPA documents, perform planning studies, collect inter-agency feedback from other federal agencies, and conduct public comment processes. E-NEPA technologies address many of the root causes of permitting delays, including increased demand for public input; overly lengthy and complex documents; lack of transparency in the permitting process; litigation risk; regulatory agency staffing shortages; and complex, multi-agency decision-making.

Below are two examples of recent projects that leveraged the innovative PlanEngage E-NEPA platform. These received awards from the USDOT Modernizing NEPA Challenge.

California Department of Transportation: San Gregorio Creek Bridge Restoration Project

- About: This is a bridge project on California Highway 1, subject to NEPA carried out by Caltrans acting under their NEPA assignment from FHWA (see attached fact sheet).
- E-NEPA documents: Home - San Gregorio Creek Bridge Project
- Innovations Realized:
    - PlanEngage, an interactive, cloud-based, digital platform was used by the project team to complete required California and federal environmental public comment processes on time and in a way that brought non-traditional community stakeholders into the process. For example, 35% of visitors to the project website used a mobile device, which was made possible through the PlanEngage E-NEPA tool.
    - This was the first CEQA project to be completed on a digital platform. This is an example of how federal leadership (e.g. the E-NEPA study in the Fiscal Responsibility Act) empowered state-level project sponsors to explore more

innovative approaches to completing NEPA processes that occur in parallel with state-level processes.

Michigan Department of Transportation: M37 Improvement Project

- About: The Michigan Department of Transportation (MDOT), in cooperation with the Federal Highway Administration (FHWA), is proposing the M-37 Improvement Project (i.e., the Project) to enhance and widen a 2.7-mile section of highway M-37 in Kent County, Michigan. M-37 is an urban state trunkline connecting Grand Rapids to the north with the rapidly growing areas of Caledonia, Middleville, and Hastings to the south.
    - E-NEPA documents: https://us.planengage.com/m-37_caledonia_ea/page/How-to-use-this-platform
    - Project website: https://www.michigan.gov/mdot/projects-studies/studies/traffic-and-environmental-linkages-studies/m-37-project

- Innovations Realized:
    - E-NEPA Platform PlanEngage was used to develop the Environmental Analysis (EA) document and streamlined the development process of the EA. It was used for review sessions for internal AECOM quality reviews and MDOT reviews, offering real-time comments, edits and revisions.
    - Hosting the EA on the PlanEngage platform for public review offered a more understandable form of the EA document by providing the public with a clickable Table of Contents, links to appendices and reference resources, interactive maps associated with the concepts discussed within certain EA sections, and the ability to leave comments about specific topics directly on the topic page (not just overall document)
    - Interactive maps were included, allowing users to change features shown and used highlighted linked text to zoom in areas of interest.
    - Met all ADA compliance requirements through the digital platform.

Recommendation 2: Encourage More States to Undertake NEPA assignment

The track record of states that have taken on NEPA assignment to conduct environmental analysis suggest Congress should investigate ways to encourage more states to take this. Only a small minority of U.S. states have undertaken NEPA authority. Our experience suggests states that – at a minimum – states that sponsor a large volume of projects on a regular basis can realize a return on investment in terms of accelerated project permitting and delivery by undertaking NEPA authority.

For example, in February 2025, Caltrans published data regarding its significant time savings since taking NEPA assignment. Specifically, “a median time savings of 11.6 months has been achieved in approving draft EAs; 14.7 months for final EAs (FONSIs); 31.3 months for DEISs; and 122.4 months for FEISs.” (Fact Sheet attached). This illustrates the value of states undertaking NEPA assignment from the federal government. In the California examples, rather than producing two separate documents to meet state and federal requirements, the project sponsors were able to develop a single document to share with regulators and community stakeholders while meeting state and federal requirements.

Thank you for considering our views and please reach out if we can provide additional information to support the Committee’s work on federal improving federal environmental review and permitting processes.

All the best,

Harrison M. Wadsworth IV
Corporate Vice President, Government Relations
AECOM

From: James L. Connaughton
To: Permitting@epw.senate.gov
Subject: Recommendations for Modernizing Permitting
Date: Thursday, March 20, 2025 6:00:12 PM
Attachments: Aspen Institute-Building Cleaner Faster 21.06.15.pdf
Unleashing Brownfields Redevelopment (Summary) JLC 2025.03.11.pdf
Unleashing Brownfields Redevelopment (Full) JLC 2025.03.11.pdf
Economic Effects of Delay Study.pdf

Please find attached four documents and a link to a Wall Street Journal op-ed containing permitting modernization recommendations for the Committee's consideration. Thank You.

James L. Connaughton
JLC Strategies, LLC
+1 (202) 255-8719
jim@jamesconnaughton.com
225 Coconut Palm Road
Indian River Shores, FL 32963

https://www.wsj.com/opinion/a-simple-way-to-cut-nepas-red-tape-environmental-laws-supreme-court-38e7f6fd?st=LoHZG3&reflink=article_copyURL_share

From: Paul A. Hartman
To: Permitting@epw.senate.gov
Cc: Emily Wong; Jack Cramton
Subject: Recommendations to Improve Federal Environmental Review and Permitting Processes
Date: Thursday, March 20, 2025 2:00:09 PM
Attachments: image001.png
SLIDE DECK - API - Permitting Priorities Updated September 2024.pdf
LEGISLATIVE LANGUAGE - Policy Recommendations 05.02.23 (1).pdf
API CEO NEPA Guideance 021225.pdf

Thank you for the opportunity to submit information regarding potential permitting solutions on behalf of API's members.

Attached for your reference are three documents that we think will be of utility to the Committee

- Permitting Reform Slide Deck - outlines API members permitting reform priorities and some examples of projects that support the proposed statutory changes.
- Legislative Language – key priorities and proposed legislative language for API's permitting priorities.
- Letter to CEQ – identifying key priorities for NEPA regulations that could be informative on some of the more detailed NEPA concerns our members have.

Please let us know if you have any questions or require any additional information.

Best,
Paul

Paul Hartman
Director
Midstream Policy

o: 202.682.8046
m: 518.366.2642
e: HartmanP@api.org

200 Massachusetts Ave NW
Washington, DC 20001

www.api.org



From: Sherry.350Hawaii
To: Permitting@epw.senate.gov
Subject: Senate EPW Hearing on "Improving the Federal Environmental Review and Permitting Processes"
Date: Friday, March 21, 2025 12:28:29 AM

Aloha Chairman Capito, Ranking Member Whitehouse, and Members of the U.S. Senate Committee on Environment & Public Works,

My name is Sherry Pollack and I am co-founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii is very concerned about these continued discussions on permitting, especially as previous conversations have focused on weakening environmental laws and removing opportunities for public participation.

Let's be clear. A permitting system without transparency and environmental oversight will disproportionately serve the short-term interests of profit-seeking corporations instead of the long-term interests of the American public that our environmental laws require and agency missions safeguard.

Despite the persistent but still entirely unsubstantiated talking points that National Environmental Policy Act (NEPA) reviews are the primary cause of permitting delay, the Congressional Research Service has repeatedly concluded that NEPA is not a primary or major cause of delay in project development and that complications with funding and project design changes are at fault. Independent scientific research has repeatedly confirmed that to the extent that there are delays within the NEPA process, they are not attributable to the law or regulations themselves but rather **to lack of staff and funding.**

If the following measures are implemented adequately, they can lay a strong foundation for an effective Environmental Review and Permitting Process and better serve the American People.

1. **Funding efficient and effective environmental reviews**

For years, federal permitting agencies have been understaffed and underfunded. An agency starved of resources cannot ensure adequate community engagement, alternatives analysis or environmental review more generally. The predictable result is project delays, opposition, and/or legal challenges. Instead of weakening environmental protections that ensure responsible permitting, we would encourage you to consider advancing legislation to help agencies better recruit and retain the staff needed to meet growing demands for environmental reviews.

2. Strengthening community engagement and core environmental protections

"Early engagement with potential local opponents can avoid extended delays or project cancellations." was a key finding from a recent MIT study examining why 53 large-scale clean energy projects were delayed or cancelled, and underscores the importance of robust upfront public engagement. Robust permitting processes focused on consensus-building development speeds up our transmission build out by avoiding confrontations with local
stakeholders. To avoid delays, derisk projects and protect communities, we need

to strengthen, not gut, the bedrock environmental protections of the National Environmental Policy Act that give communities a voice in the process.

3. Stop using third-party modeling of the purported emission benefits of transmission reform

These models are usually completed by parties with a vested interest in the outcome and are usually deeply flawed, typically discounting emissions that are realized beyond domestic borders. While improved regulatory approaches to approving new transmission are required to secure a clean energy future and decarbonized economy, proposals for transmission expansion without a corresponding deliberate reduction in fossil fuels only serves the already established and entrenched fossil fuel industry.

4. **Prioritize investments in clean energy and resilient infrastructure rather than further entrenching fossil fuel projects**

To address climate change and build a sustainable future, prioritizing investments in clean energy and resilient infrastructure over further entrenching fossil fuel projects is crucial, as it promotes a transition to a low-carbon economy and enhances energy security and economic opportunities.

5. Stop Sacrificing Public Lands and Endangered Species to Energy Development

Public lands have a unique and vital role in protecting this nation's natural heritage for present and future generations. They must be protected. Allowing toxic industries and energy projects to proceed without care and consideration for wildlife is destructive to our natural environment. We should reject these efforts to weaken siting and permitting requirements and remove protections for wildlife from destructive projects.

If these measures were implemented adequately, they would lay a strong foundation and improve the Federal Environmental Review and Permitting Process and truly serve the American People. Weakening environmental protections or prioritizing fossil fuel development will do the opposite.

Mahalo for your attention to these concerns.

Sherry Pollack

Co-Founder, 350Hawaii

From: Danielle Bissett
To: Permitting@epw.senate.gov
Cc: Phoebe Higgins; Becca Madsen; Jessie Mahr; Sydney Anderson
Subject: Submission for the EPW Committee Hearing Record – Permitting Reform Recommendations
Date: Thursday, March 20, 2025 7:08:28 PM
Attachments: 20250320 Smart Permitting Recommendations to US Senate Committee on EPW_EPIC.pdf

---

Dear EPW Committee Staff,

On behalf of the Environmental Policy Innovation Center (EPIC), I appreciate the opportunity to contribute to the discussion on improving the federal environmental review and permitting processes. As highlighted during the February 19th hearing, streamlining permitting while maintaining strong environmental safeguards is necessary to advancing critical infrastructure, community resilience, and ecological restoration.

EPIC has developed a list of **Smart Permitting Recommendations** that provides a comprehensive approach to improving the permitting process by increasing efficiency, transparency, and accountability. Our recommendations focus on four key areas:

1. **Governance and Leadership Enhancements** – Implementing state-led best practices, fostering a solution-oriented regulatory culture, and expanding interagency coordination.
2. **Policy and Regulatory Adjustments** – Differentiating ecological restoration from development, expediting reviews for federally funded projects, and aligning policy frameworks to promote environmental net gains.
3. **Process Efficiency and Transparency** – Leveraging technology (e.g., e-permitting), programmatic reviews, and AI to modernize and streamline approvals.
4. **Capacity Building and Public Engagement** – Increasing agency staffing, improving data access, and strengthening public and Tribal consultation to enhance trust and efficiency.

Attached is EPIC's full letter for the hearing record, which further details these recommendations and the opportunities they present for permitting reform. We appreciate the Committee's leadership on smart, comprehensive permitting reform, and welcome the opportunity to provide our expertise in advancing critical infrastructure, community resilience, and ecological restoration.

Thank you for your time and consideration. Please let us know if any additional information would be helpful.

Best regards,
Danielle

--
Danielle Bissett, CERP, WEDG (she/her)
Restoration Permitting Policy Lead
Environmental Policy Innovation Center

(c) +1 516-610-7021
(e) dbissett@policyinnovation.org
(w) http://www.policyinnovation.org

(L) http://www.linkedin.com/in/daniellebissett

Time Zone: Eastern

Sign up for our newsletter here!



From: Morgan Cashwell
To: Permitting@epw.senate.gov
Cc: Paul Heberling; Jan Brunner
Subject: Submission for the record - TNC permitting reform white paper
Date: Thursday, March 20, 2025 10:37:36 AM
Attachments: image001.png

Good morning,

Please consider The Nature Conservancy's 2024 permitting reform white paper, "Improving the Environmental Permitting Process for Clean Energy Infrastructure," to add to the open record for the EPW Committee's *Improving the Federal Environmental Review and Permitting Processes* hearing.

TNC believes that the current environmental permitting process needs to be improved to allow the U.S. to reach its emissions reduction goals and accomplish important habitat restoration and conservation projects at the time and scale needed. The U.S. only has a few years to take action.

That's why TNC's goal is to advance changes that will reduce timelines for completing the environmental review, permitting and approvals for clean energy and restoration projects by at least 50%. There is no single solution or pathway for reaching this goal. Experts from TNC developed a wide-ranging set of recommendations in this white paper covering legislative and administrative actions across a number of clean energy sectors. The recommendations support innovative ways to accelerate the permitting and approval processes while also preserving the important conservation, public engagement and transparency benefits of the permitting process.

We hope that this analysis and set of recommendations will spur further conversations and action on permitting reform.

Let us know if you have any questions, and we're looking forward to continuing to engage on this topic.

Morgan Cashwell
Associate Director, Legislative Affairs
North America Policy & Government Relations
207-299-2520 (mobile)
morgan.cashwel@tnc.org



From:	Claire Dorner
To:	Permitting@epw.senate.gov
Cc:	Mahyar Sorour
Subject:	Submission of Feedback for Permitting Reform
Date:	Monday, March 17, 2025 12:02:10 PM
Attachments:	sierra-club-factsheet-climate-health-and-ei-impacts-of-permitting-reform-act-of-2024 (1).pdf Sierra Club Fact Sheet_ Oppose Energy Permitting Reform Act of 2024 (2).pdf

Hello,

I am responding to the February 19th announcement that the Senate EPW Committee is seeking feedback on permitting reform. Please find attached two Sierra Club fact sheets reflecting our position on the Energy Permitting Reform Act of 2024. These fact sheets on a previous permitting reform bill reflect some of the considerations we hope the Committee will take when approaching upcoming permitting reform efforts.

Permitting efforts should ensure bedrock environmental laws are protected and that provisions do not endanger public health, open up federal lands and waters to further oil and gas leasing, or fast-track review of proposed gas export projects that harm communities and perpetuate the climate crisis.

Thank you for your consideration,

Claire

--

photo

Claire Dorner
Associate Director, Legislative & Administrative
Advocacy, Beyond Dirty Fuels
Sierra Club
Pronouns: she/her
317.437.7907 | Eastern Time Zone
claire.dorner@sierraclub.org
Meet with me

JUNE 2024 POLICY

RECOMMENDATIONS FOR PERMITTING REFORM

C2ES CENTER FOR CLIMATE AND ENERGY SOLUTIONS

To meet U.S. climate goals, enhance our international competitiveness, and ensure the reliability and affordability of our electric power system, Congress must reform the federal permitting process. The Center for Climate and Energy Solutions (C2ES) has been working with companies in its Business Environmental Leadership Council (BELC) to develop a set of policy recommendations in five key areas that would ensure successful reforms: community engagement, transmission, critical materials, pipelines, and ensuring appropriate timelines.

These recommendations include durable policies that will reduce greenhouse gas emissions, catalyze investment, create good-paying jobs that benefit all Americans, and strengthen our national security by expanding domestic supply chains for low- and zero-carbon technologies.

As Congress continues to work to pass meaningful permitting reform, C2ES is working with companies and policymakers to advance legislation reflecting these policy recommendations.

1. COMMUNITY ENGAGEMENT

Effective community engagement is essential and should be considered during any revisions to the permitting process. Digital strategies, such as putting the National Environmental Protection Act (NEPA) environmental review process online, could make the community engagement process more accessible, available, and transparent to all stakeholders, especially the communities in which new projects are built.

POLICY RECOMMENDATIONS:

- Based on the e-NEPA study required by Fiscal Responsibility Act (FRA), Congress should require the Council on Environmental Quality (CEQ) to establish online and digital technologies to improve public accessibility and transparency under NEPA, and to address delays in reviews.
  - The e-NEPA permitting portal should allow applicants to submit required documents to their project in one unified portal, include digital tools for more complex reviews that would enhance interagency coordination, and boost transparency in agency processes and present information suitable for a lay audience.
  - Congress should appropriate necessary funds to implement this permitting portal. CEQ is required to produce a biennial report on permitting metrics for Congress, and recommendations to further improve the permitting process.

2. TRANSMISSION

Congress must take steps to ensure that the permitting process is completed in an efficient manner so the private sector has the necessary regulatory certainty to invest in a clean, affordable, and reliable power grid. Additionally, any requirement for minimum interregional transfer should be based on sound engineering analysis and science (e.g., scenario studies).

POLICY RECOMMENDATIONS:

- Congress should appropriate sufficient funds to the Federal Energy Regulatory Commission (FERC) to operationalize their long-range regional transmission planning activities. These planning activities will work in concert with the U.S. Department of Energy (DOE) Transmission Need Studies, for which the Infrastructure Investment and Jobs Act (IIJA) expanded the scope to consider historic and anticipated future capacity constraints and transmission congestion that could adversely affect consumers.
- Congress should also codify DOE's authority to propose national interest electric transmission lines—lines that have a transmission voltage of not less than 345 kilovolts and are located in not fewer than two states—within designated national interest electric transmission corridors.

3. CRITICAL AND STRATEGIC MINERALS

The United States has abundant resources, which are critical to the clean-energy transition, and the strongest environmental safeguards; however, without a regulatory framework that incentivizes the development of robust and resilient domestic supply chains for critical materials, their potential is unclear.

POLICY RECOMMENDATIONS:

- Congress should direct United States Geological Survey (USGS) to add copper to its official critical mineral list, Amend Section 7002(a)(3)(A) of the Energy Act of 2020 (30 U.S.C. 1606(a)(3)(A)), where in general, the term "critical mineral" means copper, and any mineral, element, substance, or material designated as critical by the Secretary under Subsection (c).
- Congress should also direct USGS to include copper as part of its national comprehensive resource assessment. Amend 30 U.S.C. 1606(d) where USGS is tasked to comprehensively map and assess domestic minerals to also include strategic material resources (e.g., copper) within ten years.

4. PIPELINES AND STORAGE INFRASTRUCTURE

Carbon capture is a critical decarbonization tool to achieve net-zero emissions. The successful deployment of these technologies requires robust new pipeline and storage networks, guidance for which Congress should clarify and streamline.

POLICY RECOMMENDATION:

- Congress should provide FERC with backstop siting authority for necessary carbon dioxide pipelines, when states fail to act (in a timely manner) on or reject pipeline projects. Timely manner should be within one year of initial application.
  - Furthermore, FERC would also be responsible for setting rates on the pipeline transport of carbon dioxide. The Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) should continue to have authority to regulate pipeline safety.

5. ENSURING APPROPRIATE TIMELINES

Permitting processes can take a decade or more because of long timelines for review and litigation, impeding investment into vital low-carbon technologies. While ensuring appropriate timelines is not meant to impede reasonable and sufficient challenges, it can give companies certainty around when they can advance a project. Strict, but fair limits on legal challenges are an essential component of modernizing our permitting processes.

POLICY RECOMMENDATION:

- A legal challenge under federal law seeking judicial review of an authorization issued by a federal agency for a project should be limited to no more than 150 days after the date on which the authorization is final.
  - The term "authorization" means any license, permit, approval, finding, determination, interagency consultation, or other administrative decision that is required or authorized under Federal law (including regulations) to design, plan, site, construct, reconstruct, or commence operations of a project, including any authorization described in Section 41001(3) of the FAST Act (42 U.S.C. 4370m(3)).

Scan the QR codes to learn more about C2ES's Permitting Recommendations or email our outreach team to schedule a meeting.

Email us *Learn more*

C2ES CENTER FOR CLIMATE AND ENERGY SOLUTIONS

The Center for Climate and Energy Solutions (C2ES) is an independent, nonpartisan, nonprofit organization working to secure a safe and stable climate by accelerating the global transition to net-zero greenhouse gas emissions and a thriving, just, and resilient economy.

3100 CLARENDON BLVD SUITE 800 ARLINGTON, VA 22201 703-516-4146 C2ES.ORG

March 21st, 2025

The Honorable Shelley Moore Capito
Chairman Committee on Environment and Public Works
170 Russell Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member Committee on Environment and Public Works
530 Hart Senate Office Building
Washington, DC 20510

Dear Chairman Capito and Ranking Member Whitehouse,

We appreciate the committee's interest in improving federal environmental review and permitting processes. The Center for American Progress is grateful for the opportunity to provide comments.

A majority of Americans support the deployment of clean energy resources. However, a rapid clean energy build-out is currently being stifled by an unequal system tilted in favor of fossil fuels. While it takes an average of 225 days to permit an interstate natural gas pipeline, it can take more than a decade to permit interstate power lines—creating a transmission shortage and bottleneck for clean energy waiting to connect to the grid. As a result, more clean energy is currently stuck in the queue than is operating online. While oil and gas companies already enjoy expedited permit review on public lands, clean energy does not.

Environmental permitting is one element of addressing this imbalance, but building the clean energy economy will require Congressional action to change the way that construction and manufacturing investment happen in the United States more broadly. A narrow consideration of the environmental review process is insufficient, particularly if reforms are made for the marginal advantage of individual interests instead of careful analysis of the actual needs of communities. Congress should ensure that any reforms will be effective at furthering the ultimate goal of improving Americans' livelihoods, costs, and health by building the clean energy economy. **Importantly, equitable permitting cannot exist under the current administration's policies of freezing congressionally-authorized funding for clean energy and bans on wind and solar.** Given the current context, Congress should be extremely cautious about any permitting proposal that would make it easier to increase fossil fuel production.

Real solutions exist for fast energy build-out

NEPA and federal permitting are not the main cause of delay for the deployment of clean energy. A study of renewable energy projects from 2010 to 2021 found that more than 95 percent of projects underwent streamlined federal permitting or avoided it altogether. Furthermore, the majority of solar and wind projects are not litigated through NEPA, but solely at the state and local levels. A survey of solar and wind developers

identified local ordinances or zoning, grid interconnection, and community opposition as the top three reasons projects are delayed.

There are real solutions to these problems that can and should be addressed through legislation:

1. **Funding and improving government review:** Permitting is often hampered by incomplete project applications from developers and lack of agency funding. Environmental reviews could benefit from some commonsense process improvements, including better resourcing agencies, encouraging more coordination, and increasing transparency around sources of delay. The effectiveness of this strategy is demonstrated by the successes from the Biden administration's Permitting Council's efforts, which cut permitting times in half for energy projects, in part, by hiring experts and investing in new technologies through the Inflation Reduction Act.

2. **Transmission reforms:** Getting connected to the electricity grid is a major hurdle for clean energy. These issues require specific policy interventions—described in more depth by others. Put briefly, mismatched incentives need to be addressed through thoughtful reform of cost allocation and community benefits agreements. To level the playing field for clean energy, the Federal Energy Regulatory Commission (FERC) could also be given sole authority over interstate transmission, as is true for pipelines. Additional support could be provided to help improve coordination between state and federal agencies.

3. **"Smart from the start" planning:** Before projects even begin the permitting process, states and local governments can conduct community outreach and planning to determine where to allow them. Clear planning can identify low-conflict areas with energy potential, thereby avoiding impacts to wildlife or communities. However, local governments often lack the resources to do this planning until a project has already been proposed. The federal government should provide resources for state and local governments so that they can proactively plan around clean energy. It should also undertake these processes itself for federal lands. Success has been seen with this approach at a regional scale through the Desert Renewable Energy Conservation Plan, which allowed several gigawatts of new energy to be permitted in public lands across multiple counties in California with zero lawsuits.

4. **Proactive and meaningful community engagement and community benefits:** Local opposition and litigation can be significantly reduced by engaging communities through public comment opportunities and public meetings and workshops. Successful projects are more likely than delayed or canceled projects to have provided opportunities for public input. Moreover, surveys suggest that significant opposition comes from concerns about equitable distribution of project benefits. Addressing these concerns through community benefits agreements could effectively reduce opposition and associated delays.

Permitting legislation should avoid ineffective, harmful proposals

As the Committee works to consider these and other necessary reforms, it is important to evaluate the actual effectiveness and potential harms of any legislation. Proposals that may seem merely procedural can in actual practice advantage harmful outcomes over beneficial outcomes, with particular risk for the communities already most exposed to environmental injustices. In other cases, proposals that seemingly speed consideration and planning may actually prove to be counterproductive: evidence suggests that rushing review preparations through arbitrary timelines or page limits and reducing the ability for public participation tends to increase delays, not reduce them. Still other reforms may be marginally beneficial but insufficient, and it is worth evaluating what the gaps are between past reform proposals and current needs.

Lastly, as Sen. Whitehouse mentioned in his opening statement, there is not a path to equitable permitting while congressionally-authorized funding for clean energy is frozen or sweeping bans on wind and solar are in place. The current administration has made clear that their approach to U.S. energy needs is to prop up continued and expanded fossil fuel development at the expense of clean energy. Currently, the permitting system is being weaponized to tilt the playing field further in favor of fossil fuel companies to maximize their profits at the expense of public health and environment. Any legislative proposal must take that context into account: a reform that streamlines fossil fuel permitting without addressing these extraordinary barriers to clean energy will ultimately cause harm to people and the environment.

Conclusion

The United States needs to take slow build times seriously to meet future energy needs. There are real systemic problems tilting the playing field toward the fossil fuel industry, and delay is one of them. Congress should undertake reforms that will deliver the benefits of clean energy to Americans, while avoiding ineffective and harmful proposals that would perpetuate the harms of the fossil fuel industry. These comments focus primarily on clean energy, but permitting reform will have major impacts on other issues that matter to the American public, including the building of housing, transit, and other infrastructure. Congress should consider reforms on all of these fronts, and work between committees to address impacts across sectors and jurisdictions. We thank the committee for their work on this matter, and would welcome any further questions or discussion.

Carnegie Mellon University | POLICY INSIGHTS

A fast lane for interconnection

Allowing new power sources to connect to the grid first, and then manage any infrastructure costs associated with that new interconnection, would accelerate the addition of new generation and lower electricity costs for homes and businesses.

One of the biggest bottlenecks in many regions of the U.S. in adding much-needed capacity to the electricity grid is the number of studies that must be completed before connecting.

A fast lane for connecting to the grid can address this bottleneck. The Electric Reliability Council of Texas (ERCOT) uses a "connect and manage" interconnection process that results in faster interconnections. A modified connect and manage option nationwide could speed up the process across the country.

How it would work: New power sources choosing the fast lane could pay a fee to hook up to the grid without the pre-connection cost studies.

- Those payments would go into a fund that would be used to cover any infrastructure costs incurred by the grid within a set number of years. The fee could be a flat fee, or structured as an auction, enabling the generators bidding the highest in a region to be at the front of the line. This enables the market to incentivize the highest priority capacity additions.
- The Department of Energy could supplement these payments to upgrade electrical infrastructure in areas of national interest for new electricity supplies.
- Power sources could also still choose to do the studies first and remain in the regular interconnection queue.

Costa Samaras, director of Carnegie Mellon University's Scott Institute for Energy Innovation, is available to discuss the pros and cons of this approach.



CENTER for BIOLOGICAL DIVERSITY Because life is good.

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Re: Senate EPW Hearing on "Improving the Federal Environmental Review and Permitting Processes"

Dear Chairman Capito and Ranking Member Whitehouse,

The biggest barrier to solving the climate crisis is not our environmental laws. It is not frontline communities struggling to breathe and suffering the highest cancer rates in the nation. It is not countless environmental non-profits pushing for greater environmental progress. The greatest barrier to solving the climate crisis is the United States Senate. The greatest barrier to implementing a permitting system that accelerates the transition to clean, renewable energy and a livable climate is the United States Senate.

At a moment when only 27% of the American people approve of the Democratic party, perhaps now would be a good moment for self-reflection by the Democratic members of the Senate as to the wisdom of cutting a "bipartisan" deal with a party that has fully embraced an authoritarian despot who is hellbent on destroying our democracy and the rule of law. One must wonder if any member of the Senate has fully grappled with what would come the day *after* any legislation on any topic that is signed by President Trump.

How does the United States address the climate crisis if 65% of the staff within the Environmental Protection Agency are let go? How does the United States address the climate crises when Administrator Zeldin has just embarked on a deregulatory effort that will likely result in the premature deaths of tens of thousands of Americans due to increased air and water pollution? How does the United States address the climate crisis if every federal agency that works on renewable energy is disbanded and every grant designed to reduce pollution is cancelled?

What happens to any legislative mandate from Congress if the President decides at any point in the next 1400 days of his administration to simply ignore the rulings of our federal courts?

Simply put, now is time to fight the fossil fuel industry and President Trump. Now is not the time to act as if everything is normal, when in fact we have reached the "break-glass" moment for our nation's future. Now is not the time to parrot mindless Republican attacks on the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), or the integrity of our federal courts and the rule of judicial review, and now is not the time to gut the ability of our most vulnerable citizens to have their voices heard.

Tragically, however, there are members of the Democratic caucus that are comfortable with sacrificing our communities, giving away even more legislative wins to the fossil fuel industry, all to pass a meager legislative win that what would be, at best, a modest and likely meaningless improvement in interstate transmission of electricity. Electricity which will in all likelihood be generated by fossil fuels given the Trump administration massive efforts to ensure occurs across all federal agencies. That would be folly.

It is bizarre that so many Democratic Senators have apparently learned no lessons from Trump completely terminating all wind energy leases that require federal approval. It is bizarre that Democratic Senators have done virtually nothing after the Trump administration unlawfully eliminated *all* regulations for the National Environmental Policy Act. It is bizarre that Democratic Senators have done nothing after Trump eliminated all Executive Orders and all policies designed to address environmental justice. It is bizarre that Democratic Senators have done nothing after Administrator Zeldin ordered the weakening of every important climate, air and water pollution regulation designed to stop toxic pollution from the fossil fuel industry.

Why have Democratic Senators been so quick to capitulate to the Republican Majority on nearly every action that has occurred thus far in the Senate, only choosing rare moments to resist, and then, only for brief periods of time? Rather than agreeing to have conversations on permitting reform, Democratic Senators should be fighting *everything* the Republican Majority seeks to accomplish, as *everything* Republicans seek to accomplish only serves one function—to strengthen Trump. When the shoe was on the other foot, Republicans did not cooperate with Democrats— they used every trick in the book to undermine every effort by Democrats to advance their legislative agenda. If Democrats in the Senate believe they cannot go lower than 27% approval, cooperating with Republicans here on "permitting reform" might be cause to reconsider.

We urge the Senate to recognize that a transition to renewable energy that fully aligns with the scientific consensus on how best to address the climate crisis is meaningless if the Senate fails to protect our democracy and the rule of law. Any traditional "bipartisan" compromise is simply irrational in the face of the assault by the many malevolent actors throughout the Trump Administration. Sacrificing community input, public health, wildlife and cultural and historic resources on public lands just to modestly improve interstate transmission that overwhelmingly benefits utilities and maintains their profits is unacceptable.

Below are our substantive comments regarding this tragic reality and "permitting reform."

1. ***Defend Against the Unconstitutional Trump-DOGE Agenda***

Most importantly, President Trump and Elon Musk are continuing to violate the Constitution and the foundational principles of separation of powers in their reckless effort to dismantle federal agencies and destroy the rule of law. President Trump's executive orders eliminate any obstacles and expand any authorities that will make it easier to construct fossil fuel pipelines, dump toxic waste, contaminate the air, clearcut national forests, disappear imperiled species, discount frontline and Tribal communities, and thwart renewable energy progress.

The Trump-DOGE juggernaut has attacked the federal workforce with gag orders, surveillance, and mass-firings. Civil servants who are essential for using the best available science in permitting decisions have been deemed worthless and are being illegally fired en masse. It is nonsensical to assume that any changes to the nation's laws governing energy regulation or approval requirements for projects will yield any benefits in the face of DOGE, nor should the Senate enable further attempts by the President and his administration to usurp legislative powers by weakening the vital environmental safeguards that are the only firewall protecting the people of this nation from autocratic rule.

2. ***Cease Scapegoating Environmental Laws***

A permitting system without transparency and environmental oversight will disproportionately serve the short-term interests of profit-seeking corporations instead of the long-term interests of the American public that our various environmental laws require and agency missions safeguard.

Despite the persistent but still entirely unsubstantiated Republican talking points that National Environmental Policy Act (NEPA) reviews are the primary cause of permitting delay, far too many Democratic Senators continue to accept this fallacy as fact. The Congressional Research Service has repeatedly, indeed *ad nauseum*, concluded that NEPA is not a primary or major cause of delay in project development and that complications with funding and project design changes are at fault.

Independent scientific research has repeatedly confirmed that to the extent that there are delays within the NEPA process, they are not attributable to the law or regulations themselves but rather to lack of staff and funding. It is abhorrent that the Senate has completely abdicated its Constitutional oversight role in the face of illegal mass layoffs of staff throughout the federal agencies, as all permitting approvals require human beings to do such work. The single simplest and most effective action the Senate could take to speed permitting approvals would be to simply fund the staff and agencies that perform permitting reviews.

Likewise, most environmental reviews are completed with an environmental assessment or categorial exclusions, leaving roughly 1% to occur under an environmental impact statement.

Improving the efficiency of environmental reviews plainly requires improving the capacity of agencies.[1] As such, investments from the Inflation Reduction Act empowered the Biden Administration to expedite environmental reviews and reduce the median completion time by 6 months.[2] Instead of weakening environmental protections that ensure responsible permitting, we would encourage the Senate to consider advancing legislation to help agencies better recruit and retain the staff needed to meet growing demands for environmental reviews.

Moreover, the choice between efficient permitting and environmental protections has always been a false one. More than 95% of renewable projects avoided federal process or underwent streamlined procedures. The primary beneficiary of weakened environmental reviews has been, and always be, the fossil fuel industry. Indeed, the proliferation of fossil fuels would likely exceed any gains to green infrastructure under any "bipartisan" solution to "permitting reform" that provides the fossil fuel industry with a pathway towards quicker permitting approvals.[3]

Nor should the Senate continue to naively assume that self-serving, third-party modeling of the purported emission benefits of transmission reform be relied upon in its deliberations. These models are usually completed by parties with a vested interest in the outcome and are usually deeply flawed, typically discounting emissions that are realized beyond domestic borders (i.e., fossil fuel exports) or assuming that fossil fuel use will inevitably drop despite exponential growth in energy demand. While improved regulatory approaches to approving new transmission are required to secure a clean energy future and decarbonized economy, proposals for transmission expansion without a corresponding deliberate reduction in fossil fuels only serves the already established and entrenched fossil fuel industry.

3. Stop Sacrificing Public Lands and Endangered Species to Energy Development

Public lands have a unique and vital role in protecting this nation's natural heritage for present and future generations. Low-conflict siting—for conventional and renewable energy alike—is important for enabling the sustainable management of public lands. Federally managed public lands are neither the primary obstacle nor the best solution for energy innovation. The Senate should continue to consider and respect the non-energy uses of public lands and use permitting reforms to incentivize new energy developments and energy efficiency enhancements that are already within the built environment and close to the points of consumption for communities.

The Senate should also not weaken the Endangered Species Act in permitting reform. It is beyond pathetic that Democratic Senators continue to deceive their own constituents about any

---

[1] Ruple et. al., Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation, Columbia Journal of Environmental Law, 2022, https://journals.library.columbia.edu/index.php/cjel/article/view/9479

[2] Fact Sheet: Biden-Harris Administration Takes Action to Deliver More Projects More Quickly, Accelerates Federal Permitting, 2024, https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2024/08/29/fact-sheet-biden-harris-administration-takes-action-to-deliver-more-projects-more-quickly-accelerates-federal-permitting/

[3] Adelman, Permitting reform's false choice, 2024, https://www.utilitydive.com/news/permitting-reform-nepa-congress-renewable-energy-fossil-fuel-false-choice-adelman/727624/

purported "obstacles" to permitting caused by the Endangered Species Act. These fact-free talking points have been independently discredited by actual facts and data innumerable times.

It is certainly true that the coal baron, former Senator Manchin had a deep antipathy for the Endangered Species Act because the Fourth Circuit Court of Appeals rejected the Mountain Valley Pipeline twice. But the reason *independent Article III judges* of the Fourth Circuit rejected the approvals of the Mountain Valley Pipeline was because the federal agencies clearly violated the Endangered Species Act and other environmental laws.

Every single part of Section 101 in Manchin's permitting legislation in the previous Congress was included purely due to his hatred of endangered species and his hatred of independent federal judges weighing the law as our Constitution requires. *None* of his proposed legislation represented sound policy that was deliberated upon or evaluated in the context of any public process. Democratic Senators should take some time to reflect on the wisdom of attacking the federal judiciary when it is under siege by DOGE, Trump and Musk, with calls to impeach judges who simply did their jobs and have put some measure of checks and balance on the authoritarian, unconstitutional actions of the Trump. Senate Democrats should walk away from Manchin's vile approach to legislation and instead approach "permitting reform" from the perspective of protecting our laws and our courts from further attacks.

4. Preserve the Integrity of the Federal Judiciary

In the face of President Trump and Elon Musk's relentless assault on the rule of law, the court system stands as the final defense of American democracy. From Republican calls to impeach judges who rule against Trump's interests, to targeting private law firms that represent individuals President Trump personally dislikes, to purging hundreds of lawyers from the Justice Department and Pentagon, the Trump Administration's efforts to weaken the judiciary are intensifying. Senate Democrats must make it their ***HIGHEST PRIORITY*** to safeguard the integrity and power of the court system in the fight against this administration's authoritarian agenda, ensuring the power of the federal courts are not weakened in the name of "bipartisan" compromise that will inevitably give even more power to President Trump and his authoritarian goals.

Historically, congressional efforts to fast-track energy project permits have wrongly focused on limiting judicial review. The threat of litigation has often been blamed for the slow transition to clean energy, but data clearly show that the judicial process is not the real obstacle. Between 2010 and 2021, only 36 cases involved wind and solar projects, and just 14 concerned transmission lines.[4] In contrast, far more cases have been filed over the approval of oil, gas, and coal projects, driven by their devastating environmental and community impacts including obvious harms like oil spills, toxic chemical releases, the destruction of public lands and worsening the climate crisis.

[4] Adelman, Permitting Reform's False Choice, 2023, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4540734

Legislative proposals to shorten the statutes of limitations for challenging project permits and prioritize fossil fuel and mining projects in court would only harm communities while enriching the CEOs of extractive industries. Courts already have the authority to expedite cases as needed, and frontline communities, which often lack resources, must be given adequate time to challenge harmful projects.

Limiting judicial review during the Trump administration is simply another way of surrendering power to the Executive Branch, the Federalist Society and the authors of Project 2025. Any Democratic Senator that votes for a weakened judiciary does not deserve to remain in Congress another day. Why would any Democrat pave the way for unchecked executive power, undermine democratic norms, and weaken the protection of individual rights, ultimately jeopardizing the democratic principles the nation was built upon? Eroding every American's constitutional right to access the courts and receive appropriate redress should never be on the table.

4. ***Elevate Renewable Energy Through a Prism of Environmental Justice***

The current, narrow focus on expanding transmission to decarbonize the grid is fundamentally flawed. Relying solely on expanded transmission in the hopes that market forces will naturally propel renewable energy is unrealistic. The fossil fuel industry continues to receive massively disproportionate subsidies, making it nearly impossible for renewable energy to compete on a level playing field. The Senate must take deliberate action to legislate a phased transition away from fossil fuels, establish a market structure that reduces dependence on fossil energy, and actively support the growth of renewable energy.

A more effective path forward is one that empowers federal agencies and communities rather than undermining our foundational environmental laws and restricting Americans' access to equal justice. To do this, the Senate must expand and invest in community engagement to create even greater support for renewable energy.

A recent University of Sussex study found that rooftop infrastructure alone could provide 65% of global electricity.[5] The Senate should enact a comprehensive federal mandate that accelerates the deployment of distributed energy resources—including rooftop solar, battery storage, and microgrids—which are more reliable, resilient, and affordable than large-scale utility energy. To ensure that our energy transition is both sustainable and responsible, the Senate should prioritize utilizing already developed or degraded spaces—such as rooftops, brownfields, or abandoned industrial sites—for renewable technologies like solar panels.

The Senate must also prioritize energy efficiency technology and direct the Environmental Protection Agency to regulate unsustainable energy uses—like the mining of crypto currencies—to reduce demand for electricity. Energy efficiency technologies alone—including heat pumps,

[5] Zhang et. al., Worldwide rooftop photovoltaic electricity generation may mitigate global warming, 2025, https://www.nature.com/articles/s41558-025-02276-3

better weatherization, and demand response tools—have the potential to reduce annual electricity use by over 25% by 2030.[6] This approach allows us to meet our energy goals without sacrificing the environment, ensuring that the growth of clean energy does not come at the cost of preserving the natural world for future generations.

Finally, the Senate must reject false solutions—like carbon capture and storage and "clean" hydrogen—to ensure that the buildout of a renewable energy future does not itself cause serious environmental harm through a massive increase in mining and other extractive activities. The Senate should amend the Resource Conservation and Recovery Act of 1976 to give the Environmental Protection Agency the mandate to ensure 100% recycling of all minerals, plastics, and other materials needed for the wide-scale deployment of renewable energy without furthering environmental harms. To ensure a race-to-the-top in manufacturing around the world, and prevent environmental impacts from being borne by the Global South, the Senate should also reform the Export-Import Bank and other federal agencies engaged internationally to help transition their economies to recycling rather than extraction, and use both trade sanctions and trade incentives to prevent private corporations from simply exploiting weaker or non-existent environmental protections in other nations as the sources of their raw materials.

What is perhaps the most tragic is that not a single Democratic Senator is even raising any of the above actual solutions to the climate crisis beyond "transmission reform." The notion that any one legislative action will be a panacea to the most complex environmental challenge the world has ever seen is simply a disservice to the public and to future generations. Democratic Senators must stop acting as though this Congress represents a normal business-as-usual situation that we find ourselves in. Instead, they must approach the climate crisis and the democracy crisis we face as a nation as the actual existential crises we face.

5. ***Strengthen the Federal Energy Regulatory Commission, Department of Energy, and Other Agency Mandates to Advance a Just and Sustainable Energy Future***

Federal agencies are currently ill-equipped to manage the green energy transition and address the impacts of the ever-worsening climate crisis, particularly given the threat of Trump. A FERC that is politicized or aligned with anti-renewable interests risks undermining key regulatory functions that are necessary to facilitate renewable energy development and grid modernization. Similarly, the potential disbanding or defunding of programs such as the Department of Energy's Office of Energy Efficiency and Renewable Energy would severely hinder innovation and delay the widespread adoption of renewable energy solutions. In both cases, political interference would not only slow the clean energy transition but also deepen the reliance on fossil fuels, undermining efforts to reduce greenhouse gas emissions and combat climate change.

The Senate should consider: (1) amending existing laws to reform FERC and DOE so that their primary and overarching mission is to enable a renewable energy future and phase out the use of

[6] Langevin et. al., US building energy efficiency and flexibility as an electric grid resource, Joule 5, 2102–2128, August 18, 2021, https://www.sciencedirect.com/science/article/pii/S2542435121002907#bib24

fossil fuels for energy generation; and/or (2) creating a new, master energy planning agency with unified authorities to oversee all aspects of the energy transition and transmission planning; coordinate federal, state, and local permitting; and stop utility obstruction of renewable energy buildout to maintain the fossil fuel status quo.

First, creating an entirely new coordinating energy agency with master energy planning authorities is vital to realizing a just and renewable energy system in an efficient manner. This new body must be governed by a board made up of environmental justice leaders, energy planners, and other experts who can lay out a blueprint that advances this just energy future and not be captured by corporate interests. should mandate that this body prioritize the deployment of distributed and energy-efficient technologies at scale, build transmission and large-scale projects to meet remaining energy demand, coordinate currently confusing permitting processes, and bolster agency capacity for meaningful community engagement early on. The Senate should also address barriers of interconnection to the power grid by breaking up all monopolistic utilities that consistently delay interconnecting competing generation sources.

Second, regarding utility-scale renewable energy on already-built surfaces, the Senate should give FERC clear authority to preempt state and local "Rights of First Refusal" laws to level the playing field between utilities who own the transmission and grid system and third-party clean energy generators who want to enter the system. In many states, such laws allow utilities to build local energy projects—often fossil fuels—without facing competition, increasing their profitability while slowing the renewable energy transition.

Finally, the Senate should override the ideological intransigence of Texas and fully integrate Texas' grid—known as ERCOT—into one single, integrated national grid that is not artificially segregated based on the demands of one state. In 2020, the Department of Energy concluded that if Texas were connected to the Western Interconnection grid and the Eastern Interconnection grid, then significant new renewable energy capacity could be added across the nation. The Senate must amend the Federal Power Act and require FERC to prioritize the integration of the three existing grid systems to create a single, unified grid that can efficiently move renewable energy.

VII. Conclusion

The Senate has failed for decades to address the climate crises and Senate Democrats must cease deceiving the American people that the utterly modest and inconsequential "reforms" that they have debated have done anything but advanced the interests of the fossil fuel industry. Our nation's federal environmental laws, our federal courts, our dedicated civil servants, non-profits and other courageous individuals standing up to the Trump administration are the *only* thing right now protecting us from the despotic actions of the Trump administration.

Senate Democrats have so far failed us, leaving us alone in this fight. There is little time left for a course correction. Stopping the ridiculous charade of "permitting reform" would be a small, but important, step to take in joining the fight against Trump.

Sincerely,



Brett Hartl
Government Affairs Director
Center *for* Biological Diversity

cBRAIN
The Process Company

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on EPW
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on EPW
United States Senate
456 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Capito and Ranking Member Whitehouse:

Subsequent to the Committee's February 19 hearing I am pleased to share the attached submission on opportunities to improve efficiencies in federal environmental review and permitting processes. cBrain A/S is a commercial off-the-shelf software provider singularly focused on helping government organizations fast-track digitalization at scale. Our standard software (F2) currently delivers citizen services in 21 out of 24 ministries in Denmark (the most digitized nation in the world), and in over 100 government organizations globally. cBrain's F2 platform was featured as a digital case management solution for permitting in the CEQ's 2024 e-NEPA report to Congress.

cBrain worked closely with the Danish Environmental Protection Agency to design, digitize and implement an environmental review process that accelerates decision-making without cutting corners. From an intuitive, public-facing application portal, to back-office case processing and formal communication and decision support functions, the standardized, fully digital permitting process has resulted in a measured 17% increase in productivity. The ongoing integration of AI into the F2 platform is driving further gains, allowing applicants to quickly identify issues and mitigation measures, and government officials to more narrowly focus on critical concerns.

As the United States contemplates permitting reform, we recommend incorporating lessons learned by our partners. While the Danish context may differ in scale, the application of highly-configurable, AI-enhanced, commercial, off-the-shelf technology to standardized processes could create quick wins in efforts to improve U.S. federal environmental permitting.

Please don't hesitate to reach out if you have any questions.

Sincerely,

Stuart Dwyer
Head of the Washington D.C. Office
cBrain

Attachment

Digital Processes for Accelerating Government Environmental Permitting

As Congress contemplates improvements to the federal environmental review and permitting process, cBrain is pleased to share learnings from its collaboration with Denmark's Environmental Protection Agency (DEPA) on accelerating environmental permitting. Our experience confirms that standardization and digitization of processes using highly-configurable, commercial off-the-shelf (COTS) technology can deliver substantial efficiency gains in a short period of time. While we recognize the Danish and U.S. governments operate at different scales, our global experience confirms that lessons learned can effectively be applied in the U.S. context. Before sharing that experience, we offer several observations:

- **Encouraging appropriate technology solutions** - Even absent wholesale reform to NEPA or related statutes, there are clear opportunities to adopt technologies that will accelerate permitting processes. From upgrades to the functionality of the Federal Infrastructure Permitting Dashboard, to solutions for accelerating permitting processes for NEPA categorical exclusions, COTS designed-for-government technology, empowered by AI, can deliver near-term wins. The CEQ's 2024 e-NEPA report to Congress underscored the importance of deploying digital portals, leveraging data through back-end workflows, and implementing case management tools to address permitting delays. Where proven, integrated solutions that accomplish these tasks exist, we should take advantage of them.

- **Integration of policymaking and policy execution** – The e-NEPA report emphasizes the importance of user-centered design and agile decision-making in permitting technology solutions. cBrain's experience with DEPA to streamline and automate permitting confirms this. Working with an integrated team of DEPA policy and IT officials, cBrain engaged in a value-stream mapping exercise that identified over 100 permitting processes. That whole-of-ministry exercise enabled the rapid configuration of the F2 standardized platform to meet DEPA requirements, and ensured buy-in from stakeholders. Effective permitting solutions must break down silos between technology and policy arms of government institutions.

- **Dedicated funding for technology** – cBrain's experience with DEPA shows that choosing COTS technology solutions can result in rapid implementation and near-term productivity gains in permitting. In the face of resource constraints, Congress would do well to ensure that permitting-related technology resources are directed to *technology*, and not to ancillary services and personnel that could be better-used on other missions. cBrain's no-code "Service Builder" solution has enabled the Danish EPA (and others) to fully configure and implement digital permitting processes in-house, without expensive project management or consulting services. Beyond the cost savings, at a time when tech talent acquisition and retention is a challenge, such solutions need to be part of the toolkit.

cBrain's Experience with the Danish EPA in Accelerating Permitting

The Danish EPA (DEPA) is responsible for environmental protection and regulation in Denmark. Recognizing that a balance between regulatory thoroughness and efficiency is essential for building infrastructure in a timely way, DEPA initiated an ambitious digital transformation project to accelerate government permitting. This digital transformation project has led to the development of a new digital platform that controls and optimizes the permitting process using AI models to meet compliance requirements and regulations.

As it embarked on the permitting digitization project, DEPA leadership encountered a perception among government stakeholders that the complexity of environmental permitting processes would not lend themselves to automation and standardization. Given the intricacies of environmental permitting, work routines and case processing historically had been planned individually, on a case-by-case basis, for each permitting application.

DEPA began by undertaking an extensive standardization effort related to a wide range of processes, including grants management, inspections, approvals and certifications. That effort – dubbed the "digital bureaucracy method" -- established a best practices framework for improving permitting processes. The resultant process description defined every step of the permitting path, from application, to case processing and filing (including external communications, interagency coordination, public consultations, decision support, etc), to final disposition.

DEPA leadership then used that value stream map to rapidly digitize permitting. Using cBrain's F2 digital platform, which is purpose-built to digitize government processes, a solution for the entire process, from application through to disposition, was configured and went live within a few months.

The next step was to integrate AI into further optimization and automation of the permitting process. Given the architecture of cBrain's F2, this was a straight-forward progression, both administratively and technically. The F2 digital platform is based on a four-layer stack, with data stored in a shared repository. That repository serves as an ideal foundation for data training, eliminating the need for extensive data collection and verification.

When DEPA receives a new environmental permit application, the first step is to draft a "scoping report," which highlights areas that will require evaluation during the permitting process. This is a critical and complex step -- involving multiple agencies, competencies and staff -- that defines the parameters of required permitting. As such it is a time-intensive process, with case workers searching for precedent in previous applications to guide decision-making. Integrating an AI component, trained on previously-filed reports, can improve the thoroughness of reviews, and eliminate weeks or even months of turnaround time.

Maintaining confidentiality and privacy is a major challenge with respect to the use of AI in government permitting. Applications often contain business-sensitive or personal information that

must be protected. The current DEPA initiative uses an on-premise Llama3 model, which allows for training on all DEPA cases without the risk of data being shared externally. The growing library of data is thus integrated into the F2-based digital permitting solution and helps to guide caseworkers through scoping reports and decision-making. Similarly, the appropriate sharing of functionality and information through the client-facing self-service application can help applicants anticipate issues and litigation risks, identify potential mitigation measures, and improve the quality of applications.

CARBON CAPTURE COALITION

Carbon Capture Coalition Statement for the Record

United States Senate Committee on Environment and Public Works

Committee Hearing: "Improving the Federal Environmental Review and Permitting Processes," February 19, 2025

Introduction

The Carbon Capture Coalition (the Coalition) appreciates the opportunity to submit this statement for the record to the US Senate Environment and Public Works Committee for the February 19, 2025, hearing on improving the federal environmental review and permitting processes.

Carbon management technologies, including capturing carbon dioxide (CO_2) from industrial facilities, power plants, and the ambient air, are an enabling technology platform for the production of cleaner energy and materials. Taken together, they are essential tools in a broader federal strategy to bolster American leadership in technology innovation and expand clean energy production while providing air quality, jobs, and local economic benefits to communities and regional economies.

The nationwide adoption of carbon management technologies requires proper implementation of enacted laws and an efficient and timely permitting system. This includes permitting CO_2 storage wells via the Environmental Protection Agency's (EPA) Underground Injection Control (UIC) Class VI Well Program, and providing appropriate permitting frameworks for CO_2 pipelines. Additionally, continued implementation of the necessary supportive policy framework for carbon management technologies includes:

- Providing regulations for the most recent enhancements to the federal Section 45Q tax credit;
- Continued implementation of funding for development and commercial deployment provided through the Infrastructure Investment and Jobs Act;
- Finalizing additional regulations for pipeline safety at PHMSA; and
- Promulgating and finalizing regulations for the storage of CO_2 in the outer continental shelf at BOEM and BSEE.

About Us

The Coalition is a nonpartisan collaboration of more than 100 companies, labor unions, and conservation and environmental policy organizations. Coalition members work together to lay the groundwork for the necessary portfolio of federal policies to enable nationwide, commercial-scale deployment of carbon management technologies. The full suite of carbon management technologies is crucial to driving down emissions across sectors, bolstering domestic energy and industrial production, and supporting workers with a broad range of skill sets. Carbon management includes carbon capture, removal, transport, reuse, and storage from industrial facilities, power plants, and ambient air.

Existing Domestic Framework of Carbon Management Policies

For more than a decade, the Coalition has worked with a broad group of bipartisan Members of Congress to realize a wide range of policy achievements, including:

- The bipartisan reform and expansion of the federal Section 45Q tax credit, the foundational financing mechanism for carbon management projects, in the 2018 FUTURE Act;
- Historic increases in funding to retool and expand federal research, development, and demonstration (RD&D) carbon management programs; and
- Groundbreaking legislation to prioritize the build-out of CO2 transport and storage infrastructure in the bipartisan Storing CO_2 and Lowering Emissions (SCALE) Act.

Most recently, the enhancement of the 45Q tax credit increased credit values across industry, power, and direct air capture and moved the commence-construction deadline for projects to the end of 2032. This robust framework has helped generate unprecedented interest in domestic carbon management deployment, with an ever-growing list of announced projects in the last several years. In 2023 alone, 120 carbon capture, removal, reuse, and storage projects throughout the US were announced. As of now, there are 276 announced projects and counting, with a combined total capture capacity of nearly 200 million metric tons per year. Despite this impressive progress, we are still not on track to meet global carbon management deployment goals, which require one billion tons of carbon capture capacity deployed by 2030, or more than four times the current capture capacity.

Current Challenges to Constructing Carbon Management Projects

While existing laws and regulations provide a strong foundation that has launched the industry toward commercial deployment, the sectors that make up the carbon management value chain face significant headwinds to maturing and deploying nationwide. Current challenges include an increasing gap between available financing and costs of capital, as well as delays and uncertainty in the permitting process for transport and storage infrastructure. Because of these obstacles, recently enacted supportive policies must mark the beginning, not the end, of necessary efforts to build the portfolio of available federal policies for carbon management technology deployment.

Challenges in Project Financing

Domestically, the 45Q tax credit remains the key federal policy mechanism to incentivize carbon management projects. Bipartisan-supported enhancements to the 45Q tax credit made in 2022, coupled with historic policy support included under the Infrastructure Investment and Jobs Act (IIJA), have resulted in almost $1.7 billion in federal and private investments being injected into diverse regions of the country over 10 states. Maintaining and building upon the credit's utility to American businesses is essential to ensuring these technologies achieve commercial liftoff. That said, further adjustments to the tax credit will be necessary to ensure investment certainty and business model flexibility and ensure these early investments translate into steel in the ground.

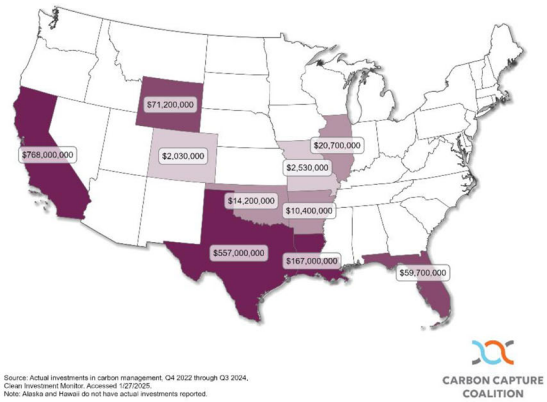


Figure 1: Federal and private domestic investments in carbon management.

Current economics for project deployment are challenging due to a combination of inflationary pressures on raw materials and components, labor, as well as higher interest rates for securing capital. The effect of rising costs is particularly acute for those sectors that have higher costs to deploy carbon management technologies, which includes coal and natural gas-fired power generation, diverse industrial sectors such as steel, cement, basic chemicals, and fertilizer, as well as direct air capture. Importantly, announced projects in these sectors make up more than half of the total domestic project announcements to date.

Challenges in Transport and Storage Project Permitting

Similar to the buildout of supportive infrastructure for increasing the supplies of reliable, affordable energy, carbon management project deployment has been hampered by permitting barriers that have hindered the efficient and responsible deployment of carbon management projects. Announced carbon capture, direct air capture (DAC), and supportive CO_2 transport and storage infrastructure projects cannot be deployed without effective and timely permitting processes. Recognizing the need to reform the nation's permitting framework, the Coalition developed and published a set of permitting principles in 2023 to ensure that any federal legislation modifying the federal permitting process aligns with carbon management project deployment timelines and incorporates robust community consultation. In addition to the broader permitting recommendations contained within the Coalition's developed principles, the Coalition has two high priorities in 2025 we would like to direct to the Committee's attention.

The Permitting Framework for the Safe, Geologic Storage of CO_2

The EPA's UIC program oversees federal permitting of secure geologic storage through its Class II and Class VI well programs. The EPA tailored the Class VI program rules to specifically address the permanent storage of CO_2 and ensure that wells are appropriately sited, constructed, tested, monitored, funded, and closed once injection activities are completed. Project developers looking to store CO_2 securely underground in appropriate geologic formations must receive permits to construct Class VI wells from EPA or relevant state, territory, or Tribal Nations that have been granted primary enforcement authority, referred to as primacy, by EPA. The EPA can grant primary enforcement authority (also known as primacy) to individual states, territories, or Tribal nations, which delegate authority to administer certain injection well classes under the UIC program in accordance with federal regulations. Importantly, states, territories, or Tribal Nations can be approved for this delegation of primacy only when their regulations meet or exceed the federal UIC requirements.

The queue of federal Class VI injection well permit applications under review at EPA is ever-growing. As of February 2025, that queue includes 56 projects with a total of 161 well applications across 14 states currently under review by the agency (these figures do not include those projects under review by states with primacy). While EPA has publicly stated its commitment to a 24-month application review process, around 16 percent of the projects under review are now past that mark.

This overall lack of progress affirms the need for timely and efficient review of Class VI well permit applications and state primacy applications, which remains a top priority for the Coalition. **As such, the Coalition recommends EPA commit to reviewing and providing final decisions on individual Class VI injection well applications within 18 months of those applications having been deemed "administratively complete."**

Permitting Interstate CO_2 Pipelines

Robust infrastructure to safely transport and securely store captured CO_2 in geologic formations is an essential component of any broader energy and environment strategy. Carbon management projects, like many of their clean energy counterparts, are complex – and ensuring all pieces of a project come together is necessary to scale the deployment of these technologies across the economy.

While the nation's current permitting regime has been in place for decades, as this industry continues to expand in the near-term, gaps in policy for permitting these projects, among others in the energy sector, have created delays and bottlenecks at critical junctures of project deployment. One example of this is with regard to the buildout of regional CO_2 transport infrastructure systems, which requires efficient and effective permitting grounded in robust environmental protections and community engagement.

It is estimated that domestic CO_2 transport and storage infrastructure will need to expand to anywhere between 25,000 and 65,000 miles to enable the economywide deployment of carbon capture technologies and reduce emissions. For comparison, nearly 385,000 miles of operational pipelines in the US currently carry petroleum, natural gas, oil, and other

products. Unlike natural gas pipelines, which have federal siting authority, the siting and permitting of CO_2 pipelines currently occurs on a state-by-state basis, subject to regulations put forth by states impacted by their construction. Ensuring the continued safety and reliability of CO_2 pipelines as this network expands is a top Coalition priority.

Carbon capture, removal, reuse, transport, and storage projects and associated infrastructure must be responsibly deployed at the pace and speed of growing investor and developer interest in these technologies. In its current state, the available framework is falling short, causing delays in the siting and construction of interstate CO_2 pipelines and the permitting of geologic storage wells. In some cases, these delays have led to wholesale cancellation of projects.

Establishing an optional pathway for federal siting authority for interstate CO_2 pipelines will enable efficient and responsible build-out of the necessary CO_2 pipeline network. Providing similar parity for all linear infrastructure types would enable more effective coordination, planning, and siting across federal agencies to lower impacts for wildlife, landowners, and local communities. **However, current and future CO_2 pipelines that are well served by the current state-by-state regulatory siting authority should be allowed to continue under the current state-by-state process.**

Conclusion

Carbon management technologies, including carbon capture, removal, reuse, transport, and storage, are crucial tools for balancing the increasing need for affordable, reliable energy that drives the American economy with the global imperative to reduce carbon emissions. Together, they are an enabling technology platform for the production of cleaner energy and materials and are important in the effort to continue growing our economy and providing Americans with family-sustaining jobs. Combined with responsible and timely permitting reforms, effectively implementing the existing portfolio of available policies, with additional changes to the available incentives, will provide certainty to investors in carbon management technologies and create a favorable environment for scaling projects.

The Carbon Capture Coalition appreciates the opportunity to comment on the important topics of today's hearing and the Committee's continued support for advancing federal policies to enable greater deployment of carbon capture, removal and reuse technologies and associated CO_2 transport and storage infrastructure. We look forward to working with the Committee in a bipartisan manner to identify the appropriate next steps to ensure these technologies can scale across the economy.

Should you have any questions about anything outlined in this statement, please contact Madelyn Morrison, Director of Government Affairs, Carbon Capture Coalition at mmorrison@carboncapturecoalition.org.

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

RE: Letter for the Record for the U.S. Senate Committee on Environment and Public Works' Hearing "Improving the Federal Environmental Review and Permitting Process" Held on February 19, 2025.

Dear Chairman Capito, Ranking Member Whitehouse, and Members of the U.S. Senate Committee on Environment & Public Works,

Climate Justice Alliance (CJA) appreciates the opportunity to submit comments and materials on the February 19, 2025 hearing "Improving the Federal Environmental Review and Permitting Process." CJA is a member based organization with 98 members representing frontline environmental justice and Tribal organizations across the U.S. and its territories, including Guam, Puerto Rico and Indigenous territories. Our translocal organizing strategy is to build a Just Transition towards resilient, regenerative, and equitable economies.

Our communities have felt the impact of decades of environmental injustice. We are the experts. We're asking the Senate to give full and meaningful consideration to the extensive public input provided regarding permitting reform. We are committed to advancing this work and securing a sustainable future. While tenacity is ingrained in our communities, effective leadership from our elected officials is essential. **We call on our elected Senators to take decisive action (*please see below)* in addressing the permitting system to facilitate the transition to clean, renewable energy and ensure a sustainable climate for our communities, rather than obstructing progress.**

As our democracy and movement come under political and legal assault, the Senate must go beyond merely avoiding obstruction. Our commitment to defending our communities should not be taken for granted, yet this work has never been more challenging, especially as Trump continues to gut critical funding for organizations like ours. **Now more than ever, the Senate must stand firm in protecting both our democracy and the institutions that uphold environmental and public health protections.**

Now is the time to fight—not to normalize a crisis. The fossil fuel industry and President Trump are waging an assault on our future, and we have reached a breaking point. This is not the moment to echo baseless industry and Republican attacks on the National Environmental Policy Act (NEPA), the Clean Air and Water Acts, or the integrity of our courts and judicial review. Nor is it the time to silence our most vulnerable communities. The stakes are too high.

We urge the Senate to acknowledge that a transition to renewable energy—one that truly aligns with scientific consensus and community voices on addressing the climate crisis—is meaningless if democracy and the rule of law are not protected. In the face of relentless attacks from the Trump Administration, traditional "bipartisan" compromises are not just inadequate—they are irrational. **Sacrificing Tribal sovereignty, community input, public health, wildlife, and cultural and historic resources on public lands for a marginal improvement in interstate transmission**—one that primarily serves utility profits—is unacceptable.

Despite submitting numerous recommendations, we remain steadfast in advocating for our most vulnerable communities, and it is imperative that you hear us. Below, we provide detailed comments on the ongoing attacks on our democracy and the so-called "permitting reform."

I. Defend Against Trump and Musk's Unconstitutional Assault on Federal Agencies

President Trump and Elon Musk are openly violating the Constitution and dismantling the separation of powers in a reckless attempt to weaken federal agencies and erode the rule of law. Through executive orders, Trump is eliminating safeguards and expanding unchecked authority to fast-track fossil fuel pipelines, permit toxic waste dumping, pollute the air, clearcut national forests, push endangered species toward extinction, disregard frontline and Tribal communities, and obstruct the transition to renewable energy.

The Trump-Musk agenda has also waged war on the federal workforce, imposing gag orders, surveillance, and mass firings of civil servants essential to ensuring science-based decision-making in permitting and environmental oversight. These experts—critical to upholding public protections—are being unlawfully dismissed en masse.

This blatant disregard for public interest in favor of industry is unacceptable. It is misguided to believe that any reforms to energy regulation or project approvals will genuinely benefit

communities under a lawless, industry-driven regime. The Senate must not enable further executive overreach that dismantles vital environmental safeguards—the last line of defense protecting our people from authoritarian rule.

II. Stop Attacking Bedrock Environmental Laws

Environmental laws and federal agencies are tasked with protecting the interests of our communities. By having a permitting system that lacks transparency and environmental oversight, it will result in developer-driven objectives over comprehensive environmental and public health assessments. Instead, we must actively safeguard the ability of federal agencies to conduct permitting processes, environmental reviews, and other essential functions, despite ongoing efforts to weaken or dismantle them.

We note that premised on the persistent, but demonstrably false, myth used by industry leaders that NEPA reviews are the primary cause of permitting delays. This theory has been comprehensively examined and thoroughly debunked by administrations of both parties through numerous studies, including ones conducted by the Congressional Research Service (CRS), the Government Accountability Office (GAO), the U.S. Department of Treasury, and other federal agencies as well as academia[1]. CRS has repeatedly concluded that NEPA is not a primary or major cause of delay in project development. Rather, CRS identified causes entirely outside the NEPA process, such as lack of project funding, changes in project design, and other factors. Subsequent studies have confirmed that to the extent that there are delays within the NEPA process, they are not attributable to the law or regulations themselves, but rather to lack of staff and funding – a problem that Congress addressed in 2022 by including historic investments for environmental review in the Inflation Reduction Act.

However, we are aware that in the face of illegal layoffs throughout federal agencies, some of them that work on permitting approvals, **we strongly call on the Senate to use their Constitutional Oversight Authority and help staff these agencies that perform permitting reviews.**

---

[1] *See*, Linda Luther, The National Environmental Policy Act: Streamlining NEPA, Congressional Research Service, RL33152, 26 (2011) (citing study indicating "factors 'outside the NEPA process'" the NEPA process were identified as the cause of delay the majority of time); Bureau of Land Management Operations report available at https://www.blm.gov/sites/blm.gov/files/docs/2021-03/Table12_TimetoCompleteAPD_2020.pdf indicating that the agency spends more time waiting for information from operators than it spends reviewing oil well drilling permit applications; U.S. Government Accounting Office, GAO-09-611, Federal Land Management: BLM and the Forest Service Have Improved Oversight of the Land Exchange Process, But Additional Actions are Needed 15 (2009), indicating lack of qualified staff and shifts in agency priorities caused delay in the BLM review process; Toni Horst, et al., 40 Proposed U.S. Transportation and Water Infrastructure Projects of Major Economic Significance. AECOM, (2016) (finding that "a lack of funds is by far the most common challenge to completing" major infrastructure projects).

III. Don't Sacrifice Public Lands and Sacred Sites in the Name of Energy Development

Public lands and Tribal lands are vital to preserving our natural heritage, protecting biodiversity, and upholding cultural and historical legacies that have existed for generations. These lands serve as essential habitats for wildlife, safeguard watersheds, and provide climate resilience through carbon sequestration. For Tribal Nations, these lands hold deep spiritual, cultural, and ancestral significance, forming the foundation of their traditions and sovereignty. Sacrificing these irreplaceable landscapes for transmission lines or weakening protections through 'permitting reform' is a short-sided decision that prioritizes corporate interests over environmental and cultural stewardship.

As we transition to renewable energy, we cannot replicate the harmful practices of the fossil fuel industry – practices that have historically and systemically sacrificed human health, displaced communities, and degraded our lands for profit. Renewable energy infrastructure must be built with transparency, accountability, and respect for environmental justice. It must not come at the cost of the same marginalized communities that have long borne the brunt of extractive industries. **A just transition demands that clean energy development is done responsibly, centering Indigenous rights, public health, and ecological integrity rather than repeating past injustices under a new guise.**

IV. Uphold the Principles of Our Federal Courts

Preserving the integrity of the federal courts is essential to upholding the rule of law, especially as Trump continues to attack and undermines judicial independence. His administration has worked to erode legal protections, weaken environmental standards, and stack the courts with ideologues who prioritize corporate interests over public welfare. A functioning and impartial judiciary is critical to ensuring that communities have a voice in decisions that impact their health, environment, and future. The threat of litigation is often scapegoated as the reason for a slow transition to clean energy, but the facts tell a different story. Between 2010 and 2021, only a handful of lawsuits – 36 cases involving wind and solar projects and just 14 concerning transmission lines[2] – were filed, demonstrating that judicial review is not the real barrier. In reality, the slow transition stems from entrenched fossil fuel interests, bureaucratic inefficiencies, and policy failures that once again, continue to sideline communities over extractive industries. **Weakening the courts in the name of permitting reform does nothing to accelerate clean energy – it only removes a critical check on environmental destruction and corporate overreach.**

[2] *See,* The Hamilton Project. Eight Facts About Permitting and the Clean Energy Transition. Brookings Institution, 2023, https://www.hamiltonproject.org/publication/economic-fact/eight-facts-permitting-clean-energy-transition.

V. Strengthen Federal Energy Regulatory Commission and Key Agencies

A strong and independent Federal Energy Regulatory Commission (FERC), along with other key agencies, is essential to advancing a just and sustainable energy future. However, when these institutions are politicized by anti-renewable interests, their core regulatory functions – such as overseeing energy development, ensuring fair market practices, and modernizing the power grid – are undermined. Instead of serving the public interest, a weakened FERC risks enabling fossil fuel expansion, delaying renewable energy projects, and failing to implement necessary reforms for a resilient, equitable energy transition. **To strengthen FERC and similar agencies, the Senate must ensure they are insulated from political interference by appointing commissioners committed to science-based decision making and public accountability.**

Additionally, increasing funding and staffing for the environmental and community review process will help prevent corporate influence from sidelining frontline voices. FERC must also reform its permitting framework to prioritize renewable energy and transmission upgrades while integrating environmental justice considerations. Finally, greater transparency and public participation in agency decision making are critical to ensuring that regulatory bodies serve the needs of the people - not just industry lobbyists. By reinforcing these agencies with the resources, leadership, and oversight they needed, our country is equipped to build an energy system that is cleaner, more just, and more resilient for future generations.

VI. Proven Community-led Solutions toAdvance Renewable Energy

Environmental Justice communities are not passive participants in the conversations for a permitting reform. We understand that permitting for a Just Transition to a renewable energy economy should not come at the expense of already burdened communities. We also know that permitting reform should not open the floodgates to unchecked fossil fuel projects and polluting techno-fixes. And while energy demands in the U.S. are projected to grow, especially with the increasing demands from tech companies for data and artificial intelligence centers, we must resist corporate takeover and instead focus our efforts on localized and resilient energy systems.

In previous years, Environmental Justice communities have coalesced to push for reforms that continue to support NEPA, while proposing alternatives that maintain a level of engagement necessary for frontline community participation. Studies have shown that early engagement will

actually "avoid extended delays or project cancellations"[3] and can reduce backlog[4], while also increasing thoroughness.

Environmental Justice Advocates support the principles for community engagement outlined in the *A. Donald McEachin Environmental Justice for All Act*[5] and the *RESPECT Act*[6] introduced by late Representative Raúl M. Grijalva. Both pieces of legislation were informed by the same communities it was meant for by a thorough public input process. These are the gold standard pieces of legislation proving that communities can be part of the policymaking process while creating solutions that work for everyone. These bills lay out the framework for permitting processes to include Tribal Consultation and analyses of cumulative impacts in environmental justice communities. These would ensure that frontline communities have a seat at the table when infrastructure and energy projects are sited in their localities.

Our communities have provided recommendations for positive and progressive permitting reform.[7] This document, titled "Policy Brief for Positive Vision" serves as reference for what powers and acts congress can enact in order to execute a more democratic permitting process that does not sacrifice community engagement, but rather as the basis to execute projects for a more clean and just energy system. **The U.S. The Senate must use all the instruments available, including oversight hearings, community comments, letters, and their convening powers for public hearings, to compel the Trump Administration to uphold democratic principles, divorce from corporate interests, and reinstate a rule of law that is transparent, equitable, and fair to our communities and our ecosystems.**

To finalize, it is important to note that we have reached a breaking point, and time to course correct has run out. Grassroots organizers, frontline communities, and local leaders have been repeatedly sacrificed in political negotiations. The Senate must end the blame game and stop using our communities as bargaining chips in the fight over permitting reform. If we are serious about preventing the climate crisis from claiming more lives, Senate Democrats must stand with

---

[3] Susskind, L., Chun, J., Gant, A., Hodgkins, C., Cohen, J., & Lohmar, S. (2022). Sources of opposition to renewable energy projects in the United States. *Energy Policy, 165*, 112922. https://doi.org/10.1016/j.enpol.2022.112922

[4] Lawrence Berkeley National Laboratory. (2023). Grid connection requests grow 40% in 2022. Retrieved from https://eta.lbl.gov/news/grid-connection-requests-grow-40-2022

[5] *See, Grijalva, Raúl M. "A. Donald McEachin Environmental Justice for All Act." 118th Congress, introduced 22 March 2023, Congress.gov, https://www.congress.gov/bill/118th-congress/house-bill/1705. Accessed 20 Mar. 2025.*

[6] *See, Grijalva, Raúl M. "Chair Grijalva Introduces RESPECT Act to Establish and Require Government-to-Government Consultation With Tribal Nations." Raúl M. Grijalva, 29 Apr. 2021, https://grijalva.house.gov/chair-grijalva-introduces-respect-act-establish-and-require-government-government/. Accessed 20 Mar. 2025.*

[7] Center for Biological Diversity. (2023). Policy brief for a positive vision for renewable energy development. https://www.biologicaldiversity.org/programs/energy-justice/pdfs/Policy-Brief-for-Positive-Vision.pdf

us—not with industry leaders or Trump. Our commitment is unwavering, and we are ready to help you take on this fight.

With great concern,

Climate Justice Alliance

March 21, 2025

Chairman Shelly Moore Capito
Senate Environment and Public Works Committee
410 Dirksen Senate Office Building
Washington, DC 20510

Ranking Member Sheldon Whitehouse
Senate Environment and Public Works Committee
410 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Moore Capito and Ranking Member Whitehouse:

On behalf of Climeworks Corporation (referred to hereafter as Climeworks), thank you for the opportunity to engage with the Environment and Public Works (EPW) Committee to improve federal environmental review and permitting processes.

Climeworks is a world-leading direct air capture (DAC) technology and project development company removing carbon dioxide (CO_2) directly from the atmosphere for permanent geologic storage. DAC and carbon capture, utilization, and sequestration (CCUS) technologies are critical to U.S. economic growth and energy independence. With a robust project pipeline in the United States, Climeworks' DAC projects will provide thousands of high-quality jobs and deliver additional and permanent CO_2 emissions removal.

Essential for deploying this suite of technologies are Class VI wells, which are permitted by the Environmental Protection Agency's (EPA) Underground Injection Control (UIC) program and enable the injection of captured CO2 into deep geologic formations for safe and permanent sequestration. However, the current backlog of over 160 Class VI well applications in the review phase is impeding DAC and CCUS deployment across the U.S., lengthening project timelines and raising costs for project developers.[1] In the past four years, the EPA has only issued two Class VI permits, a figure insufficient to meet the demand for CO2 sequestration and bolster U.S. carbon management leadership.

In addition to the backlog of individual Class VI permits, EPA has shown little progress in granting primary enforcement authority (primacy) to states seeking to permit Class VI wells. Only four states (Wyoming, North Dakota, Louisiana, and now West Virginia) have been granted primacy despite bipartisan efforts from Congress to provide the EPA and states applying for primacy with resources to complete the process. Primacy reduces the number of applications that EPA must review, allows federal regulators to focus on complex projects, and ultimately increases overall permitting efficiency for carbon sequestration projects. Further, state primacy also contributes to shorter permitting timelines and enables local stakeholders to participate more effectively in the permitting process.

Climeworks applauds Chairman Capito for her comments during the EPW hearing[2] on advancing carbon capture, utilization, and sequestration technologies, where she

[1] Underground Injection Control (UIC) Class VI Permit Tracker – Last Updated: 3/14/2025
[2] Senate EPW Committee. Hearing - Advancing Carbon Capture, Utilization and Sequestration Technologies and Ensuring Effective Implementation of the USE IT Act. February 12, 2025.

emphasized the importance of streamlining the federal permitting process to get projects built, stating, "We have a repeating theme here...the key to every one of these projects is a permitting process that you can move along...you can't permit a nuclear plant, a pipeline, a transmission line...at every point of the project, all hands point to permitting," which included a focus on accelerating "permitting Class VI and those pipelines [that] will cross-benefit all projects. This is going to be a bipartisan push." Climeworks also commends Senator Lummis' remarks during a separate EPW hearing[3] in which she highlighted the current slow approval process for Class VI wells and reinforced the success of state-led permitting projects.

Climeworks concurs with 18 members of the House of Representatives who recently sent a joint letter[4] to EPA Administration Lee Zeldin requesting Class VI primacy for Texas, specifically mentioning that "prioritizing the review of the [Texas Railroad Commission's] application will benefit the EPA by establishing a clear precedent for review timelines. This will help streamline the approval process for future applications from other states, facilitate the launch of new CCUS projects, and ensure the implementation of appropriate environmental protections."

Climeworks fully acknowledges and appreciates the voices in the House and Senate calling for streamlined permitting processes to build carbon sequestration infrastructure in America and we will continue to engage with members of Congress to generate additional support. But more action is needed from the EPA.

Clear, consistent permitting and primacy decisions from the EPA will provide much-needed certainty to project developers and unlock significant follow-on investment from the private sector. To ensure a more expeditious review process for Class VI well permits and primacy applications, EPA should be directed to issue a final decision on individual Class VI injection wells and primacy applications within 18 months of deeming applications "administratively complete." This timeline ensures that EPA maintains a rigorous permitting process while increasing overall efficiency and transparency.

Climeworks appreciates the committee's continued leadership in enabling a robust carbon storage network in the United States and welcomes additional opportunities to engage with the Committee on this issue and related matters.

Sincerely,

Andrew Fishbein
Lead Government Affairs North America
Climeworks Corporation

[3] Senate EPW Committee. Hearing - Improving the Federal Environmental Review and Permitting Processes. February 19, 2025.
[4] Crenshaw and Pfluger Lead Push for State Primacy of Carbon Capture Permits in Texas. February 28, 2025.

Carbon Management Alliance

Suggestions Submitted to the Senate Environment and Public Works Committee
for the Record of Its February 19 Hearing on
"Improving the Federal Environmental Review and Permitting Process."

The Carbon Management Alliance (CMA) is pleased to provide to the Senate Environment and Public Works Committee these suggestions for the Committee's consideration in crafting permitting reform legislation on issues falling within the jurisdiction of the Committee. CMA is an informal working group consisting of significant participants in the US carbon capture and sequestration sector.[1] CMA observes that prior to its February 19, 2025 hearing on "Improving the Federal Environmental Review and Permitting Process," the EPW Committee convened a very significant hearing on the particular issue of "Advancing Carbon Capture, Utilization, and Sequestration Technologies and Ensuring Effective Implementation of the USE IT Act" on February 12, 2025. Many of the relevant permitting issues of greatest significance to CCUS were discussed at the February 12 hearing. The discussion of CMA's suggestions below will reference relevant comments from that February 12 hearing.

---

[1] The Carbon Management Alliance is an informal working group dedicated to effective and efficient public policy for pursuing the nation's objectives in addressing the reduction of atmospheric carbon emissions. CMA's members include ExxonMobil Low Carbon Solutions, Kinder Morgan, Inc. and BKV Corp. Exxon Mobil Low Carbon Solutions is working to accelerate the world's path to net zero by focusing on the hardest-to-decarbonize sectors using reliable end-to-end solutions that can help lower emissions at scale. Kinder Morgan is one of the largest independent transporters of natural gas, refined petroleum products, crude oil, condensate, and renewable fuels in North America, operating about 79,000 miles of pipelines and 139 terminals. About 40% of the natural gas produced in the US is transported through the company's pipelines. The company is also one of the largest transporters of CO_2 in North America with industry leading expertise in CO_2 sequestration through Enhanced Oil Recovery operations. The CO_2 used in EOR projects helps unlock and recover domestic crude oil from mature oil fields and residual oil zones. Beyond using a significant portion of this CO_2 in its own EOR Permian Basin projects, Kinder Morgan sells CO_2 to third-party oil and gas producers. BKV Corporation (BKV) is one of the top 20 gas-weighted natural gas producers in the United States and the largest natural gas producer by gross operated volume in the Barnett Shale. BKV's Barnett Zero carbon capture and sequestration (CCS) facility is one of the nation's first purpose-drilled, Class II commercial carbon sequestration wells injecting CO2 from natural gas processing plants in the United States. The project aims to achieve an average sequestration rate of up to approximately 185,000 metric tons of CO2e per year from its own natural gas production and from third parties. BKV is committed to achieving net zero Scope 1 and 2 emissions from its owned and operated upstream and natural gas midstream operations by the early 2030s. BKV intends to use the Barnett Zero project as a modular prototype that can be repeated and quickly scaled for future Class II and Class VI wells, as applicable.

In general: While carbon capture and sequestration has been an area of general bipartisan agreement since 2008 as both an innovative and practical means of reducing carbon in the atmosphere, the lengthy, unpredictable and often-times prohibitive regulatory permitting regime confronting entities desiring to beneficially build CCS-related infrastructure is a serious obstacle to such beneficial and desirable engagement. As such, the relevant permitting for CCUS projects serves to frustrate attainment of the desired bi-partisan public policy outcome of increased carbon sequestration. The CMA members believe that Congress can improve attainment of national objectives for carbon capture and sequestration by, inter alia, expediting the permitting of Class VI geologic sequestration sites which in turn will facilitate investment and construction of the needed CCS-related pipelines and sequestration sites.

The Basic Challenge of Class VI geologic sequestration permitting: Predictability and Expedition

To date, well over 95% of all the carbon sequestration that has occurred in this country over the past seven decades has been through Enhanced Oil Recovery (EOR), which is a technique in which carbon dioxide is injected into tertiary oil and gas reservoirs where it is permanently and safely sequestered and in the process facilitates the recovery of valuable oil and gas remaining in those reservoirs. Such EOR production is a significant element of our nation's ability to enhance its energy independence and contribute significant national security, employment and economic activity for the nation. While EOR currently remains the primary vehicle for carbon sequestration in the nation, it is widely understood that for carbon emission reduction and the expansion of low-carbon related job generation in the US, we should move expeditiously to enable much larger volumes of carbon to be injected into large underground geologic formations beyond those that are productive oil and gas reservoirs, a process known as geologic sequestration.

Class VI Geologic Sequestration: The Environmental Protection Agency (EPA) regulates through its Underground Injection Control (UIC) program authorized under the Safe Drinking Water Act (SDWA) the injection of a variety of substances below ground in order to protect underground sources of drinking water from being contaminated. EPA approves the construction, operation, permitting, and closure of wells that are used to place a range of fluids underground for storage or disposal. It regulates six classes of such injection wells, which differ by depth and by the type of liquid being injected.[2] Of those six classes, two relate to the injection of CO_2 for sequestration: Class II dealing with enhanced oil and gas

[2] Class I wells are for industrial and municipal waste disposal. Class II wells are for oil and gas production, including enhanced oil and gas recovery. Class III wells are for mining waste. Class IV wells deal with hazardous waste. Class V wells handle non-hazardous fluids for localized purposes. Class VI wells are for injection of carbon dioxide into underground reservoirs or formations for the purpose of sequestration.

recovery (EOR) and Class VI for geologic sequestration. Multiple Class VI well applications can result from the same project, which is location- and company-specific. However, obtaining approval for a Class VI well permit for geologic sequestration has become an unpredictable, multiyear process.

According to EPA's Class VI Permit Tracker website, as of February 28, 2025 EPA had issued a total of 8 Class VI well permits for injection of CO_2 –though other sources suggest that perhaps only four EPA-permitted Class VI wells are in operation. The EPA Class VI Permit Tracker also indicated that it had 57 Class VI projects under continuing review representing 165 Class VI well applications. See, https://tinyurl.com/5fe35tdc.

It is noteworthy to the current permitting discussion that EPA has already widely delegated its SDWA authority for regulating UIC Classes I through V to states that have applied for such "primacy" to administer those permitting programs. One of the values of granting primacy is that it can materially expedite the permitting process in a manner that comports complying with the federal standards with appreciation of the particular priorities and needs of the respective states. But in the case of Class VI, EPA has only granted primacy thus far to four states--North Dakota (April 2018), Wyoming (September 2020), Louisiana (February 2024) and very recently to West Virginia (February 2025). There is reason to believe that perhaps as many as twenty-three states and several tribes may have an interest in pursuing Class VI primacy designation.

We observe that at its February 19, 2025 hearing, in response to Senator Lummis's questioning, the witness from ClearPath affirmed that expanding state primacy for Class VI would expedite consideration of Class VI permitting applications, referencing the success achieved by Wyoming and North Dakota using their Class VI primacy authority. That testimony clearly established that states that have been granted Class VI primacy have accelerated and expedited consideration of Class VI permit applications compared to EPA's historically slow pace. Upon similar inquiry from Senator Cramer at EPW's February 12, 2025 hearing, the witness from the Energy and Environmental Research Center explained that the solution to alleviating the backlog in Class VI permit applications at the EPA regional offices begins with Class VI primacy. He said it takes between four and seven years for states to receive primacy authority from the EPA, and he urged that the process must be improved. He said states are best positioned to regulate such activities, in part because they have a broader framework to consider in addition to the environmental protections offered by the Class VI rules, such as promoting the development of geologic CO2 storage and maximizing the use of pore space for storage reservoirs. He said as soon

as a state has demonstrated Class VI program protections equivalent to EPA's program, EPA should move expeditiously to grant the state primacy.

Accelerating Class VI permitting is critically important to facilitating investment in geologic sequestration: The basic reality confronting the challenge of accelerating Class VI geologic sequestration of carbon is that no one is going to invest in the expense of capturing carbon without knowing in advance where they are going to sequester that carbon, how that captured carbon is going to be to transported to that sequester site, and what the costs of that transportation and sequestration are going to be. Potential developers of geologic sequestration sites and CO2 pipelines are understandably disinclined and economically disincentivized from undertaking the cost and commitment of time and resources unavoidably associated with, inter alia, the complexity of assembling the legal title to surface and subsurface acreage, investigating the subsurface to ensure suitability for sequestration, securing a range of other necessary permits, contracting for sequestration site and pipeline construction, and the myriad other operational, legal and financial requisites of an expensive long-lived capital investment project without first receiving assurance that the relevant Class VI permit needed for the geologic sequestration site will be not only be issued, but issued in a predictably timely manner.

To respond to those realities, CMA suggests to the Committee the following reforms that would materially improve the predictability, expedition and availability of Class VI geologic sequestration:

A. Include Senator Sullivan's S. 1718 "The Primacy Certainty Act of 2023" in any Committee permitting reform package:

In the preceding Congress, Senator Sullivan of Alaska introduced with colleagues Senators Lummis and Ricketts—all members of the EPW Committee—"The Primacy Certainty Act of 2023" (S.1718) which included several important reforms for the Class VI primacy regime, including most significantly:

--a 180 day "shot clock" provision that mandated that EPA would have that six month period to approve, disapprove, or approve/disapprove in part a state's Class VI primacy application from the date of the application's submission, OR transmit to the applicant state in writing a detailed explanation describing the status of the EPA's review, the reason why a decision has not yet been reached by EPA, and an itemized list of specific deficiencies with the application that need to be addressed for approval of the application;

--an "automatic approval" provision which provides that if EPA has not approved, disapproved, or approved/disapproved in part a state's application in writing by not

later than 30 days after the end of the 180 "shot clock" period noted above, then the state's application shall be deemed approved if the state's application has established and implemented a primary enforcement authority program for one or more other classes of UIC wells to prevent underground injection from endangering drinking water sources; and,

--a mandate that in denying or approving/denying in part a state's Class VI application EPA's decision shall be based solely on the statutorily established criteria, and the approval of an application shall not be conditioned on provisions not otherwise included in the application or any other provision not otherwise explicitly required by the statute.

It is noted that companion legislation to S. 1718 was introduced on the House side as HR 3568 during the last Congress by Rep. Crenshaw and seven colleagues, including then-House member and now-Senator John Curtis who currently is a member of the EPW Committee. In addition, in the last Congress, the House passed the "Lower Energy Costs Act" (HR 1) dealing with, inter alia, energy production and infrastructure permitting, and Section 10019 of that legislation provided for a 270/plus 30 day "shot clock" for EPA consideration of UIC primacy applications that generally tracked S. 1718 in concept.

While the current leadership of the EPA very credibly appears to have elevated expedition of consideration of state Class VI primacy applications—witness the approval of the West Virginia application in January 2025 and the recent re-submission of the long-delayed Texas Class VI application—a statutory provision establishing the deadlines for EPA consideration of Class VI applications will provide carbon sequestration project stakeholders with the kind of regulatory timeline predictability needed to overcome the delays so evident in the EPA's prior primacy application review process.

B. Include a provision authorizing EPA to provide exemptions to Class VI permit applications for water resources not likely to be used for drinking water.

The Safe Drinking Water Act (SDWA) provides EPA authority to issue UIC permits for Classes I through V where the relevant fluid injection does not threaten drinking water resources and where an exemption from a threat to drinking water resources is demonstrably warranted by the attendant circumstances.[3] In addition, owners or

[3] Classes I through V allow exemptions under certain conditions for underground injection into aquifers that do not currently serve as drinking water sources and are unlikely to do so in the future. Class I wells for industrial and municipal waste disposal require impermeable rock barriers to isolate the injected fluids. Class II wells for oil and gas production and disposal of such production wastes allow exemptions for aquifers unsuitable for drinking due to hydrocarbons. Class III wells for mining receive exemptions for designated mining aquifers. Class IV hazardous waste wells only permit exemptions for remediation of existing contamination. Class V wells handle non-hazardous fluids for localized purposes and allow exemptions under strict monitoring.

operators of Class II enhanced oil or gas recovery wells may request that the EPA approve an expansion to the areal extent of an existing aquifer exemption for that EOR operation for the purpose of Class VI injection of carbon for geologic sequestration.[4] However, similar exemptive authority does not yet extend to Class VI well permitting itself[5] so that a new permit for a Class VI well—that is, a "new start" geologic sequestration project that is not being converted from a previously permitted Class II EOR project—could similarly avail itself of an exemption even if it too did not threaten a current source of drinking water and/or one not likely to be a source of drinking water. By illustration, there exists throughout the country, and especially so in the largely uninhabited reaches of the western states, a large number of high quality, large volume underground injection sites very suitable for safe and permanent carbon sequestration that are not now and very likely never will be threats to sources of drinking water due to depth of any aquifer, the high content of total dissolved solids (TDS) in any aquifer that makes it unsuitable for consumption, or the economics of treating such naturally occurring TDS. In some cases, measurement of TDS levels can vary considerably from different lateral locations of a single potential Class VI site, at some points measuring in excess of 10,000 mg/l and at other points below that level though higher than maximums desirable for human consumption. But these sites are located where the relevant aquifer is not and will reasonably never be used as a source of drinking water. Given the enormous value of these sites for cost-effective, large scale, and secure permanent sequestration of CO2, Congress should consider crafting a workable SDWA exemption for such cases. Such a Class VI exemption would reduce permitting delays, accelerate carbon sequestration, and address climate goals while safeguarding public health and environmental integrity.

The Committee recently adduced testimonial evidence to support such conclusions. We note that at the EPW Committee's February 12 hearing on CCUS and USE IT Act issues, Senator Cramer raised this Class VI aquifer exemption issue, noting that the lack of exemptions for Class VI permits negatively impacts the availability of storage/sequestration space. The expert witness from the Energy and Environmental Research Center (EERC) said Senator Cramer raised an extremely important technical challenge that the industry is facing with aquifer exemptions. The witness acknowledged that there are deep subsurface

---

[4] EPA's regime does allow for an aquifer exemption for a pre-existing Class II enhanced oil or gas recovery well where its arial extent is expanded for the exclusive purpose of Class VI injection of CO2 for geologic sequestration if: (i) the relevant aquifer is not currently used as a source of drinking water; (ii) the total dissolved solids content of the ground water is more than 3,000 mg/l and less than 10,000mg/l; and (iii) the relevant aquifer if not reasonably expected to supply a public water system.

[5] The rationale for not permitting Class VI aquifer exemptions is related to concerns associated with the possible threat to drinking water supplies due to the injection of large volumes of CO2 and its sequestration over long periods of time.

geologic formations that do meet some criteria for water quality, but there are certain issues eliminating those formations from practically ever being used as drinking water. The EERC witness said EPA created a process within the other UIC classes of permits to allow for aquifer exemption which permitted the use of those formations for underground injection; but, he further explained that when EPA published the Class VI rule in 2010, they excluded aquifer exemptions for Class VI permits while all other well classes were still eligible for such exemptions. The EERC witness testified that the lack of an aquifer exemption for Class VI wells means there are formations that are ideal and suitable for CO2 storage and will never be used for drinking water, yet you cannot get a permit to inject CO2 into those formations. When Senator Cramer asked if Congress needs to address the issue, the EERC witness said Congress can address the issue by directing EPA to amend their rules to allow for aquifer exemptions for Class VI wells. Of note, the EERC witness raised another challenge, specifically that EPA is the final authority when it comes to making the decision for aquifer exemptions under the UIC regime for other well classes, suggesting that the federal EPA decision making process for aquifer exemptions is a very long and extended process. CMA views this insight as evidence that there is value in empowering states with Class VI primacy to make the decisions with respect to any aquifer exemption questions related to Class VI projects under their permitting jurisdiction.

CMA would be happy to work with the Committee in crafting suitable legislation that would achieve the purpose of extending an SDWA aquifer exemption provision to Class VI permitting. To facilitate that effort while respecting and recognizing the prerogative of the Committee in drafting any legislation, we have attached hereto as an appendix a suggestion of what such statutory exemption might look like to accomplish the intended aquifer exemption for Class VI wells.

We would welcome any questions from the Committee.

Respectfully submitted,

George D. Baker
Counsel for the Carbon Management Alliance
Williams & Jensen PLLC
1201 Pennsylvania Avenue, NW
Suite 800
Washington, DC 20004
202-659-8201
gdbaker@wms-jen.com

Appendix: Suggested amendment language for Class VI aquifer exemption

To clarify authority of the Environmental Protection Agency to identify aquifers unsuitable for drinking water and eligible for underground carbon dioxide sequestration.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Saline Storage for the Common Good Act of 2025."

SEC. 2. PERMITTING AQUIFERS FOR CARBON DIOXIDE STORAGE.

(a) In General.— Title XIV of the Public Health Service Act (commonly known as the "Safe Drinking Water Act'') is amended by inserting at the end of Sec. 40306 (42 U.S.C. 300h-9) the following new subsection:

"(d) Use of Non-Potable Aquifers for Carbon Dioxide Storage.

"(1) The Director may identify (by narrative description, illustration, maps, or other means) and shall protect as underground sources of drinking water, all aquifers and parts of aquifers which meet the definition of 'underground source of drinking water' in this subsection, except to the extent there is an applicable aquifer exemption.

"(2) Effective immediately upon the date of enactment of this Act, the Director may issue an aquifer exemption for a Class VI well. The Director shall designate an aquifer or portion thereof as an exempted aquifer if it meets the criteria set forth in 40 CFR 146.4, as in effect on the date of enactment. The Administrator shall revise 40 CFR 146.4 and 40 CFR 144.7 to conform with this subsection.

"(3) Owners or operators may request that the Director issue an aquifer exemption for a Class VI well. In addition, owners or operators of Class II wells may request that the director approve an expansion to the areal extent of an aquifer exemption already in place for a Class II well for the purpose of geologic sequestration."

Carbon Removal Alliance

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment and Public Works
U.S. Senate
Washington, DC 20515

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and Public Works
U.S. Senate
Washington, DC 20515

Dear Chairman Capito and Ranking Member Whitehouse,

On behalf of the Carbon Removal Alliance, I am writing in response to the recent Senate Committee on Environment and Public Works hearing on *Improving the Federal Environmental Review and Permitting Processes*. Environmental review and permitting processes create important safeguards for communities across the US. However, as emphasized in Chairman Capito's opening statements, these reviews have become arduous for business owners across the US, have delayed or stalled environmental projects, and created missed economic and job opportunities for hard working Americans. New legislation is needed to help improve the permitting process — ensuring that processes uphold environmental and public health protections, while making processes more transparent and predictable.

The Carbon Removal Alliance (CRA) narrows the gap between innovators and policymakers working to remove carbon from our atmosphere. We're a coalition made up of 25 of the industry's most promising companies across carbon removal pathways. The Alliance translates the realities of building carbon removal projects into federal programs that help the field scale. These carbon removal solutions can help the United States meet its climate goals, while also creating co-benefits like job creation, wildfire risk reduction, increased agricultural productivity, and more.

The United States has secured global leadership in the carbon removal industry, with more technologies being developed in the United States than any other country. However, the lack of clear permitting and regulatory structures makes it difficult for entrepreneurs to deploy cutting edge technologies across the U.S. Below, we recommend the following permitting and regulatory updates to enable the effective and responsible development of emerging carbon removal technologies, including direct air capture (DAC), biomass with carbon removal and storage (BiCRS), and marine carbon dioxide removal (mCDR). These technologies are important economic drivers in the United States, and it is imperative that the permitting frameworks governing them be streamlined, transparent, and supportive of innovation to accelerate their deployment and maximize their impact.

Carbon Removal Alliance

Direct Air Capture (DAC): For direct air capture, Congress should direct the Environmental Protection Agency (EPA) evaluate the potential of establishing a categorical exclusion under the National Environmental Policy Act (NEPA) for the construction of new DAC facilities. This would help reduce delays and regulatory burdens while still maintaining essential environmental oversight. Additionally, there is a need for Congress to direct the Underground Injection Control (UIC) Class VI program to clarify the qualification and application process for storage technologies utilizing the in-situ mineralization process, ensuring that scientifically responsible storage methods are adequately addressed within the existing regulatory frameworks. Congress should also provide additional funding to the UIC Class VI Wells Grant Program for states to develop Class VI primacy plans, allowing for more efficient, localized permitting and greatly reducing the backlog of Class VI permits that EPA must address. Greater transparency is also needed within the Class VI permit process, as it will allow stakeholders to understand the timelines, expectations, and requirements of the regulatory system. Finally, Congress should provide more funding to EPA's Office of Ground Water and Drinking Water, the office responsible for Class VI injection permitting. There are currently 165 Class VI well applications under review and these reviews can take over 2 years to complete. These additional resources will expedite the Class VI permit process, helping to alleviate bottlenecks, ensuring that projects are not unnecessarily delayed, and stimulating economic activity across the country.

Biomass with Carbon Removal and Storage (BiCRS): BiCRS approaches often rely on leveraging existing infrastructure, such as orphaned oil and gas wells, to inject organic carbon into geological formations. These injections are identified explicitly within EPA's existing well-class structure, but they are currently regulated under Class V "experimental" permits which take at least 15 months to complete. Congress should provide additional funding to the UIC State and Tribal Assistance Grants (STAG) program that provides states with the help they need to develop Class V primacy plans, ensuring that states have the capacity to manage these specialized permits. As with Class VI permits, greater transparency in the Class V permit process is necessary to help applicants navigate the regulatory landscape more efficiently. It is equally important to provide additional funding to the EPA so it can expedite the Class V permit process. Congress should also expand the definition of Class II wells to allow for the underground injection of non-CO_2 forms of carbon, including carbon from BiCRS applications. Class II wells are currently used for oil and gas injections like brine disposal and enhanced oil recovery — expanding their scope to include non-CO_2 forms of carbon would provide a pathway for better utilizing existing infrastructure for carbon sequestration.

Marine Carbon Dioxide Removal (mCDR): mCDR technologies face acute challenges around lack of regulatory clarity under existing laws and regulations, in addition to having no fit-for-purpose regulatory schemes. mCDR projects are currently regulated under a number of

Carbon Removal Alliance

agencies and regulations, including the EPA's implementation of the Marine Protection, Research, and Sanctuaries Act (MPRSA) Act, the Clean Water Act (CWA), the National Pollutant Discharge Elimination System (NPDES), as well as the Department of Energy's Bureau of Ocean Energy Management's environmental review under the Outer Continental Shelf Lands Act and others. Updating existing permitting pathways can help clarify the eligibility of various mCDR technologies and the best suited regulatory pathway for different projects, and ensure that we are appropriately monitoring risks and benefits of these projects. These updates can include:

- Clarifying the eligibility of marine carbon removal projects that have both research and commercial outcomes under the MPRSA.
- Ensuring that coastal carbon removal projects, especially those integrated into coastal protection and restoration efforts, should be regulated under the CWA's dredge and fill permitting framework, recognizing their dual benefits for climate action and ecosystem health.
- Refining the total suspended solids (TSS) limits under the Clean Water Act (CWA) to account for the unique characteristics of various outflows from marine carbon removal projects. This includes addressing differences in solid types and ocean geographies, such as mixing zones.

In the long-run, the creation of fit-for-purpose marine carbon removal permits is essential, particularly for ocean de-acidification projects, which would benefit from a clear and defined permitting pathway.

Thank you for your attention to these important issues.

Sincerely,



Giana Amador
Executive Director

From: Shannon Wood
To: Permitting@epw.senate.gov
Cc: Rose Luttenberger Caruso; Morgan Brummund
Subject: C2ES Permitting Reform Recommendations
Date: Friday, March 21, 2025 11:17:55 AM
Attachments: image001.png
C2ES Permitting Reform Recommendations_June 2024.pdf

Hello EPW team,

I hope this email finds you well. I am reaching out from the Center for Climate and Energy Solutions (C2ES), we are a nonpartisan and nonprofit organization working to advance commonsense and durable energy policy solutions.

In response to the request from your committee for stakeholders to identify challenges and suggest potential solutions on the existing environmental review and permitting processes, I am sharing our permitting reform recommendations from the 118th Congress (attached). These recommendations were developed collaboratively with members of our Business Environmental Leadership Council (BELC) and released in June 2024. We are currently working with the BELC to revise and update these requests for the 119th Congress.

At C2ES we are very committed to advancing bipartisan permitting reform in this Congress and look forward to collaborating with your committee. We would be more than happy to connect with your team to discuss our engagement in advancing bipartisan permitting reform, collaboration with our business council, and answer any questions about these recommendations.

Thank you and we look forward to staying connected on this work,

Shannon Wood, Advocacy Manager
Center for Climate and Energy Solutions (C2ES)
C2ES.org | 1400 K St, NW | Suite 1100 | Washington, DC 20005
E: woods@c2es.org | P: 248-408-6139

C2ES CENTER FOR CLIMATE AND ENERGY SOLUTIONS

From: Alia Hidayat
To: Permitting@epw.senate.gov
Cc: Trevor Higgins; Jenny Rowland; Nicole Gentile; Kendra Hughes
Subject: CAP comments for permitting reform hearing record
Date: Friday, March 21, 2025 6:44:33 PM
Attachments: CAP_EPW Permitting Comments.pdf

Good evening,

This is Alia Hidayat from the Center for American Progress. Thank you for the opportunity to contribute to the Feb. 19 hearing record on improving federal environmental review processes - please find our comments attached below. If you have any questions or would like to discuss further, please don't hesitate to reach out.

Best,

—

Alia Hidayat, PhD (she/her)
Senior Policy Analyst
Center for American Progress/CAP Action
ahidayat@americanprogress.org

From: George D. Baker
To: Permitting@epw.senate.gov
Cc: Ayrea, Maggie (EPW)
Subject: Carbon Management Alliance comments for EPW permitting reform initiative
Date: Friday, March 21, 2025 2:38:31 PM
Attachments: Carbon Managment Alliance Suggestions to Senate EPW re Class VI permitting reform.pdf

Dear Ms. Ayrea: Attached please find the comments submitted by the Carbon Management Alliance working group in response to the EPW Committee's request for input from interested parties regarding permitting reform as an extension of the Committee's initiative launched in its hearing on February 19, 2025 entitled "Improving the Federal Environmental Review and Permitting Processes". The members of CMA look forward to working with the Committee in fashioning a productive and beneficial permitting reform package. If you or the Members of the Committee have any questions, please simply let me know.

George Baker

Williams & Jensen
Counsel for the Carbon Management Alliance
202-659-8201
gdbaker@wms-jen.com

Disclaimer

This message, and any attachments to it, are from Williams & Jensen, PLLC and are intended only for the addressee. Information contained herein is confidential, privileged and exempt from disclosure pursuant to applicable federal or state law. If the reader of this message is not the intended recipient, you are notified that any use, dissemination, distribution, copying or communication of this message is strictly prohibited. If you have received this message in error, please notify the sender immediately by return email and delete the message and any attachments. Thank you

From: Margaret McGill
To: Permitting@epw.senate.gov
Subject: Carnegie Mellon University permitting comments
Date: Friday, March 21, 2025 2:19:43 PM
Attachments: CMU Policy Insights Header.png
CMU Policy Insight_Permitting .docx

Hi all,

As part of your review of permitting, I'm sharing a proposal from Carnegie Mellon University's Scott Institute for Energy Innovation on improving the interconnection process.

I've attached and copied it below - please let me know if you have any questions or would like to discuss further.

Thank you,
Margaret

Carnegie Mellon University | POLICY INSIGHTS

A fast lane for interconnection

Allowing new power sources to connect to the grid first, and then manage any infrastructure costs associated with that new interconnection, would accelerate the addition of new generation and lower electricity costs for homes and businesses.

One of the biggest bottlenecks in many regions of the U.S. in adding much-needed capacity to the electricity grid is the number of studies that must be completed before connecting.

A fast lane for connecting to the grid can address this bottleneck. The Electric Reliability Council of Texas (ERCOT) uses a “connect and manage” interconnection process that results in faster interconnections. A modified connect and manage option nationwide could speed up the process across the country.

How it would work: New power sources choosing the fast lane could pay a fee to hook up to the grid without the pre-connection cost studies.

- Those payments would go into a fund that would be used to cover any infrastructure costs incurred by the grid within a set number of years. The fee could be a flat fee, or structured as an auction, enabling the generators bidding the highest in a region to be at the front of the line. This enables the market to incentivize the highest priority capacity additions.

- The Department of Energy could supplement these payments to upgrade electrical infrastructure in areas of national interest for new electricity supplies.

- Power sources could also still choose to do the studies first and remain in the regular interconnection queue.

Costa Samaras, director of Carnegie Mellon University's Scott Institute for Energy Innovation, is available to discuss the pros and cons of this approach.

--
Margaret Harding McGill
Director of Policy Engagement
Office of the Vice President for Research
Carnegie Mellon University
Washington, D.C. | mmcgill@cmu.edu

From: Stuart Dwyer
To: Permitting@epw.senate.gov
Subject: cBrain submission (F2 Id nr.: 8008845)
Date: Friday, March 21, 2025 5:54:50 PM
Attachments: cBrain submission EPW.pdf
InlineImage_1.png

Further to the Committee on Environment and Public Works' hearing of 2/19 please find the attached submission from cBrain. Feel free to reach out with any questions.

Thank you.

Stuart Dwyer

Stuart Dwyer
Head of the Washington DC Office

cBRAIN
The Process Company

601 13th St., NW, 12th Floor | Washington, DC 20005
Tel +1 (202) 754-7241
sdw@cbrain.com | www.cbrain.dk

From: Andrew Fishbein
To: Permitting@epw.senate.gov
Subject: Comment on Permitting
Date: Friday, March 21, 2025 5:02:18 PM
Attachments: Climeworks_EPW Permitting Letter_2025.03.25.pdf

Please find attached a letter on behalf of Climeworks.

Best Regards,

Andrew Fishbein
Lead Government Affairs North America

Climeworks
Removing CO_2 from the air

Mobile: +1 202 536 6535

www.climeworks.com

Important/confidential:
The information contained in this e-mail is confidential and may be legally privileged. It is exclusively for use by the intended and rightful recipient. If you are not the intended recipient, any copying, distribution or other use of this e-mail is prohibited and may be unlawful. In such case you are requested to notify us immediately and then delete this e-mail.

From: Elaine Nessle
To: Permitting@epw.senate.gov
Subject: Comments for the record "Improving the Federal Environmental Review and Permitting Processes"
Date: Friday, March 21, 2025 1:37:35 PM

Good afternoon,
Thank you for the opportunity to submit comments for the record following the Committee's 2/19 hearing, titled "Improving the Federal Environmental Review and Permitting Processes." On behalf of the Coalition for America's Gateways & Trade Corridors, I respectfully submit the following recommendations which are related both to project delivery and funding delivery, as the two are often related.

- **Recommendation:** Standardize environmental approval processes across USDOT modal agencies as well as other federal agencies responsible for developing freight infrastructure, such as the U.S. Army Corps of Engineers.
    - **Rationale:** Freight projects are often multimodal, presenting unique project delivery challenges as they may require project sponsors to navigate varying environmental approval processes across multiple modal administrations or federal agencies. For example, modal agencies have differing categorical exclusions, creating inconsistencies, confusion, and ultimately, delays.
- **Recommendation:** Provide pre-award spending authority for advance construction and pre-construction activities across funding programs available to freight infrastructure projects. Call on USDOT to provide clear and consistent guidance to grant recipients.
    - **Rationale:** Mitigate inflationary impacts by allowing projects to advance in the time between announcement and obligation. USDOT's Federal Transit Administration (FTA) "Letter of No Prejudice" may provide a model for this improvement. Per FTA, advancing activities that are on the project schedule critical path and that may require an extended period of time to complete may lead to significant cost savings and may reduce the potential for schedule delays later in the project.
- **Recommendation:** Establish a pilot program that expedites the competitive grant award process.
    - **Rationale:** Explore and test innovative opportunities to reduce delivery timelines and mitigate inflationary impacts.
- **Recommendation:** Provide each successful grantee with a target date for grant agreement completion. Responsibility for meeting a target date would be shared by USDOT and the grantee.
    - **Rationale:** Allow agencies to better plan and allocate resources.

About CAGTC:
The Coalition for America's Gateways and Trade Corridors (CAGTC) was established to bring national attention to the need to significantly expand U.S. freight transportation capabilities and to work toward solutions for this growing national challenge. Our sole purpose is to raise public recognition and Congressional awareness of this need and to promote sufficient funding in federal legislation for trade corridors, gateways, intermodal connectors and freight facilities

Thank you,

Elaine

Elaine Nessle
Executive Director

Coalition for America's Gateways & Trade Corridors
1001 Connecticut Ave., NW, Suite 422
Washington, DC 20036
T: 202-828-9100
C: 607-368-5028
www.tradecorridors.org

Join us in Washington on May 14 & 15 for our 2025 Annual Meeting!
https://tradecorridors.org/about/annualmeeting/

From: Eli Cain
To: Permitting@epw.senate.gov
Cc: Giana Amador
Subject: CRA"s Comment on Senate EPW Permitting Hearing
Date: Friday, March 21, 2025 2:11:30 PM
Attachments: Carbon Removal Alliance - Senate EPW Permitting Comments (1) (2).pdf

---

Hi,

Please see the attached document for CRA's comments related to the Hearing on the Federal Environmental Review and Permitting Process. Please keep these comments private. As always, let us know if there is anything else we can do to be helpful!

Best,
Eli

Eli Cain (He/Him)
Senior Policy Manager
Carbon Removal Alliance
eli@carbonremovalalliance.org
575-770-5453
Book a time to meet with me!

From: Camden Weber
To: Permitting@epw.senate.gov
Subject: Feedback on Permitting re: ESA, energy justice
Date: Friday, March 21, 2025 9:39:45 AM
Attachments: CBD_EPW Permitting Hearing Feedback.pdf

Good morning,

Attached is a letter penned by Brett Hartl on behalf of the Center for Biological Diversity with information regarding improving permitting reform policy. Please reach out if you have any questions or comments.

Thank you for keeping the record open for an extended period.

Have a great weekend,

Camden L. Weber (she/her)
Climate and Energy Policy Specialist
Center for Biological Diversity
860-816-4556

From:	Esteban Arenas-Pino
To:	Permitting@epw.senate.gov
Cc:	Mar Zepeda; KD Chavez; Michelle Wright
Subject:	Letter for the Record for the U.S. Senate Committee on Environment and Public Works' Hearing "Improving the Federal Environmental Review and Permitting Process" Held on February 19, 2025.
Date:	Friday, March 21, 2025 5:02:00 PM
Attachments:	03.21.25 CJA Comment Letter - EPW Hearing_ Improving the Federal Environmental Review and Permitting Process. .pdf

Dear Chairman Capito, Ranking Member Whitehouse, and Members of the U.S. Senate Committee on Environment & Public Works,

Attached to this email you will find the Climate Justice Alliance's response to the request for comments by the Senate Environment Public Works Committee Hearing on "Improving the Federal Environmental Review and Permitting Process." Please feel free to reach out for any follow ups, questions or concerns.

Thank you for the opportunity.
Sincerely,

Esteban Arenas-Pino
Policy Organizing Coordinator
Climate Justice Alliance

esteban@climatejusticealliance.org
Gender pronouns (he/him/his)
(Washington. DC/ ET)
(Available via Signal App for calls and texts on: +1-646-623-7121)

Please CC any checks/reimbursement requests/invoices to finances@climatejusticealliance.org

Website | Facebook | Twitter | Instagram

From:	Madelyn Morrison
To:	Permitting@epw.senate.gov
Subject:	Statement for the Record - Carbon Captur Coalition: February 19, 2025 hearing on improving the federal environmental review and permitting process
Date:	Friday, March 21, 2025 3:47:33 PM
Attachments:	image001.png CCC SFR_Senate EPW_Permitting 2025.pdf

Good Afternoon,

Please find attached the Carbon Capture Coalition's statement for the record on the February 19, 2025 hearing on improving the federal environmental review and permitting processes.

Thank you for the opportunity to comment.

Madelyn Morrison

CARBON CAPTURE COALITION
Madelyn Morrison
Director of Government Affairs
w: 612-709-0645
E: mmorrison@carboncapturecoalition.org
CARBONCAPTURECOALITION.ORG
The Carbon Capture Coalition is convened by the **Great Plains Institute.**

From: Austen Stovall
To: Permitting@epw.senate.gov
Cc: David M. Lodge; Patrick Michael Beary; drs395@cornell.edu; kailee45@gmail.com; Cornell
Subject: Supporting Permitting Reform Through Modern Monitoring Tools Like eDNA
Date: Friday, March 21, 2025 4:45:54 PM

Hi Senate EPW Folks!

As your Committee continues its work to modernize and streamline federal environmental permitting processes, we encourage you to consider how advancements in monitoring technology—particularly environmental DNA (eDNA)—can help achieve the Committee's goals of efficiency, predictability, transparency, and scientific integrity.

eDNA is a non-invasive, lab-based method of detecting species from trace genetic material in water, soil, or air. It is already being used by agencies like NOAA and USGS to improve biological assessments and is gaining traction in early project planning. When appropriately applied, eDNA can significantly reduce permitting timelines, improve species detection, and support more defensible agency decisions —all of which align with the Committee's goals.

The experts at the Cornell Atkinson Center for Sustainability respectfully offer the following suggestions for how the Committee can support the responsible and effective use of tools like eDNA within your broader permitting reform strategy. We would be happy to jump on a call to discuss any of this information further.

1. **Promote flexibility in agencies' use of emerging monitoring tools.**

Agencies often rely on legacy monitoring methods, even when newer tools are available that are faster, less costly, and more accurate. Creating space for innovation supports the goal of improving the speed and quality of environmental reviews. Permitting reform efforts can emphasize the need for flexibility in agency guidance and methodologies, allowing tools to be evaluated and used when appropriate. For example, eDNA can be leveraged for the following use cases:

- **Faster Baseline Assessments:** eDNA methods can reduce the time required for biological surveys from months to weeks by enabling simultaneous detection of multiple species from a single water sample. This approach also allows for year-round sampling independent of seasonal species activity patterns.

- **Rapid Detection of Species of Special Importance:**

    - **eDNA supports earlier identification of potential management issues and can allow project proponents to modify plans before significant investments are made.**

- **eDNA provides greater sensitivity for detecting threatened and endangered species compared to traditional survey methods.**
- **absence of eDNA detection of endangered species may support a more precise area of designated critical habitat.**
- **eDNA provides greater sensitivity for detecting invasive species whose spread might be enhanced by infrastructure projects.**

2. **Support the use of best available science to improve efficiency and confidence in agency decisions.**

New technologies can help agencies and applicants collect better data, faster—reducing delays, improving risk assessment, and supporting stronger records. Encouraging the use of modern, peer-reviewed, and fit-for-purpose scientific tools—such as eDNA—can help address the delays and disputes that arise from inadequate or uncertain species data during NEPA, ESA, and Clean Water Act reviews. Specifically, eDNA can support this recommendation in the following ways:

- **More Comprehensive and Objective Data:** eDNA provides standardized, replicable data on species presence/absence that reduces observer bias and variability in environmental assessments, delivering more consistent results across different projects and regions.
- **Standardizing Ecological Assessments:** Implementing eDNA as a standardized assessment tool would create comparable datasets across jurisdictions and project types, enabling more consistent application of environmental regulations and facilitating cumulative impact analyses.
- **Defensible and Transparent Data:** Recent validation studies demonstrate that eDNA evidence meets legal standards for reliability. For example, the U.S. Fish and Wildlife Service has already cited legally defensible eDNA evidence in defining critical habitat under the ESA. Standardizing federal eDNA protocols would further strengthen this legal foundation.
- **Transparent Data for Public Use:** eDNA data can be standardized, digitized, and easily shared across platforms, enabling greater transparency in environmental decision-making and helping to build public trust in permitting decisions.
-

Clarifying ESA and CWA Compliance: Incorporating eDNA methodologies into agency guidance can reduce the current uncertainty around presence/absence determinations that often leads to project delays and litigation. Formal recognition of eDNA in ESA Section 7 consultations and CWA Section 404 permitting would create regulatory clarity for all stakeholders.

3. **Align permitting reform with tools that lower costs for applicants and agencies.**

Field-based biological surveys can be expensive, time-intensive, and difficult to repeat. Technologies like eDNA offer scalable, cost-effective alternatives. Including language that encourages the use of cost-effective, science-based tools in project planning and environmental reviews would support private sector and agency needs alike.

- **Cost-Effective Monitoring :** Multiple studies demonstrate that eDNA monitoring is significantly more cost-effective than traditional survey methods, with costs 10-70% lower for many applications. This efficiency allows project proponents to allocate resources more effectively while maintaining or improving environmental protection.

- **Long-Term Adaptive Management:** eDNA allows for frequent, low-impact post-permit monitoring, supporting adaptive management and reducing mitigation costs. Archived samples can be reanalyzed later, creating a lasting record of ecological conditions and maximizing the value of compliance investments.

4. **Reduce barriers to innovation in permitting processes.**

In many cases, emerging technologies are not used simply because they aren't explicitly recognized in permitting guidelines or program manuals. As the Committee works to reduce red tape and streamline reviews, you could consider ways to ease the path for the adoption of new methods (including eDNA) by allowing agencies more discretion or directing updates to outdated technical guidance documents.

5. **Consider pilots or evaluation pathways for emerging tools.**

Agencies need experience and flexibility to evaluate new tools before adopting them widely. A modest pilot or interagency learning initiative could support the Committee's goal of evidence-based permitting reform without requiring major statutory changes. Tools like eDNA could be part of broader efforts to evaluate how new technologies affect timelines, costs, and environmental outcomes. Specifically, the Committee could consider the following:

- Support a multi-agency pilot program (e.g., USACE, USFWS, NOAA) to evaluate eDNA in real-world permitting contexts (NEPA, ESA, and CWA).

- Develop shared interagency validation protocols to streamline acceptance of eDNA across different regulatory programs.

- Include state and local agencies in policy to ensure compatibility with local permitting processes.

Please don't hesitate to reach out with any questions or for any follow ups.

Happy Friday!

Best,
Austen
(On behalf of the Cornell Atkinson Center for Sustainability)

--



Austen Stovall
Senior Manager
m: +1 (202) 810-3523

Check out our Newsletter
www.espadvisor.com

March 6, 2025

The Honorable Shelley Moore Capito
Chairman
U.S. Senate
Committee on Environment & Public Works
Washington, D.C. 20515

The Honorable Sheldon Whitehouse
Ranking Member
U.S. Senate
Committee on Environment & Public Works
Washington, D.C. 20515

Dear Chairman Capito and Ranking Member Whitehouse:

On behalf of Citizens for Responsible Energy Solutions (CRES), we are grateful for the committee hosting a hearing on "Improving the Federal Environmental Review and Permitting Processes" and appreciate the opportunity to submit comments. CRES is a nonprofit organization dedicated to supporting responsible, conservative solutions to address our nation's energy, economic and environmental security while ensuring the United States retains its global competitive edge. CRES advocates for the advancement and deployment of cutting-edge clean energy technologies with the goal of both reducing global emissions and ensuring reliable and affordable energy.

Permitting reform is critical for advancing innovative technologies and unlocking domestic resources necessary to meet our growing demand.[1] Permitting reform will also increase American competitiveness, recapture American manufacturing dominance, reduce our reliance on adversarial nations and achieve the environmental progress we all desire. I would like to touch on these key themes that underline the necessity of reform.

Meeting Energy Demand: As our country enters a period of increased energy demand due to advanced manufacturing and data centers, permitting reform is the key to unlocking reliable, resilient and abundant energy. The largest expected increases for energy consumption by 2050 are in the industrial sector, where energy consumption increases as much as 32 percent, and in the transportation sector, where energy consumption increases as much as eight percent.[2] To meet growing demand at home, time is not on our side. However, when coupled with international demand, the urgency for faster project permitting in the U.S. becomes even clearer.

[1] CRES Forum, "Permitting Modernization and Reform", June 2, 2022, https://cresforum.org/publications/permitting-modernization-and-reform/.
[2] U.S. Energy Information Administration, "Annual Energy Outlook 2023: Narrative", March 16, 2023, https://www.eia.gov/outlooks/aeo/narrative/index.php#ExecutiveSummary.

Since 2019, U.S. energy production is greater than U.S. energy consumption – allowing the U.S. to become a net-exporter of energy.[3] Looking forward, worldwide energy demand will continue to increase, and the U.S. plays a central role in meeting global demand while mitigating emissions as our energy exports offer a carbon advantage.[4] In the 2023 International Energy Outlook, the U.S. Energy Information Administration (EIA) indicates that global energy consumption is expected to increase through 2050, outpacing efficiency gains and driving continued emissions growth.[5] Specifically, their projections show:

- Primary energy demand will increase by up to 57 percent by 2050 compared to 2022.
- EIA expects renewables will meet the bulk of new energy demand through this period.
- EIA projects demand for oil and natural gas to increase through 2050 along with growth in global energy demand, including up to 57 percent increased global demand for natural gas.

When we consider our domestic needs with expected international demand forecasts, it becomes clear the U.S. must continue its leadership role in all forms of energy production. But meeting those demands will be increasingly difficult under today's federal permitting regime. Permitting reform measures will help address many of the bottlenecks and uncertainty developers are facing and will enable a more predictable federal process to review, approve and ultimately deploy new projects faster and at greater scale.

Economic Competitiveness: The United States is an undeniable leader in developing clean energy and innovative technologies. However, we must regain our leadership role in deployment. On federal lands, it takes roughly four years to construct utility-scale wind and solar projects, seven to ten years to obtain a mining permit, and ten years to build a new transmission line.[6] [7] [8]

Whether a new solar or wind farm, transmission line, hydrogen or natural gas facility, or other traditional infrastructure projects – each of these technologies and their related infrastructure are subject to an antiquated permitting system that too often results in unnecessary delays.

---

[3] U.S. Energy Information Administration, "U.S. Energy Facts Explained", July 15, 2024, https://www.eia.gov/energyexplained/us-energy-facts/.
[4] The Climate Leadership Council, "America's Carbon Advantage" March 2025, https://clcouncil.org/report/americas-carbon-advantage-2025/.
[5] U.S. Energy Information Administration, "EIA projections indicate global energy consumption increases through 2050, outpacing efficiency gains and driving continued emissions growth," October 11, 2023, https://www.eia.gov/pressroom/releases/press542.php.
[6] World Resources Institute, "Clean Energy Permitting Reform in the U.S.," February 9, 2023, https://www.wri.org/insights/clean-energy-permitting-reform-us.
[7] National Mining Association, "Delays in the U.S. Mine Permitting Process Impair and Discourage Mining at Home," accessed September 8, 2024, https://nma.org/wpcontent/uploads/2021/05/Infographic_SNL_minerals_permitting_5.7_updated.pdf.
[8] National Academies of Sciences, Engineering, and Medicine, "Accelerating Decarbonization of the U.S. Energy System," January 2021, https://nap.nationalacademies.org/catalog/25932/accelerating-decarbonization-of-the-us-energy-system.

Additionally, most major projects face years of litigation uncertainty, which further increases costs and can significantly prolong the time between an initial proposal and actual deployment.

A streamlined permitting system would significantly enhance business efficiency, attract investments and benefit consumers by ensuring timely project completion. Without predictable project timelines and efficient access to resources and energy, the U.S. risks falling behind in attracting and retaining global investments. To truly capitalize on domestic innovation, the U.S. must adopt agile permitting processes that prioritize clarity and speed, thereby fostering an environment where American innovations are developed and first deployed at home.

Manufacturing Dominance: In 2006, United States' manufacturing output was double that of China. Today, China's manufacturing output is double that of the United States, and our reliance on China for goods and resources has similarly grown. This is a trend that must be reversed for not only national security and economic reasons, but also environmental reasons. According to analysis by the Climate Leadership Council, the average product manufactured in China results in over three times the emissions than if that product were manufactured in the United States.[9]

Bringing back American manufacturing dominance – particularly for industries utilizing advanced clean and innovative technologies – reduces our reliance on adversarial nations for products, energy or resources such as critical minerals. For example, China continues to flex its strategic monopoly on critical minerals such as gallium, germanium and graphite by tightening its export controls.[10] Today, the U.S. is more reliant on foreign sources than ever for the minerals needed by our manufacturing, technology, energy, transportation, infrastructure and defense sectors – with imports making up more than half of U.S. consumption for nonfuel mineral commodities.[11]

Unfortunately, the federal permitting process is working against our manufacturing sector, hindering efforts to onshore supply chains and provide affordable, abundant, clean energy. Companies often get stuck in extensive environmental reviews, bureaucratic hurdles and meritless litigation, adding years to project timelines and increased production costs, further burdening our manufacturing sector.

When we consider future minerals demands needed for domestic manufacturing, it is clear that the U.S. is behind China. National Environmental Policy Act (NEPA) reforms that increase domestic exploration, extraction, refining and processing are crucial to our attempts to catch up.

---

[9] The Climate Leadership Council, "America's Carbon Advantage" March 2025, https://clcouncil.org/report/americas-carbon-advantage-2025/.
[10] FTI Consulting, "China's Export Controls on Critical Minerals – Gallium, Germanium and Graphite," December 19, 2023, https://www.fticonsulting.com/insights/articles/chinas-export-controls-critical-minerals-gallium-germanium-graphite.
[11] National Mining Association, "U.S. Reaches Highest Recorded Mineral Import Reliance", January 31, 2023, https://nma.org/2023/01/31/u-s-reaches-highest-recorded-mineral-import-reliance/.

Environmental Progress: An antiquated permitting system delays environmental progress. Without question, the current permitting system is inconsistent with timely realization of the environmental benefits of clean energy innovation. Those who oppose modernizing NEPA and other permitting reforms because of "risk to the environment" ignore the environmental risks and climate impact of delays inherent in the current inefficient permitting system. If we truly care about the environment, we should embrace the classic environmental phrase of "think globally, act locally." In this case, acting locally translates to meaningful and comprehensive reform to our permitting system. We can modernize our permitting system in a way that does not sacrifice environmental protection but rather enhances and accelerates environmental progress.

Innovation is meaningless if it remains on the drawing board and not in the market. Every day that innovation is delayed is a day without lower emissions and a cleaner environment. Whether it is next generation nuclear power, advanced clean hydrogen, energy storage, carbon capture technologies or renewables, each of these technologies and their supporting infrastructure are subject to an antiquated permitting system that too often results in unnecessary delays. While estimates vary on the impact of an inefficient permitting system, one study by the American Clean Power Association, an association that advocates for clean energy, estimates that 100 gigawatts of domestic clean energy projects are at risk of significant delay due to permitting issues.[12] In their estimate, these delays will cause an estimated additional 550 million metric tons of carbon emissions this decade.[13]

The lost environmental benefit resulting from an inefficient permitting system is not limited to only the emissions reductions associated with domestic deployment of clean innovative technologies. Of equal, if not greater environmental concern, is that every delay caused by the antiquated permitting system makes it increasingly difficult for innovation to reach the necessary commercial scale and penetrate the global market.

Just twenty years ago, carbon emissions in Organization for Economic Cooperation and Development (OECD) nations were nearly identical.[14] Today, non-OECD emissions are double that of OECD countries and growing fast, while the investment in energy in these countries is increasing significantly.[15] If our goal is to reduce global emissions, it is imperative for new, cleaner and affordable innovative technologies to be available in global markets as soon as possible. Permitting inefficiencies in the United States not only delay domestic utilization of cleaner technologies, but also global access to affordable, commercial-scale innovation.

---

[12] American Clean Power Association, "U.S. Permitting Delays Hold Back Economy, Cost Jobs," April 2023, https://cleanpower.org/resources/u-s-permitting-delays-hold-back-economy-cost-jobs/.
[13] Ibid.
[14] Global Carbon Atlas, "Carbon Emissions Data," accessed September 8, 2024, https://globalcarbonatlas.org/emissions/carbon-emissions/.
[15] U.S. Energy Information Administration, "International Energy Outlook 2023", October 11, 2023, https://www.eia.gov/outlooks/ieo/.

With these key themes of meeting growing energy demand, economic competition, manufacturing dominance and environmental progress in mind, we can see why both Republicans and Democrats increasingly recognize our permitting system is too long, too complex and too often delaying the completion of critical projects. To be clear, ensuring future prosperity as a nation requires a permitting system that is both meaningful and efficient.

Fortunately, congressional momentum to address this broken system continues to build.

There was tremendous optimism at the beginning of last Congress that meaningful federal permitting reform was finally within reach. Two years ago, House leadership not only designated permitting reform as the top legislative priority by making it H.R.1, but by also passing it with a bipartisan majority for the first time since 2007.

The Lower Energy Costs Act (H.R.1) included important permitting provisions from the House Natural Resources Committee, led by Chairman Bruce Westerman (R-Ark.) who played a vital role in crafting and selling the changes to colleagues. CRES was proud to support that bill. Many of these provisions were incorporated soon after into the Fiscal Responsibility Act (FRA), which passed both chambers by overwhelming bipartisan majorities and was signed into law in June 2023. The FRA permitting deal was a tangible, positive step forward on what was hoped to be a comprehensive bipartisan deal for broader permitting reform. Unfortunately, there have been bumps in the road, such as the Council of Environmental Quality's (CEQ) NEPA Implementing Regulations Revisions Phase 2, which appeared to counter both the letter and the intent of the FRA. It was consequently struck down in court.[16]

Additionally, we saw the Senate Energy and Natural Resources Committee advance bipartisan permitting measures led by former Chairman Joe Manchin (I-W.V.) and Ranking Member John Barrasso (R-Wyo.). CRES supported the committee's action and encouraged Senate leadership to schedule floor time for the bill. Concurrently in the House, we were pleased to testify in support of Chairman Westerman's discussion draft,[17] which we believe was a meaningful step in updating the NEPA process to accelerate permitting without sacrificing environmental protection.

The text included important changes to reduce unnecessary delays both in agency processes and in the courts. It continued to provide important access to the courts for those who meaningfully engage in the process, while setting limits to ensure that adjudication is timely and comes with certainty. It further clarified and narrowed what is defined as a triggering "major federal action" so that there is uniformity and clarity throughout the federal government. It provided much needed process direction and controls while staying true to NEPA's intent. It would have modernized NEPA in a way that recognizes today's realities and needs, and it would have given long-needed direction to agencies on what to examine within impact studies, greatly reducing the

[16] Politico, "Federal court axes Biden-era NEPA rule," February 4, 2025, https://www.eenews.net/articles/federal-court-axes-biden-era-nepa-rule/.
[17] House Natural Resources, Discussion Draft of H.R. _____, September 11, 2024, discussion_draft_of_h.r._.pdf.pdf.

opportunity for frivolous litigation. These reforms would not only help to advance America's manufacturing and security future but also result in significant environmental progress – accelerating emissions reductions at home and expanding the most environmentally friendly manufacturing and resource development in the world. Regrettably, the House and Senate were unable to reconcile their visions during the lame duck session.

However, we are encouraged that bipartisan talks continue with the new Congress, and we want to acknowledge the efforts of those on both sides of the aisle for their tireless, good-faith negotiations to reach an agreement. With increased bicameral engagement – evidenced by this hearing and others – we once again have momentum that could lead to meaningful, comprehensive modernization of our permitting system. We also appreciate members offering ideas legislatively for further discussion such as "permit by rule" and holistic consideration of the full potential timeline for projects subject to the judicial review process. Congress should seize the moment, and the work of this committee is key to turning that momentum into tangible legislative progress. We believe that through continued collaboration, Congress can craft a robust and bipartisan permitting reform package that aligns with our shared interests for innovation, job creation and environmental sustainability.

Thank you again for your leadership in pursuing permitting reform along with the opportunity to serve as a resource and share our perspectives on the importance of finding consensus to advance commonsense changes to our permitting system.

Sincerely,



Heather Reams
CRES President

From: Rebecca Konolige
To: Permitting@epw.senate.gov
Subject: 2.19 Hearing - ZETA Statement for the Record
Date: Friday, March 21, 2025 12:15:37 PM
Attachments: EPW 2.19.25 Hearing_Statement for the Record FINAL.docx

---

Hello,

I'd like to submit for the 2.19.25 hearing record comments from the Zero Emission Transportation Association (ZETA) regarding permitting reform.

Thank you,
Rebecca Konolige

--
Rebecca Lee Konolige
Director of Federal Affairs
Zero Emission Transportation Association (ZETA)
rebecca@zeta.org | 914-217-8728

March 15, 2025

Attn: Faisal D'Souza, NCO
2415 Eisenhower Avenue
Alexandria, VA 22314
Via email: ostp-ai-rfi@nitrd.gov

Subject: DCC Comments on the Development of an Artificial Intelligence (AI) Action Plan

To Whom It May Concern:

The Data Center Coalition (DCC) appreciates the opportunity to provide comments in response to the Request for Information (RFI) on the AI Action Plan issued by the Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO), National Science Foundation (NSF) on behalf of the White House Office of Science and Technology Policy (OSTP) on February 6, 2025. DCC is the membership association for the U.S. data center industry, representing leading data center owners and operators, as well as companies that lease large amounts of data center capacity.[1] DCC's member companies provide the digital infrastructure that supports the applications, capabilities, and essential services that enable the modern economy, including cloud computing and artificial intelligence (AI). DCC member companies are making significant, multi-billion dollar investments in U.S. data center infrastructure. DCC empowers and champions the data center community through public policy advocacy, thought leadership, stakeholder outreach, and community engagement. The comments we are providing focus on the need to unleash the infrastructure and workforce necessary to power, supply, and operate the nation's data centers.[2]

I. Background

There is unprecedented demand for the digital services that have become central to our daily lives and modern economy. With an average of 21 connected devices per household in the U.S.,[3] the essential role of data centers is expected to grow as consumers and businesses generate twice

[1] The Data Center Coalition's website address is www.datacentercoalition.org. Public testimony and written comments submitted by DCC do not necessarily reflect the views of each individual DCC member.
[2] This document is approved for public dissemination. The document contains no business-proprietary or confidential information. Document contents may be reused by the government in developing the AI Action Plan and associated documents without attribution.
[3] Deloitte, "Connect consumer survey 2023," (September 2023).

as much data in the next five years as they did in the past decade.[4] This growth is driven by the widespread adoption of cloud services, the proliferation of connected devices, and the rapid scaling of advanced technologies like generative AI, which alone could create between $2.6 trillion and $4.4 trillion in economic value globally by 2030.[5]

The data center industry's total contribution to U.S. GDP was $3.5 trillion between 2017 and 2023.[6] Notably, the industry's growth has surpassed that of the overall U.S. economy in recent years. From 2017 to 2023, direct employment in the U.S. data center industry expanded by over 50 percent, compared to 10 percent growth in employment for the United States overall during the same timeframe.[7]

Data centers also enable critical and emerging technologies that safeguard national security and underpin America's global competitiveness. Leadership in developing and operating AI in the United States is vital for protecting national security and ensuring that AI systems are safe, secure, and trustworthy. As Vice President JD Vance has noted, "[T]his administration will ensure that American AI technology continues to be the gold standard worldwide and we are the partner of choice for others—foreign countries and certainly businesses—as they expand their own use of AI."[8]

Data centers are the backbone of AI and the digital economy, driving innovation and growth across various sectors. DCC members, including developers and operators of hyperscale, self-perform/enterprise, build-to-suit, multi-tenant/colocation, and edge data centers, are at the forefront of this transformation. While common considerations such as access to land, power, equipment, and a skilled workforce are crucial, there is no one-size-fits-all solution. By proactively removing barriers to deployment, the federal government can play a pivotal role in supporting this critical sector, fostering economic growth, and maintaining our competitive edge against foreign adversaries.

II. Policy Recommendations

DCC thanks the Trump administration for its support of the American AI industry with the Executive Order "Removing Barriers to American Leadership in Artificial Intelligence" (AI EO) on January 23, 2025 and the President's desire to make the United States an undisputed leader in the development and application of AI technology. As stated in the AI EO, "It is the policy of the United States to sustain and enhance America's global AI dominance in order to promote human flourishing, economic competitiveness, and national security." DCC members embrace this

---

[4] JLL, "Data Centers 2024 Global Outlook," (2024).
[5] McKinsey, "The economic potential of generative AI: The next productivity frontier," (June 2023).
[6] PwC, "Economic Contributions of Data Centers in the United States," (February 2025).
[7] Ibid.
[8] Remarks by the Vice President at the Artificial Intelligence Action Summit in Paris, France (February 11, 2025).

opportunity to advance the President's agenda by building data center infrastructure and enabling AI development in the U.S.

Collaboration between the federal government and the private sector is essential to remedy regulatory barriers, loosen supply chain bottlenecks for the construction and operation of this critical infrastructure, and ensure that the U.S. is on pace with the Trump administration's vision for leading global development and deployment of AI.

Below we provide a comprehensive series of policy recommendations to be included in the AI Action Plan. Our recommendations encompass potential federal agency and congressional action and focus on the removal of barriers to faster data center construction and operation, ranging from power access to supply chains to workforce development.

1. Energy Infrastructure and Access to Power

The U.S. requires more data centers to provide the computing power needed to support critical and emerging technologies, including AI, that deliver broad public and economic benefits. As demand for data center services continues to rise, timely and reliable access to power is the pacing challenge for the industry. After nearly two decades of relatively flat electricity consumption, the U.S. is experiencing a significant increase in power demand driven by several economic growth trends, including the onshoring of new manufacturing, widespread electrification, hydrogen fuel production, and growth in demand for data center services. As President Trump noted, "the big problem is we need double the energy we currently have in the United States…for AI to really be as big as we want to have it because it's very competitive—it will be very competitive with China and others."[9]

Data center energy demand supports mission-critical operations—and businesses of all sizes—in a 24/7, always-on, digital environment, driving economic growth in our local communities and maintaining our leadership on the global stage. Data center investment catalyzes supply chain and service ecosystems, provides long term employment for the construction workforce, and provides high quality jobs to support ongoing operations. At the national level, each direct job in the data center industry supports more than six jobs elsewhere in the U.S. economy.[10]

DCC believes the AI Action Plan should focus on ensuring expedient access to reliable, timely, and affordable energy to secure U.S. leadership in the global digital infrastructure race. The federal government plays a key role in promoting policies that enable greater expansion of the data center industry. As Secretary of Energy Chris Wright noted in his confirmation hearing, "I am committed to growing our electricity grid and our energy production and removing those

---

[9] President Trump Delivers Virtual Remarks at World Economic Forum (January 23, 2025).
[10] PwC, "Economic Contributions of Data Centers in the United States," (February 2025).

barriers that are standing in the way."[11] We look forward to engaging with the White House and relevant agencies on the implementation of these recommendations and reforms. DCC believes that robust dialogue and coordination between the federal government, industry, and other stakeholders is necessary to ensure America wins the AI race.

a. Ensuring timely access to reliable energy for all customers

The data center industry's greatest challenge is timely access to reliable energy. Energy policy must evolve by promoting robust transmission planning, faster interconnection processes, innovative commercial arrangements, and next generation technologies. We believe the following policy recommendations should be included in the AI Action Plan:

Administrative Action:

- **Promote Collaboration Across the Energy Landscape:** Collaboration and cooperation from state and federal regulators, policymakers, grid planners, and others is needed to ensure timely access to energy for data centers. The federal government should play a leading role in ensuring that these various stakeholders work together to advance data center development.

- **Advance Onsite Cogeneration:** Also known as Combined Heat and Power (CHP), onsite cogeneration is an available dispatchable capacity that can serve as either baseload power or offset fluctuations of variable renewable energy resources. While the Department of Energy (DOE) invested in a CHP program in the early 2000s, its interest in the technology has waned in recent years. Advancing support for this technology at the federal level can improve both reliability and efficiency, and help address capacity issues at both data centers and other critical facilities.

- **Support Federal Lands for Data Center Development:** The federal government should consider the use of federal lands, both brownfield and greenfield, for data center development. The federal government should also explore how to bring a variety of power access solutions—from onsite behind-the-meter to local utility arrangements—into any federal land projects. This should also come with consideration of how the government can speed permitting timelines on federal lands.

---

[11] Senate Energy and Natural Resources Committee Holds Hearing on the Nomination of Chris Wright (January 15, 2025).

Joint Congressional and Agency Action:

- **Federal Support for Utility Investment:** Increasingly, utilities are concerned about risk associated with building out generation and grid capacity required to serve large load customers, such as data centers. Some utilities are requiring substantial financial assurance requirements from new large load customers that tie up large amounts of capital and credit for extended periods of time, chilling investment in some markets and stranding capital that would otherwise support investment in additional data centers and markets. Congress and the administration should explore changing existing programs and mechanisms or establishing new ones that can provide utilities with confidence in building out required power generation and infrastructure while easing the chilling effects of these new and increasing financial requirements on large load customers. Existing programs that could facilitate loan guarantees, credit insurance, or revolving funds include the DOE's Loan Programs Office, the Department of Agriculture's (USDA) Rural Utilities Service, or the Department of Defense's Defense Community Infrastructure Program.

- **Support Next Generation Technologies:** Regulatory frameworks should account for innovation such as hydrogen fuel cells, advanced geothermal development, carbon capture and storage (CCS), energy storage, and other domestically sourced technologies that will undoubtedly be utilized if barriers to deployment are removed. Tax incentives, faster permitting, and national deployment programs can unleash these technologies at scale—not only for data centers, but also for other industries

Congressional Action:

- **Optimization of the Current Grid:** Congress could clarify how transmission owners need to deploy Alternative transmission technologies (ATTs) and Grid Enhancing Technologies (GETs) in Section 219(b)(3) of the Federal Power Act (FPA) and provide an incentive structure and regulatory clarity that will create cost-effective solutions for grid resilience, security, and reliability.[12] Congress can also direct funding to reconductor existing transmission lines, which could quadruple new transmission capacity by 2035.[13]

- **Support Nuclear Cost Overrun Insurance:** Nuclear power will be a key part of a suite of new energy infrastructure built to meet future energy demand. Congress should advance legislation, such as the Accelerating Reliable Capacity (ARC) Act introduced by Senator Risch, that aims to address the biggest hurdle in commercial nuclear power

---

[12] U.S. Congress, House, *Advancing Grid-Enhancing Technologies Act* (Advancing GETs Act), H.R.. 7624, 118th Cong., 2nd sess., introduced in House March 12, 2025.
[13] GridLab, "Reconductoring Technical Report," (April 2024).

deployment—financial risk.[14] The bill provides a limited risk reduction program for the first few emerging nuclear technology projects to demonstrate the technology's safety and reliability. Beyond risk mitigation, more federal funds will be needed to jumpstart deployment, given the significant expense of new nuclear projects.

Federal Energy Regulatory Commission (FERC) Action:

- **Ensuring Load Forecasting is Robust:** High confidence in load forecasting is necessary to spur investment in much-needed new generation resources and transmission infrastructure. FERC can help improve the transparency, standardization, and effectiveness of load forecasting processes. We respectfully recommend that FERC initiate an inquiry into best practices around load forecasting and/or establish FERC-led workshops that support the development of best practices for load forecasting over multiple time horizons across all regions in the U.S.[15]

- **Promote Proactive Transmission Planning:** The federal government should support proactive strategies to prepare for expected load increases in the transmission planning process. FERC should ensure robust and timely implementation of Order 1920-A, which requires transmission providers to conduct long-term planning for regional transmission facilities over a 20-year time horizon to anticipate future needs and to determine how to pay for those transmission facilities.[16]

- **Explore Generation Interconnection Reforms:** FERC should continue to evaluate options to expedite generation interconnection requests. Recent reports suggest generator interconnection timelines can take up to four years in some regions of the country.[17] Grid operators and FERC should continue to explore ways to use surplus interconnection rights to better utilize and quickly connect generation units.[18] Additionally, FERC should instruct RTOs/ISOs to integrate AI and automation into the interconnection process to speed up lengthy study timelines. The Midcontinent Independent System Operator (MISO) has seen promising benchmarking results showing that automating the study process improves the timeline from 686 days to 10 days.[19]

---

[14] U.S. Congress, Senate, *Accelerating Reliable Capacity Act* (ARC Act), S. 5421, 118th Cong., 2nd sess., introduced in Senate December 4, 2024.
[15] Data Center Coalition, Post-Technical Conference Comments in Docket No. AD24-11-000 Before the Federal Energy Regulatory Commission
[16] *Building for the Future Through Elec. Reg'l Transmission Planning & Cost Allocation*, Order No. 1920, 89 FR 49280 (June 11, 2024), 187 FERC ¶ 61,068 (2024).
[17] American Clean Power, "Interconnection 101," (June 2023).
[18] Utility Dive, "PJM's proposal to unlock unused interconnection capacity gains broad support," (January 2025).
[19] MISO Interconnection Process Working Group, "SUGAR Implementation," (March 4, 2025).

- **Require Interregional Transmission:** Interregional transmission is critical for ensuring grid reliability, reducing costs, and strengthening resilience. FERC should act to require transmission planning regions to proactively engage in interregional transmission planning, including establishing regionally specific minimum transfer capability guidelines.[20]

- **Access Priority for Certain Interconnection Services:** In Order 2003, FERC established two types of interconnection service: energy resource interconnection service (ERIS) and network resource interconnection service (NRIS), the latter of which is commonly thought to enable the generator to qualify as a capacity resource. However, the current study of ERIS resources does not meaningfully differ from NRIS, despite the potential efficiencies and faster interconnection times that ERIS can provide if properly defined and studied. The failure to make ERIS a viable option is exacerbating the interconnection challenge, unnecessarily raising costs, and compromising reliability through the inability to add new resources in a timely fashion. FERC should (1) update the definitions and clearly differentiate between ERIS, provisional ERIS, and NRIS interconnection standards, and (2) require a transparent, economics-informed screening step as part of the interconnection process to help inform developer decisions.

- **Ensure Co-Location Arrangements Remain an Option:** Co-location is one of several commercial arrangements that enable data centers to meet their growing power needs in an efficient manner, particularly in regions facing transmission or interconnection constraints.[21] President Trump has previously signaled strong support for co-location arrangements,[22] and as such the Trump administration should ensure FERC adopts a co-location policy that will dictate long-term market viability of co-location arrangements while ensuring fair treatment of all ratepayers.[23] Current uncertainty around regulatory expectations is hindering necessary industry investments; clear guidance is essential to support continued economic growth and infrastructure development.

- **Optimization of the Current Grid:** ATTs/GETs offer a cost-effective, near-term solution to transmission constraints. They require far less time—a matter of months—to install compared to traditional transmission construction timelines.[24] Section 219(b)(3) of the FPA directs FERC to promote investment in electric transmission infrastructure that

---

[20] Joint Comments of Large Consumers, Interregional Transfer Capability Study in Docket No. AD25-4-000 Before the Federal Energy Regulatory Commission.
[21] Data Center Coalition, Post-Technical Conference Comments in Docket No. AD24-11-000 Before the Federal Energy Regulatory Commission.
[22] President Trump Delivers Virtual Remarks at World Economic Forum (January 23, 2025).
[23] Data Center Coalition, Post-Technical Conference Comments in Docket No. AD24-11-000 Before the Federal Energy Regulatory Commission.
[24] WATT Coalition, "Unlocking the Grid: Key Benefits of Grid Enhancing Technologies."

uses advanced technologies. Also, FERC should proceed with setting a requirement that transmission owners deploy ATTs/GETs in certain contexts on existing transmission lines while implementing an incentive structure to give utilities an opportunity for an adequate financial return if the ATTs/GETs replace the need for new or upgraded transmission lines.[25] [26]

b. The need for comprehensive permitting reform

We thank the Trump administration for the support of broad permitting reform to accelerate American economic growth, national security, and economic competitiveness. Transmission and generation constraints across the country are restricting economic growth, including data center development, and part of that constraint comes from permitting delays. The federal government has a critical leadership role in ensuring the nation has sufficient energy capacity needed to power America's growing economy, including additional transmission lines, energy generation, and the deployment of new technologies. DCC supports congressional and administrative action on comprehensive permitting reform. We believe the following policy recommendations should be included in the AI Action Plan:

Congressional Action:

- **NEPA Overhaul:** The original National Environmental Policy Act (NEPA) statute provided environmental review for instances where other laws and statutes did not already apply. Permitting reform should deploy NEPA not as an addition to federal permitting programs and other agency environmental reviews, but in situations where other statutes/agencies have no role.
    - *Immediate approvals:* For categories of projects where environmental impacts are well understood, either due to the nature or location of the project, Congress should establish approval criteria that enable project clearance without delay.
    - *Accelerated approvals:* For projects that may cause unique or significant negative local environmental impacts, Congress should establish a bifurcated process that documents the categories of projects at the outset and then focuses environmental review and permitting on any uniquely local conditions of a project on an accelerated timeline.
    - *Accelerated adjudications:* Once a project is approved, any adjudications for projects should include a final decision timeline of well under one year to ensure that protracted litigation does not undermine project viability.

---

[25] *Implementation of Dynamic Line Ratings*, 187 FERC ¶ 61,201 (2024).
[26] WATT Coalition, "Frequently Asked Questions."

- *State and local conformity:* Eligibility for any federal infrastructure funding, tax incentives, or grants shall be conditioned on a state or locality conforming to the same framework and timeline for fast approval and adjudication of projects.

- **Limit Judicial Review:** Reduce the statute of limitations deadline from six years to 150 days (five months) for filing lawsuits against an agency action approving or denying the permitting of an energy project. This change will help reduce uncertainty, so project developers know if they have final approval to proceed. The risk to developers spending hundreds of millions of dollars on a project that could be halted due to regulatory and legal challenges raises the cost of capital and, ultimately, costs for consumers.

- **Expand FERC Authority to Permit Transmission Projects in the National Interest:** Expand the backstop authority of FERC to permit transmission projects deemed "in the national interest."[27] This would allow transmission developers to appeal to FERC for siting approval in instances where states are unwilling or unable to grant construction permits in a timely manner. This change can save between two and five years in the approval process.

- **Interregional Transmission Planning:** Require neighboring transmission planning regions to create joint plans for constructing interregional transmission with a common set of assumptions and time horizons, prioritizing the use of existing infrastructure and rights-of-way.[28]

- **Create Consistent Interregional Cost Allocation Metrics:** Create a standard definition of "transmission benefits" so that the costs of a transmission project can be allocated among the customers receiving service in a consistent, fair, and reasonable manner. Transmission line costs are already allocated according to the well-established principle that customers should pay in proportion to how much they benefit from the line; customers that do not benefit, do not pay costs associated with a given project.[29] These lines are only built if the benefits exceed the costs by a reasonable margin. The complication is that different regions use different formulas for determining cost allocation based on different definitions of "transmission benefits." Congress will need to direct agencies who can then develop the detailed benefits nomenclature.

- **Expand Categorical Exclusions for Certain Transmission Activities:** Direct the U.S. Department of the Interior (DOI) and the U.S. Department of Agriculture (USDA) to

---

[27] U.S. Congress, Senate, *Energy Permitting Reform Act of 2024 (EPRA)*, S. 4753, 118th Cong., 2nd sess., introduced in Senate July 23, 2024.
[28] Ibid.
[29] Ibid.

create new categorical exclusions for the following activities related to transmission: building transmission facilities within rights-of-way corridors; upgrading existing transmission and grid infrastructure within rights-of-ways or on previously disturbed land; and deploying energy storage technologies on previously disturbed lands.[30] These categorical exclusions currently exist at DOE but not at DOI or USDA, which are more often responsible for reviewing projects in need of the exclusions.

Federal Agency Action:

- **Clean Water Act Section 404 Nationwide Data Center Uses Permit:** Data center development generally falls under Nationwide Permit 39 (Commercial and Industrial Developments), which (1) limits use beyond 0.5 acre (after which a more extensive individual permit is required) and (2) requires a Pre-Construction Notification (PCN) for any impact. The lengthy timelines for the approvals are not consistent with other national permits that have higher or no limits or have a threshold where a PCN is not needed, which allows immediate action. We recommend that the U.S. Army Corps of Engineers (USACE) develops a Nationwide Permit for Data Centers with robust notification and coverage thresholds.

- **Clean Water Act Section 404 Streamlining:** Additional permitting efficiency improvements at USACE should include:
    - Direct the Corps Regulatory Branches to limit jurisdiction to areas below ordinary high-water mark and immediately adjacent areas/uplands. "Area of Potential Effect" for Section 106 consultations should not extend beyond USACE jurisdiction.
    - Set a regulatory time limit for responding to jurisdictional delineations.
    - Provide a single contact within the Corps for large data center investments.
    - Provide a mechanism for applicants to reimburse staff time/department consultants for expedited permit reviews.
    - Issue a new "Memorandum to the Field" reaffirming that prior converted cropland is not considered a Water of the United States, and rescinding direction related to "change in use" kick-out (included in a 2005 Memorandum to the Field). This would be consistent with the pre-2015 regulatory definition of Waters of the United States.

- **Clean Air Act Rules for Stationary Engines:** Diesel generators provide critical backup power for data centers. However, EPA stationary engine rules have been under a court remand since 2016 regarding the allowed maintenance and testing ("non-emergency

[30] Ibid.

operation") provisions for emergency generators, creating operational uncertainty and risk. EPA issued a request for comments in 2023.

- Require EPA to respond to the June 2023 public comment period on stationary engines and retain the 50 hours of non-emergency operation for stationary engines classified as "emergency" to maintain data center operational flexibility.
- EPA should issue guidance to regional offices to ensure renewable diesel conforming to ASTM D975 is an approved fuel in the RICE rules.

Joint Congressional and Agency Action:

- **Streamline Nuclear Permitting:** The Nuclear Regulatory Commission (NRC) should further streamline permitting to allow for more projects to qualify under the faster Environmental Assessment (EA), and follow the direction of the Fiscal Responsibility Act 2023 to complete EA assessments under 12 months. President Trump has already promoted the "technology inclusive" approach in his first term that enables reactors of all types to follow the same type of safety rules, including for new Small Modular Reactors (SMRs) and other new nuclear technologies. As nuclear technologies evolve, outdated restrictions related to siting and other planning considerations should ease, allowing for NRC-regulated technologies to be deployed in the locations where they are needed most. We support swift promulgation of NRC rules to advance the administration's agenda of removing hurdles to the deployment of cutting-age nuclear technologies.

Looking ahead, the challenges of load growth and resource adequacy will require a concerted effort among the federal government, utilities, customers, states, and other stakeholders. Data centers are key players in the ongoing transformation of the electricity sector, and our industry is eager to contribute to solutions that ensure reliable, affordable, and adequate power for all consumers. DCC is actively engaged with stakeholders nationwide and we support greater communication, collaboration, and transparency in planning for future load growth. DCC members are committed to paying their full cost-of-service for generation, distribution, and transmission.

Finally, even in places where co-location and other off-grid power arrangements may make sense, new transmission—both regional and interregional—as well as grid upgrades and optimization to handle the extra capacity are inescapable and necessary.

2. Critical Equipment and Supply Chains

Major sectors of the U.S. economy are experiencing shortages and delays with delivery of capital equipment, especially power generation and distribution equipment—and materials. For

example, the U.S. lags far behind competitors such as China when it comes to electrical manufacturing. There is only one U.S. producer of grain-oriented electrical steel (GOES), a key component of transformers. Foreign dominance of GOES and other critical transformer components have forced U.S. producers to depend on foreign supply, hurting their ability to compete with more vertically-integrated competitors abroad.[31]

DCC members report broad challenges in procuring critical data center equipment, along with lengthening lead-times for delivery. Shortages are dependent upon general industry demand, leading to demand spikes across all data center operators, including hyperscalers. Some of the critical equipment categories that have experienced delays and fluctuations in delivery timeframes are:

- Mid and high-voltage circuit breakers
- Mid and high-voltage transformers
- Low and mid-voltage switchgear
- Uninterruptible Power Supply (UPS) units
- Chillers and cooling equipment
- Backup generators

While the data center industry works hard to source domestic content, and suppliers are increasingly looking to build more U.S. capacity, it is not always possible to source domestically in the short-term. Supply chain issues for circuit breakers and transformers are ongoing in 2025, and new tariffs previously led to multi-year delays in shipments of switchgear, UPS, and other equipment. We believe the following policy recommendations should be included in the AI Action Plan:

Federal Agency Action:

- **Promote Standardization of Design and Complexity Reduction:** The administration could use DOE's Electricity Advisory Committee (EAC) convening authority to develop common standards for transformer procurement. The default today is that each utility develops different standards and requirements for even commonplace distribution transformers, making standardized sales and manufacturing difficult. Some industry coordination and standard-setting work is already underway through the EAC.

- **Establish a Strategic Transformer Reserve:** Establish a strategic reserve for transformers where the U.S. government can serve as a buyer of last resort if there are manufacturer delays. The reserve's function could be like that of the U.S. Strategic National Stockpile for medical equipment needed to respond to large public health emergencies. As envisioned by the National Infrastructure Advisory Council, the

[31] Green Tape, "How Biden Traded Transformers for Heat Pumps," (February 2025).

mechanism would function like the USDA commodity price supports, except that price would not be the trigger; rather, the support would be activated when plant capacity utilization dips below a particular threshold.[32] The resulting physical reserve could then be stored until production capacity utilization was high and lead times expanded again to unacceptable levels. At that point, the federal government, working with its private sector partners, would determine a suitable reserve drawdown to alleviate shortages.

Congressional Action:

- **Expanding Domestic Capacity through Federal Policies and Funding:** Create incentive structures for critical electrical equipment manufacturing. For example, Congress could pass Senators Moran and Cortez Masto's CIRCUIT Act, which extends a 10% tax credit to transformer manufacturing.[33] This will help domestic transformer production "pencil out" and support the struggling industry as it looks to recapitalize. The executive branch could also repurpose the remaining Defense Production Act (DPA) funding at DOE (~$14M) for transformer manufacturing rather than heat pump manufacturing. This is long overdue, and would support the Trump administration's focus on national security.

- **Expand Domestic Availability of Critical Transformer Components:** Increase availability of GOES and other materials necessary for the construction of transformer components by creating incentives to quickly expand domestic processing capabilities and capacity.

Joint Congressional and Agency Action:

- **Targeted Trade Policy:** Protecting the reliability of the supply chain with careful trade policy that doesn't undermine our ability to source critical equipment is necessary, especially since we are in a race with countries like China for faster digital infrastructure deployment. For example, tariffs on key data center infrastructure components will limit and slow the ability of U.S. companies to make strategic and essential investments to ensure that America remains the world leader in AI. The administration should consider exemptions for key data center components—if only for a defined period.

---

[32] The National Infrastructure Advisory Council, "Addressing the Critical Shortage of Power Transformers to Ensure Reliability of the U.S. Grid," (June 2024).
[33] U.S. Congress, Senate, *Credit Incentives for Resilient Critical Utility Infrastructure and Transformers Act (CIRCUIT Act)*, S. 448, 119th Cong., 1st sess., introduced in Senate February 6, 2025.

3. Workforce Development and American Jobs in Data Centers

Investment in domestic data center infrastructure supports growth in domestic jobs, both highly skilled operational jobs in data centers and jobs in the broader economy including construction, electricians, telecommunications, manufacturing, and pipefitters.[34] At the national level, each direct job in the data center industry supports more than six jobs elsewhere in the U.S. economy.[35] Between November 2023 and November 2024, construction spending by the U.S. data center industry increased 43%, compared to a 3% increase in total U.S. construction spending.[36] A recent study by PwC found that the data center industry's total contribution to national labor income was $404 billion in 2023—a 93% increase from 2017.[37] With rapid expansion of AI and the needed data center infrastructure, both trades and highly skilled labor needs will increase even more dramatically.

Worker shortages are commonplace already. A 2023 Data Center Staffing Survey from the Uptime Institute found staffing shortages as high as 48% at mid- and junior-level operations positions, and 41% and 33% in electrical and mechanical jobs, respectively.[38]

As data centers expand from traditional "mature" markets such as Northern Virginia to emerging markets across the country, workforce shortages are amplified by a mismatch between the existing skills in those communities and the skills necessary for operations and trades positions. We believe the following policy recommendations should be included in the AI Action Plan:

Administrative Action:

- **Create a National Technology Hub:** Create a national technology hub for data centers that can train workers, develop common curricula, and coordinate with local and regional academic institutions. The federal government should consider adding a data center operations hub to the "Tech Hubs Program" under the U.S. Department of Commerce.[39]

- **Expand the North American Industry Classification System (NAICS):** The U.S. Office of Management and Budget, the U.S. Census Bureau, and industry should collaborate to expand the classification system with a specific NAICS code for the data center industry.[40] The lack of specific NAICS codes keeps the American workforce in the dark regarding the rapidly growing opportunities for good-paying careers in the data

---

[34] Fierce Network, "Data center builders are feeling the labor shortage burn," (March 7, 2024).
[35] PwC, "Economic Contributions of Data Centers in the United States."
[36] Associated General Contractors of America, "Construction Outlook Presentation," (January 2025).
[37] PwC, "Economic Contributions of Data Centers in the United States."
[38] The Uptime Institute, "The Uptime Institute Data Center Staffing Survey 2023," (December 2023).
[39] U.S. Economic Development Administration, "Regional Technology and Innovation Hubs (Tech Hubs)."
[40] U.S. Census Bureau, "North American Industry Classification System – NAICS."

center industry. Defining specific NAICS codes for key data center operational careers presents an important opportunity for workforce development.

- **Promote America Works:** DCC supports initiatives to promote skills-based hiring, rather than the traditional approach that uses degrees and certifications. The federal government could partner with business groups and industry to expand skills-based opportunity options in federally sponsored programs.

- **Expand and Strengthen Education Programs:** Build on the success of existing initiatives such as the Northern Virginia Community College program for Data Center Operations,[41] Wenatchee Valley Community College in Washington,[42] and Illinois Community College Board (ICCB) that creates partnerships between the private sector, academia, and the government.[43] Using the existing funding through NSF or the DPA tool of financial assistance, the federal government could provide funding to states, community colleges, or vocational schools, on a regional basis, to expand existing workforce development and training programs or establish such programs for data center operations.

- **Veteran Workforce:** We support programs that train veterans in skills that can be used at data centers. Federal government agencies like the Department of Veterans Affairs can work with industry to establish such programs and provide long-lasting, well-paying jobs to the veteran community.

III. Conclusion

DCC thanks the Trump administration for its leadership in promoting a strong AI ecosystem here in the U.S. Data centers are vital to enabling critical and emerging technologies like AI that are essential to U.S. national security, international competitiveness, and economic prosperity. With the right approach to deploying data center infrastructure, the U.S. can win the AI race safely, securely, and to the benefit of all Americans. We look forward to a continued dialogue and exchanging in-depth ideas about our recommendations on an AI Action Plan.

Please contact Cy McNeill, Director of Federal Energy Policy, at Cy@datacentercoalition.org if you have questions on the information provided or would like to schedule additional conversations.

---

[41] Northern Virginia Community College, "Data Center Operations."
[42] National Science Foundation, "Award Abstract # 2400577, Critical Environments for Data Center Operations," (2024).
[43] DCC and several DCC members serve on the ICCB Advisory Committee. See Illinois Community College Board, "Data Center Curriculum Project Advisory Committee," (April 2024), slide 7.

RE: Letter for the Record on the U.S. Senate Committee on Environment and Public Works' Hearing "Improving the Federal Environmental Review and Permitting Process" Held on February 19, 2025.

Dear Senators,

We appreciate the opportunity to submit comments and materials on the February 19, 2025 hearing "Improving the Federal Environmental Review and Permitting Process." On behalf of the undersigned 22 organizations, we ask that both this letter and the materials linked within it are included in the congressional record. We focus our comments on issues related to an issue within this committee's jurisdiction – the implementation of the National Environmental Policy Act (NEPA). NEPA has long been an absolutely essential tool to ensure that taxpayer dollars and public lands and resources are managed in a way that serves the public interest and our national policy of ensuring a healthful environment for present and future generations. The promise of the NEPA process is simple and is at the heart of democracy – the government will consider the environmental and health impacts of its decisions, it will disclose those impacts to those affected, and it will ensure the public has a meaningful opportunity to weigh in on those decisions.

We know that much can be done to improve the implementation of NEPA and we have long supported both legislative and administrative efforts to do so that are responsive to known causes of delay and bottlenecks in the review process. For over a decade, many of our organizations have called for better management and oversight of the permitting process generally and NEPA specifically. It has long been known that agencies suffer a chronic lack of resources, staff, and training to effectively and efficiently permit projects. We have likewise called for and supported legislation that modernizes the NEPA process by leveraging technology to allow agencies to coordinate better, share information more quickly, and more meaningfully engage the public. Historic progress has been made over the last decade in these regards. Any conversations around ways to improve NEPA implementation must begin with an acknowledgement of what has already been done and what problems currently exist.

We are extremely concerned that current discussions around "permitting reform" oftentimes completely ignore the legislative reforms that have occurred over the last decade. Moreover, no mention was made in the hearing of the significant progress made to reduce timelines. In January of this year, the White House Council on Environmental Quality (CEQ) issued a factsheet and an updated report on environmental review timelines that details progress made across the government. Overall, the data shows that agencies were completing more reviews significantly faster – in the case of the Department of Energy, timelines for Environmental Impact Statements were cut in half over the previous administration. CEQ attributed this progress to a common sense approach that aligned legislative reforms that increased funding and improved engagement with communities with better management and oversight of permitting at senior levels of government.

Any conversation around improving the permitting process under NEPA must acknowledge progress made, identify actions already taken, and consider other legislative proposals that meet the need to build out a permitting system that is both efficient and equitable.While we appreciate efforts to improve the permitting process, we were concerned by Senator Capito's assertion in her opening statement that

"Congress has not stepped in to provide the holistic clarifications and modernizations" presumably necessary to improve permitting – a statement that fails to acknowledge, with respect to NEPA, the significant changes both Congress and the previous administration enacted, some of which our organizations supported and others which we did not. Because no mention was made of legislative and administrative actions taken over the last several years, we would like to submit the following for the record:

- FAST-41 (2015) – Title 41 of the FAST Act, and commonly referred to as "FAST-41," established the Federal Permitting Improvement Steering Council, comprised of Deputy Secretaries or higher from over a dozen federal agencies and charged them with steering critical infrastructure projects, which require over $200 million in investment, through the permitting process. The legislation set schedules, established an abbreviated permitting scheme for major infrastructure projects, and limited the statute of limitations for such projects to two years.The Executive Director of the Permitting Council during the first Trump administration noted that the Council had reduced timelines by 60% for permit approvals supporting over $200 billion in infrastructure projects and the creation of over 32,000 jobs and testified to the fact that the Council "saved projects more than $1 billion in avoided delays" in just the first few years of his tenure.
    - Sectors Impacted: Transportation, Renewable and Conventional Energy Production Electricity Transmission, Surface Transportation, Aviation, Ports and Waterways, Water Resource Projects, Broadband, Pipelines, Mining, and Manufacturing.
- Infrastructure Investment and Jobs Act (IIJA) (2021) – Subtitle C of Title I of the IIJA included a litany of permitting reforms for surface transportation projects, Section 11301 codified significant portions of President Trump's One Federal Decision which required permitting timetables with fixed deadlines, Section 70801 permanently reauthorized the sweeping permitting reforms for major infrastructure projects requiring over $200 million in investment by permanently reauthorizing the Federal Permitting Improvement Council, Section 40105 revised the process for designation of National Interest Electric Transmission Corridors by the Department of Energy and enhanced the backstop authority of FERC, and Section 11318 created a new categorical exclusion for oil and gas gathering lines.
    - Sectors Impacted: Transportation, Renewable and Conventional Energy Production Electricity Transmission, Surface Transportation, Aviation, Ports and Waterways, Water Resource Projects, Broadband, Pipelines, Manufacturing, Semiconductors, Artificial Intelligence and Machine Learning, High-Performance Computing, Quantum Information Science and Technology, Data Storage, Data Management, Cybersecurity, Carbon Capture, Oil and Gas Gathering Lines.
- Inflation Reduction Act (2022) - With over $1 billion in investment to increase the efficiency of permitting at key federal agencies, the Inflation Reduction Act (IRA) made historic commitments to address the lack of agency staff, resources, and training to conduct environmental reviews. The money is distributed across the Department of Energy, the Forest Service, the National Oceanic and Atmospheric Administration, the Federal Energy Regulatory Commission, the Department of Interior, the Environmental Protection Agency, the Council on Environmental Quality, the Federal Highway Administration, and the Federal Permitting Improvement Steering Council. In addition, over $2.7 billion was included to accelerate transmission development.

    - Sectors Impacted: Transportation, Renewable and Conventional Energy Production Electricity Transmission, Surface Transportation, Aviation, Ports and Waterways, Water Resource Projects, Broadband, Pipelines, Manufacturing, Semiconductors, Artificial Intelligence and Machine Learning, High-Performance Computing, Quantum Information Science and Technology, Data Storage, Data Management, Cybersecurity, Carbon Capture, Mining, Public Land Management, Ocean management, Nuclear, and more.
- Fiscal Responsibility Act (2023) - For the first time in over 50 years, Congress significantly amended NEPA. A bipartisan group of lawmakers and the Biden administration negotiated changes to the law that reduced the amount of time taken for reviews, clarified the roles and responsibilities of agencies, expanded the use of categorical exclusions, and set time limits and page limits on environmental reviews under NEPA. Since passage of the FRA, it is worth noting that over a dozen federal agencies have adopted over 100 categorical exclusions to facilitate timely reviews of actions ranging from renewable energy to conventional energy.
    - Sectors Impacted: All. NEPA applies to over 80 federal agencies encompassing nearly every aspect of federal decisionmaking.
- CEQ Finalization of the "Bipartisan Permitting Reform Implementation Rule," aka Phase 2 NEPA Regulations (2024) – In response to the bipartisan FRA and as a part of its efforts to update the NEPA implementing regulations, CEQ finalized this rule to implement the changes of the FRA and restore certainty to both project sponsors and impacted stakeholders. The updated regulations codified 50 years of existing case law and were based on the statutory text of NEPA, as amended. The regulations ensured that agency decisions were informed by science, agency experience implementing NEPA, relevant environmental, climate change, and environmental justice effects.
    - Sectors Impacted: All. NEPA applies to over 80 federal agencies encompassing nearly every aspect of federal decisionmaking.
- Leveraging Technology to Modernize Reviews (2024) – In a report mandated by Congress in the FRA, CEQ detailed progress made in better utilizing technology to improve the effectiveness and efficiency of environmental reviews which included: the Permitting Council allocating over $30 million to build and improve critical IT tools for permitting; the Army Corp of Engineers launching an online regulatory portal for permits to dredge, fill, or conduct activities in wetlands and waters of the U.S.; the Department of Energy announcing $13 million in funding to build AI powered tools to improve siting and permitting of clean energy infrastructure and partnering to develop Policy AI to augment NEPA reviews; the Department of Transportation launching the modernizing NEPA challenge; and the National Telecommunications and Information Administration launching a permitting and environmental mapping tool to accelerate access to high speed internet.
    - Sectors Impacted: All. NEPA applies to over 80 federal agencies encompassing nearly every aspect of federal decisionmaking.

While there are still opportunities to improve the permitting process under NEPA, it is simply impossible to say nothing has been done and timelines are not improving. As CEQ noted in its January report, the improved management and oversight of the permitting process combined with long overdue funding and resources for the agencies charged with review responsibilities is leading to results.

All of this progress, however, is now at risk. The current administration is slashing agency staff and funding – both of which are necessary for agencies to meet their permitting responsibilities for critical infrastructure across the country. Not only is funding being cut, but the regulatory certainty under NEPA was recently eliminated, as CEQ announced shortly after EPW's hearing, in an interim final rule, that the regulations governing how over 80 agencies in the federal government implement NEPA are revoked as of April, 11, 2025. As a result of this action, over 80 federal agencies will independently determine how they will comply with NEPA and establish their own regulations. Project sponsors, impacted communities, as well as tribal and local governments, now may have to navigate 80 different sets of regulations for NEPA. Without adequate agency staff, without necessary funding, and without any regulatory certainty, the permitting process under NEPA will be longer and more litigious with worse outcomes for impacted communities and project developers.

The inevitable increase in litigation arising from lack of clear regulations from CEQ - and piecemeal attempts to fill regulatory gaps by individual agencies - is in stark contrast to the repeated goal to reduce unnecessary litigation challenging inadequate NEPA review. As the committee considers litigation under NEPA, we submit several studies that spotlight the prevalence of litigation under the statute. First, we submit a paper analyzing over 30,000 United States Forest Service actions subject to NEPA entitled "US Forest Service Implementation of the National Environmental Policy Act: Fast, Variable, Rarely Litigated, and Declining." In that paper, the authors note that "less than 1 percent of all completed NEPA analyses in our dataset led to litigation." Similarly, in "Measuring the NEPA Litigation Burden: A Review of 1,499 Federal Court Cases," the authors noted that out of 51,000 NEPA decisions annually, there are on average just 115 NEPA lawsuits filed every year, which represents a litigation rate of 0.22%." Finally, in "Permitting Reform's False Choice," published last year in Ecology Law Quarterly, the author conducted a national study of federal permitting and environmental reviews for energy infrastructure constructed between 2010 and 2021 and concludes that we should "reject claims that placing broad limits on citizens suits and weakening the procedures and protections of the traditional environmental laws are necessary to meet the needs of the climate crisis."

Similarly, any attempt to gut NEPA's fundamental public process and participation elements will only exacerbate perceived delays and ineffective decisionmaking. In fact, studies show that facilitating earlier engagement with all stakeholders, including potential local opponents, can help improve the selected action and expedite the NEPA process by avoiding extended delays, litigation, or project cancellations.

As this committee contemplates how to continue building on recent improvements to the federal permitting process, we strongly encourage it to focus on solutions that are responsive to known causes of delay rather than solutions that erode transparent decisionmaking, meaningful public involvement, and adequate review of the health and environmental impacts of federal actions. Discussions should rely on fact-based studies such as "Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation," which makes sensible recommendations based on rigorous consideration of problems on the ground. Our organizations have long been committed to the development of a permitting system that is commensurate with the challenge of building out a clean energy economy in a manner that is efficient, equitable, and responsive to the needs of the climate crisis. It is well documented that we need clean energy and we need the transmission infrastructure necessary to unleash the terawatt of renewables waiting in the queue, which is why many of our organizations released a set of solutions outlining policy and legislative reforms needed to achieve those goals. Furthermore, it is absolutely critical for this

committee to double down on the solutions we know are driving success - adequate staff, funding, and resources for agencies; improved management and oversight of critical infrastructure projects; and regulatory certainty. At a minimum, Congress should extend and expand the funding to agencies to improve NEPA implementation which was included in the IRA and which has led to documented results.

Simply put, gutting public participation, reporting, and competent analysis would decimate the very elements that have allowed NEPA to be effective. We instead implore Congress to build on these important aspects, reaffirming the fundamental principles on which this crucial law is built. Thank you again for the opportunity to submit these comments.

Signed,

American Rivers
Bold Alliance
Chesapeake Climate Action Network
Climate Justice Alliance
Concerned Citizens Table of Lake Charles
Defenders of Wildlife
Earthjustice
Earthworks
Food and Water Watch
For a Better Bayou
Friends of the Earth
GreenLatinos
League of Conservation Voters
Mossville Environmental Action Now (MEAN)
Oceana
Sierra Club
Silvix Resources
Southern Environmental Law Center
The Wilderness Society
Turtle Island Restoration Network
Union of Concerned Scientists
Washington Conservation Action

March 21. 2025
To: Senate Environment and Public Works Committee
Re: Improving the Federal Environmental Review and Permitting Processes

Dear Chair Capito, Ranking Member Whitehouse, and Members of the Environment and Public Works Committee,

Thank you for the opportunity to share our experiences, identify challenges, and suggest solutions to the Federal environmental review and permitting process. These comments speak primarily to permitting hardrock mines on public lands. On behalf of the undersigned, we respectfully urge you to prioritize funding our public lands agencies so they can efficiently perform all their necessary functions, including environmental reviews for mines.

In addition, we urge Congress to update our mining laws to balance public land uses by strengthening community input, protections for watersheds, wildlife habitat, and cultural and historic resources. Similarly, we respectfully urge your committee to strongly oppose efforts that exacerbate deficiencies in the existing mining law and risk irreplaceable harm to protected lands, special places, endangered and sensitive wildlife, tribal sacred sites, and culturally significant sites in the interests of an industry push for deregulation. We firmly believe that efficiency and certainty are achievable without sacrificing other critical environmental and cultural values and we urge Congress to seek these solutions instead of moving to scrap what protections we have.

Improvements to the Mine Permitting Process

We acknowledge that growing demand for certain materials may require new hardrock mines, including some on federal public lands. However, there are better ways to source minerals than allowing entities to stake nearly unlimited claims for waste disposal, roads, pipelines, and transmission lines on public lands. Nor should Congress impose arbitrary environmental or judicial review constraints. Instead, a model proposal that includes critical improvements to the federal mine siting and permitting process can be found in S. 859, the Mining Waste, Fraud, and Abuse Prevention Act. This bill provides for hardrock minerals—just like oil, gas, and coal minerals– permit certainty before exploration begins, which will result in more timely and socially acceptable decisions.

Congress has already invested significant time and resources into permitting reform, including for public lands mining. For example, the Infrastructure Investment and Jobs Act (IIJA) made permanent the Fixing America's Surface Transportation Act Permitting Council (Permitting Council), which, in January 2021, added hardrock mining as a covered sector.

The IIJA also required the Interior Department to study mine permit times and identify process improvements to hardrock mine permitting. In response, in September 2023, the Interagency

Working Group (IWG) on mining recommended dozens of updates to mining law, regulation, and policy.[1] These recommendations, drawn from extensive input from relevant stakeholders, government, and mining policy experts, outline reasonable changes that would deliver a more fair hardrock mine permitting process and more certainty to both mine operators and impacted communities. Many of those recommendations were incorporated into S. 859. Others include:

- Congress creating a leasing system for metals, just as it has for all oil, gas, and coal.
- Congress providing discretion to land management agencies to balance mining with competing land uses, an upfront suitability determination would avoid potential conflicts later in the permitting process.
- Mandating notice to Tribes and communities before exploration begins; currently agencies notify the public after receiving a full mine plan of operations (when environmental review begins).
- Congress establishing a fair system of royalties and fees directed toward the IIJA fund for hardrock abandoned mine reclamation.

Though we appreciate the value of permitting efficiency, we urge Congress not to lose sight of the fact that mine permit times on public lands remain comparable to those of our allied nations with strong mining sectors. As directed by Congress, the IWG study found that average and median mine permit times span 3 years (when the operator receives a Record of Decision); and roughly 4 years until surface disturbance activities may begin (after the operator posts a bond).[2]

Ultimately, the IWG found the key to more efficient mine permitting rests with Congress providing full funding to our public lands agencies. This conclusion has been repeatedly confirmed by the Government Accountability Office,[3] independent researchers,[4] and practical experience. Delays in mine permitting primarily result from under-resourced agencies processing incomplete or untimely information provided by permit applicants. To address this, in part, Congress included $1 billion in the Inflation Reduction Act (IRA) to support timely and effective environmental reviews across federal agencies.

The Current Taxpayer Liabilities from Mining Compels Permitting Improvements

Mining companies have nearly unfettered access to minerals with little to no environmental safeguards resulting in severe negative consequences. Current mining law has allowed for the

---

[1] Please see Interagency Working Group on Mining Laws, Regulations and Permitting, Recommendations to Improve Mining on Public Lands, September 2023, Available at: https://www.doi.gov/sites/default/files/mriwg-report-final-508.pdf
[2] Ibid page 53.
[3] Please see GAO: Federal Lands Snapshot: Hardrock Mining Systems: GAO-22-105438, Nov.16, 2021. Available here: https://www.gao.gov/products/gao-22-105438
[4] Please see Pleune, Jamie. Playing the Long Game: Expediting Permitting without Compromising Protections. Environmental Law Reporter 52 ELR 10893-10906, Nov. 2022 Available at: https://www.eli.org/sites/default/files/files-pdf/52.10893.pdf

pollution of America's environment and waterways, placing additional unjust burdens on communities who have already borne the brunt of our nation's toxic mining legacy. Already, America is littered with hundreds of thousands of abandoned mines that the Environmental Protection Agency (EPA) estimates have polluted 40% of the headwaters of western U.S. watersheds and will eventually cost taxpayers more than $50 billion to clean up. Taxpayers are potentially liable for billions more in cleanup costs at currently operating mines—including treatment of water in perpetuity, placing the health of additional, already threatened Western watersheds at risk.

Modern mines- those permitted under current operating standards- provide inadequate financial assurances to cover their cleanup costs.[5] An analysis of all major hardrock mines in Montana, permitted since 1980, found that financial assurances were inadequate to cover clean-up costs at 42% of the mines (Beal, Basin Creek, Kendall, Montana Tunnels, and Zortman Landusky).[6] The Montana Tunnels mine declared Chapter 11 bankruptcy in December 2022. The Formosa mine in Oregon, permitted in 1990, ceased mining in 1993, spent the $980,000 bond, and joined Superfund's National Priorities List in 2007.

Another example is found in the Navajo Nation's experience with uranium mining, milling, and toxic pollution. The Navajo Nation is situated directly in America's uranium mining belt, and in the 1950's and 1960's fervent uranium development left residents with myriad health risks due to radiation exposure through polluted water and land. Today over 500 of these mines remain unremediated across the Navajo Nation, where they continue to impact residents' health. Navajo Nation residents are 67 times more likely to live without running water than other residents across the country—and many water sources on the Navajo Nation are contaminated as a result of uranium mining and milling operations.[7]

This experience teaches us that permitting improvements for mining must contain stronger operational standards and financial assurances.

Mine Permitting Must Explicitly Include Protections for America's Special Places

Expanding mineral activities on federal public lands without modernizing our mining laws could threaten some of our nation's most treasured areas. Previous mine permitting proposals have

---

[5] Please see GAO: BLM and Forest Service Hold Billions in Financial Assurances, but More Readily Available Information Could Assist with Monitoring. GAO-19-436R, October 18, 2019. Available at: https://www.gao.gov/products/gao-19-436r

[6] Please see Zanolli, Laura, "Track Record of Montana Modern Hardrock Mining: Water Quality Impacts and Reclamation Bonding, September 2018. Available at: https://earthworks.org/wp-content/uploads/2021/09/Montana-Predictions-Report.pdf

[7] In 2016, researchers with Northern Arizona University (NAU) discovered high levels of uranium contamination in the water supply of Sanders, Arizona, a small town just outside of the Navajo Nation whose residents are mostly Navajo. It was later discovered that the state had known of the contamination since 2003, but regulators failed to notify the residents of Sanders until after NAU researchers presented their results to the community. The Navajo Nation is not alone. Past and ongoing impacts of uranium operations on Native communities are extensive.

sought to scale back protections for millions of acres of tribal sacred sites, culturally significant places, and iconic natural places. While mining is not permitted within the boundaries of National Parks, mining activities pollute the air and water that crosses the boundaries of protected lands. Insufficiently regulated mining promotes a false choice between domestic resource development and environmental protection by risking the function of ecosystems that we rely on for our own survival, health, and wellbeing.

We urge the committees to reject any legislation that puts important American lands, waters, and wildlife at risk of pollution and degradation. We urge the committee to support legislation that makes mining subject to the regular land use planning process and allows land managers discretion to determine where mines may or may not be suitable, potentially avoiding future permitting delays.

Conclusion

We respectfully urge you to oppose permitting efforts that would exacerbate deficiencies in the existing mining law and result in risks to irreplaceable protected lands, special places, tribal sacred sites, and wildlife from an unnecessary increase in mining on federal public lands. There are common-sense solutions to improve mine permitting that Congress should consider, including S. 859 the Mine Waste, Fraud, and Abuse Prevention Act. Or, Congress could apply the same metals leasing system that applies to the Eastern half of the United States, (and for the rest of the world), to metals mined out West. Additional resources, updated rules, and thoughtful implementation by public lands agencies will also drive mine permitting efficiency. Thank you for your consideration.

Sincerely,

Arizona Mining Reform Coalition

Arizona Trail Association

Black Hills Clean Water Alliance

Citizens to Protect Smith Valley (NV)

Earthjustice

Earthworks

Gila Resource Information Project

Great Basin Resource Watch

Great Basin Water Network

Idaho Conservation League

Idaho Rivers United

Kalmiopsis Audubon

LEAD Agency, Inc.

Lower San Pedro Watershed Alliance

Malach Consulting

Mining Impact Coalition of Wisconsin

Montana Environmental Information Center

Multicultural Alliance for a Safe Environment

Natural Resources Defense Council

Northern Alaska Environmental Center

Okanogan Highlands Alliance

Patagonia Area Resource Alliance

Rivers Without Borders

Rock Creek Alliance

Save Lake Superior Association

Save Our Sky Blue Waters

Save the Scenic Santa Ritas

Southern Utah Wilderness Alliance

The Wilderness Society

Uranium Watch

Environmental Defense Fund

March 21, 2025

United States Senate Committee on Environment and Public Works (EPW)
Chair Capito and Ranking Member Whitehouse
410 Dirksen Senate Office Building
Washington, D.C. 20510

RE: Letter for the Record on the U.S. Senate Committee on Environment and Public Works' Hearing "Improving the Federal Environmental Review and Permitting Process" Held on February 19, 2025.

Dear Chairman Capito and Ranking Member Whitehouse,

Environmental Defense Fund (EDF) respectfully submits the following responses to the EPW Committee's February 19, 2025 hearing on permitting reform to identify challenges to the siting and permitting of energy infrastructure, inform the Committee of potential solutions, and share practicalities and experiences of federal permitting processes.

Greater transmission and grid infrastructure provides myriad benefits. The United States is experiencing a shift in electricity systems: nationwide electric demand is forecast to increase by 15.8% by 2029 as a result of increased electrification of buildings and fleets, data center development, and onshore manufacturing.[1] At the same time, climate-related risks have increased the risk to resilience in power systems from Los Angeles to North Carolina. Transmission and grid development are critical enablers to unlock a more efficient power system and provide greater choice for electricity consumers while strengthening reliability and resilience and avoiding costly network congestion. It is also critical to enable the reduction in greenhouse gas emissions and air quality pollutants to avoid the worst impacts of climate change and preserve public health.

This, in turn, requires the United States to build more – and faster – to establish the necessary infrastructure, including clean generation, energy storage, electric transmission lines and grid upgrades. While the Bipartisan Infrastructure Law and Inflation Reduction Act leveraged incentives to build more infrastructure, they did not address many of the known barriers that make it difficult to *build faster*. EDF understands that developing the needed infrastructure and achieving bold climate objectives requires permitting reform. At the same time, a major source of project delays stems from failures to incorporate robust, early, frequent, and consistent community engagement into the project planning, permitting, and developing process. Well-

[1] John D. Wilson et al., *Strategic Industries Surging: Driving US Power Demand*, GRIDSTRATEGIES (Dec. 2024) https://gridstrategiesllc.com/wp-content/uploads/National-Load-Growth-Report-2024.pdf.

designed permitting reforms should accelerate project permitting and development timelines while also improving engagement of and outcomes for impacted communities.

Intrastate transmission projects are especially important for reliability and resilience, but regrettably, only a modest amount of transmission lines have been built in the last century, and most have been intrastate (local) projects.[2]

Below, we provide recommendations to the EPW Committee demonstrating what federal permitting requires to create efficient, effective, and durable solutions to the need of United States' energy infrastructure. Importantly, some of the recommendations relate to communities and Tribal Nations. EDF does not represent these groups. While we make these recommendations based on our assessment of materials produced by Tribal Nations and community organizations, we urge the EPW Committee to actively seek input from Tribal Nations and community organizations.

I. EDF recommends that Congress ensure federal agencies have adequate agency staffing and resources for energy permitting.

Staffing shortages and a lack of agency resources to assess proposed projects is one the of main causes of project delays and a major barrier to an efficient permitting process.[3] The Inflation Reduction Act[4] dedicated substantial funding to agency permitting and environmental review staff, creating a strong foundation for reforming permitting processes by ensuring federal agencies have access to the staff and resources needed to provide timely and comprehensive project assessments. Indeed, the Department of Energy (DOE) cut review timelines by half and the Department of Transportation (DOT) cut timelines by a third during the past four years, as compared to the timelines under the first Trump administration.[5] Unfortunately, the mass firings by the current administration have exacerbated the issues of inadequate agency staffing and resources and led to project delays and cancellations.[6]

---

[2] Tyler Farrel & Chaz Teplin, *States in Sync: The Western Win-Win Transmission Opportunity*, RMI 7 (2024), https://rmi.org/insight/states-in-sync-the-western-win-win-transmission-opportunity; *See* Claire Wayner et al., *Mind the Regulatory Gap: How to Enhance Local Transmission Oversight*, RMI 18 (Nov. 2024), https://rmi.org/wp-content/uploads/dlm_uploads/2024/11/rmi_mind_the_regulatory_gap.pdf.

[3] TED BOLING & KERENSA GIMRE, EVIDENCE-BASED RECOMMENDATIONS FOR OVERCOMING BARRIERS TO FEDERAL TRANSMISSION PERMITTING, NISKANEN CTR. & CLEAN AIR TASK FORCE (Apr. 2024), https://www.catf.us/wp-content/uploads/2024/04/evidence-based-recommendations-overcoming-barriers-federal-transmission-permitting.pdf; *See* U.S. GOV'T ACCOUNTABILITY OFF., GAO-20-397R, BUREAU OF LAND MANAGEMENT: AGENCY'S REORGANIZATION EFFORTS DID NOT SUBSTANTIALLY ADDRESS KEY PRACTICES FOR EFFECTIVE REFORMS (2020); *See also* U.S. GOV'T ACCOUNTABILITY OFF., GAO-25-107852, HIGH–RISK SERIES: CRITICAL ACTIONS NEEDED TO URGENTLY ADDRESS IT ACQUISITION AND MANAGEMENT CHALLENGES (2025); U.S. GOV'T ACCOUNTABILITY OFF., GAO-25-106748, CLEAN ENERGY: NEW DOE OFFICE SHOULD TAKE STEPS TO IMPROVE PERFORMANCE MANAGEMENT AND WORKFORCE PLANNING (2024).

[4] Inflation Reduction Act of 2022, Pub. L. No. 117-169, 136 Stat. 1818 (2022).

[5] *See Improving the Federal Environmental Review and Permitting Processes Before S. Comm. on Env't & Pub. Works*, 119th Cong. (2025) (statement of Sen. Sheldon Whitehouse).

[6] Valerie Volovici & Nichola Groom, *Musk's Layoff Shrink Workforce Needed to Realize Trump's Energy Agenda*, REUTERS (Mar. 13, 2025, 6:13 AM), https://www.reuters.com/world/us/musks-layoffs-shrink-workforce-needed-help-realize-trumps-energy-dominance-2025-03-13; Diana DiGangi, *EPA Yanks Air Quality Permit for 1.5-GW Atlantic Shores Offshore Wind Project*, UTIL. DIVE (Mar. 18, 2025), https://www.utilitydive.com/news/epa-remands-clean-air-act-permit-atlantic-shores-offshore-wind-energy-trump/742885.

To inform the needs of federal agencies and the future Congressional allocation of funding to support adequate agency staffing and resources, we recommend the EPW Committee consider holding a hearing with the leads of relevant federal agencies. It is well established that agencies such as the Bureau of Land Management have faced significant workforce challenges.[7] However, with the current mass firings, it is unclear where resources and staffing are needed the most. A hearing can assist Congress in determining how to prioritize where to allocate funding.

We then recommend that Congress provide sufficient funding for agency staff and clear directives to agencies to use the funds for permitting. Additionally, we recommend that Congress invest resources in the DOE's Grid Deployment Office and other offices involved in the transmission development and permitting review process, as well as expand supportive programs like the Grid Resilience and Innovation Partnerships (GRIP) Program and the Transmission Siting and Economic Development Grants Program.

Importantly, permitting funding for federal agencies must be qualified with a broad enough scope to encompass both the administrative processes and substantive expertise. Expertise related to permitting requires institutional knowledge of administrative processes and specialized expertise in a variety of substantive areas such as wildlife experts, engineers, and others to meet statutory obligations under the Administrative Procedure Act, National Historic Preservation Act, Marine Mammal Protection Act, the Endangered Species Act and all other relevant statutes.

II. EDF recommends Congress grant the Federal Energy Regulatory Commission primary permitting authority for major interstate transmission infrastructure.

During the EPW hearing, a reoccurring question arose as to whether the Natural Gas Act may provide a blueprint for interstate transmission siting under the Federal Power Act (FPA). We agree that the structure of the NGA process Section 7 may provide helpful insights into developing a reformed process for transmission permitting under the Federal Power Act.

The Natural Gas Act Section 7 provides FERC authority over the siting and permitting of interstate pipelines and designates FERC as the lead agency on National Environmental Policy Act (NEPA) reviews.[8] States are preempted from exercising authority over the siting and operations of interstate pipelines. Once FERC approves a project, developers receive federal eminent domain authority.[9]

In contrast, interstate transmission permitting is a multijurisdictional and fragmented process. A transmission developer must begin by seeking approval through the siting process of every state the transmission line will pass through. In some cases, this requires seeking approval from local authorities as well as multiple state regulators. At the same time, the developer must also seek authority from any federal agency with regulatory jurisdiction over an aspect of the project or part of the land it crosses. While the Coordinated Interagency Authorizations and Permits

[7] Bureau of Land Management, Better Workforce Planning and Data Would Help Mitigate the Effects of Recent Staff Vacancies, US Gov't Accountability Off. (Nov. 2021), https://www.gao.gov/assets/d22104247.pdf.

[8] Natural Gas Act § 7, 15 U.S.C. § 717f.

[9] 15 U.S.C. § 717f(h).

(CITAP) process developed by the Department of Energy has streamlined the process of seeking federal approval, as discussed further below, state review remains fragmented.

Federal permitting authority for transmission is limited to a complex, multi-agency backstop process that has never been successfully used by a developer to obtain a permit. First, under FPA Section 216(a), DOE may identify and establish National Interest Electric Corridors (NIETCs or Corridors). If they have done so, and if a transmission developer proposes a line that is wholly within such a Corridor, that developer may request a federal permit from FERC—but only if the developer first requested all necessary state and local permits and one or more state or local regulatory bodies denied the requested permit or failed to act on it within a year. FERC may then review the permit application, effectively beginning a new review process, and ultimately grant a federal permit that displaces any state or local denials or requirements.[10] Importantly, there are no enforceable deadlines or requirements for federal government action in this process. As the result of the complexity of the process and lack of strong requirements, DOE has not made a single final NIETC designation since the authority to do so was created in the Energy Policy Act of 2005.

To address the costs, delays, and other challenges created by this fragmented and ineffective siting process, Congress should amend the FPA to grant FERC primary siting authority regarding major interstate transmission infrastructure, similar to its authority under Natural Gas Act Section 7 regarding interstate natural gas pipelines. To ensure that this does not result in inefficient and unreasonable federal siting for minor transmission projects that happen to cross a state border, Congress should consider limiting this authority to transmission projects that exceed a certain electrical capacity or physical length.

To transition from the current permitting process under the FPA, we recommend the DOE continue to carry out section 40704 of the Infrastructure Investment and Jobs Act (IIJA).[11] Once all IIJA funds are allocated, the DOE may then discontinue the NIETC program, once FERC assumes primary authority over permitting interstate transmission.

III. EDF recommends Congress enhance accountability of federal interagency coordination to ensure federal agencies meet their statutory obligations and promote comprehensive decision-making.

Federal permitting of transmission projects often requires a number of different agencies to conduct robust assessments of a variety of often overlapping issues. To expedite the process, remove practical barriers, and preserve the integrity of required assessments, the DOE created the Coordinated Interagency Authorizations and Permits (CITAP) Program. The DOE harmonized the CITAP Program with The Fiscal Responsibility Act of 2023's requirement for federal agencies to make a determination within two years for NEPA Environmental Impact Statements[12] by creating a two-year timeline for the entire CITAP process.[13]

---

[10] *See* Applications for Permits to Site Interstate Electric Transmission Facilities, 187 FERC ¶61,069 (May 13, 2024) (to be codified at 18 C.F.R. pts. 50 & 380).

[11] 30 U.S.C. § 1245.

[12] Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, 137 Stat. 10, (2023).

[13] *Coordination of Federal Authorization for Electric Transmission Facilities*, U.S. DEP'T OF ENERGY 61, 76-81 (2024) https://www.energy.gov/sites/default/files/2024-04/CITAPFinalRuleDOE.pdf.

As part of amending the FPA to grant FERC primary authority over interstate transmission permitting, we recommend that Congress instruct FERC to create and use a version of the CITAP process with adjustments. We recommend that the FERC process keep the CITAP portal and add a mechanism for the public to review relevant documents in the portal, as offered through the FAST-41 process.[14] The adoption of the CITAP process by FERC, with modifications, will allow federal agencies to meet their statutory obligations and make for more efficient process without duplicative reviews.

We also recommend that FPA amendments include the current CITAP two-year deadline to issue federal permits and authorizations, Interagency Pre-Application process, and the scheduling process with the project proponent to establish project timelines. These three elements serve to standardize and establish clear guidelines for the pre-filing processes required for agencies to initiate their respective permitting review processes.

To support states in a transition to a permitting system under primary FERC authority, we recommend Congress offer states funding to streamline their internal permitting processes and develop a framework for engagement in federal permitting processes. This funding will allow states to remain active collaborators in the federal permitting review process to create comprehensive reviews.

IV. EDF recommends Congress require early, frequent, and consistent community engagement with affected communities.

A recent study from the Massachusetts Institute of Technology concluded that early community engagement can prevent project delays or cancellations.[15] Several transmission[16] and clean energy projects[17] have already benefitted from early, frequent, and consistent community engagement. To ensure that new transmission infrastructure is developed responsibly, equitably, and without delay, federal agencies must work with developers and the communities where the infrastructure is sited.

The use of a transparent unified process, like a CITAP-like process administered by FERC as recommended above, is an important first step in ensuring robust and effective community engagement. We recommend that Congress also require transmission developers seeking a federal permit to develop a comprehensive public participation plan[18] before they apply for federal authorizations and permits. This process will prioritize early and meaningful engagement

---

[14] *Permitting Dashboard: Federal Infrastructure Projects*, https://www.permits.performance.gov (last visited Mar. 19, 2025).

[15] Lawrence Susskind et al., *Sources of Opposition to Renewable Energy Projects in the United States*, 165 ENERGY POL'Y, June 2022, at 13.

[16] *Recommended Siting Practices for Electric Transmission Developers*, AMS. FOR A CLEAN ENERGY GRID 28 (Feb. 2023), https://cleanenergygrid.org/wp-content/uploads/2023/04/ACEG-Report-Recommended-Siting-Practices-for-Electric-Transmission-Developers-February-2023.pdf.

[17] PATY ROMERO-LANKAO ET AL., COMMUNITY ENGAGEMENT AND EQUITY IN RENEWABLE ENERGY PROJECTS: A LITERATURE REVIEW, NATIONAL RENEWABLE ENERGY LABORATORY 9-12 (2023), https://www.nrel.gov/docs/fy23osti/87113.pdf.

[18] *Coordination of Federal Authorization for Electric Transmission Facilities*, U.S. DEP'T OF ENERGY 61, 76-81 (2024) https://www.energy.gov/sites/default/files/2024-04/CITAPFinalRuleDOE.pdf.

with impacted landowners and communities before beginning formal review processes. Then we recommend FERC work with project proponents to build out and execute the Project Participation Plan, as is required under the current CITAP process.

To prevent duplicative reviews and ensure clear directives for project proponents, we recommend that the Project Participation Plan define "community." This will help federal agencies and project proponents ensure that historically overburdened communities receive due consideration and opportunities to collaborate with the project proponent. During the 2023 FERC-led Roundtable on Environmental Justice and Equity in Infrastructure Permitting,[19] community group panelists highlighted how in one instance a project developer negotiated to build a Boys and Girls Organization center with one community but failed to substantively engage with members of other, underrepresented communities within the project area.[20]

To further supplement the Project Participation Plan, we recommend that Congress direct FERC and the DOE to provide funding and technical resources to affected communities to support their engagement in planning, siting and permitting processes and improve information accessibility about permitting decisions. Often, communities are not able to engage in the permitting process, as they require technical expertise to fully understand the elements of project proposals. State-level programs[21] and other technical resources and funding for communities can ensure all communities have an opportunity to engage with the permitting process.

This funding should also support and encourage the development and use of community benefit frameworks in transmission projects for host and potentially impacted communities. Community benefit programs not only offset the impacts of projects on communities, but implementation has been shown to reduce project risk, and there is strong evidence that proactive implementation can reduce the overall project development time. Also, several regional and long-distance transmission projects that are currently in development have announced the incorporation of community benefits mechanisms.[22] EDF will also be releasing a series of case studies of operational transmission lines that have successfully incorporated community benefit frameworks later this year.

V. EDF recommends Congress require meaningful engagement with Tribal Nations and Indigenous Peoples to fully meet the federal government's trust responsibilities.

The United States endorsed the United Nations Declaration on the Rights of Indigenous Peoples ("UNDRIP") on December 16, 2010, and UNDRIP Article 32 mandates that nation states consult

---

[19] FERC, *Roundtable on Environmental Justice and Equity in Infrastructure Permitting*, Docket No. AD23-5-000 (Mar. 29, 2023) https://www.ferc.gov/news-events/events/roundtable-environmental-justice-and-equity-infrastructure-permitting.

[20] *Id. See* Transcript at 109, available at https://www.ferc.gov/sites/default/files/2023-04/20230405-4001.PDF.

[21] *See Renewable Energy Siting Through Technical Engagement and Planning (R-STEP™)*, U.S. DEP'T OF ENERGY, https://www.energy.gov/eere/renewable-energy-siting-through-technical-engagement-and-planning-r-steptm (last visited Mar. 18, 2025).

[22] *See e.g.,* World Resources Institute, Community Benefit Snapshots: North Plains Connector, *https://www.wri.org/snapshots/community-benefits-snapshot-north-plains-connector-transmission-line-community-engagement;* World Resources Institute, Community Benefit Snapshots: Soo Green Transmission Line, *https://www.wri.org/snapshots/community-benefits-snapshots-soo-green-transmission-line-community-engagement;* Champlain Hudson Power Express, Green Economy Fund, *https://chpexpress.com/green-economy-fund/*.

with Tribal Nations—here known as Indian Tribes—"in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources."[23] Tribal Nations are sovereign governments in the United States.[24] The federal government has trust responsibilities to preserve the government-to-government relationship between Tribal Nations and the federal government.[25] The trust responsibilities create a fiduciary relationship between the federal government and tribes.[26] The federal government cannot ignore this fiduciary relationship.[27] Typically, federal agencies fulfill consultation statutory obligations by meeting with Tribal Nations. However, in practice, these meetings have historically served as a perfunctory action, as opposed to meaningful collaboration.[28]

We recommend Congress require federal agencies uphold their trust responsibilities by ensuring that federal agency staff receive funding and resources to be trained in using Free, Prior, and Informed Consent and persevering the confidentiality of Indigenous Knowledge. We also recommend Congress allocate funding for staffing and resources at Tribal energy offices to ensure they can fully engage and inform federal permitting processes.[29] Where federal agencies, such as FERC[30] have contacted potentially affected Tribal Nations, that contact has often has not

---

[23] G.A. Res. 61/295, United Nations Declaration on the Rights of Indigenous Peoples, at 23 (Nov. 19, 2018).

[24] Federally Recognized Indian Tribe List Act, 25 U.S.C. § 5131. The majority of today's federally recognized tribal nations received the designation through treaties, acts of Congress, Presidential executive orders, or other federal administrative actions or federal court decisions.

[25] Seminole Nation v. United States, 316 U.S. 286, 296–97 (1942); Eric v. Sec'y of U. S. Dep't of Hous. & Urban Dev., 464 F. Supp. 44 (D. Alaska 1978).

[26] *Seminole Nation*, 316 U.S. at 296–97 (finding the government is more than a mere contracting party, but an entity with obligations of the highest standard of morality and trust, which should be judged by only the "most exacting fiduciary standards"); United States v. Jicarilla Apache Nation, 564 U.S. 162, 203–04 (J. Sotomayor, dissenting) (citing Varity Corp. v. Howe, 516 U.S. 489, 504 (1996)) (finding a fiduciary duty would serve no purpose if it only applied to activities already controlled by other specific legal duties).

[27] Pyramid Lake Paiute Tribe of Indians v. Morton, 354 F. Supp. 252 (1973) (finding disregarding the trust responsibility in federal decision is an abuse of discretion and not in accordance with the law). *See also* Lane v. Pueblo of Santa Rosa, 249 U.S. 113 (1919) (establishing that Dep't of the Interior's attempt to sell property within the Tohono O'Odham pueblo as if it was public land was improper, because that would be an act of confiscation, not guardianship); Menominee Tribe of Indians v. United States, 391 U.S. 404 (1968) (finding the government acts as a trustee regardless of the statutory language describing the relationship).

[28] 1 Tribal Governments Listening Session Afternoon Session Transcript ("Tribal Governments Listening Session Transcript"), Docket No. AD21-9-000 (Mar. 24, 2021): Richard Eichstaedt, attorney for the Confederated Tribes for Coos, Lower Umpqua, and Siuslaw Indians, at 13:24–14:9 (explaining that despite extensive engagement with FERC over the Jordan Cove LNG project, they had never interacted with the tribal liaison, despite several unanswered email inquiries to the liaison); Stacey Scott, Tribal Historic Preservation Officer for Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians at Coos Bay Oregon, at 18:20–22; Raelynn Butler, manager of the Historic and Cultural Preservation Dep't at the Muscogee Creek Nation, at 22:7–14; Diane Upi, Cultural Resource Director and Tribal Historic Preservation Officer for Fort Peck Assiniboine and Sioux Tribes, at 26:16–24. 152 Tribal Governments Listening Session Transcript, supra note 151: Darly Williams, Natural Resources Dep't employee for Tulalip Tribe, at 29:7–11 (noting that they found out via Hydro Reform coalition).

[29] G.A. Res. 61/295, United Nations Declaration on the Rights of Indigenous Peoples, at 23 (Nov. 19, 2018).

[30] 1 Tribal Governments Listening Session Afternoon Session Transcript ("Tribal Governments Listening Session Transcript"), Docket No. AD21-9-000 (Mar. 24, 2021): Richard Eichstaedt, attorney for the Confederated Tribes for

met the requirements of proper consultation. Staffing and resources for federal agencies and Tribal energy offices can help ensure that the federal government meets its trust responsibilities.[31]

Consistent with the recommendations in the sections above, the use of a unified, transparent federal permitting process, consistent with the CITAP process, would set a strong foundation for engagement with Tribal Nations in transmission permitting. This should also include consideration of how Tribal Nations can benefit as partners in transmission development. Such plans may draw on existing models such as the Morongo Band of Mission Indians co-ownership model.[32]

VI. EDF recommends Congress amend the Outer Continental Shelf Lands Act to improve accountability, ensure federal agencies can meet their statutory obligations, and promote comprehensive decision-making.

Offshore wind is a robust industry creating thousands of jobs for Americans and $14 billion in total in supply chain and manufacturing investments for the U.S. economy.[33] Offshore wind can bring much needed grid reliability and reduce curtailment and use of higher-cost generators.[34]

The Outer Continental Shelf Lands Act (OCSLA) regulates federal permitting of offshore wind facilities. Under OCLSA, a project proponent may apply or compete for an offshore wind lease, which will confer the right to build in one or more project easements to the successful developer.

Coos, Lower Umpqua, and Siuslaw Indians, at 13:24–14:9 (explaining that despite extensive engagement with FERC over the Jordan Cove LNG project, they had never interacted with the tribal liaison, despite several unanswered email inquiries to the liaison); Stacey Scott, Tribal Historic Preservation Officer for Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians at Coos Bay Oregon, at 18:20–22; Raelynn Butler, manager of the Historic and Cultural Preservation Dep't at the Muscogee Creek Nation, at 22:7–14; Diane Upi, Cultural Resource Director and Tribal Historic Preservation Officer for Fort Peck Assiniboine and Sioux Tribes, at 26:16–24. 152 Tribal Governments Listening Session Transcript, supra note 151: Darly Williams, Natural Resources Dep't employee for Tulalip Tribe, at 29:7–11 (noting that they found out via Hydro Reform coalition).

[31] *See* Division of Energy and Mineral Development, *Tribal Energy Development Capacity (TEDC) Grant*, U.S. DEP'T OF THE INTERIOR, https://www.bia.gov/service/grants/tedc (last visited Mar. 18, 2025) (Jemez Pueblo in New Mexico and Winnebago Tribe of Nebraska in Nebraska examples).

[32] *Recommended Siting Practices for Electric Transmission Developers*, AMS. FOR A CLEAN ENERGY GRID (Feb. 2023), https://cleanenergygrid.org/wp-content/uploads/2023/04/ACEG-Report-Recommended-Siting-Practices-for-Electric-Transmission-Developers-February-2023.pdf.

[33] *Offshore Energy at Work*, OCEANTIC NETWORK 4-5 (Jan. 1, 2025), https://online.flippingbook.com/view/454667918/4-5/.

[34] *See* Travis Douville et al., *An Offshore Wind Energy Development Strategy to Maximize Electrical System Benefits in Southern Oregon and Northern California*, PAC. NW. NAT'L LIBR., ES-2 & ES-4 (Sep. 2023) https://nationaloffshorewind.org/wp-content/uploads/SoOR_NorCA_OSW_Development_Strategy_Report__PNNL_NOWRDC_BOEM_092923-1.pdf; *See also* Josh Berman, *Benefits of Offshore Wind in New England*, SIERRA CLUB 3 (Sep. 12, 2024), https://www.iso-ne.com/static-assets/documents/100015/september_clg_meeting_panelist_berman_09_12_24.pdf; *See also* Christopher Hayes, Analysis of Stochastic Dataset for ISO-NE, ISO New England Inc. 8, 22-24 (Feb. 24, 2021), https://www.iso-ne.com/static-assets/documents/2021/03/a9_dnv_gl_report_analysis_of_stochastic_dataset_for_iso_ne_rev1.pdf.

The current administration has abruptly ordered federal agencies to stop issuing permits and leases, pending a review of federal approval processes for offshore wind energy projects.[35]

To improve accountability, ensure federal agencies can meet their statutory obligations, and promote comprehensive decision-making, we recommend Congress amend the Outer Continental Shelf Lands Act to require the President to provide an opportunity for comment, and a reasoned explanation supported by the evidence as to why removal of a lease is in the public interest.

With so many needed benefits of offshore wind to counter the effects of climate change and support the power grid, we also recommend Congress amend the OCSLA to require the Secretary of the interior to hold at least one annual offshore wind lease sale between 2025-2029 with sales consisting of at least 400,000 acres. We also recommend the Congress set a procurement goal of 45 GW of offshore wind including floating and standing projects. Continuing to support the offshore wind industry will benefit the American economy and the longevity of the power grid.

VII. EDF recommends Congress require the Department of the Interior to support the use of appropriate federal land for clean energy and energy storage projects and electric transmission.

Developing transmission and clean energy on federal lands is an opportunity to maximize areas of land already designated as preferred areas for energy development and can help enhance national security.[36]

In 2024, the Department of the Interior surpassed its goal of permitting 25 GW of renewable energy on federal land.[37] We recommend Congress require the Department of Interior Secretary increase its goal from 25 to 50 GW of renewable energy on federal land by 2030. We also recommend energy storage be added to the definition of eligible renewable energy projects (paired with wind, solar or geothermal) to the definition of eligible renewable projects that meet the goal. This expanded goal and definition will ensure the best available, low-cost resources can serve customers, while reducing reliance on harmful fossil fuels.

We also recommend Congress provide funding to identify and incentivize co-location of transmission and clean energy generation in existing highway, rail, utility and federal lands rights-of-way, where technically feasible. Section 368 Corridors are preferred locations to transport energy on federally administered public lands.[38] After multi-year review of the 2009

[35] See *Temporary Withdrawal of All Areas in the Outer Continental Shelf from Offshore Wind Leasing and Review of the Federal Government's Leasing and Permitting Practices for Wind Projects*, WHITE HOUSE (Jan. 20, 2025), https://www.whitehouse.gov/presidential-actions/2025/01/temporary-withdrawal-of-all-areas-on-the-outer-continental-shelf-from-offshore-wind-leasing-and-review-of-the-federal-governments-leasing-and-permitting-practices-for-wind-projects.

[36] *Transmission Expansion for National Defense*, ASS'N OF DEF. COMMUNITIES 22 (Apr. 2024), https://defensecommunities.org/wp-content/uploads/2024/04/Converge-Stategies-Report-Final-ADC-Publications-April-2024.pdf.

[37] Biden-Harris Administration Delivers Historic Milestones, New Actions for Clean Energy on Public Lands, U.S. Dep't of the Interior, https://www.doi.gov/pressreleases/biden-harris-administration-delivers-historic-milestones-new-actions-clean-energy (Apr. 15, 2024).

[38] Energy Policy Act of 2005 § 368(a), Pub. L. No. 109-58, 119 Stat. 594 (Aug. 8, 2005).

originally designated corridors, the BLM and the U.S. Forest Service published a final report identifying potential improvements to the corridors that balance the need for delivering clean energy with protecting public lands, water and wildlife habitat.[39] The final report's reserved assessment of transmission offers an opportunity to ensure the clean energy built on public lands adds maximum value to customers and remains consistent with federal agencies' statutory obligations to protect public lands.

VIII. We recommend Congress require FERC to conduct two rulemakings: one for interregional transmission planning and cost allocation and another for a minimum transfer capacity formula.

Interregional transmission is integral to building a reliable power grid that can serve everyone and meet the growing demand for electricity. Only 70 circuit-miles of interregional transmission were energized between the regions on average each year between 2011 and 2020.[40] Interregional transmission capacity must grow, with future generation and load changes. In the DOE *Transmission Needs Study*, capacity expansion results demonstrate how interregional transfer capacity must grow by 25% to meet future moderate load and clean energy growth, by 114% to meet moderate load and high clean energy growth, and by 412% to meet high load growth futures by 2035.[41] Indeed, combined solutions of interregional and regional transmission provide additional opportunities to increase the benefits of transmission by enabling access to a diverse set of generation resources, including more geographically dispersed low-cost, clean energy.[42] Moreover, failure to develop robust interregional transmission infrastructure has denied consumers significant economic benefits. Some studies estimate that increased interregional transmission would result in national electric system cost savings ranging from $270 billion to $490 billion by 2050.[43]

To realize the full benefits of transmission in the power grid, we recommend Congress require FERC to undergo a rulemaking to build on FERC Order 1920 specifically for interregional transmission. To complement this rulemaking, we also recommend that Congress amend Section 219 of the FPA[44] to establish a mandatory incentive for interregional transmission projects to

---

[39] *Energy Policy Act of 2005 Section 368 Energy Corridor Review*, BUREAU OF LAND MGMT., U.S. FOREST SERV. & DEP'T OF ENERGY (Apr. 2022), https://corridoreis.anl.gov/documents/docs/Section-368-Energy-Corridor-Final-Report.pdf.

[40] *National Transmission Needs Study*, U.S. DEP'T OF ENERGY iii (Oct. 2023), https://www.energy.gov/sites/default/files/2023-12/National%20Transmission%20Needs%20Study%20-%20Final_2023.12.1.pdf.

[41] *National Transmission Needs Study*, U.S. DEP'T OF ENERGY viii (Oct. 2023), https://www.energy.gov/sites/default/files/2023-12/National%20Transmission%20Needs%20Study%20-%20Final_2023.12.1.pdf.

[42] *National Transmission Planning Study*, U.S. DEP'T OF ENERGY 2 (2024), https://www.energy.gov/sites/default/files/2024-10/NationalTransmissionPlanningStudy-Chapter6.pdf.

[43] MARK MURO ET AL., THE ECONOMIC AND ENVIRONMENTAL BENEFITS OF EXPANDING THE U.S. ELECTRICITY GRID, BROOKINGS INSTITUTION (2021); *See* NERC's Recommended Grid Expansion Would Save Consumers Billions in Expansions https://gridstrategiesllc.com/wp-content/uploads/GS_NRDC_NERCs-Recommended-Grid-Expansion-Report54.pdf

[44] 16 U.S. Code § 824s.

reflect the shared region-wide/nation-wide value of the project. Additionally, we recommend Congress require neighboring transmission planning regions to create joint plans to construct interregional transmission using a common set of assumptions, time horizons, the benefits of FERC Order 1920, and maximize the use of existing infrastructure and rights-of-way. To ensure lasting results, we recommend grid operators update these plans every three years and recommend that this provision include a mechanism for FERC to resolve disputes and require compliance.

We also recommend that Congress require FERC to set a minimum transfer capacity formula that each region must implement as part of the interregional planning requirements through a rulemaking. This formula would help ensure that interregional transmission development is a forward-looking assessment of system needs[45] and incorporates the full range of benefits outlined in FERC Order No. 1920's multi-value planning framework.[46]

Conclusion

Permitting reform is a necessary component of developing the transmission, clean generation, and storage infrastructure that will create an affordable, reliable, and clean electric system with the ability to serve our existing and future needs. EDF appreciates the opportunity to share these recommendations to inform the Committee's further consideration.

Sincerely,

/s/ Ted Kelly
Ted Kelly
Director and Lead Counsel, US Clean Energy
555 12th Street NW, Suite 400
Washington, DC 20004
tekelly@edf.org

[45] *Interregional Transfer Capability Study (ITCS)*, N. AM. ELEC. RELIABILITY CORP. (Nov. 2024), https://www.nerc.com/pa/RAPA/Documents/ITCS_Final_Report.pdf, (acknowledging that the study does not comprehensively assess the broader benefits of transmission expansion, like economic efficiency, cost reduction, and resilience. These are essential factors for adapting to an evolving energy landscape.).

[46] *See* Building for the Future Through Electric Regional Transmission Planning and Cost Allocation, 187 FERC ¶61,068 (May 13, 2024); Building for the Future Through Electric Regional Transmission Planning and Cost Allocation, 189 FERC ¶61,126 (to be codified at 18 C.F.R. pt. 35).

Edison Electric
INSTITUTE

Permitting Reform Recommendations

Edison Electric Institute (EEI) member electric companies will invest more than $200 billion this year alone to make the energy grid smarter, cleaner, more dynamic, more resilient, more flexible, and more secure; to diversify the nation's energy mix; and to integrate new technologies that benefit both customers and the environment. They also remain focused on keeping reliability and affordability front and center, as always, for the customers and communities they serve. Across the nation, EEI member electric companies continue to reduce greenhouse gas emissions while building new generation, which includes natural gas and clean energy resources. This new generation is helping to meet rising demand and other customer needs while creating good-paying jobs.

However, building new infrastructure remains challenging, as project siting, environmental and land-use permitting, and extensive litigation from multiple parties can slow the process significantly. The result of these delays is that it can take more than 10 years in some cases to bring critical new energy infrastructure projects online and increase costs for customers.

Any future legislative or regulatory efforts addressing permitting reform should ensure that the processes we use to site and permit critical energy infrastructure should enhance process efficiency and predictability, so that project development can be cost-effective, timely, and strengthen the reliability and security of our nation's energy grid. Those efforts also should be cognizant of how regional dynamics (*e.g.*, regulatory constructs, state and local policies, and economic growth) influence project planning and development, as different areas of the country are pursuing solutions tailored to their needs.

EEI and our member electric companies support permitting improvements that create a more efficient, environmentally sound, and legally durable process for deploying new critical energy infrastructure and technologies. Specifically, any future legislation and regulation should:

- Ensure that the National Environmental Policy Act (NEPA) processes are consistent, predictable, and efficient across federal agencies, and incorporate the most realistic and relevant information to the agency decision-making process. NEPA policy should:
    - Limit effects only to those that have a close causal relationship to the proposed action or alternative (reasonably foreseeable, not speculative, and not remote in time nor location);
    - Require the alternatives analysis to reflect the goal of the requested action and be based on the purpose and need of the project. Alternatives analyses also should be limited to a sufficient level of detail to allow for meaningful evaluation and comparison to the proposed project;
    - Return NEPA to a procedural process and away from action forcing;

- Reform the Judicial Review process for NEPA to establish a "clear and convincing" standard for judicial review of agency decisions, with any litigants being required to substantively participate in the comment process on any NEPA action as a prerequisite to filing suit. Any litigant claims also should be limited to issues that they raised during the comment process;
- Establish a 150-day statute of limitations to challenge final agency action, and consider whether to align NEPA judicial review with other landmark judicial review provisions in environmental laws (e.g., the Clean Air Act s. 307(b), (d)): challenge must go to a Circuit Court of Appeals);
- Expand the use of categorical exclusions (CEs), tiering, and programmatic reviews, including on Federal lands, along with cross-agency standardization;
- NEPA reviews for projects in previously disturbed areas should be largely covered by CEs or otherwise limited to EAs if the projects involve a combination of disturbed and greenfield impacts; and,
- Require agencies to begin their NEPA reviews within 90 days of receipt of a project proposal.

- Bolster the Clean Water Act (CWA) Section 404 general permit program. Policymakers should:
  - Create a statutory definition for "single and complete" project as it relates to linear energy infrastructure (*i.e.*, pipelines, transmission lines);
  - Add to statutory text that only restoration is required, not mitigation, for Nationwide Permits (NWPs) issued where the activity impacts less than .5 acres of wetlands or less than 300 feet of stream length.
  - Strengthen and solidify the NWP program, specifically for linear infrastructure by mandating the continued availability of one or more NWPs authorizing linear infrastructure;
  - Extend the mandatory renewal of the NWP program from five years to ten years to better align with permitting realities for energy projects by amending CWA 404(e)(2); and,
  - Clarify that NWPs are not subject to Endangered Species Act (ESA) consultation at the programmatic level.

- Allow critical energy infrastructure projects to move forward by ensuring that CWA Section 401 reviews are appropriately targeted to direct impacts. It should:
  - Limit the scope of a state's review under CWA Sec. 401 to only consider water quality impacts directly occurring from the project's point source discharges and not indirect impacts (*e.g.*, those associated with upland construction activities) or the activity as a whole;
  - Limit the scope of review to water quality in directly impacted federal jurisdictional waters and not other resources; and,
  - Ensure the availability of a general or "blanket" 401 certification for projects eligible for NWP coverage.

- Provide streamlined approval processes across all applicable environmental statutes for linear utility projects (including pipelines and electric transmission lines) within existing, disturbed and/or maintained rights-of-way, specifically including use of (a) NEPA categorical exclusions, (b) ESA programmatic consultations or programmatic "no effect" determinations, (c) Army Corps general permits, and (d) general or "blanket" 401 water quality certifications.

- Ensure Federal agencies are staffed adequately.
    - While reforms to the siting and permitting process are necessary to speed up timelines, ensuring that federal departments and agencies are adequately staffed and properly trained to process the necessary volume of permit applications is also essential for the timely approval of these critical projects.

Thank you for this opportunity to provide our stakeholder input into the process. EEI looks forward to continuing to work on a bipartisan and bicameral basis to advance thoughtful reforms to siting and permitting processes.

March 21, 2025

Senator Shelly Capito, Chairman,
Senate Environment and Public Works Committee

Senator Sheldon Whitehouse, Ranking Member
Senate Environment and Public Works Committee

Dear Senators:

I am writing to contribute my perspective to the Senate Environment and Public Works Committee regarding its hearing on Improving the Federal Environmental Review and Permitting Processes. Thank you for providing stakeholders the opportunity to share their views and concerns for the record about this important topic.

I support the need to bring the regulatory framework for implementing the National Environmental Policy Act (NEPA) into the 21st century. I have devoted much of the past 10 years of my academic life to studying the evaluation of NEPA performance and to assisting in the creation of an online platform to access and analyze decades of federal environmental decision-making (see NEPAccess https://www.nepaccess.org/). This comprehensive tool was designed to improve the efficiency and effectiveness of Environmental Impact Statements through data science and AI.

I also have extensive professional experience with NEPA as a previous federal administrator when I directed the U.S. Institute for Environmental Conflict Resolution at the Udall Foundation for its first 10 years. I was in charge of standing up the federal government's first environmental mediation program assisting governmental agencies and private and nonprofit stakeholders to manage and resolve conflicts that arise in the context of NEPA review processes and other federal environmental requirements.

I have one point I would like to make regarding the issues before you. And it is this: Improving the federal environmental review and permitting processes can be done through reforming and refining agency NEPA regulations and their implementation, NOT by discarding the NEPA statute, as some have suggested. You are no doubt familiar with the history of this landmark legislation. It was passed with near unanimous approval of Congress in 1969 and signed into law by President Nixon in 1970. It was an historic declaration of a national consensus that we value *multiple* public values – social, economic and environmental – that indeed can often conflict with one another and therefore require informed analysis and deliberation before deciding on the appropriate course of federal action. The way in which federal agencies are to go about doing this has evolved over time, guided by implementing regulations issued previously by the

President's Council on Environmental Quality (CEQ), by case law and the statute, and by individual federal agency procedures.

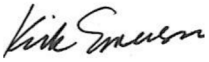
NEPA, the statute, simply provides the legal framework to consider and weigh policy priorities in light of foreseeable consequences of alternative actions. It constrains federal actions only by requiring federal accountability through public notice and comment periods. Based on my direct professional experience, NEPA also provides the platform for consolidating and streamlining reviews required by other substantive federal environmental laws, without which environmental decision making would be more piecemeal and fragmented, especially when decision by multiple agencies and levels of government are needed.

Today, we face unprecedented challenges in meeting our energy needs, addressing the changing climate, and building our technological infrastructure. We must improve the efficiency and reliability of our federal decisions and investments. This can be done through recommendations of this committee to reform implementing regulations of NEPA and other substantive environmental regulations.

I would suggest two areas of focus for the Committee. First, as mentioned before, bring the NEPA review process into the 21st century by authorizing the adoption of and appropriating funds for a web-based resource that allows agencies, applicants and the public to easily access the huge volume of information contained in 55 years of environmental analyses. This information would be incredibly valuable, both in terms of providing much improved analytical context and, I believe, in avoiding duplicative effort. Second, given the inevitability of disagreement or conflict among multiple, opposing interests and policy priorities, the role of facilitated collaboration and dispute resolution has been underutilized within the context of the NEPA process. Some direction to federal agencies to more robustly utilize the capacity of their own dispute resolution services and the services of the John S. McCain III National Center for Environmental Conflict Resolution at the beginning of the NEPA review process, especially for actions likely to be highly controversial, could help minimize unwelcome surprises near the end of the process.

I would be happy to discuss both of these issues in greater detail if it would be interest.

Thank you for your attention to my concerns,



Kirk Emerson
Emeritus Professor
School of Government and Public Policy
University of Arizona

FCHEA
Fuel Cell & Hydrogen Energy Association

FCHEA Permitting Reform Position Statement

The hydrogen industry has tremendous promise in driving domestic economic growth, jobs and manufacturing through expected scale-up in the coming years. Major investments in infrastructure are quickly needed to match the growing demands of this sector. FCHEA believes that a well-designed federal permitting system is a critical component to advancing clean hydrogen infrastructure and to protecting worker safety, advancing American technology competitiveness, driving energy security, supporting exports and trade, while protecting public health.

Under current law, it often takes longer to obtain government permits than to construct a hydrogen related project and environmental impact statements on average last approximately four and a half years to complete. Many of the project delays are associated with the process under P.L. 91-190, the National Environmental Policy Act of 1969 (NEPA). For projects with potentially significant environmental effects such as major infrastructure, NEPA requires a detailed, difficult, duplicative, and expensive environmental review process. Pipelines, storage facilities, carbon capture facilities, and more require the development of an Environmental Impact Statement (EIS). EISs can range from 200 to over 1,800 pages with review lasts lasting on average of two to seven years. In 2019, the White House Council on Environmental Quality (CEQ) reported that the average EIS was 447 pages and took on average 4 and a half years. In addition to NEPA, hydrogen projects and related infrastructure can be subject to permitting requirements under the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, Endangered Species Act, Environmental Protection Agency's (EPA) Underground Injection Control (UIC) Program, and other statutes/agency programs. The burdens, costs, and delays associated with obtaining these permits could delay development of large-scale hydrogen facilities in the United States and put the growing hydrogen economy at risk.

Position

The Fuel Cell and Hydrogen Energy Association (FCHEA) supports well-designed and implemented federal permitting rules that advance the development of much-needed clean hydrogen infrastructure in a timely and transparent manner.

Permitting reform is critical to advancing American energy dominance, technology leadership, and economic growth. However, the critical investments needed in will not happen in America if every EIS for an electricity transmission line, hydrogen pipeline, or CO2 pipeline takes four and a half years.

Hydrogen-related infrastructure should not be overburdened by inefficient regulatory regimes that hinder our nation's energy independence, economic growth, and decarbonization efforts. Lawmakers should strive for well-designed regulatory policies that promote investment and increase predictability while ensuring that projects meet all applicable environmental, health, safety, and other standards.

To develop sound permitting policy which supports the growing needs of the hydrogen and fuel cell industry, lawmakers should focus on the following issues:

Streamline Process. FCHEA recommends fully implementing the "One Federal Decision" approach whereby a single agency is responsible for guiding a project's approval process. The lead agency would work collaboratively with other agencies, applicants and interested parties to develop a single permitting plan and timetable for application review and approvals which would include identifying all necessary permits and delineating of responsibilities, as well as timelines for information acquisition and application processing. Participating agencies under this framework would raise any issues in the early stages of a project that would limit schedule adherence and participating agencies would work concurrently to ensure an expediated process. Lastly, the lead agency and the participating agencies would prepare a single environmental document and approve once record of decision. Congress should further establish a dispute resolution process for resolving, on an expedited basis, any disagreements or issues that may arise during the process.

FCHEA also encourages lawmakers to consider a Congressional mandate to executive agencies to conduct an assessment led by Office of Management and Budget (OMB) that require updating for hydrogen production, transport, and use, including a public comment period; submit findings in a report to Congress; and add regulatory actions as necessary to the semi-annual Unified Regulatory Agenda.

Expedited Litigation Procedures. FCHEA recommends that Congress enact measures to accelerate any litigation that may result from a federal permitting decision, including by setting a reasonable statute of limitations for actions and requiring courts to set accelerated case schedules and deadlines for agencies to act on remanded or vacated permit decisions.

Scope of Review. FCHEA recommends that Congress direct the Administration to expand the use of programmatic reviews for all infrastructure projects. Programmatic reviews serve as an efficiency-gaining tool, especially when federal agency actions under a specific program are repeated because they allow for analysis and certification of project impacts. For example, P.L. 116-92 directed CEQ to provide guidance for the development of NEPA environmental reviews for carbon capture, utilization, and carbon dioxide pipelines.

Final Decision Timeline Acceleration. FCHEA recommends that Congress codify EIS time limits, limiting the time for completion of an EIS to no more than two years, the time for completion of environmental assessments (EAs) to no more than one year, and ensure a clear process for extension of these deadlines if needed. Permitting process delays directly impact project costs as materials, supplies, and labor prices rise during a delay. Agencies and project developers should have the flexibility to reset any timetable and any extensions should require an agency to provide an explanation.

Congress should also allow project applicants to prepare environmental documents subject to federal agency oversight and satisfaction of transparency obligations that must be reflected in

the final document. Under NEPA regulations, applicants are allowed to prepare EAs for agency review, but an EIS must be developed by the agency or contractor selected by the agency. With any change in a proposal for agency evaluation and actions, contractor led EISs are often inefficient and lead to increased time and expense, leading to further project delays.

Application Review Administration: Congress should also allow project applicants to prepare environmental documents and continue to have federal agencies retain oversight and transparency obligations of the final document. Under NEPA regulations, applicants are allowed to prepare EAs for agency review, but an EIS must be developed by the agency or contractor selected by the agency. With any change in a proposal for agency evaluation and actions, contractor led EISs are often inefficient and lead to increased time and expense, leading to further project delays.

Categorical Exclusions: The Administration should also be directed to coordinate and maximize the use of categorical exclusions (CEs) for hydrogen and fuel cell infrastructure especially for infrastructure that will result in a net reduction in GHG emissions and will be sited in existing right of ways for electricity transmission and distribution infrastructure and pipelines. CEs designate projects which do not have a significant environmental impact and do not require an EA or EIS. Applying CEs to hydrogen and fuel cell projects would reduce unneeded paperwork and minimize potential project delays.

Funding. FCHEA recommends that Congress allocate appropriate funding to ensure that agencies have adequate resources, including personnel, to administer all permitting programs in a timely manner. Many federal agencies involved in the federal permitting process face the challenge of retiring workers, staff turnover, outdated IT systems and capabilities, and limited capacity. Therefore, federal agencies involved in permitting process, such as the Department of Energy's Office of NEPA Policy and Compliance or the Federal Permitting Improvement Steering Council (FPISC), should be provided the required resources to help with coordinating and expediting federal environmental reviews and permitting process implementation.

FERVO ENERGY

March 21, 2025

The Honorable Senator Shelley Moore Capito
United States Senate
170 Russell Senate Office Building
Washington, D.C. 20510

Dear Chair Capito:

On behalf of Fervo Energy, America's leading developer of next-generation geothermal power, we want to express our support for Congress's work to improve permitting processes.

Fervo provides 24/7 baseload energy from geothermal heat accessed with American technologies adapted from the shale revolution, including hydraulic fracturing, horizontal drilling, computational modeling, and distributed fiber optic sensing. The next-generation geothermal industry has a major role to play in providing cheap, abundant, and reliable power to Americans and its projects are effective, predictable, and scalable.

Geothermal Energy Will Advance the President's Priorities

In 2019, under President Trump's leadership, the U.S. Department of Energy (DOE) released its report, *GeoVision: Harnessing the Heat Beneath Our Feet*, which estimated that geothermal could provide over 120 GW of electricity by 2050. For context, the entire grid currently produces 1,250 GW today, per the EIA. The *GeoVision* estimate predated many technological advances that Fervo has made in the past five years that vastly grow geothermal's potential scale and make it viable across U.S. geographies.

A scaled geothermal industry will also create hundreds of thousands of jobs, largely in rural areas. Based on the National Renewable Energy Laboratory's job creation model, each new geothermal plant creates tens of thousands of construction and operational jobs, many of them requiring workers with drilling expertise and oil and gas backgrounds.

Congress Has Made Progress on Bipartisan Geothermal Legislation

The 118th Congress took several important and bipartisan steps to advance common-sense reforms to accelerate the permitting of energy projects and reduce red tape. Fervo looks forward to working with the 119th Congress to support the passage of similar legislation. This includes:

- **The Geothermal Energy Optimization (GEO) Act (S. 3945)**, introduced by Senators Risch, Heinrich, Lee, and Cortez Masto. This included provisions to direct the Departments of Interior (DOI) and Agriculture (USDA) to adopt categorical exclusions for geothermal observation test projects, to expand the oil and gas categorical exclusion to include geothermal for drilling and well-field development on previously studied lands under Section 390 of the Energy Policy Act of 2005, to increase the frequency of geothermal lease sales, to establish a Geothermal Ombudsman within the Bureau of Land Management (BLM), and to create a Geothermal Strike team within BLM to provide technical assistance to permitting and leasing applications.

- **The Energy Permitting Reform Act (S. 4753),** introduced by Senators Barrasso and Manchin, specifically Section 208 on geothermal. Drawing on the GEO Act, the Energy Permitting Reform Act included provisions for Categorical Exclusions under DOI and USDA, more frequent geothermal lease sales, agency deadlines for geothermal permit applications, and the Geothermal Ombudsman described above. It also would have provided DOI with resources to expedite leasing and application reviews and required DOI to set a process for simultaneous consideration of multiple phases of a geothermal project from subsurface exploration to power plant construction.

- **Streamlining Thermal Energy through Advanced Mechanisms (STEAM) Act (S. 4865),** introduced by Senators Murkowski and Cortez Masto, along with its House companion, **(H.R. 6474)**, introduced by Representatives Michelle Steel and Susie Lee. The Energy Policy Act of 2005 established Categorical Exclusions for certain exploratory activities related to oil and gas development and this bill would expand them to cover geothermal. In the 119th Congress, this bill has been reintroduced by Senators Murkowski and Cortez Masto in the Senate (S. 456) and by Representatives Celeste Maloy and Susie Lee (H.R. 1077) in the House.

- **The Geothermal Energy Opportunity (GEO) Act (H.R. 7370)**, introduced by now-Senator Curtis. This legislation would provide timeline certainty for project developers by setting a 60-day timeline for DOI to review geothermal leasing and permitting applications.

- **The Geothermal Cost-Recovery Authority Act (H.R. 7422)**, introduced by Representative Ocasio-Cortez. This legislation would provide DOI with resources to expedite leasing and permitting approvals.

- **The Harnessing Energy at Thermal Sources (HEATS) Act (H.R. 7409)**, introduced by Representative Young Kim. This legislation clarifies the permitting regime for split-estate situations, where there are wells located on non-federal land, accessing resources with a minority federal ownership.

- **Committing Leases for Energy Access Now (CLEAN) Act (H.R. 1449)**, introduced by Representative Fulcher. This legislation would increase the frequency of geothermal lease sales from every two years to every year. This has been reintroduced as H.R. 1687 in the 119th Congress.

Fervo appreciates Congress's bipartisan work to support these common-sense permitting reforms and looks forward to continuing this progress.

Further Opportunities

The legislation addressed above would make a tremendous difference in accelerating the commercialization of next-generation geothermal power. There are additional opportunities as well.

Geothermal power faces a unique challenge that NEPA documents have to be completed in sequence, rather than simultaneously, for land use planning, pre-leasing, exploration, drilling, well-field development, power plant construction, and transmission. The requirement to complete each of these in sequence extends project timelines which is particularly costly for first-of-a-kind projects relying on expensive venture capital rather than debt finance. On the leasing side, statute already requires geothermal lease sales every two years, that frequency has not been met in practice.

While we will leave the specifics of transmission permitting to others, Fervo broadly supports measures to accelerate the build-out of our grid. Fervo's 400 MW Cape Station project in Utah is permitted for 2 GW, but transmission-limited to 400 MW. Transmission constraints are a theme as Fervo considers other potential sites, especially because next-generation geothermal can deliver electricity to Americans at a lower cost with much larger, GW-scale operations.

Moving Forward to Commercialize Next-Generation Geothermal Power

Geothermal presents a transformative opportunity to deliver firm, baseload, secure, affordable and dispatchable power at scale using America's domestic natural resources. Targeted support from Congress and the Executive Branch is integral to these goals, and Fervo looks forward to collaborating with Congress to achieve them.

Thank you for your continued leadership.

Sincerely,
Ben Serrurier
Government Affairs and Policy Manager, Fervo Energy
ben.serrurier@fervo.com | 650-804-9994

GEOTHERMAL RISING POLICY
ENERGIZING OUR RENEWABLE FUTURE.

GEOTHERMAL RISING'S PROPOSALS FOR FEDERAL PERMITTING REFORM

March 21, 2025

1. Categorical Exclusions (CXs) from National Environmental Policy (NEPA) reviews for geothermal activities.

- **Background and Problem Description:** On Federal lands, potential environmental impacts from geothermal development must be reviewed by the BLM during the permitting process, as required by NEPA. Currently, the permitting process can take up to ten years for geothermal energy projects, in which a project sited on federal land may trigger a NEPA analysis up to six times. Categorical exclusions (CXs) from NEPA reviews exist for certain oil and gas activities (e.g., drilling at locations where drilling already occurred or was approved within the last five years) – meaning that these activities would not be subject to NEPA analysis.
- **Corresponding Bill(s) and Administrative Action(s):**
  - H.R. 1077 (119th Congress) and S.456 (119th Congress), the STEAM Act, would provide parity with oil and gas, allowing a CX for geothermal resource exploration and production on previously approved land or where drilling had already occurred. Comparable with H.R. 6474 (118th Congress).
  - Section 208 of S. 4753 (118th Congress), the Energy Permitting Reform Act (EPRA), includes CXs for geothermal resource confirmation (section 208(a)), exploration and production (section 208(f)).
  - BLM administrative CX for resource confirmation.
  - BLM administrative CX for exploration.
- **Analysis and Recommendations:**
  - Advance and pass the STEAM Act in both the Senate and House.
  - To the best of our knowledge, the resource confirmation CX expressly included in section 208(a) of EPRA is not covered in the bicameral STEAM Act; reintroduce section 208(a) of EPRA.
  - Geothermal Rising supports administrative CX's as well as legislative CX's, the latter provides additional certainty.

2. Increase the frequency of competitive geothermal lease sales on federal lands, and deadlines for leasing decisions.

- **Background and Problem Description**: Currently, there is a requirement for DOI to issue geothermal lease sales on federal lands every two-years, which is not frequent enough.
- **Corresponding Bill(s) and Administrative Action(s):**
  - The CLEAN Act (H.R. 1449 of the 188th Congress / soon to be introduced in the 119th) would require Interior to hold competitive geothermal lease sales at least once per year. If a lease sale is canceled or delayed, then Interior must conduct a replacement sale during the same year. Additionally requires Interior to notify an applicant whether or not its application for a geothermal drilling permit is complete within 30 days of receiving the application.
  - Section 208(b) of EPRA also required annual lease sales, replacement sales, and a 30 day decision deadline.
- **Analysis and Recommendations:** Advance and pass the CLEAN Act; introduce a Senate equivalent.

3. Make non-Known Geothermal Resource Area (KGRA) lands available for non-competitive geothermal leasing.

- **Background and Problem Description**: Nomination and public auction process for federal leases in high-risk areas discourage exploration activities on non-KGRA lands.
- **Corresponding Bill(s) and Administrative Action(s):** N/A
- **Analysis and Recommendations:** Legislation could be introduced to restore geothermal leasing to pre-Energy Policy Act (2005) to non-competitive exploration leases in frontier regions, so that non-KGRA's on federal lands are available for non-competitive geothermal leasing. Fixed timelines for development and/or other criteria/requirements for a developer to retain the land must be considered to discourage land-grabbing/holding.

4. Processing deadlines for geothermal permit applications.

- **Background and Problem Description:** Without reasonable deadlines for decisions on permit applications, developers are facing a degree of uncertainty in their planned projects.
- **Corresponding Bill(s) and Administrative Action(s):**
  - H.R. 301 (119th Congress), the GEO Act, would set a 60 day deadline for permitting decisions. Comparable to H.R. 7370 (118th Congress).
  - Also refer to EPRA Sec. 208(h), which sets a 30 day deadline.
- **Analysis and Recommendations:** Advance and pass the GEO Act; Senate companion needed in this Congress.

5. Bolster the Bureau of Land Management (BLM) to enhance geothermal permitting.

- **Background and Problem Description:** Part of the permitting challenge lies in an under-resourced and under equipped permitting agency. Many district offices are unfamiliar with the technical aspects of geothermal development, causing significant delays in the review process. Inconsistency across field office permitting procedures and staffing resources can increase uncertainty and discourage investment. Furthermore, the BLM is short-staffed in most of their offices in the Western US (especially AZ, NM, NV and UT). Additionally, there is a requirement that permits be processed in their respective physical local jurisdiction, adding further delay.
- **Corresponding Bill(s) and Administrative Action(s):**
  - Partially related to H.R. 398 (119th Congress), the Geothermal Cost-Recovery Authority Act, would allow the DOI to recover associated administrative and permitting costs from an applicant, re-imbursing the Department with much-needed resources to complete reviews in a more timely manner. Also refer to EPRA section 208(d).
  - EPRA section 208(g) includes a unique provision to establish a Geothermal Ombudsman at the Bureau of Land Management (BLM) to serve as a liaison between BLM field offices and the BLM Director and develop best practices for geothermal energy leasing and permitting.
- **Analysis and Recommendations:**
  - Administrative or legislative action to establish a National Permitting Center with well-trained geothermal-dedicated staff and Standard Operating Procedures.
  - Administrative or legislative action to enable BLM to hire fellows to provide technical expertise and assist the Bureau to develop Standard Operating Procedures.
  - Administratively or legislatively remove the requirement that geothermal permits be processed in local BLM offices.
  - Enhance permitting transparency by updating applicants more regularly or by creating a permitting database for real-time application tracking.
  - Increased appropriations to the Energy & Minerals Management (EML) – Renewable Energy account to address staffing shortages and technical gaps by hiring geothermal specialists and modernizing IT systems, and supporting a centralized database for real-time application tracking.
  - And/or re-introduce S. 4753 section 208(g).

6. Create a process for simultaneous, concurrent consideration of multiple phases of a geothermal project from surface exploration to power plant construction.

- **Background and Problem Description:** Status-quo procedures at the BLM apparently inhibit the concurrent review of multiple stages of a geothermal project, including surface exploration, geophysical exploration, drilling, and power plant construction.
- **Corresponding Bill(s) and Administrative Action(s):** Section 208(e) of S. 4753 directs Interior to promulgate regulations and establish a Federal permitting process to allow for simultaneous, concurrent consideration of multiple phases of a geothermal project. There is no House equivalent that we are aware of currently.
- **Analysis and Recommendations**: Reintroduce Sec 208(e) of S. 4753 and a House equivalent.

7. Remove requirement for a federal permit for geothermal leases where the U.S. owns less than 50% of the subsurface geothermal resource.

- **Background and Problem Description:** State permits are sufficient in most states where geothermal resources are present, removing the need for a federal permit and eliminating unneeded duplicative reviews.
- **Corresponding Bill(s) and Administrative Action(s):** H.R. 7409 (118th Congress), the HEATS Act, would waive federal drilling permits for geothermal activities on non-Federal land where the U.S. owns less than 50% of the subsurface geothermal resources, provided the operator has a State permit.
- **Analysis and Recommendations:** Reintroduce the HEATS Act.

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
U.S. Senate Committee
on the Environment & Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
U.S. Senate Committee
on the Environment & Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Re: Grid Action Recommendations for Federal Permitting Reform

Dear Chairman Capito and Ranking Member Whitehouse:

Thank you for the opportunity to submit our recommendations as the Committee considers federal permitting reform legislation this year. Grid Action is a coalition of diverse stakeholders that advocate for policies to build out the interstate high-capacity electric power network. Our members include investor-owned utilities, merchant transmission developers, energy generators, corporate customers, equipment manufacturers, labor advocates and non-governmental organizations from across the political spectrum. Collectively, we represent an industry working towards modernizing the U.S. electric grid that could unlock up to $7.8 trillion in investment, create more than 6 million new jobs, and save American consumers over $100 billion, reducing household electricity bills by more than $300 a year.[1]

A Clear Bipartisan Consensus for Federal Permitting Reform

During the Committee's February 19, 2025 hearing, "Improving the Federal Environmental Review and Permitting Processes," we were encouraged by the broad consensus articulated by the Committee's witnesses and Members from both sides of the aisle on this increasingly urgent issue. It takes too long to build things in America. After over a decade of essentially flat electricity demand, load growth is now surging due to the energy needs of data centers, advanced manufacturing, and increasing electrification across the economy. Failing to effectively meet this challenge will constrain economic growth, cost jobs, increase electricity prices, undermine grid reliability and jeopardize our national security. We can responsibly reform our existing permitting processes without sacrificing core values of environmental protection and public participation – and transmission is an indispensable part of the solution.

The Need for More Transmission

Since skyrocketing electricity demand is the challenge, focus naturally turns to increasing electricity supply. And there's no question about it: We're going to need more generation. About 128 gigawatts (GW) over the next five years, or five times more than projected just two years

[1] Clack, Christopher T.M., et al. *Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.* Americans for a Clean Energy Grid, October 2020.

ago, according to consulting firm Grid Strategies.[2] Multiple witnesses and Committee members pointed to the 2.6 terawatts (TW) of power projects currently waiting in interconnection queues – representing twice the nation's annual electricity consumption[3] – as a promising source of needed new generation. Other witnesses and members expressed a preference for more baseload generation.

The secret is that every kind of generation has location constraints that require transmission: Nuclear plants and hydropower need to be located by large water sources. Geothermal generation is constrained by the right geological conditions, even as recent advancements in drilling enable more suitable locations for geothermal power. Solar and wind resources are stronger in some regions than others. Natural gas and coal plants built with carbon capture and storage must be located near the best-suited underground carbon storage sites.The greatest economic benefits for all these resources are achieved through constant operation - which is maximized through the ability to deliver their electrons to customers through transmission without congestion.

Delivering all that new power to customers through a modern grid is the key to energy abundance. As Secretary Burgum explained at his nomination hearing, more transmission will be needed, regardless of future generation build. "It's one thing to be able to generate that electricity," said Burgum, "but if we don't have the ability to transmit it to the places where it's needed, that's going to be a problem."[4]

Three weeks later, Secretary Wright made transmission Action Item #8 on his first "Unleashing the Golden Era of American Energy Dominance" Secretarial Order, saying: "Fortifying America's electric grid is critical to the reliable and secure delivery of electricity. Under President Trump's Executive Order, 'Declaring a National Energy Emergency,' the Department will identify and exercise all lawful authorities to strengthen the nation's grid, including the backbone of the grid, our transmission system."[5]

Multiple witnesses and members of the Committee took note of the North American Electric Reliability Corporation's final Interregional Transfer Capability Study mandated by Congress in the Fiscal Responsibility Act of 2023 and released at the end of 2024, which recommended that an additional 35 GW of prudent additions to interregional transfer capacity be added to the grid in order to ensure electricity reliability during periods of peak demand and extreme weather events.[6]

In addition to interconnecting new generation and bolstering grid reliability, transmission can save Americans money on their energy costs. By reducing congestion and providing reliable access to lower-cost electrons, new transmission can cut electricity bills by $300 a year or more –

---

[2] Wilson, John D., et al. *Strategic Industries Surging: Driving US Power Demand*. Grid Strategies, December 2024.
[3] Lawrence Berkeley National Laboratory. *Grid Connection Backlog Grows by 30% in 2023*. April 10, 2024.
[4] Senate Committee on Energy and Natural Resources. *Hearing to Consider the Nomination of the Honorable Doug Burgum to be Secretary of the Interior*. January 16, 2025.
[5] U.S. Secretary of Energy Chris Wright. *Unleashing the Golden Era of American Energy Dominance*. Secretarial Order, February 5, 2025.
[6] North American Electric Reliability Corporation. *Interregional Transfer Capability Study Final Report*. November 2024.

even after accounting for the cost of building the new transmission.[7] The cost-saving feature of new transmission becomes readily apparent during extreme weather events, where 1 GW of transmission expansion could have saved customers across 12 separate regions a staggering $466 million over just five days during Winter Storm Elliott.[8]

As National Electricity Demand Increases, Transmission Build Is Falling Dangerously Behind

Despite the bipartisan consensus that transmission is part of our nation's critical energy infrastructure, capable of reducing Americans' electricity bills, and indispensable for meeting soaring electricity demand, construction of new high-capacity transmission has largely come to a standstill. Only 55 miles of high-voltage transmission lines were built in 2023, down dramatically from an average of 1700 miles of annual new high-voltage transmission construction in the United States only a decade ago.[9] Additionally, while the United States markedly slowed construction of its high-voltage transmission from 2014-2021, China did the opposite, developing 80 times more high-voltage transmission interconnections than the United States during the same period of time. This investment is enabling China to unlock the full spectrum of its own homegrown energy resources, including coal, solar and wind energy.[10]

Why We Aren't Building More High-Voltage Transmission Lines in the United States

During the Committee's February 19, 2025 hearing, Jeremy Harrell of ClearPath quipped that a number of needed transmission projects under development have now turned nearly 21 years old. These kinds of timelines are obviously incompatible with the speed and scope of the load growth challenge in front of us. A review of why these regionally significant lines are taking so long makes clear that complexity, inefficiency and redundancy in the review process; a lack of enforceable timelines; and open-ended judicial review are largely to blame. Following are four illustrative examples for the Committee's consideration:

- **SunZia** is a 550-mile, high-voltage direct current (HVDC) transmission project running from central New Mexico to south-central Arizona. Originally conceived in 2006, it took 10 federal agencies, five state agencies and nine local authorities[11] – as well as an ultimately dismissed lawsuit[12] – to get permitted. A staggering 17 years later, SunZia

[7] Clack., et al. *Consumer, Employment, and Environmental Benefits of Electricity Transmission Expansion in the Eastern U.S.* Americans for a Clean Energy Grid, October 2020.
[8] Goggins, Michael., et al. *The Value of Transmission During Winter Storm Elliott*, Grid Strategies prepared for ACORE, February 2023.
[9] Shreve, Nathan., et al. *Fewer New Miles: The U.S. Transmission Grid in the 2020s*. Americans for a Clean Energy Grid, July 2024.
[10] SAFE Center for Grid Security. *The Role of Transmission in U.S. Strategic Competitiveness with China*. October 2024.
[11] Horner, Keaton. "SunZia Transmission Line is a Win, but Also a Lesson in What Not to Do." *Renewable Energy World*, January 27, 2023.
[12] Meyer, Robinson. "The Long, Strange Success Story of America's Biggest Clean Energy Project." *Heatmap*, June 18, 2024.

broke ground on construction in 2023 and is expected to begin delivering power to 1 million homes in 2026.[13]

- **Boardman to Hemingway** (B2H) is an approximately 290-mile, 500 kV transmission project traversing Eastern Oregon and Southwestern Idaho. The concept for B2H first appeared in Idaho Power's 2006 Integrated Resource Plan.[14] Despite being recognized as nationally important, it took B2H 14 years to receive Records of Decision from three separate federal agencies, after which state permitting processes took another four years to complete.[15] A requirement that federal reviews be completed before state reviews could begin significantly prolonged the process.[16] The project was further delayed by multiple legal challenges to the Bureau of Land Management's Record of Decision (which was ultimately dismissed), as well as the state government's unanimous site certificate approval, which was upheld by the Oregon Supreme Court in 2023.[17] B2H is still working to obtain landowner easements and completing an NHPA Section 106 consultation. It hopes to be operational as early as 2027 – 21 years after being first proposed.[18]
- **Cardinal-Hickory Creek** is an approximately 102-mile, 345 kV transmission project connecting northeast Iowa and western Wisconsin. It was originally approved by the Midcontinent Independent System Operator (MISO) as part of its Multi-Value Project planning process back in 2011.[19] Getting Cardinal-Hickory Creek fully operational took 13 years, including nine years for permitting approvals from three federal agencies (i.e., the Department of Agriculture's Rural Utility Service, the U.S. Army Corps of Engineers, and the U.S. Fish & Wildlife Service), as well as two separate state entities (i.e., the Public Service Commission of Wisconsin and the Iowa Utility Board).[20] Additionally, the project faced multiple rounds of litigation[21] before finally being energized in September 2024. Now fully operational, Cardinal-Hickory Creek will deliver 24 GW of power to millions of households across the region.[22]

- **TransWest Express** is a 732-mile combination high-voltage direct current (HVDC) and high-voltage alternating current (HVAC) connecting four major balancing authorities in the western interconnection.[23] TransWest Express was started by the Arizona Public Service Company in 2005.[24] In addition to receiving authorizations from the Bureau of

---

[13] Pattern Energy. "SunZia Wind and Transmission." *Pattern Energy*, www.sunzia.com. Accessed 20 Mar. 2025.
[14] Idaho Power. "B2H History." *Idaho Power*, www.idahopower.com. Accessed 20 Mar. 2025.
[15] Idaho Power. "B2H Schedule and Permitting." *Idaho Power*, www.idahopower.com. Accessed 20 Mar. 2025.
[16] *Storrow, Benjamin*, "Like Manchin, Obama Tried to Fast-Track Transmission. Nope.", E&E News, October 3, 2022.
[17] Idaho Power. "B2H History." *Idaho Power*, www.idahopower.com. Accessed 20 Mar. 2025.
[18] Idaho Power. "B2H Schedule and Permitting." *Idaho Power*, www.idahopower.com. Accessed 20 Mar. 2025.
[19] Cook, Amanda Durish. "Cardinal-Hickory Creek Line Fully Energized 13 Years After MISO Approval." *RTO Insider*, October 1, 2024.
[20] Cardinal-Hickory Creek. *Cardinal-Hickory Creek Transmission Line Project*, www.cardinal-hickorycreek.com. Accessed 20 Mar. 2025.
[21] Dairyland Power Cooperative. "Cardinal-Hickory Creek Transmission Line Project Moves Towards Completion." *Dairyland Power Cooperative*, www.dairylandpower.com. Accessed 20 Mar. 2025.
[22] *Ibid.*
[23] TransWest Express. *TransWest Express Transmission Project*, www.transwestexpress.net. Accessed 20 Mar. 2025.
[24] *Ibid.*

> Land Management (BLM) and the Western Area Power Administration, TransWest Express had to secure approvals from four different states, 14 local governments and a host of private landowners along the proposed route.[25] It received its final Notice to Proceed from BLM in 2023 – 18 years after the project began.[26] When construction is completed in 2028, TransWest Express will have a capacity of 3 GW, enough power to serve more than 1.8 million homes.[27]

Importantly, the multiple challenges facing these projects – as well as the affordability and reliability needs these projects are designed to address – are not limited to a single region of the country. Nor are they limited to certain types of project sponsors – investor-owned utilities, merchant developers, co-ops and power marketing administrations are all involved. Moreover, while each of these projects was designed to take advantage of specific resource availability in the regions being served, the obstacles they faced will continue to impact our nation's ability to take advantage of all kinds of future power generation – unless Congress moves swiftly to enact pro-transmission permitting reform.

Recommendations

With that in mind, Grid Action recommends the Committee include the following policy changes to support long overdue and urgently needed high-voltage transmission build in any permitting reform package this year.

- Provide parity between regionally significant transmission lines and other linear infrastructure through coordinated siting and permitting at one federal agency using a single application.

- Direct FERC to issue a rulemaking within 180 days - and finalize a rule not later than one year after enactment - that establishes a minimum interregional transfer capability between any two Order No. 1000 planning regions based on expected needs and net benefits over the next 20 years, using a common set of metrics that predictably allocates costs roughly commensurate with benefits.

- Analyze transmission projects using a single environmental review, including any corridor designation reviews.

- Require that the federal permitting process for regionally significant and interregional transmission take no longer than five years - from initiation of pre-application to issuance of a notice to proceed, including the record of decision.

---

[25] Brophy, Greg. "The TransWest Express Transmission Line Is a Win for Rural Communities. Why Did Approval Take 15 Years?" *Utility Dive*, 16 May 2023.
[26] TransWest Express. *TransWest Express Transmission Project*, www.transwestexpress.net. Accessed 20 Mar. 2025.
[27] *Ibid.*

- Prohibit federal agencies from delaying deadlines without applicant agreement while limiting delays to no more than six months. Applicant requests for delays should be accommodated.

- Ensure an early warning system to identify interagency conflicts, maintain the Federal Power Act Section 216(h) appeals process when a federal agency fails to make a deadline and empower the lead agency responsible for conducting a unified environmental review to timely resolve all identified conflicts.

- Shorten the judicial review period for consistency with other infrastructure projects (e.g., the FAST Act provides two years for seeking an appeal).

- Include appropriate pre-application notice and consultation with stakeholders consistent with that currently provided for other linear infrastructure, as well as consideration of technical assistance and ongoing funding for impacted communities.

- Maximize the responsible use of categorical exclusions on previously disturbed lands existing rights of way, and other activities as appropriate. To the extent permits by rule or other permitting reform approaches are considered, they should apply equally to transmission projects of regional significance.

Please don't hesitate to reach out to Christina Hayes (christina.hayes@gridaction.org) or Bill Parsons (bill.parsons@gridaction.org) with any questions, and thank you in advance for your consideration of these recommendations. Grid Action appreciates your leadership on federal permitting reform and welcomes the opportunity to work with the Committee and the Trump Administration on the full range of our nation's transmission and energy infrastructure priorities.

Humane World for Animals. Humane World Action Fund.

Formerly called the Humane Society of the United States
and Humane Society Legislative Fund

March 21, 2025

Dear Chair Capito and Ranking Member Whitehouse,

Permitting processes under the Endangered Species Act cannot be weakened. Section 10 permits are intended to offer an extremely limited exemption to the ESA's prohibition on take of listed species *for the purpose of enhancing species survival*. Similarly, the consideration of listed species under Section 7 consultations provides indispensable protections that stave off extinction. These provisions, taken together, cut to the very heart of the ESA's purpose to conserve imperiled species.

Section 10

Section 10 permits are meant to offer highly limited opportunities to take or import listed species when those actions directly *enhance* that species' survival.

While the intent behind this provision makes sense, unfortunately, Section 10 has already been interpreted laxly by U.S. Fish and Wildlife Service (FWS). For example, allowing hundreds of "pay-to-play" permits giving trophy hunters the chance to import imperiled species on the basis of generating fees effectively reverses the purpose of Section 10. Generating fees does not satisfy the Section 10 requirement that the act of taking or importing benefits the species' survival.

a. Trophy hunting is damaging to species survival, the purpose of the ESA.

Targeted killing of members of a species at risk directly *hurts*—rather than helps—its chances of survival. Because trophy hunting often targets the most successful members of a species, it does outsized damage: removing the biggest and strongest animals from the gene pool, erasing valuable social and ecological knowledge[1] and destabilizing complex family dynamics. The notion that trophy hunting benefits species conservation to a meaningful degree is false. Ultimately, trophy hunting has a net negative impact on species and habitat.

A landmark report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services warned that one million wild animal and plant species are now threatened with extinction and that direct exploitation is one of the main causes.[2] Species that are highly sought by trophy hunters have not been spared from this global trend and have experienced sharp population declines in recent decades.

Wildlife biologists have sounded the alarm that trophy hunting furthers population declines of already imperiled species and harms conservation by deliberately removing the largest and strongest specimens (most frequently males) from populations. Trophy hunters kill breeding-aged animals, disrupting the social structure of populations and leading to indirect effects and consequences such as sexually-selected

[1] Trophy hunters say they economically benefit local communities. Audit tells another story. | Humane World for Animals

[2] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). 2019. Global Assessment Report on Biodiversity and Ecosystem Services. IPBES secretariat, Bonn, Germany, https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services.

infanticide and the decreased recruitment of young. In contrast, natural mortality in trophy hunted species disproportionately affects the very old and very young.

African elephants, for example, are especially susceptible to the negative impacts of targeted killing of individuals because they are long-lived, slow to reproduce, and have a complex multi-generational social structure. The prime target of trophy hunters and poachers are older elephants who provide social and ecological knowledge learned over generations; the loss of these individuals can threaten the survival of the entire social group. Older male elephants are also important for group cohesion and suppressing aggression in younger males, which in turn can reduce human-elephant conflict.

Selective offtake of African elephants can also cause dire genetic and population structure consequences, including smaller tusk sizes over generations, decreased body size, skewed sex ratios and changes in habitat use. African elephants—like other species targeted by trophy hunters—are also vital ecosystem engineers who modify and maintain physical environments, facilitate seed dispersal, and increase habitat complexity to the benefit of other animals. Population declines due to human-induced mortality—including trophy hunting—and social disruptions may have a significant and potentially irreversible impact on elephant populations and the ecosystem.

Generally, trophy hunting offtake decreases the likelihood that populations can recover from other impacts such as poaching or climate change. Biologists also warn that when trophy hunting is sanctioned, poaching activity increases, likely due to the perception that species authorized for hunting are of diminished value and the perception that legal killing increases the acceptability of poaching.[3]

Scientists have sharply questioned the conservation credentials of the trophy hunting industry and published evidence that the proposition that trophy hunting is imperative to the future of conservation has generally been developed and accepted without compelling empirical support.

The IUCN Ethics Specialist Group found that: the claimed financial benefits of trophy hunting to local communities "appear to be nowhere near as widespread as claimed; claimed conservation benefits are undermined by trophy hunters' support for abundance of animals they want to kill instead of biologically diverse ecosystems;" and noted the trophy hunting-driven declines of wild populations of hunted species such as African lions.[4] Not only does trophy hunting do more ecological and biological harm than good, but the vast majority of Americans do not support it. In fact, 76% of Americans oppose trophy hunting; 65% oppose the importation of hunting trophies of species listed under the ESA. [5]

b. Given this context, proposals to weaken Section 10's provisions and related permitting requirements would harm species' survival, counteract the millions of taxpayer dollars spent on recovery efforts, and increase the United States' already outsized impact on the decline of imperiled species.

The United States is the world's largest importer of hunting trophies of mammal species regulated under the Convention on International Trade in Endangered Species (CITES). Species listed under Appendices I

---

[3] Chapron, G., & Treves, A. (2016). Blood does not buy goodwill: allowing culling increases poaching of a large carnivore. Proceedings of the Royal Society B: Biological Sciences, 283(1830), 20152939.
[4] Bosselmann, K., Burdon, P., Taylor, P., Stewart, N., Kotze, L. and T. Waikavee. 2019. Compatibility of Trophy Hunting as a Form of Sustainable Use with IUCN's Objectives, https://www.iucn.org/news/world-commission[3]environmental-law/201909/compatibility-trophy-hunting-a-form-sustainable-use-iucns-objectives
[5] Photography exhibition shows brutality of trophy hunting industry | Humane World for Animals

and II of CITES are currently threatened by trade or may become so if trade is not closely regulated. Despite the threat of trade on these species, the U.S. imported 34,115 hunting trophies of CITES-listed mammals between 2019 and 2023, accounting for 66 percent of the global trade.

Particularly concerning, proposed House bill, H.R. 1897, adds new permitting provisions treating species that are native to the United States differently from those not native to the United States under Sections 10(a) and 9(c) of the ESA. These proposed amendments would weaken protections for species not native to the United States dramatically.

Reducing or removing protections for non-native species like elephants, lions and leopards will do irreparable harm to them and the American public which adores them.

The purpose of the ESA has never been to save from extinction only those species native the United States. Nor should such a purpose be adopted now.

Section 7

Industry groups claiming that Section 7 consultations are too onerous to bear grossly overstate the time required for these essential, and collaborative, efforts. One study found that under Section 7, informal consultations were about ten times more common than formal consultations and took an average of 13 days. Meanwhile, the relatively few formal consultations that took place averaged a mere two months to complete.[6]

Meanwhile, the benefits of the ESA are abundant: nearly all listed species are pulled back from the brink of extinction, a remarkable record of success perfectly in line with congress's intentions.[7]

[6] In a 2015 study that analyzed consultations from 2008 to 2015, 81,461 informal consultations were completed, compared with 6,829 formal consultations. This study also reported that informal consultations under Section 7 took an average of 13 days and formal consultations took an average of 62 days."
https://www.congress.gov/crs_external_products/R/PDF/R46677/R46677.5.pdf
[7] The US Endangered Species Act | Pages | WWF

Testimony for the Record
International Fund for Animal Welfare (IFAW)
Before the Senate Committee on Environment and Public Works
In Support of Current Endangered Species Act (ESA) Permitting Regulations

March 21, 2025

Chairman Capito, Ranking Member Whitehouse, and Members of the Committee,

On behalf of the International Fund for Animal Welfare (IFAW), thank you for the opportunity to provide testimony in strong support of the current Endangered Species Act (ESA) permitting regulations, which play an essential role in ensuring the protection and conservation of species both within the United States and globally.

The ESA is one of the world's most effective laws for preventing species extinction and promoting wildlife conservation. Its permitting regulations serve as a crucial mechanism for balancing conservation needs with responsible human activities, ensuring that actions affecting listed species do not undermine their survival and recovery.

The ESA's Global Impact Through Permitting Regulations

While the ESA is a domestic law, its permitting framework has significant international implications, as it regulates the import, export, and trade of endangered species. By maintaining strong permitting requirements, the U.S. leads by example in the global fight against wildlife trafficking and habitat destruction. Below are key examples of how current ESA permitting regulations positively impact international species:

- **Jaguars (*Panthera onca*):** Found across Latin America, jaguar populations are under severe threat from habitat loss and poaching for their pelts and body parts. The ESA's permitting process aims to ensure that no illegal or unsustainable jaguar-derived products enter the U.S. market, supporting conservation efforts in range countries.
- **Tigers (*Panthera tigris*):** Captive tigers and their parts are often traded illegally, fueling poaching and undermining wild populations. Through rigorous permitting requirements, the ESA helps to prevent U.S. involvement in this illicit trade and supports international conservation initiatives.
-

The Importance of Maintaining Strong ESA Permitting Regulations

Efforts to weaken ESA permitting regulations would undermine conservation achievements and jeopardize species that rely on these protections. A strong permitting framework:

Formatted: Font: Italic, Ligatures: None

1. **Directs Science-Based Decision-Making:** Current regulations require scientific assessments before permits are granted, helping to ensure that conservation needs remain the top priority.
2. **Prevents Illegal Wildlife Trade:** By strictly regulating imports and exports, ESA permitting helps prevent the U.S. from being complicit in global wildlife trafficking.
3. **Supports International Conservation Agreements:** The ESA permitting system aligns with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), reinforcing global commitments to wildlife protection.

Thank you for this chance to offer information on the importance of the ESA to conserving so many global species. The ESA's permitting regulations are essential for maintaining the law's effectiveness in protecting endangered species around the world. Weakening these standards would not only harm wildlife globally, but also diminish U.S. leadership in conservation. IFAW urges this Committee to uphold and support the current permitting framework to ensure that future generations inherit a healthy planet.

Institute for Policy Studies

Senate Environment and Public Works Committee
Senator Shelley Moore Capito, Chair
Senator Sheldon Whitehouse, Ranking Member
March 21, 2025

Dear Chair Capito, Ranking Member Whitehouse, and members of the Senate Environment and Public Works Committee,

Thank you for the opportunity to provide public comments on federal environmental review and permitting processes. The Climate Policy Program at the Institute for Policy Studies would like to take this opportunity to provide comments on review and permitting of energy infrastructure, in particular.

Contrary to what many in the energy industry claim for self-interested reasons, the environmental review and permitting process, under the National Environmental Policy Act (NEPA), the Clean Water Act, the Endangered Species Act, and other statutes are working well to safeguard the public interest.

Our comments are divided into two sections, one covering fossil fuel infrastructure, and one covering renewable energy and transmission line infrastructure, because of the different considerations for each.

A. Fossil Fuel Infrastructure

The U.S. is a net exporter of both crude oil and derivatives[1] and natural gas,[2] and it defies logic to argue that we need more production to address short-term price fluctuations.

[1] U.S. Energy Information Administration (EIA), Exports of Petroleum and Other Liquids, available at: https://www.eia.gov/dnav/pet/pet_move_exp_dc_NUS-Z00_mbbl_a.htm;Imports of Petroleum and Other Liquids by Country of Origin, available at: https://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbl_a.htm (accessed on 3/21/2025).
[2] U.S. Energy Information Administration (EIA), U.S. Natural Gas Exports and Re-Exports by Country, available at: https://www.eia.gov/dnav/ng/ng_move_expc_s1_a.htm; U.S. Natural Gas Imports by Country, available at: https://www.eia.gov/dnav/ng/ng_move_impc_s1_a.htm (accessed on 3/21/2025).

When short-term price fluctuations do occur, they are not caused by lack of production and refining infrastructure in the U.S.. For example, the crude oil price spike in the summer of 2022 was caused by factors such as supply disruptions arising from the Russia-Ukraine war,[3] and collusion and price fixing by industry leaders.[4]

Growing U.S.liquefied natural gas (LNG) exports are a major factor driving up natural gas prices.[5] If the Senate Environment and Public Works Committee is serious about easing hardship for U.S. utility ratepayers, the Committee should consider legislation banning LNG exports, which would be far more effective than trying to deregulate and expedite permitting processes for fossil energy production. Perversely, some prior attempts at "energy permitting reform" in Congress would have made it easier, not harder, to build LNG export terminals, which would have the effect of raising prices for U.S. consumers.

Aside from short-term considerations of energy prices, any changes to environmental review and permitting processes that facilitate more fossil fuel production, transportation, processing, and export infrastructure would be contrary to the global scientific consensus that a continued build-out of fossil fuel infrastructure will "lock in" greenhouse gas emissions, threatening the future of humanity.[6] If the U.S. were to ease the buildout of fossil fuel infrastructure today, that would put us at odds with scientific consensus, and with most of humanity.

An accelerated buildout of fossil fuel infrastructure will also perpetuate a longstanding, well-documented pattern of Indigenous, Black, brown, and poor communities being treated as sacrifice zones for the benefit of the fossil fuel industry.[7]

In conclusion, deregulating the environmental review and permitting process to make it easier to build fossil fuel infrastructure would be a dangerous mistake. It would perpetuate a disgraceful

---

[3] Qi Zhang, Yi Hu, Jianbin Jiao & Shouyang Wang, "The impact of Russia–Ukraine war on crude oil prices: an EMC framework," Humanities and Social Sciences Communications, 11, 8 (2024). https://doi.org/10.1057/s41599-023-02526-9

[4] U.S. Federal Trade Commission (FTC), "FTC Order Bans Former Pioneer CEO from Exxon Board Seat in Exxon-Pioneer Deal; Commission consent order limits the likelihood of coordination in crude oil markets," press release, May 2, 2024, available at: https://www.ftc.gov/news-events/news/press-releases/2024/05/ftc-order-bans-former-pioneer-ceo-exxon-board-seat-exxon-pioneer-deal

[5] Cowan, Trey, "U.S. residential gas consumers bear brunt of LNG exports," Institute for Energy Economics and Financial Analysis (IEEFA), March 19, 2024, available at: https://ieefa.org/resources/us-residential-gas-consumers-bear-brunt-lng-exports

[6] Intergovernmental Panel on Climate Change (IPCC), "Climate Change 2022: Mitigation of Climate Change," Working Group III Contribution to the Sixth Assessment Report, Summary for Policymakers, p. 32, available at: https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf; International Energy Agency (IEA), "Net Zero by 2050: A Roadmap for the Global Energy Sector," October 2021, available at: https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf

[7] Donaghy, Timothy Q., Noel Healy, Charles Y. Jiang, and Colette Pichon Battle, "Fossil fuel racism in the United States: How phasing out coal, oil, and gas can protect communities," Energy Research & Social Science, Vol. 100, June 2023, available at: https://www.sciencedirect.com/science/article/pii/S2214629623001640

legacy of injustice based on race and class, and endanger the future of humanity, while doing nothing to address short-term energy affordability issues (and maybe even worsening them).

There is no substitute for a planned, orderly, just transition from fossil fuels to renewable energy.

B. Renewable Energy and Transmission Lines

There is a persistent notion that we need to weaken environmental review and permitting standards to facilitate the buildout of renewable energy, and particularly, long-distance transmission lines to carry renewable energy from remote locations where it is generated to population centers where it is used. However, examination of the evidence shows this to be a myth.

The leading factor causing delay in bringing renewable generation online is the interconnection queue (the wait time for generation projects to get connected to the power grid).[8] The vast majority of renewable energy projects already undergo a streamlined review and permitting process, and any delays in permitting are largely attributable to factors such as lack of staffing and resources at permitting agencies, staff turnover, and lack of adequate inter-agency coordination.[9]

It would be a colossal mistake to weaken bedrock environmental laws such as NEPA to deal with a problem that largely does not exist, and to the extent that it does, it has very little to do with NEPA in the first place.

Instead, the Senate Environment and Public Works Committee should consider legislation to advance a very different vision of energy infrastructure, that not only prioritizes renewable energy to replace fossil fuels, but incentivizes the deployment of distributed energy resources such as rooftop and community solar to the maximum extent possible, reducing the need for large-scale generation and transmission projects in the first place.[10]

Furthermore, the Committee should consider legislation that provides more funding and resources to permitting agencies to hire more staff with relevant expertise, and requires more, rather than less, transparency and community engagement. Fortunately, a model for such

---

[8] Lawrence Berkeley National Laboratory, "Grid connection requests grow by 40% in 2022 as clean energy surges, despite backlogs and uncertainty," April 6, 2023, available at: https://eta.lbl.gov/news/grid-connection-requests-grow-40-2022

[9] Adelman, David E., "Permitting Reform's False Choice," Ecology Law Quarterly, Vol. 51:129, 2024, available at: https://www.ecologylawquarterly.org/wp-content/uploads/2024/12/51.1-Adelman-Internet-Ready.pdf; Ruple, John C., Jamie Pleune, and Erik Heiny, "Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation," Columbia Journal of Environmental Law, Vol. 47 No. S (2022), available at: https://journals.library.columbia.edu/index.php/cjel/article/view/9479

[10] Climate Justice Alliance et. al., "Pursuing a Just and Renewable Energy System: A Positive & Progressive Permitting Vision to Unlock Resilient Renewable Energy and Empower Impacted Communities," May 2023, available at: https://climatejusticealliance.org/wp-content/uploads/2024/10/Positive-Permitting-Reform.pdf

legislation already exists: the A. Donald McEachin Environmental Justice For All Act, co-authored by two outstanding legislators who have both passed away, Rep. Donald McEachin and Rep. Raul Grijalva.[11]

C. Conclusion

In conclusion, our environmental review and permitting process for energy infrastructure is not broken. Instead of weakening these processes to ease the buildout of fossil energy infrastructure, we need to stop building fossil energy infrastructure in the first place, and transition to renewable energy, prioritizing distributed renewables such as rooftop and community solar.

To the extent that we do need any changes in our permitting processes, these are changes in the opposite direction from what is usually termed “permitting reform,” making it easier, not harder, for impacted communities to participate in the permitting process.

Basav Sen
Climate Policy Director
Institute for Policy Studies

[11] S.919 - A. Donald McEachin Environmental Justice For All Act, 118th Congress, available at: https://www.congress.gov/bill/118th-congress/senate-bill/919

North America's **Building Trades** Unions

Sean McGarvey
President

Brandon W. Bishop
Secretary-Treasurer

Frank J. Christensen
Elevator Constructors

Eric M. Dean
Ironworkers

Mark McManus
UA

Timothy J. Driscoll
BAC

James Williams Jr.
Painters and Allied Trades

James A. Hadel
Roofers

Sean M. O'Brien
Teamsters

Terry M. Larkin
Insulators

Kenneth W. Cooper
IBEW

Kevin D. Sexton
Plasterers' and Cement Masons'

Brent Booker
LiUNA

Michael Coleman
SMART

Timothy Simmons
Boilermakers

John L. Downey
Operating Engineers

March 21, 2025

Senator Shelley Moore Capito, Chairman
Senator Sheldon Whitehouse, Ranking Member
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Capito and Ranking Member Whitehouse,

On behalf of North America's Building Trades Unions (NABTU), its fourteen affiliated national and international unions, and the over 3 million construction industry skilled craft professionals we represent, I write to you to first thank you for holding the recent hearing on Improving the Federal Environmental Review and Permitting Process, and to share our insights on the matter.

As the voice of those who have built our nation's infrastructure and continue to work every day to provide our country with the energy it demands, we cannot stress enough that continuing to not address the permitting process will only exacerbate the problems facing our nation today. While we acknowledge that the underlying regulations of the permitting process keep our members safe on job sites and in their homes, and that over the years positive strides have been made to rectify the issues in this process, the continued utilization of this cumbersome framework will delay the potential positive economic and environmental effects of those eager to invest in our nation.

Our members suffer the real-world effects of permitting delays. Delays are not abstract to them. Delays mean stalled projects, less hours worked, smaller paychecks and less food on their family's table. With this in mind, we write to urge you to address two key issue areas: (1); judicial reform to provide clarity and the establishment of reasonable timelines for lawsuits to be filed against issued permits and projects; (2) the need to retain adequate staffing levels at federal agencies who process these permits and environmental reviews. These are just two of the many challenges facing those who attempt to navigate the permitting process and we at NABTU are generally supportive of other reforms that provide certainty of timelines, clarity of procedure, and positive outcomes for good actors.

Thank you for your continued support for NABTU's three million members, and 14 affiliated unions who have built this nation, its middle-class, and are dedicated to growing both.

Sincerely,

Sean McGarvey
President

March 21, 2025

The Honorable Shelley Moore Capito
Chair
U.S. Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
U.S. Senate Committee on Environment and Public Works
456 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chair Capito and Ranking Member Whitehouse:

Thank you for holding the hearing *"Improving the Federal Environmental Review and Permitting Processes"* hearing last month. Counties appreciate the opportunity to provide our perspective on permitting and offer our view of how we can work together to achieve our shared goal of improving intergovernmental coordination on this matter.

The National Association of Counties (NACo) is the only national organization representing the nation's 3,069 county governments including Louisiana's parishes and Alaska's boroughs. Counties play a critical role in the permitting process at the local level, serving as regulators, facilitators and partner in project development. As issuers of permits in many instances, counties understand the importance of assuring adherence to codes, maintaining standard processes and protecting the environment. However, as entities responsible for building and maintaining roads and bridges, supporting housing development and providing land for expanded energy production, counties have seen firsthand how today's permitting environment is overly complex, costly and often delays critical projects.

To that end, counties supported the passage of the Fiscal Responsibility Act, which codified President Trump's One Federal Decision and made other significant reforms to permitting processes, including setting two-year timelines for reviewing Environmental Impact Statements (EISs), limiting page lengths for EISs or Environmental Assessments (EAs) and allowing agencies to adopt the categorical exclusions (CEs) of their peer agencies.

As you continue to work on a bipartisan basis to reform federal permitting, counties offer the following considerations.

HOUSING

Currently, our nation is in the middle of one of the worst housing crises in recent history. Constrained supply, rising home prices, high interest rates and prohibitive building costs are leaving many people—especially low- and middle-income families—struggling to find stable and affordable housing.

Counties play a vital role in zoning and permitting for housing projects, acting as key decision makers in shaping local land use and development patterns. Counties have the authority to adopt and enforce zoning ordinances, subdivision regulations and comprehensive plans that determine when and how housing can be built. We are also responsible for issuing permits for residential construction, including building permits, site plan approvals and variances.

One simple but impactful step towards accelerating housing construction and addressing the supply shortage is through permitting reform. The current permitting process at the federal level often introduces significant delays and costs for housing projects, especially affordable housing developments reliant on support through federal tax credits or appropriations. These prolonged approval timelines and regulatory burdens contribute to the growing housing shortage, driving up prices and limiting access for many Americans. By streamlining federal permitting procedures, Congress could help expedite housing development, ensuring that counties have the tools and support they need to respond to the housing demands in their communities.

TRANSPORTATION

As the owners of 44 percent of road miles and 38 percent of bridges in the country, counties are well-versed in the permitting process as it pertains to transportation projects. For many of these projects, conducting an EA or EIS is required by the National Environmental Policy Act (NEPA). The preparation of an EA and more detailed EIS can add substantial time, complexity and cost to project delivery. Furthermore, counties are required to navigate coordination with multiple federal agencies, manage public comment periods and respond to potential legal challenges associated with findings of an EA or EIS. Beyond an EA or EIS, actions needed to comply with certain permit requirements, like wetland replacement requirements for a Section 404 permit under the Clean Water Act (CWA), add additional steps to a project and require counties to incur additional costs.

While federal agencies like the Federal Highway Administration (FHWA) have taken steps to improve these processes through the creation of categorical exclusions (CEs) or the merging of the Section 404 permit process with NEPA, counties believe that more can be done to streamline these processes, especially for local projects and projects within existing rights-of-way. Ultimately, transportation projects are directly funded with public money, whether it is federal, state or local dollars. By improving permitting for

transportation projects, Congress can save taxpayer dollars and allow local governments to accomplish more with less.

ENERGY

The federal permitting process for energy production often fails to consider the county perspective. This is especially true when projects rely on the use of county resources, including county-owned land. Counties should consistently have a seat at the table for permitting reform discussions as county-owned land is used to produce oil and gas, wind, solar and other types of energy. However, many elected county officials have expressed frustrations that consultation with local governments is often a formality at the end of the permitting process rather than a collaborative effort throughout. Involving counties throughout the permitting process would improve coordination between all parties involved and help eliminate red tape that can often delay project timelines and increase costs.

Any changes made to the federal permitting process should respect county authority and include meaningful consultation with county governments. Additionally, counties support mechanisms to ensure engagement from all parties involved in permitting energy projects and revenue sharing opportunities for counties that host significant energy infrastructure such as transmission lines. Including provisions to encourage the use of Community Benefit Agreements (CBAs) and revenue sharing opportunities in permitting legislation are critical to securing local support for energy projects that require federal permits. Improving the federal permitting process for energy projects by increasing local consultation, respecting local authority, expanding the use of CBAs and revenue sharing will allow counties to better meet their energy needs of their communities.

NACo PERMITTING REFORM POLICY

Counties' commitment to permitting reform is reflected in the American County Platform, adopted by NACo's members. Both the NACo Transportation Policy Steering Committee and the Energy, Environment and Land Use Policy Steering Committee passed resolutions calling on Congress to reform permitting processes. Those resolutions are below:

1. *The National Association of Counties (NACo) urges Congress to continue bipartisan progress toward streamlining the federal permitting process for transportation projects by making commonsense reforms a central part of any upcoming surface transportation reauthorization legislation. In general, such policy should eliminate redundancies, maximize flexibility and efficiency, and bring down project timeframes and costs while maintaining protections for community input and the environment. Reforms should reduce duplicative requirements that hinder safety and endanger progress by expanding categorical exclusions to include projects where*
    - *the main goal is to improve safety.*
    - *the project is performing maintenance and/or repair on an existing asset.*

- *projects that support the economic development or the development or redevelopment of housing; and*
- *projects within the existing right of way.*

Additionally, NACo believes that Congress should prioritize flexibility for both agencies and applicants to ensure that permitting requirements can adapt to the urgency of a given situation.

2. *The National Association of Counties (NACo) urges Congress to pass legislation to reform the federal permitting process that limits federal preemption of local authority and requires meaningful consultation and updates with local governments at the beginning and throughout the development of critical infrastructure projects such as transportation, energy, broadband deployment, air quality and water quality that require a federal permit.*

3. *The National Association of Counties (NACo) urges Congress to pass bipartisan legislation that would speed up the approval process for critical infrastructure, transportation, utility corridors, establish reasonable and firm review timelines.*

In conclusion, the ability to tackle issues from housing shortages, maintaining transportation infrastructure to energy development depends on Congress working in a bipartisan manner to improve permitting processes. Counties look forward to strengthening our intergovernmental partnership by making it easier to deliver needed projects while also upholding our shared commitment to our communities and the environment. As your committee works to develop legislative solutions to this issue, please keep counties and county perspectives as the heart of your discussions.

Thank you for your consideration,



Matthew D. Chase
CEO/Executive Director
National Association of Counties

National Association of Flood and Stormwater Management Agencies
PO Box 4336, Silver Spring, MD 20914 202-289-8625 | www.nafsma.org

NAFSMA Testimony – Submitted by Executive Director Sunny Simpkins
Prepared for Senate Environment and Public Works
Addressing Improving the Federal Environmental Review and Permitting Processes

Founded in 1978, the National Association of Flood and Stormwater Management Agencies (NAFSMA) is an organization of public agencies whose function is the protection of lives, property and economic activity from the adverse impacts of storm and flood waters.

NAFSMA member agencies participate in the National Flood Insurance Program (NFIP) and carry out flood mitigation and flood mapping activities; function as non-federal partners with the U.S. Army Corps of Engineers (USACE) on flood risk reduction and ecosystem restoration projects; and are the responsible permitted entity under the U.S. Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) stormwater management program. This responsibility to manage both water quantity and water quality at the local, regional and state levels propels NAFSMA and its membership's focus.

NAFSMA's mission is to drive flood and stormwater policy that benefits our communities. Aging infrastructure, increased development and bigger and more frequent storms are straining our water infrastructure. Successfully implementing flood risk reduction projects is imperative to our nation's public safety and enables our economy to thrive.

NAFSMA members agreed to operate and maintain locally, state and authorized Federal projects. Some of these facilities are over 100 years old, much infrastructure was constructed after the Federal Flood Control Act of 1936 but before our modern environmental framework was established in the 1970's. Specifically:

- The Clean Water Act of 1971 meant that we had to add 401 certifications and 404 permitting for some of our work.
- The Endangered Species Act of 1973 meant that we had to mitigate impacts of endangered species that used our facilities as habitat.
- The Water Resources Development Act of 1986 meant that non-Federal sponsors now also had to perform repair, replacement, and rehabilitation.

These regulations cause significant issues for local flood control and stormwater management agencies when permit writers attempt to use permits to re-operate these facilities in ways that are not compatible with the facilities intended use. Further, federal regulatory intervention either through the permit writers failure to issue a permit, or to use the permit as a tool to re-operate the facility in an unintended way, places local agencies at risk of inverse condemnation litigation for

flooding that may be caused due to lack of or delay in required maintenance needed for the project to provide its intended benefits. California law, for example, explicitly states that lack of an ability to get permits to maintain infrastructure is not an excuse to not conduct required maintenance.

On a go forward basis, these laws are also causing issues for local agencies as permits can often take years, and in some cases, decades to acquire and permits have short lifespans that often require unnecessary repeat negotiations on permit terms. This causes challenges that further other policy problems such as:

- Requirements to obtain recurring maintenance permits for existing facilities that are not changing character, scope or operation. These recurring permits are used to try to force additional concessions and to extract additional "free" mitigation for resource agencies.
- Lack of available mitigation to meet very specific and narrow permit requirements stalls projects or effectively vetoes the project due to the inability to comply with narrowly written mitigation requirements.
- More public blame placed on the government in general or the non-Federal project sponsor when flood protection is not entirely effective, leading to multiple lawsuits against infrastructure owner/operators after flood events, AND,
- Because many large developments require on-site stormwater management and depend on offsite flood or drainage infrastructure the permitting approach can, and has helped to, exasperate the housing shortage.

While any of these developments can be managed alone, the cumulative cost can break a local agency's ability to sustain their intended purpose under state laws. As original commitments go unmet confidence in local entities wanes and support has and will falter.

Regarding the permits needed to maintain this critical infrastructure, Federal agencies are unclear on how to implement the findings from recent court cases like Chevron deference and Waters of the United States (WOTUS). These cases have created uncertainty for staff leading to substantial permit delays, which in turn creates uncertainty for local sponsors and hazards for our communities. The findings coupled with reduced regulatory staff are significantly impacting public agencies from performing critical operations and maintenance and from implementing new flood risk reduction projects.

A pathway for efficient permits exists by precedent; the federal agencies have developed various permitting approaches for certain categories of action: habitat restoration, endangered-species protection, and grant-funded resource management projects. However, flood control maintenance and water infrastructure projects have not been included as activities that qualify for these efficient approaches.

Concerns:

- Excessive and exorbitant interpretation and implementation of the Endangered Species Act and Migratory Bird Treaty Act severely constrain local governments' mission to protect communities from the dangers of flooding and provide safe drinking water by severely limiting when public agencies can complete critical work; for example, recent re-interpretations of the Migratory Bird Act have expanded the bird nesting season through both spring and

summer, leaving allowable maintenance windows for restoring flood management facilities to a two-month period out of the year.

- Imbalance of environmental goals and public safety needs. Critical habitat designation, species recovery plans and surface water quality objectives are prioritized over flood protection systems, without consideration for flood safety or storm water capture for local water supply.
- Almost all routine channel maintenance requires §401 water quality certification and §404 dredge and fill permits. Nationwide Permits are limited in scope and Regional General Permits (RGPs) take years to develop and expire too quickly to be useful.
- ESA consultations with the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) can take over 10 years to complete, and if approvals are needed from multiple federal agencies, each agency consults separately.
- Section 106 National Historic Preservation Act consultations can also take years and are typically not conducted concurrent with other approvals.
- Some flood control agencies are required to provide mitigation for impacts every time they perform maintenance in the same facility, even for constructed infrastructure with established operations and maintenance plans. This is neither practical nor sustainable. If the original facility construction triggered compensatory mitigation for permanent impacts, then mitigation for maintenance should not be triggered again. Consistency is needed in this regard.
- Although mitigation is required and the cost of such is a project-related cost, mitigation projects, such as habitat restoration, are disqualified from many funding opportunities leaving the local sponsor without adequate funding. Additionally, the timing and costs of securing mitigation typically exceeds that of the maintenance action.
- Through USACE-issued permits, National Marine Fisheries (NMFS) is requiring that replacement, maintenance, repair or alteration of an existing in-water structure mitigate back to pre-development conditions. These mitigation costs are significantly more expensive than the routine maintenance activities that local public agencies are required to complete.
- Jurisdictional Determinations for WOTUS are taking more time now because of reduced staff and unclear guidance on how to implement recent findings. Involving both USACE and EPA staff without clear roles and expectations during the review is causing confusion and undue delays.
- The Compensatory Mitigation Rule issued by USACE and EPA issued in 2008 is outdated and too rigid to pursue the most beneficial mitigation activities for various WOTUS impacts.

All the above impact the ability of flood control agencies to obtain permits for routine stormwater management and flood control system maintenance and capital projects, which unduly endanger life and property.

Proposed Solutions:

- Clarify through administrative guidance, working with the EPA, that routine maintenance of flood control obtained from permits for construction, or for facilities predating environmental regulation the first permit for maintenance (Section 404 (f) exemption) includes routine maintenance of flood control systems permanently, thereafter, including clearing of critical channels that are part of the system.
- Clarify through administrative guidance, working with EPA, that routine ongoing maintenance of flood control systems is also exempt from mitigation requirements - “Once is enough”

- Implement timelines / deadlines for the resource agency consultation processes and permit issuance. The departments that review the consultation documents need to be adequately staffed, or supported through outsourcing, to process permit requests. In addition, check sheets, review standards or programmatic permits should be developed (like USACE Nationwide Permits) for frequently completed low risk activities so consultation resources can be spent on more activities that may have greater adverse impacts to the environment.
- Allow non-federal sponsors to have a larger role in the permitting process. During USACE projects, the permitting is often left towards the end of the project because of staffing capacity. If the permitting started earlier in the process and was driven by the non-federal sponsor, who are the experts within their jurisdictions, it would be completed sooner. Importantly, there would be more opportunity to alter the project to optimize complying with permitting requirements as late stage permitting often leaves purchasing mitigation as the only viable alternative at that point.
- Provide self-mitigation credit or offset the impact calculations when projects increase Waters of the US and/or improve water quality and/or habitat quality over baseline or unmaintained conditions.
- Create programmatic permits for Section 106 Consultations for frequently completed activities, and don't require consultation for repair and rehabilitation projects that do not excavate virgin land or those that occur in areas that have been previously investigated as part of the project
- Define baseline conditions in the Clean Water Act, Endangered Species Act, and NEPA so that it would be clear to federal agencies during permitting about what mitigation is required. This would alleviate overreach during the permitting process. Baseline definition needs to include the effects of the existing structure and be consistent across Federal agencies.
- Direct regulatory staff to document the barriers to jurisdictional determinations for WOTUS. With that information, refine the process so that it is clearer for USACE to make the determinations without EPA interjecting when the determination is almost complete. Or turn the process over to EPA. Having two federal agencies reviewing these documents without clear roles is making the process ineffective and inefficient.
- Allow for appeals of jurisdiction after preliminary jurisdiction is accepted and permit issued, but prior to start to construction.
- Have the Federal Permitting Improvement Steering Committee (FPISC) prioritize flood risk reduction and stormwater management projects.
- Reevaluation and reassessment of the Compensatory Mitigation Rule (2008 Mitigation Rule) to include a broader range of mitigation actions to offset impacts to WOTUS. Trash and encampment cleanups are beneficial to improve the functional value of WOTUS and should be concerned a mitigation option for flood control agencies.

Protection of human life and property should be given the highest priority. Federal Agency permitting efforts need to be timely, coordinated, recognize the benefits of our projects and funded with adequate appropriations.

NAFSMA appreciates your consideration. Please contact Executive Director Sunny Simpkins for further information on this testimony.

March 21, 2025

Senator Shelly Capito, Chairman,
Senate Environment and Public Works Committee

Senator Sheldon Whitehouse, Ranking Member Senate Environment and Public Works Committee

Dear Esteemed Senators:

We write to contribute our perspective to the Senate Environment and Public Works Committee regarding its hearing on "Improving the Federal Environmental Review and Permitting Processes."

In recent years, both houses of Congress have sponsored and enacted legislation to reform NEPA. And members of both parties have articulated the need to further reform NEPA to make it more efficient.

NEPA was overwhelmingly bipartisan when enacted and signed into law. The fundamental vision of NEPA – that major federal decisions impacting the human environment should be informed by science and citizens and explained by agencies – remains vital and relevant. But we have learned much in the last 50 years, especially in recent years, about how to make NEPA work better for everyone.

We are scholars at the University of Arizona and co-investigators on a large, multi-disciplinary project called NEPAccess. We have demonstrated, with support from the National Science Foundation during the first administration of President Trump, that data science and machine learning can be used to make the NEPA process better and faster.

One straightforward way to improve NEPA is to make prior NEPA decisions and documents readily available and easy to access and analyze by citizens, scientists, industry, government and policy-makers. Modern AI and natural language processing, among other tools, can power a process that produces better-informed decisions, faster, with more input from businesses, individuals, impacted communities, experts in and out of government, and less subject to challenge and at lower cost.

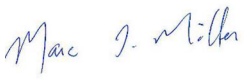
Why hasn't this move towards efficient NEPA decision-making happened? Significant reforms have not come out of the Executive Branch. Congress has been asking for NEPA reform, and providing funding to support NEPA reform, and getting stonewalled.

A new Congress and a new administration offer the hope of achieving NEPA reforms that make sense for agencies, industries, states and communities. Research made possible by NEPAccess has demonstrated ways in which NEPA is and is not working, and illuminated ways to make it work better. For example, our prior Congressional testimony to the Environment and Public Works Committee addressed the real concerns over the time to complete NEPA review. What our research demonstrated is the factors that are – and are not – leading to delay.

We welcome the opportunity to work with members of Congress, and with appropriate executive agencies, to implement Congress' vision of a NEPA that maintains the vision of informed federal decision-making, but also makes that process wiser and faster. This is one of the settings where win-win solutions are possible.

Thank you for providing stakeholders the opportunity to share their views and concerns for the record about this important topic.

Sincerely,



Marc L. Miller, Ralph W. Bilby Professor & Dean Emeritus

University of Arizona James E. Rogers College



Laura López-Hoffman, Professor, School of Natural Resources and the Environment &

Udall Center for Studies in Public Policy, University of Arizona

- We write in our personal capacity as scholars. We do not represent the University of Arizona. Nor are we suggesting action or inaction on any specific legislation.

NEPAccess
Fulfilling NEPA's Promise
Through the Power of Data Science

NEPAccess.org
University of Arizona
College of Agriculture & Life Sciences

Problem

NEPA's environmental review process is seen as **time-consuming**, failing to provide **accountability** for decisions, and lacking a system to **track impacts**. Agencies produce thousands of detailed and expensive environmental reviews under NEPA, but:

- There are no standard protocols for reporting analyses, data, public engagement, and environmental justice impacts.
- There is no centralized source for these documents and data. Instead, these are maintained within dispersed agency silos.

For agencies and project proponents, this means:

- With each new project, they are reinventing the wheel and not learning from the scientific studies conducted for past projects.
- Not everyone is working from the same set of information.
- They are not sure they are reaching the public or effectively assessing public concerns.
- It is difficult to assess cumulative effects on people and the environment without data from past projects in the area.

For the public:

- They cannot be certain that their comments and engagement make a difference.

Urgency

Improving the efficiency, transparency, and accountability of NEPA today is vital to the environmentally sustainable future of the US.

- The **$1.2 trillion investment in the 2022 Infrastructure Bill** is transforming the US on a scale not seen since the New Deal and the post-World War II building boom.
- Each new project will have to undergo a NEPA review.
- Data science-driven approaches to planning and reviewing these projects efficiently and effectively are urgently needed.

An Arizona NEPA preparer on why NEPA is a data science problem:

> *"[F]inding NEPA documents is like **detective work**. … These agency sites are not very user-friendly, and you get a lot of non-relevant results, or no results at all. And so you **can't be sure you haven't missed something** important. … It takes **a lot of time and duplicative effort**."*

What People are Asking For

Major **project stakeholders** including partner agencies, consultants, landowners, industry, researchers, and the public want:

- Easy access to all EIAs (environmental impact assessments) – across all federal agencies.
- More efficient drafting of EIAs.
- A centralized portal to review and analyze cross-agency documents and public comments.

Agency officials and decision-makers want:

- Analytics on the time efficiency and effectiveness of the "business" of NEPA.

Scientists want:

- To unlock the vast publicly funded trove of environmental knowledge held within NEPA review documents.

NEPAccess Solutions

NEPAccess is making this a reality. Our University of Arizona-based team of researchers, data scientists, and students uses the tools of modern data science and AI to unify environmental policy data across federal agencies, making possible immediate and radical improvements to the efficiency of NEPA processes and the production of better-informed, environmentally equitable outcomes.

NEPAccess today:

- Provides unprecedented public access (at NEPAccess.org) to environmental impact statements from all federal agencies.
- Uses machine learning and AI to extract and deliver customized documents and datasets.
- Includes powerful tools to discover relationships – including temporal and geographic – between agencies, projects, and documents.

With additional funding, the **NEPAccess of tomorrow** will:

- Offer business analytics tools to support agencies and evaluate NEPA processes and outcomes.

(NEPAccess Solutions cont'd)

- Use "Smart Scoping" and other retrieval-augmented generative AI tools to allow:
  - Rapid synthesis
  - Learning from past projects
  - AI writing assistance for specific topics, including scoping, proposed alternatives, monitoring, and mitigation
- Expand our dynamic, centralized, public portal to support a more efficient, transparent, and accountable NEPA engagement for all stakeholders.
- Ensure accountability of decision-making through data standards, mapping and visualization of impacts and benefits to communities.

Impact

NEPAccess is already saving time, effort, and money!

- Arizona-based mining consultant: "Finding and reviewing past project examples [with NEPAccess] **takes minutes instead of hours spent emailing colleagues of information and weeks spent waiting for responses."**
- Arizona-based DoD NEPA preparer: "With NEPAccess, writing my next EIA will **take 2-6 months less time**."

NEPAccess is already bringing the scientific method to bear on law and decision-making! Research papers in review and preparation:

- "Public Comments Matter: A Quantitative Study of Public Engagement in the NEPA Process."
- "Exploring the current and future role of citizen science in environmental impact assessments."
- "Explaining and Predicting the Efficiency of the NEPA Review Process."
- "Why NEPA needs cost Accounting: Cost-Benefit Analysis of the National Environmental Policy Act."
- "Are Agencies Getting Environmental Justice Right Within NEPA?"

To scale up the impact of the project, we need new investment funds to support stakeholder outreach and expand research and development capabilities.

Partnerships in Development

We are currently engaged in meetings and collaborations with the following entities and are looking to develop new partnerships.

- Federal agencies: National Science Foundation, White House Council on Environmental Quality, Department of Energy (including Pacific Northwest National Lab), Department of Defense (Readiness and Environmental Protection Integration and Sentinel Landscapes)
- Civil society: Environmental Policy Innovation Center (EPIC), Federation of American Scientists
- Industry: AECOM; ACEC

Potential AI Application for Arizona Stakeholders

Our "Graze Plan" Use Case Needs Stakeholder Feedback. NEPAccess is also interested in meeting the needs of agricultural producers through custom tools. GrazePlan is in the scoping phase – UArizona wants to work with producers to ensure it meets their needs.

- **Problem:** Farmers and ranchers often need NEPA completed to carry out projects or gain permit renewals, but the process can be long, expensive, and uncertain.
- **Solution:** Tools designed in collaboration with producers to target pinch-points in the NEPA process commonly experienced by ranchers and farmers.
- **Example:** GrazePlan prototype – a custom tool to increase the efficiency of the grazing permit NEPA process **using AI to develop templates for EA development and develop draft text for typical components** such as grazing history, monitoring results, and improvements.

Please let us know what you think and how we can respond to your needs.

Contact

Laura Lopez-Hoffman
Principal Investigator
lauralh@arizona.edu

Emily McGovern
Research Director
emcgove@arizona.edu

www.NEPAccess.org

NEPAccess

Fulfilling NEPA's Promise Through the Power of Data Science

NEPAccess upholds and maintains the foundational U.S. environmental law—helping citizens, communities, developers, legislators, regulators, and scholars with solutions to common concerns about environmental policy processes.

With funding, we will build new features on the NEPAccess platform.

Common Concerns	Sample of features possible with new funding:	Strategic Impacts	Operational Improvements
EFFICIENCY ***"Environmental reviews of federal projects are inefficient, expensive, and time-consuming."***	✓ A user-friendly repository of available federal actions ✓ Business analytics tools and dashboards for NEPA ✓ Generative AI assistantfor writing EIAs	NEPAccess lays the foundation to create timely and cost-effective policies and regulations.	NEPAccess creates a powerful solution for creating new EISs informed by data from projects across the country.
TRANSPARENCY ***"People don't trust that they have a voice in federal environmental decisions."***	✓ Project & policy notifications for the public ✓ Online platform for public engagement, annotation, & comments ✓ A free & equitable platform for all users	Ensures democratization of information, fulfilling NEPA's original vision of public participation.	Creates an accessible forum to engage with NEPA environmental reviews, facilitating clear communication between users and agencies.
ACCOUNTABILITY ***"There's no way to track impacts and affected communities."***	✓ Tracking projects by census data ✓ Mapping proposed alternatives & zones of impact ✓ Curated news and social media reports highlighting environmental impacts	Provides the data to craft new regulations and policies promoting equity in project benefits and impacts.	Implements a system for visualizing and tracking impacts in communities to a granular level.
CLIMATE RESILIENCE ***"Federal environmental reviews aren't yet effectively addressing climate change."***	✓ Powerful search filters for climate-related data ✓ Climate-specific tools, dashboards, & mapping	Supports development of climate-friendly policies and projects.	Enables design of resilient infrastructure. Identifies climate impacts on landscapes and communities.



www.NEPAccess.org

Contact

Laura Lopez-Hoffman
Principal Investigator
lauralh@arizona.edu

Cristina Guzman
crguzman@arizona.edu

FUNDING FROM

THE UNIVERSITY OF ARIZONA

NSF

3-21-25

The NEPAccess Platform

ACHIEVEMENTS

NEPAccess
Fulfilling NEPA's Promise
Through the Power of Data Science

What we've built so far:	Enables users to:	How we've done it:
The most comprehensive cross-agency collection of EISs	✓ Quickly search one place to retrieve documents from 20+ agencies (including EPA, FERC, BLM, FS, etc.).	✓ Collected data from agency APIs to ingest all available metadata and PDFs for each EIS. ✓ Curation of records and PDFs not
Only source with full-text PDF search	✓ Search full text of EIS documents that are hundreds of pages long within seconds rather than hours. ✓ Find more relevant results than on sites like EPA, which is searchable only by title or basic metadata. ✓ Tailor searches to specific research needs (e.g., similar actions, their alternatives, mitigation, and more).	✓ Converted all available PDFs to machine-readable text and data.
Linked all stages of EIS process (NOI through ROD)	✓ Retrieve and display all results related to a single process in one search, even when the title has changed. ✓ Analyze project timeline data and other patterns and trends related to project management and workflows.	✓ Used natural language processing (NLP) and manual verification to identify related document titles. ✓ Configured user interface (UI) to display related EIS records as a chronological group.
Enhanced project metadata	✓ Easily retrieve and analyze more relevant documents by narrowing searches to specific action types or decision types.	✓ Trained machine learning models to extract and generate new metadata for each document on 11 action types and 5 decision types.
Enhanced geographical metadata	✓ Use searchable map or geographical filter menu to narrow results (e.g., to a single county, or a group of neighboring counties or states).	✓ Trained machine learning model to extract state- and county-level location data from titles, basic metadata, and full-text documents. ✓ Automatically linked location data to map coordinates

THE UNIVERSITY OF ARIZONA

Contact: Cristina Guzman, U of Arizona
520-621-1467 ; crguzman@arizona.edu

NEPAccess.org March 2025

Quick Facts

NEPAccess helps you find more—and more relevant—information from environmental impact statements

	NEPAccess	EPA EIS repository
Date range	1976-present	1987-present
Records	18,000 +	16,000 +
Downloadable PDFs	7,500	3,000
Full-text searchable documents	7,500	0
Grouped by project	Yes (9,000 +)	No (0)
Search filters	11	4
Map-based search	Yes	No
Project timelines	Yes	No

NEPAccess
Fulfilling NEPA's Promise
Through the Power of Data Science

THE UNIVERSITY OF ARIZONA

NEPAccess.org

June 29, 2020

Dear Chairman Barrasso, Ranking Member Carper, and Committee Members,

We the undersigned academic researchers understand that the Senate Committee on Environment and Public Works is holding a hearing on July 1, 2020, titled "Better, Faster, Cheaper, Smarter, and Stronger: Infrastructure Development Opportunities to Drive Economic Recovery and Resiliency." We comment as scholars across disciplines who study NEPA and federal decisionmaking. We are all involved in a long-term project called NEPAccess, which is described at the end of this letter.

We write to address one relevant aspect of federal decisions related to infrastructure and other projects: The time required for agencies to produce an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act (NEPA). Any consideration of amending NEPA to speed federal projects should be data driven. The data we provide constitute an important component of understanding the NEPA process.

In summary, this letter provides the following data:

- The midpoint, or median time for an agency to complete an EIS process is 3.6 years. A few projects that involved lengthy EIS processes are not representative.
- The initial phase of the EIS process—from Notice of Intent (NOI) to Draft EIS (DEIS)—is the most significant determinant of overall time to completion. The opportunity for the public to comment on a DEIS is less of a factor.
- The final phase of the EIS process—from Final EIS (FEIS) to Record of Decision (ROD)—lasts longer than required by NEPA indicating that factors other than NEPA contribute to overall duration.

NEPA requires an EIS for "major federal actions that significantly affect the quality of the human environment."[1] The vast majority of federal actions do not require an EIS; the non-partisan Government Accountability Office has estimated that federal agencies rely on EISs to comply with NEPA for less than 1% of federal projects.[2]

Nonetheless, concerns that NEPA may unduly delay federal decisions often focus on examples of EISs that have taken many years to complete. Concerns are also sometimes raised that NEPA's public participation requirement results in undue delay.

The analysis we offer is based on data contained in a spreadsheet posted on the Council of Environmental Quality (CEQ) website providing information about all EISs published in support

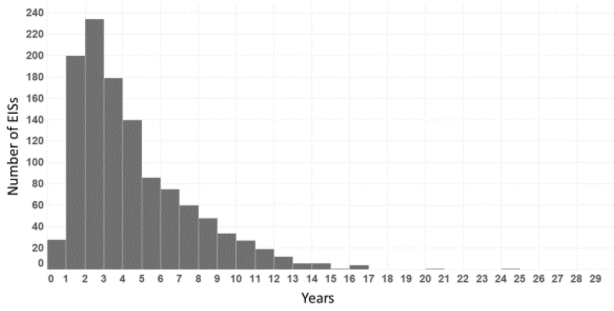
[1] 42 U.S.C. § 4332(2)(C).
[2] U.S. Government Accountability Office, GAO-14-370, *National Environmental Policy Act: Little Information Exists on NEPA Analyses* 8 (April 2014).

of RODs signed between 2010-2017.[3] The spreadsheet consists of 1,161 EISs published by 51 lead agencies.

During this seven-year period, the average EIS process lasted 4.5 years—measured from NOIs to RODs. That average is, however, significantly affected by the long duration of a small number of what may be large, complex projects. The midpoint or median duration of EIS processes was 3.6 years. The duration of the EIS process was less than 2.2 years for 25% of projects and less than 6 years for 75% of projects. Figure 1 graphs these data and indicates that the distribution of projects has a long "tail" with a small number of projects requiring substantially more time than most.

Figure 1: Length of the EIS Process (in Years)

Mean	4.5
Median	3.6
25%	2.2
75%	6.0



The data in Figure 2 indicate that the initial phase of the NEPA process—from the publication of an NOI to DEIS—is the largest contributor to overall duration, accounting for 84% of the observed variation. The average time from NOI to DEIS was 2.6 years, the median time was 1.9 years, 25% of projects completed this phase within 1.1 years and 75% percent of projects completed this phase within 3.4 years.

In comparison, the time from the DEIS to the FEIS— during which agencies are required to allow the public to comment—the average was 1.4 years, the median was 1 year, 25% of projects completed this phase in 0.6 years and 75% of projects completed it within 1.7 years. During this phase of the EIS process, the CEQ regulations require that (1) the public has an opportunity to comment on the DEIS, and (2) the lead agency responds to public comments.[4]

The contrast between these two phases of the EIS process indicates that agencies' obligation to solicit and respond to public comments on DEISs is not the most important determinant of the duration of the EIS process.

The data in Figure 2 also indicate that the time required for agencies to make decisions is not always attributable to the NEPA review process itself. Federal regulations generally require that

[3] https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Data_2020-6-12.xlsx
[4] 40 C.F.R. § 1503.1, 1503.4.

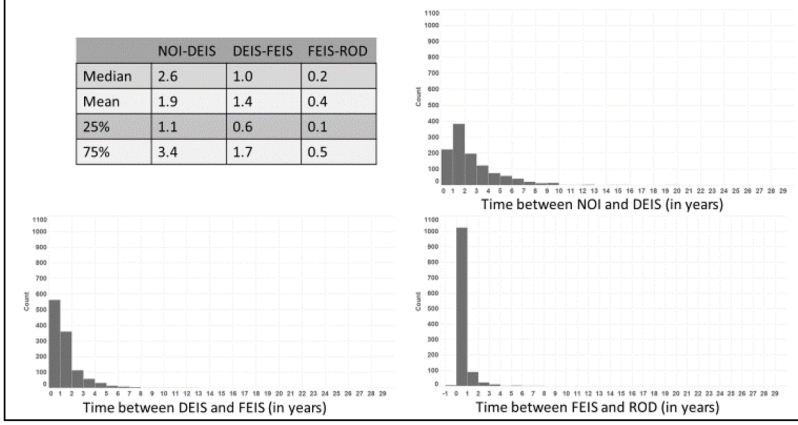
an agency must wait 30 days after publication of an FEIS to sign a ROD.[5] That pause affords the agency with the opportunity for further internal deliberation before deciding but does not implicate any procedural obligation of NEPA.

Nonetheless, this phase lasted more than 10 months for 150 projects and more than two years for 41 projects. NEPA compliance is unlikely to have caused agencies to issue a ROD more than 30 days after publishing an FEIS, indicating that considerations unrelated to NEPA account for this delay.

These data raise questions about the extent to which the amount of time involved in other phases of the NEPA process is influenced by considerations unrelated to NEPA compliance, and relatedly, the extent to which amending NEPA will speed agency decision-making processes.

Figure 2: Length of Major Phases of the EIS Process (in Years)

	NOI-DEIS	DEIS-FEIS	FEIS-ROD
Median	2.6	1.0	0.2
Mean	1.9	1.4	0.4
25%	1.1	0.6	0.1
75%	3.4	1.7	0.5



The data we have discussed provide a fuller picture of the time required for EISs that support the broad array of federal decisions to which NEPA applies than references to a few unrepresentative projects involving lengthy delays. Other important questions remain, however, that the data provided by CEQ do not answer. For example, a full understanding of NEPA would require, among other things, data about NEPA compliance at different federal agencies, data about different categories of projects, and data about the relationship of cooperating agencies to the duration of the EIS process.

The NEPAccess project is designed to study and inform these and other questions. NEPAccess is a multi-disciplinary research effort at the University of Arizona and funded in part by the

[5] 40 CFR 1506.10(b)(2). Agencies may be exempt from the 30-day waiting period if they have an internal process through which the public may appeal the agencies' decisions. *Id.* § 1506.10(b).

National Science Foundation to create an integrated knowledge, discovery, and engagement platform that provides access to geo-referenced, published EISs (more than 37,000) and their supporting documents and to enable analysis using cutting-edge data science and natural language processing techniques to answer here-to-fore unanswerable questions about how NEPA has functioned.

More information about NEPAccess can be found at nepaccess.org.

Any effort to reform NEPA should be informed by data. We are committed to developing and analyzing policy-relevant data about the NEPA process and look forward to future opportunities to present our work to this Committee.

Sincerely,

(All of the following are signatories in their personal capacity only. Institutional affiliations are included for identification purposes only.)

Buomsoo Kim
Ph.D. Candidate
Eller College of Management
University of Arizona

Steven Bethard, Ph.D.
Associate Professor
School of Information
University of Arizona

Kirk Emerson, Ph.D.
Professor of Practice
School of Government and Public Policy
University of Arizona

Laura López Hoffman, Ph.D
Professor, School of Natural Resources and Environment
Research Professor, Udall Center for Studies in Public Policy
University of Arizona

Aaron M. Lien, Ph.D.
Assistant Research Scientist
School of Natural Resources and the Environment
University of Arizona

Marc L. Miller
Dean & Ralph W. Bilby Professor of Law
University of Arizona James E. Rogers College of Law
https://ssrn.com/author=163371

Justin R. Pidot
Professor & Co-Director of the Environmental Law Program
University of Arizona James E. Rogers College of Law

Sudha Ram, Ph.D.
Anheuser-Busch Endowed Chair of MIS, Entrepreneurship & Innovation
Professor of Computer Science
Director, INSITE Center for Business Intelligence & Analytics
Department of MIS
Eller College of Management
University of Arizona

Newmont

6900 E. Layton Ave.
Suite 700
Denver, CO 80237

P 303.863.7414
F 303.837.5837
newmont.com

March 21, 2025

Chairwoman Shelley Moore Capito
Senate Committee on Environment and Public Works
United States Senate

Ranking Member Sheldon Whitehouse
Senate Committee on Environment and Public Works
United States Senate

Dear Chairwoman Capito and Ranking Member Whitehouse:

Congratulations on being chosen to serve as the Chairwoman and Ranking Member of the Senate Committee on Environment and Public Works. Thank you for your focus on improving the federal environmental review and permitting process, as shown by your first legislative hearing of this 119th Congress being on this topic.

Based in Denver, Newmont is the world's leading gold company and a producer of copper, zinc, lead, and silver. Our world-class portfolio of assets, prospects and talent is anchored in favorable mining jurisdictions across Africa, Australia, North and South America, and the Asia-Pacific region. Newmont is also partnered with Barrick in the Nevada Gold Mines LLC (NGM) joint venture in northern Nevada, the largest gold mining complex in the world.

Newmont is the only gold producer listed in the S&P 500 Index and is widely recognized for its principled approach to sustainable and responsible mining. Newmont is an industry leader in value creation, supported by robust safety standards, superior execution, and technical expertise. Founded in 1921, the Company has been publicly traded since 1925.

Permitting of Mine Operations in the United States

America's mining industry operates under a comprehensive framework of federal, state, and local laws, regulations, and policies that govern virtually every single activity at a mine. As such, the mining industry is reliant upon on fair, consistent, and predictable permitting processes to remain competitive in the global economy.

Last year, S&P Global found that it takes an average of 29 years to bring a mine online in the United States. Regulatory uncertainty across the permitting process has delayed investments, and prevented the much-needed growth in domestic production of minerals in this country. The 118th Congress' *Energy Permitting and Reform Act* represented a significant first step towards constructive reform; although it did not secure passage, it laid out a viable pathway for improving permitting across the resource industries.

Newmont

6900 E. Layton Ave.
Suite 700
Denver, CO 80237

P 303.863.7414
F 303.837.5837
newmont.com

One crucial step to promote greater regulatory coherence in the domestic mining industry is the enactment of S. 544, the *Mining Regulatory Clarity Act*. Although this legislation is under the jurisdiction of the Energy & Natural Resources Committee, this bipartisan legislation was recently reintroduced by Senator Cortez Masto and Senator Risch and reviewed at a recent legislative hearing. S. 544, and its House companion H.R. 1366, is necessary to provide a sufficient level of certainty for mineral producers in the United States while maintaining the high standards of environmental protection to which Newmont is committed. We encourage the Congress to pass this legislation as soon as possible, whether individually or through inclusion in any permitting legislation under consideration in this Congress.

While Newmont strongly supports robust and meaningful substantive standards, the U.S. permitting system does not consistently provide a pathway to find solutions, and instead provides a fractured framework of overlapping responsibilities, multiple layers of approval, and unenforceable timelines. Additionally, although much of the discussion surrounding permitting in the mining industry has understandably focused on new projects, it is important to note that permitting is an ongoing process – mines often require ongoing permitting, whether it is for permit renewals, changed conditions, or shifting standards under substantive statutes like the *Clean Water Act*. As the Committee reviews these permitting standards, it's important to recognize the impact on existing operations.

Illustrative Example of Permitting at an Operating Site

An illustrative challenge with permitting is the recent experience at the Cripple Creek & Victor Mine (CC&V) in Teller County, Colorado. Until 1 March 2025, Newmont was the owner and operator CC&V. Although the sale of the mine to SSR Mining has been completed and we no longer operate the mine, as a condition of the sale we have ongoing involvement in several permitting actions already underway. We write to you today to share our experiences with federal permitting requirements for the Carlton Tunnel Permit – while specific to this location, illustrative of problems that we believe occur throughout the industry and the nation.

The Carlton Tunnel is a dewatering tunnel, 3,000 feet deep and 6 miles long, completed in 1941. The discharge point, which regulators have asserted requires a permit, is located on CC&V land. Although water quality has remained consistent for decades, water quality standards have changed, requiring a variance under Section 303(c) under the *Clean Water Act*. Although the State retains primacy, the U.S. Environmental Protection Agency (EPA) may weigh in on the variance as a temporary change to its water quality standards, and the Colorado Water Quality Control Commission (WQCC) has scheduled a hearing on CC&V's variance request in June of this year.

In advance of this hearing, CC&V has been engaging with the EPA on the Carlton Tunnel variance for more than two years, including requests for review, responses, and additional engagement by the agency that unfortunately have not occurred. Furthermore, it was not until November 2024 – 16 months after our initial outreach – that EPA's Region 8 suggested that it did not have sufficient

Newmont

6900 E. Layton Ave.
Suite 700
Denver, CO 80237

P 303.863.7414
F 303.837.5837
newmont.com

time remaining to complete the review and therefore was unlikely to support the variance request. Unfortunately there may no longer be sufficient time for the EPA to complete their review; the permit for the Carlton Tunnel expires February 28, 2026, and the state WQCC will not modify the permit after that date if it isn't renewed with the variance included (this means the variance process must be completed in advance during 2025). The difficulty of engaging with EPA staff has been a barrier to progress on this permitting issue – and it continues. This is an example of the sort of lack of coordination between permitting authorities (in this case, the State's timeline and the EPA), lack of accountability, and failure to seek solutions that puts projects at risk.

We are heartened that the Senate Environment and Public Works Committee is evaluating the permitting process and we hope sharing our experience will lead to constructive reform. We are happy to provide additional information at your request and participate in this process.

Sincerely,

Peter Toth
Chief Sustainability & Development Officer

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
U.S. Senate Committee on Environment & Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
U.S. Senate Committee on Environment & Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Capito and Ranking Member Whitehouse,

I am writing to express the Natural Gas Supply Association's (NGSA) support for and share our views related to the Committee's 'Improving the Federal Environmental Review and Permitting Processes' hearing on February 19, 2025.

NGSA represents integrated and independent companies that supply natural gas. Founded in 1965, NGSA is the only national trade association that solely focuses on producer-marketer issues related to the downstream natural gas industry. Through various legislative and regulatory policy initiatives, NGSA seeks to maintain well-functioning competitive markets and advocates for eliminating inappropriate regulatory barriers to transporting supply to market.

Our member companies support legislation that would provide industry with a predictable, transparent and efficient permitting process to support the development of natural gas infrastructure and connect communities with affordable, abundant natural gas. Natural gas pipelines supply a multitude of customers, including electric generators, local gas distribution networks for home heating, feedstock to the manufacturing industry and fuel to LNG terminals that provide energy needed to our allies overseas. Critical energy infrastructure, particularly natural gas pipelines, has become increasingly difficult to permit, site, and construct. According to the U.S. Energy Information's Short-Term Energy Outlook, the forecast for natural gas demand in 2025 is expected to increase, with consumption and exports rising by roughly 3.2 billion cubic feet per day (Bcf/d).[1] Despite the unprecedented growth in the demand for energy, projects are being delayed, abandoned mid-development, or never proposed in the first place.

[1] See U.S. Energy Information Administration, Short-Term Energy Outlook, January 2025, found here.



As discussed in the hearing, the primary causes for these delays are lengthy regulatory reviews and litigation, especially over the expanded scope of environmental review conducted under the National Environmental Policy Act (NEPA). Agencies conduct years-long NEPA reviews in an effort to survive appeal, and over that time, project costs such as labor, construction materials, and commodity prices increase. Legal challenges to a project's federal and state permits regularly lead developers to cancel projects. As the evidence of permitting and litigation uncertainty accumulated, the risk premium added to any infrastructure project has grown, resulting in fewer projects proposed and developed. From 2017 to 2023, the additional interstate natural gas pipeline capacity added annually has dropped from approximately 11 Bcf per day to under 0.9—a startling reduction.[2]

If a project cannot enter into service, ratepayers will not get the benefit of diversified sources of gas supply and the lower associated costs. Both benefits are needed now, more than ever, given growing demand. A recent S&P Global study found that while the Northeast region (Marcellus and Utica formations) has sufficient proved reserves to meet all U.S. demand for 17 years, or the Northeast region itself for 77 years, existing pipeline constraints hinder optimal production and imposes a heavy cost burden on consumers.[3] The consequences: gas prices in New York and Boston that are 15–40% higher than the national annual average, and 145% and 160%, respectively, higher in the key winter heating month of January. The study asserts that if the U.S. could expand capacity from the Marcellus supply by about 6 billion cubic feet per day, it could reduce January prices by 20% and 30%, respectively, from 2028 to 2040 (17-27% annualized), resulting in cumulative savings of $76 billion for consumers by 2040.[4] Additionally, increased capacity would reduce the need for natural gas imports, thus improving the trade balance.

While the passage of the Fiscal Responsibility Act provided important improvements, without further comprehensive permitting legislation, this trend of weaponizing regulatory reviews and NEPA will continue. In addition to rising energy costs, permitting delays threatens electric reliability and hurts industry and manufacturing, which are exposed to the high prices and reduced supply, and forces industry to reduce production or shut down operations at great cost. Clearly, we cannot continue to let this happen under the existing permitting regime.

NGSA supports the Committee's interest in common sense reforms to provide the predictability and timely decision-making needed for energy projects, without jeopardizing environmental protections. We ask the Committee to consider the following policy recommendations related to

[2] U.S. Energy Information Administration, Natural Gas Intrastate Pipeline Capacity Additions Outpaced Interstate Additions in 2023 (Mar. 20, 2024), https://www.eia.gov/todayinenergy/detail.php?%20id=61623

[3] See *Major New US Industry at a Crossroads: A US LNG Impact Study – Phase 2*, Report by Commodity Insights and Market Intelligence, S&P Global, March 2025, found here.

[4] See S&P Global Report.



the Clean Water Act Section 401and NEPA, which are key provisions found in Senator Capito's (R-WV) Revitalizing the Economy by Simplifying Timelines and Assuring Regulatory Transparency (RESTART) Act, Senator Barrasso's (R-WY) Spur Permitting of Underdeveloped Resources (SPUR) Act and the Building American Energy Security (BAES) Act authored by Chairman Manchin (D-WV), along with other policy prescriptions.

Clean Water Act (CWA) Section 401

- Limit the State's scope of review to only consider potential water quality impacts directly occurring from the project's point source discharges and not the activity as a whole.
- Clarify that water quality certification (WQC) conditions must be necessary to assure that the discharge will comply with the certifying authority's WQC (certain states have interpreted 401's scope as reaching beyond water quality).
- Require States to participate in the Federal Energy Regulatory Commission (FERC)-led National Environmental Policy Act (NEPA) process for interstate pipelines and LNG projects and propose water quality conditions and terms through that process.
- Establish a timeline for action following a federal court's remand or vacatur.'
- Require:
    - Environmental Protection Agency (EPA) to define certification request using one uniform set of conditions.
    - The lead federal permitting agency to establish the timeline for a project's review within or at the statutory one-year period from receipt of the certification request based on project complexity, and nature of potential point source discharge.
    - Preclusion of unilateral pausing/tolling by the certifying agency.
    - Applicant's approval for any modifications to a certification after its issuance.

Judicial Review of non-FERC Permits

- Revises NGA to establish a higher burden of proof for agencies issuing federal permits, which would prevent the construction, expansion, or operation of an interstate gas pipeline or LNG export facility, to justify that their denials by clear and convincing evidence (SPUR).

National Environmental Policy Act (NEPA)

- Clarify that an agency is only to consider effects that have a close causal relationship to the proposed action or alternative, that a "but for" relationship is insufficient, and that the federal agency must have the ability to prevent the effect.
    - Effects are reasonably foreseeable, not speculative, and not remote in time or geographically remote.
    - Have a reasonably close causal relationship that is not the product of a lengthy causal chain to the proposed action or alternative action, respectively, as determined by the Federal Energy Regulatory Commission (FERC).



  - FERC can prevent the effect and that the effect would not occur absent the proposed action or alternative action; and
  - Emissions upstream or downstream of the facility that are the subject of the application under Section 3 or 7 of the Natural Gas Act (NGA) do not constitute potential effects under NEPA.
- Require the alternatives analysis to reflect the goals served by the requested action based on the purpose and need of the project as well as the statutory authority governing the agency's action.
  - Is within the jurisdiction of the federal agency.
  - Meets the purpose and need of the proposed agency action.
  - Meets the goals of the project sponsor.
- Set FERC as lead agency for NEPA review with hard deadlines set in statute (agencies failing to meet deadlines will have their approvals deemed approved).
- Change the definition of "major federal action" to encompass projects that significantly affect the quality of the human environment.
- NEPA shall be deemed fulfilled for that proposed agency if agency fails to publish the availability of the environmental impact statement (EIS) or environmental assessment (EA).
- Modify categorical exclusion definition to encourage cross-agency usage, which would preclude a separate EA and EIS.
- Require:
  - Public comments on NEPA analyses be exhaustive and "as specific as possible" and timely.
  - Claimants to have participated meaningfully in the NEPA process before filing suit and provide reasonable timelines.
    - 50-day statute of limitations to challenge final agency action.
    - 180-day deadline for agency to act upon remand/vacatur.
    - 60-days to challenge final agency action.
    - 180-day deadline for agency to rule on NEPA challenges.

Thank you for your time and attention to this important matter. NGSA appreciates the bipartisan

efforts to advance meaningful permitting legislation and stands ready to work with this Congress to help connect Americans with affordable, abundant natural gas supply.

Sincerely,

Dena E. Wiggins
President & CEO
Natural Gas Supply Association

Dear Chair Capito, Ranking Member Whitehouse, and Members of the Senate Environment and Public Works Committee,

On behalf of the Natural Resources Defense Council (NRDC) and our millions of members and activists, we write today in response to the Environment and Public Works (EPW) Committee's hearing on February 19, 2025 entitled "Improving the Federal Environmental Review and Permitting Processes." We appreciate your leadership in seeking legislative solutions to improve permitting efficiency while upholding environmental protections, and we stand ready to advance this goal.

NRDC shares the Committee's sentiment that we must improve the U.S. permitting process. In the face of rapidly rising energy demand and extreme weather, we must build energy infrastructure much more quickly to keep the lights on and energy bills down. Renewable sources and large-scale transmission can meet increasing demand securely and affordably while reducing climate-warming pollution and protecting public health, but they are not being deployed at the speed or scale necessary. Additionally, current permitting processes are not providing the protections they should: the most disadvantaged communities are still given the least say when profoundly impactful projects are proposed for their backyards; analyses and procedural steps are failing to prevent alarming rates of environmental degradation on public lands; and it remains easier to permit a gas pipeline for export than a transmission line essential for domestic grid reliability.

The challenges of modernizing our permitting process are multifaceted and require data-driven solutions at the federal, state, and local levels. Congress has an essential role in prioritizing these solutions, building on recent successes, and steering the conversation away from misleading, fact-light debates that view deregulation as the only effective solution.

NRDC's recommendations are as follows:

I. **Efficient permitting requires adequately staffed, resourced, and coordinated government agencies. Congress should build on recent successes and guard against backsliding.** Extensive data shows that adequately funding agency permitting offices and retaining expert staff is the best indicator of efficient permitting, and the Biden Administration made significant strides in this area. *However, the Trump Administration's unprecedented hollowing out of federal agencies, dismissal of expert staff, and rollback of critical permitting regulations have weakened coordination and clarity, will undermine any meaningful reform efforts, and may slow future permitting for all projects. We strongly urge the committee to oppose these counterproductive actions.*

II. **Congress can accelerate clean energy and transmission deployment *and* strengthen environmental and community protections.** NRDC recommendations include expanding agency capacity, improving coordination, streamlining approvals without weakening safeguards, empowering Tribal governments, expediting grid expansion through FERC siting authority, and addressing interconnection backlogs – all while ensuring robust public participation and minimizing environmental impacts.

III. **Congress should focus on real barriers to efficient permitting rather than scapegoating environmental laws.** Haphazard efforts to weaken environmental safeguards, limit public input, or fast-track harmful projects under the guise of cutting red tape should be rejected. Multiple studies show that environmental review requirements are rarely the most significant causes of project delays.

I. INVEST IN AGENCY CAPACITY AND COORDINATION – AND PREVENT BACKSLIDING

Congress must recognize and build on the significant improvements in permitting efficiency achieved in recent years. The Biden Administration, with Congressional support, **successfully reduced the median time to complete an environmental review by eight months** compared to the previous Trump Administration. However, this progress is now at risk due to the current Administration's radical efforts to dismantle critical environmental safeguards, weaken agency capacity, and undermine science-based decision-making. Further progress is possible, but only if we resist these rollbacks and focus on solutions that enhance both efficiency and accountability.

Some key improvements and how to build on them include:

1. **Investments in Workforce and Technology**: The Inflation Reduction Act allocated $1 billion to increase agency permitting capacity. The Biden Administration grew the permitting workforce by 14% and enhanced permitting technology, both of which improved efficiency. To build on these gains, Congress should:
    - Ensure that permitting agencies are fully staffed and resourced and appropriate additional funding for this purpose as needed.
    - Establish flexible hiring authorities for specific expertise and increase the pay scale of critical permitting staff to attract and retain top talent.
    - Prioritize resources for field offices and field staff who are essential for localized, site-specific environmental reviews.
2. **Increasing Cross-Agency Coordination:** The Biden Administration expanded the FAST-41 federal permit coordination process, established under the 2015 Fixing America's Surface Transportation (FAST) Act, to enhance interagency collaboration and accelerate permitting. Additionally, it created the Coordinated Interagency Transmission Authorizations and Permits (CITAP) Program to improve efficiency in permitting transmission infrastructure while maintaining rigorous environmental reviews. To build on this, Congress should:
    - Expand FAST-41 eligibility for clean energy and transmission projects.
    - Increase funding for the Federal Permitting Improvement Steering Council (FPISC) to strengthen agency coordination.
    - Support CITAP by ensuring agencies streamline reviews while upholding transparency, public engagement, and environmental protections.
3. **Setting Clear Review Timelines:** The Fiscal Responsibility Act set clear and achievable deadlines: one year for Environmental Assessments and two years for Environmental Impact Statements. And CITAP set a two-year deadline to issue permits and authorizations for qualifying transmission projects. To support timely, high-quality reviews, Congress should:
    - Invest in agency capacity to meet deadlines without compromising the quality of environmental reviews. This includes increasing funding for staff, enhancing permitting technology, and improving interagency coordination to prevent unnecessary bottlenecks.
4. **Expanding Programmatic Reviews:** The previous Administration expanded use of programmatic reviews, enabling threshold reviews of projects of similar types and in similar geographies and creating a baseline to move through project-specific reviews more efficiently. To build on this, Congress should:

- Direct agencies to expand programmatic reviews for clean energy and transmission projects.
- Ensure agencies have the necessary staffing and resources to implement these reviews effectively.

5. **Strengthening Community Engagement and Buy-In:** The Biden Administration also expanded meaningful community engagement across agencies, including through support for development of community benefit plans. Community engagement is a proven solution not only to building better projects, but also to minimizing community opposition (and therefore litigation and permitting delays) down the road. Congress should build on this by:
    - Creating frameworks and incentives for early and meaningful public participation in infrastructure planning, siting, and permitting to ensure community benefits and buy-in. We elaborate on this topic in Section II.

Critically, all these gains are now at risk due to the Trump Administration's actions. Congress must address the reckless damage already inflicted by the Trump Administration on federal agencies' ability to review and permit infrastructure projects. The Trump Administration has sown uncertainty and confusion by needlessly firing many of the scientists, permitting experts, and civil servants essential to basic federal permitting. Gutting agency expertise on this unprecedented scale will undo the significant progress articulated above and hamstring any future efforts to improve or speed up permitting. In addition, the Administration's demonstrated disregard for the law and the ensuing chaos and confusion this creates undermines the financial certainty industry needs to invest in the new infrastructure we need.

We urge the Committee to ground permitting discussions in accountability and the rule of law, ensuring that the Administration faithfully implements Congressional mandates. As Senator Whitehouse rightly emphasized in the hearing, any bipartisan compromise on permitting reform must depend on an Administration committed to executing the law effectively, efficiently, and responsibly – not one that undermines federal agencies or obstructs their ability to permit critical projects.

II. SUPPORT EFFICIENT, RESPONSIBLE CLEAN ENERGY AND TRANSMISSION BUILDOUT

We urgently need to speed up the construction of clean energy and transmission infrastructure. As outlined in the previous section, increasing government resources and coordination is key to faster permitting. But there are other legislative (and non-legislative) reforms that could also speed up federal authorizations.

Clean Energy Sector Recommendations:

1. Congress should **appropriate additional funds to ensure that Renewable Energy Coordination Offices** (RECOs) are staffed at levels capable of—and with the expertise needed for—processing project applications for solar, geothermal, and wind projects on federal lands and offshore areas. These offices can be the lynchpin for cross-agency coordination and ensure that permit reviews do not get hung up or delayed.
2. Congress should **direct relevant agencies to use tools available to pre-screen federal lands and offshore areas for their solar, geothermal, and wind energy potential, access to existing or planned transmission, and the extent to which they avoid environmental and cultural/social impacts.** Congress should further direct agencies to establish permitting

incentives—such as expedited or preferential review—for projects proposed within these pre-screened areas.

3. Congress should better level the playing field among energy sources located on federal lands by **enacting a revenue sharing scheme that returns some of the revenue generated by solar, geothermal, and wind projects** on federal lands to the states, counties, and communities that host such projects as well as providing funding to enhance conservation efforts and mitigation for the impacts of building these projects on federal lands. In addition, such a measure should follow the model used for the federal oil and gas program, which steers a modest percentage of revenues to permitting agencies to support the staffing and coordination that has led to extraordinarily quick permitting timelines for oil and gas extraction on federal lands.
4. Finally, Congress should **partner with Tribal governments to better understand Tribal permitting needs and invest in the staffing and expertise** needed by Tribes to allow them to better review, site, and permit solar, wind, and geothermal projects on Tribal lands.

Transmission Sector Recommendations:

We share the Committee's interest in facilitating the rapid expansion of the electric grid, which is necessary not only to get more renewable energy online, but also to maintain reliable and affordable electricity in the face of growing load and increasing extreme weather. Our recommendations include:

1. Congress should **appropriate additional funds to ensure that the Grid Deployment Office** is staffed at levels capable of—and with the expertise needed to—process transmission project applications on federal lands and offshore areas.
2. Congress should give **FERC primary siting authority** over large "national interest" transmission lines. Currently, many state and local approvals are needed for interstate transmission lines, leading to lengthy and expensive permitting processes, and the DOE national interest corridor designation has not proven to be an effective solution.
3. FERC should require **interregional transmission planning, cost allocation, and minimum interregional transfer capability**. Congress can require FERC to promulgate such a rule, but FERC already has the authority to do so.
4. Congress, FERC, and Regional Transmission Organizations (RTOs) should explore opportunities to **remedy the interconnection backlog**, where new generation is stuck in queues for an average of five years before being able to connect to the grid. Full implementation of Order 2023 is an important first step but is not sufficient: Congress, FERC, and RTOs should explore additional reforms to address the interconnection challenge.
5. Congress should establish a transmission **investment tax credit** to incentivize construction of much-needed transmission lines and alleviate the financial burden on consumers. Congress should also increase **funding** for important transmission programs, like the Transmission Facilitation Program and advanced transmission R&D.
6. For transmission, as well as clean energy projects, Congress should create **frameworks for early and meaningful public participation** in infrastructure planning, siting, and permitting. Efforts to build any major infrastructure must center community input, help communities reap the benefits of a clean energy economy, and ensure that projects do not negatively impact communities that have long been disproportionally burdened by pollution. Community participation and benefits mean different things in different contexts, and this NREL study lays out best practices in community energy planning from its own experiences. An NRDC blog

elaborates some meaningful community benefits developers have employed, including co-ownership, labor benefits, electrification co-benefits, impact mitigation, tribal sovereignty, and community benefits agreements (the blog includes specific examples). As this MIT study found, community involvement in the permitting process is one of the most accurate determinants of a project's success, and any effort focused on permitting reform should keep this in mind.

7. Congress can also **incentivize infrastructure solutions that minimize additional environmental** impact and therefore need less environmental review. For example, in the case of electric transmission, Congress should make it as easy as possible to build additional capacity on existing transmission corridors and **incentivize the use of grid-enhancing technologies** to wring more efficiency out of the current system. Solutions like these can make it easier to build infrastructure more quickly while also minimizing impacts on ecosystems, lands, waters, and communities.

III. ADDRESS THE REAL CAUSES OF PROJECT DELAYS RATHER THAN FALSELY BLAMING REVIEWS

Bad faith narratives have long misrepresented and oversimplified the causes of project delays. Industry-driven narratives falsely place the blame squarely on federal environmental reviews required under the National Environmental Policy Act (NEPA), Clean Water Act (CWA), Endangered Species Act (ESA), and other environmental laws. Similar narratives place the blame for delays on judicial review and litigation, but the data tells a different story:

1. **Most Projects Do Not Require a Lengthy NEPA Process:** A 2025 White House Council on Environmental Quality (CEQ) report found that 99% of NEPA reviews are completed through categorical exclusions or environmental assessments (EAs), which take significantly less time than a full Environmental Impact Statement (EIS). Even in the energy sector, where complex, large-scale projects are common, a 2021 federal permitting study found:
    - **Less than 5% of wind and solar projects required an EIS under NEPA**, a habitat conservation plan (HCP) under the ESA, or a Section 404 permit under the Clean Water Act (CWA), meaning that most projects avoid major environmental reviews.
2. **Most Projects Do Not Require Lengthy ESA Consultations:** A 2015 analysis found that only 7.7 percent of actions reviewed by the Fish and Wildlife Service went to formal consultation, with .0023% of actions resulting in jeopardy. And the median durations of informal and formal consultation were 13 days and 62 days, respectively. A 2019 analysis of NMFS confirms that the ESA is not the barrier it is made out to be.
3. **Judicial Review Ensures Accountability Without Causing Delays**: While some claim that litigation under NEPA and other environmental laws obstructs development, the data tells a different story: NEPA litigation is rare, stable over time, and not a meaningful cause of project delays.
    - Federal litigation over renewable energy projects is rare, averaging just **1–3 cases per year** under NEPA, the Clean Water Act, or the Endangered Species Act.
    - More broadly, despite warnings from the Breakthrough Institute and others about increasing numbers of NEPA cases being filed, **less than 1% of the thousands of NEPA reviews carried out nationwide result in litigation**, according to the Congressional Research Service (CRS). The vast majority of projects proceed with

categorical exclusions (CEs) or environmental assessments (EAs), which are rarely challenged in court.
    - Gutting judicial review will not speed up permitting but could lead to more poorly planned projects that could result in greater delays from redesigns, safety issues, or legal challenges
4. **Identifying the Real Bottlenecks:** While NEPA is frequently scapegoated, actual permitting bottlenecks lie elsewhere:
    - **Grid interconnection backlogs**: transmission projects alone take an average of five years to move through interconnection queues.
    - **State and local permitting** hurdles: 85% of project challenges occur at the state or local level, through zoning boards and siting authorities, not in federal courts under NEPA.
    - **Under-resourced agencies**: delays often stem from a lack of staff and funding at agencies responsible for processing permits, rather than environmental reviews.

The Risks of Weakening NEPA: NEPA and federal environmental reviews are essential to ensuring major projects are responsibly designed for long-term sustainability, benefiting communities, the environment, and project durability. Without oversight, profit-driven developers have cut corners, leading to disasters such as:

- **Deepwater Horizon**: BP was wrongly granted a categorical exclusion, bypassing NEPA's full review, which could have identified risks posed by well design and planned containment approaches and prevented the explosion and oil spill - a clear example of why comprehensive environmental reviews are essential.
- **Hurricane Katrina levee failures**: The U.S. Army Corps of Engineers did not conduct adequate environmental and engineering reviews, leading to catastrophic flooding.
- **Infrastructure harming marginalized communities**: Weak environmental reviews have historically led to highways, industrial sites, and polluting facilities disproportionately impacting communities of color.

At the same time, false claims about permitting delays must be rejected. In the recent EPW hearing, for example, Mr. Harris of the National Association of Homebuilders claimed that the Streamlined Nationwide Permit under Section 404 of the Clean Water Act should take 60 days but often takes nearly a year. Yet Army Corps data contradicts this:

- 75% of general permits—covering 94% of all Corps permits—are completed in under 60 days.
- More than half of the few projects requiring individual permits are processed in under 120 days.

Similar narratives persist around the Endangered Species Act - where opponents claim that the law is used to block and delay beneficial projects. In fact, **most projects do not require lengthy ESA consultations:** A 2015 analysis found that only 7.7 percent of actions reviewed by the Fish and Wildlife Service went to formal consultation, with .0023% of actions resulting in jeopardy. And the median durations of informal and formal consultation were 13 days and 62 days, respectively. A 2019 analysis of NMFS consultation confirms that the ESA is not the barrier it is made out to be.

Unchallenged, these distortions drive unnecessary and harmful policy decisions. When considering NEPA, CWA, ESA and other environmental laws in permitting conversations, Congress should reject false claims that environmental reviews and judicial oversight drive delays. Congress should instead pursue real solutions: strengthening agency capacity, improving interagency coordination, investing in early engagement to navigate state and local permitting challenges, and addressing transmission and interconnection challenges. We urge you to both protect NEPA and uphold its core democratic principles of transparency, accountability, and informed decision-making. Weakening these protections will not speed up projects but will instead increase risks to communities, the environment, and long-term project success.

Conclusion: A responsible approach to permitting reform will also be the most effective one.

Any meaningful improvements to our nation's permitting processes must be rooted in sound governance, fact-based decision-making, and a commitment to the democratic principles embodied in environmental reviews – all of which have come under increasing attack. Rather than dismantling environmental safeguards, Congress must focus on restoring the capacity of federal agencies to conduct timely and effective environmental reviews and address legitimate infrastructure challenges without succumbing to industry-driven distortions of permitting timelines.

Efficiency and oversight are not mutually exclusive. Increasing energy reliability and resilience, as well as accelerating the energy transition, requires reforms that reinforce transparency and accountability, not those that weaken safeguards in the name of expediency. Any permitting reform must strengthen, not erode, public trust and democratic governance.

NRDC recognizes that building low-cost clean energy infrastructure and transmission as quickly as possible while maximizing environmental sustainability and community engagement is a complex problem requiring a range of permitting and non-permitting solutions at various levels of government. We look forward to continuing to collaborate with the Committee to advance solutions that truly serve the public interest.

Thank you for your consideration.

Sincerely,

Christy Goldfuss
Executive Director
Natural Resources Defense Council

National Wild Turkey Federation
Property and Environment Research Center
The Nature Conservancy
Theodore Roosevelt Conservation Partnership
Trout Unlimited

March 20, 2025

Re: Letter for the Record, Environment and Public Works Committee Hearing, "Improving Environmental Review and Permitting Processes," held February 19, 2025.

The Honorable Shelley Moore Capito
Chair
Committee on Environment
and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment
and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510

SUBMITTED VIA ELECTRONIC MAIL
permitting@epw.senate.gov

Dear Chair Capito and Ranking Member Whitehouse:

We are conservation and sporting organizations working directly with federal, state, Tribal, and local entities to advance projects that conserve and restore America's forests, streams, wetlands, grasslands, and coastlines. We and our volunteer members do this work to make America's natural resources, working landscapes, communities, and infrastructure more resistant to floods, wildfire, drought, extreme weather, and invasive species, all while providing benefits to fish and wildlife. These efforts also support recreational access, sustain the over $862 billion annual outdoor recreation economy, and our nation's restoration workforce, supporting jobs throughout the country.

As this Committee considers permitting and environmental review reform legislation to accelerate projects, we believe it is of the upmost importance to create solutions that respond to habitat loss, the wildfire crisis, prolonged drought, and major storms. The frequency and intensity of these events is increasing every year and addressing these challenges requires prompt, effective action from federal agencies, state and local government, Tribes, and conservation partners. We support the Committee's stated goal of streamlining environmental review under the National Environmental Policy Act and federal permitting without depriving communities of the benefits of clean water, breathable air, and abundant fish and wildlife.

To accomplish this goal, we believe that there are five primary areas where this Committee should provide federal agencies with new direction and authority:

1. **Reduce environmental review burdens on restoration activities that will result in long-term, net benefits to habitats for fish and wildlife.**

   We encourage this Committee to provide explicit direction to all technical bureaus within the Department of Interior to categorically exclude proposed activities without significant effects from further review under the National Environmental Policy Act that conserve, protect, or restore fish or wildlife habitat. Such proposed actions should have no significant, adverse effects and should have anticipated long-term benefits to fish or wildlife habitat; they should not involve construction activities except for construction activities solely related to restoration of fish or wildlife habitat; and they should not present an extraordinary circumstance that may result in a significant effect. The scope of activities included in this category of actions should include monitoring activities and activities for adaptive maintenance or management of the restoration action or project. The Department of the Interior should provide yearly reports on the use of this categorial exclusion, including a list of projects, outcomes, and any adverse effects that were different in context or intensity than anticipated.

   Additionally, we encourage this Committee to direct the United States Forest Service to expand its existing categorical exclusion to include aquatic restoration activities, as an addition to the "modification or maintenance of . . . aquatic habitat improvement structures" currently authorized at 36 C.F.R. 220.6(e)(7). These changes will enable practitioners to increase the pace and scale of project implementation, supporting wildfire mitigation and post-wildfire recovery efforts, enhancing water quality, and building resistance to drought through groundwater recharge.

2. **Authorize implementation or funding of restoration and conservation actions as environmental offsets to adverse environmental effects of proposed, major federal actions after efforts to avoid and minimize environmental harms.**

   We encourage this Committee to provide explicit direction to the federal agencies with regard to encouraging and streamlining the availability of mitigation offsets, after explicit documentation of actions to avoid and minimize likely adverse environmental effects and early engagement with stakeholders to the proposed federal action. In particular, we encourage this Committee to consider specific direction to the federal agencies to not only encourage mitigation to the level of nonsignificant, adverse, environmental effects (also known as the "mitigated FONSI"), but also encourage mitigation to the level of minimal, adverse environmental effects. While keeping the existing mitigation structure in place for adverse impacts on freshwater streams, rivers, and wetlands, we strongly encourage the Committee to consider an approach of a national mitigation trustee to accept and pool financial contributions to mitigation to provide speed, certainty, and parity among proposed actions with regard to environmental review. Such

an approach of an authorized mitigation trustee is particularly important in the context of providing mitigation offsets to address uncertainty in environmental reviews under the National Environmental Policy Act (NEPA). This is one of the few, viable pathways for decreasing the time, cost, uncertainty, and burden of NEPA reviews without decreasing environmental protection. We look forward to collaborating with the Committee to advance this concept and share potential statutory language.

3. **During permitting, increase coordination efficiency among federal agencies and ensure coordination with states and Tribes, particularly for actions that benefit fish and wildlife conservation and recreational access.**

We support both legislative and administrative efforts that encourage cooperation between federal, state, and local governments to streamline permit processes. Permit processes for restoration efforts must currently navigate multiple agencies and levels of government. To address these challenges, restoration project proponents should have a simplified entry point with government entities where they can submit information and materials that address all federal, state, and local permit requirements.

Washington State has a good illustration of this recommendation. The Puget Sound's Multi-Agency Review Team (MART) is a team of federal and state regulatory staff working together to streamline the permitting process for Puget Sound Basin habitat recovery projects. The MART uses a facilitated, coordinated interagency approach to move projects through the entire permit process expeditiously and efficiently. Projects that are eligible for MART review are: 1) ecologically beneficial, 2) priority habitat projects within a watershed, 3) permit ready, and 4) projects with no previous violation or emergency actions. MART started as a 2-year pilot in 2018 with an analysis of 10 previous permits to identify bottlenecks and solutions in the permit processes for marine shoreline restoration projects. The pilot started with permitting assistance for three projects and has grown to include freshwater restoration projects, with at least 17 projects assisted as of February 2024. Early pre-application meetings and agency coordination expedite the permitting process.

Similarly, Washington State's Office for Regulatory Innovation & Assistance (OIRA) created an online portal, graphic schematics of permit processes, and even a joint permit that covers six local, state, and federal permit requirements related to aquatic resources.

We urge this Committee to consider ways to craft legislation improving interagency coordination and permit bottlenecks, including directing federal agencies to expand the use of tools to foster collaboration with state, local, and Tribal governments, improve consistency of terminology and methodologies, and monitor and evaluate post-decision outcomes to identify areas for improvement and other steps for better, faster decisions.

4. **Enhance federal agency permitting capacity and invest in state and Tribal permitting capacity.**

   A key part of increasing permitting efficiency is adequate agency staffing and training. We must right-size the resources of federal permitting agencies, so that agencies receive adequate funding, tools, staffing, and training to enable rapid and efficient environmental reviews and authorization decisions. The Western Governors' Association (WGA) made this point well in their comments to this Committee after the February 19, 2025 permitting and environmental review streamlining hearing. Included in their comment letter was the WGA Policy Resolution 2023-10 on Infrastructure Permitting. WGA acknowledges the challenges in balancing the protection of human health and the environment with the many needs of growing populations, and concludes that "robust permitting processes help achieve that balance." More specifically, WGA Policy Statement 9 recognizes "the importance of highly qualified staff in local federal agency field offices that evaluate and process permitting applications."

   We support the WGA recommendation that "federal investments should prioritize hiring qualified permitting staff in local field offices to ensure permits are processed in a timely manner and technical assistance needs are met." Further, these investments should be expanded to build the capacity of state and Tribal governments to process environmental and cultural reviews in a timelier manner. For example, Tribes and states could be funded to perform cultural surveys in advance of proposed projects in key geographic areas to help ensure timely completion of State Historic Preservation Office reviews of proposed projects. This will help proposed projects comply with both federal and state historic preservation standards and requirements.

5. **Expedite conservation and restoration projects that better prepare communities to withstand natural disasters, enhance fish and wildlife habitat, and empower local communities in support of beneficial outcomes for jobs and local economies.**

   The U.S. Chamber of Commerce last year published its study of disaster preparedness, finding in its Executive Summary that each $1 in disaster preparation saves $13 in economic costs, damages, and cleanup. In 2022, according to the Chamber, natural disasters caused more than $360 billion in damage globally. The suite of above recommendations would all contribute to the kinds of disaster preparedness recommended by the U.S. Chamber of Commerce as a high return on investment for local economies, workforce and production enhancement, and earned income for residents.

Conclusion: The five recommendations outlined above all contribute to more streamlined and effective environmental reviews and permitting processes. Our first two recommendations are specific to environmental reviews under NEPA. They are consistent with the findings of the Congressional Research Service's (CRS') in-depth report, "The National Environmental Policy Act (NEPA): Background and Implementation," Report No. RL33152, (Jan. 10, 2011). In this CRS report,

the Service found that most federal agencies filed fewer than ten Environmental Impact Statements (EISs) per year. *Id.* at fn. 96. Moreover, over 63% of all EISs were filed by seven agencies: USDA-Forest Service (124); DOT's Federal Highway Administration (64); Federal Transit Administration (21); the Department of Interior's Bureau of Land Management (48) and National Park Service (25); the Department of Defense's Army Corps of Engineers (42); and the Department of Energy's Federal Energy Regulatory Commission (19). *Id* at 28. The findings of the 2011 CRS report are corroborated by the EIS database maintained by the Environmental Protection Agency as part of its Central Data Exchange site, CDX. According to the CDX, over the last ten years (2014-2024) the USDA-Forest Service has prepared more EISs than any other agency (254 EISs), 50% more than the second-place agency, the Bureau of Land Management.

Our first recommendation helps alleviate the agency staff burden for the bulk of NEPA compliance that does not involve the production of EIS-level environmental reviews. Our second recommendation of a streamlined, national mitigation program is well suited to those federal agencies that make up the majority of EISs. While NEPA litigation was cited by several hearing witnesses as a primary source of delay, the CRS found that NEPA litigation began to decline in the mid-1970s and remained relatively constant up until its report date of 2011. *Id.* at 25. The CRS reported that a total of 118 NEPA-related cases were filed in 2005, for example, 43 of which resulted in an injunction. *Id.* at fn 85, *citing,* Council on Environmental Quality, "2005 Litigation Survey." A 2024 review of NEPA litigation by The Breakthrough Institute found that between 2013 and 2022, federal Circuit Courts heard approximately 39 NEPA appeals per year, a 56% increase over the rate from 2001 to 2015. Among these federal appeals, over a third (37%) were over public lands management, the most common subject of litigation. Energy projects were the second most common subject of litigation, at 29% of appeals between 2013 and 2022. Agencies won about 80% of the appeals filed during this period.

While our second recommendation does not address delay caused by NEPA litigation per se, we do believe that our recommendation for early engagement with stakeholders, and documentation of actions to avoid and minimize environmental harms, will reduce NEPA litigation. Over half of the 118 NEPA-related cases discussed in the CRS report were filed against either the USDA-Forest Service or the Bureau of Land Management, *Id.* at 25, and early engagement with stakeholders and actions to avoid and minimize environmental harms would be useful with regard to proposed actions by these two federal land management agencies.

Even environmental reviews for restoration actions can take years to complete. The need for our recommendations is well illustrated by an exemplary effort by the USDA-Forest Service to advance watershed restoration on the Black River, a headwater tributary to Arizona's hard-working Salt River within the larger Colorado River Basin. In this well thought out and well executed, programmatic Environmental Assessment, Black River Landscape Restoration Project, scoping started in 2018 and the Environmental Assessment (EA) was final by August of 2023 that included consultation under the Endangered Species Act. While the Forest Service anticipated that restoration activities could then begin quickly, the Forest Service was still waiting for over a year for the completion of archeological surveys of the proposed restoration project areas in August of 2024, thereby delaying the preparation of the application materials for Clean Water Act permits for the proposed restoration projects. This is an example of the USDA-Forest Service doing everything right from a NEPA standpoint, but the lack of an adequate number of related permitting staff for

carrying out Historic Preservation Act and State Historic Preservation Office (SHPO) compliance delaying project execution. Our fourth recommendation, building on WGA's staffing recommendation for federal permitting offices, highlights how effective federal investment in executing archeological surveys in key geographic areas could help eliminate project delays.

The Property and Environment Research Center (PERC) issued a report in 2022 of its study of how environmental analysis delays fuel treatment projects. PERC's review found that once the USDA-Forest Service initiates the environmental review process, it took an average of 4.7 years to begin a prescribed burn and 3.6 years to begin a mechanical treatment. Of course, in its 2023 amendments to NEPA, Congress set a two-year deadline for the completion of an EIS, and a one-year deadline for completion of an EA, *codified at* 42 U.S.C. § 4336a(g)(1)(A)-(B), although a lead agency may extend these EIS and EA deadlines. 42 U.S.C. § 4336a(g)(2). While these new deadlines for completing NEPA reviews will likely shorten the planning period for projects like those USDA-Forest Service actions analyzed by PERC, the need for our five recommendations outlined above remain to promote more streamlined and effective environmental reviews and permitting processes.

March 21, 2025

Senator Shelly Capito
Chairman
Senate Environment and Public Works Committee

Senator Sheldon Whitehouse
Ranking Member
Senate Environment and Public Works Committee

Re: **Permitting Reform Experiences**

As a stakeholder who has contributed alternatives during NEPA analysis processes for 43 years, I believe Senator Whitehouse made a crucial point in your committee's February 19 hearing on Permitting Reform Experiences when he spoke of the desirability of applicants having meaningful discussions with obvious stakeholders before an application is ever filed with a federal agency. Indeed, that is the optimum time for individuals and organizations to understand an applicant's goals, the applicant's initial proposal and to begin thinking of the effects, both beneficial and adverse, of the proposal, as well as possible alternatives.

In my experience of collaborating with individuals, organizations, and tribes, we have always notified the lead federal agency that we were going to suggest an alternative approach or features as soon as we learned a project was being planned. We then submitted our alternative during the scoping period, along with supporting technical and scientific documentation. We have done this for dozens of EISs, EAs, and even sometimes when a project was being planned with a categorical exclusion. We have always strived to provide technical, economically feasible ideas and facts.

In the early 1980s, our "least herbicide" alternative for replanting forests in Oregon and Washington was adopted by the Forest Service, replacing its years-long practice of aerially spraying herbicides over forest replanting sites (with its drifts over rural communities living adjacent to such sites). Twenty-five years later, the Army Corps of Engineers and Utah Dept of Transportation agreed to a business-environmental-government traffic management alternative and dropped their earlier plan of building a 4-lane freeway through one of the last wetlands in Eugene, Oregon. Currently, we have prepared a comprehensive alternative for management of a national forest in Utah as part of the forest's process of revising its 39-year-old forest plan.

Sometimes, in response to our alternatives, an entire project was transformed. At other times, significant elements of a permit were altered, and sometimes the permit or project was only minimally altered. In each case, however, the requirement of NEPA to consider alternatives resulted in an improved permit or action.

There are, of course, a few caveats to the suggestion of Sen. Whitehouse. The applicant, preferably with some guidance from the potential lead federal agency, would need to undertake a good faith effort to identify all interested, engaged parties, not just those most likely to agree with the project at first blush. I acknowledge it's a difficult step for

an applicant to take, because their proposed project is their "baby." But it's essential if the pros and cons of the project and alternatives are to be understood and publicly aired. And the federal agencies involved would still need to be responsible for ensuring objective analysis of effects and be open to reasonable alternatives presented to them and the applicant.

Similarly, when the proposed action is the agency's own action, whether proposed construction or land management, the sooner the agency engages with the public, and seeks input and alternatives, the more quickly the environmental document can be prepared for public review and an informed agency decision.

There is a reason that the word "alternatives" occurs twice in NEPA: consideration of alternatives is central to sound, public decision making.

Thank you for keeping the hearing record open and considering these comments.

Mary H. O'Brien

Mary O'Brien
HC 64 Box 2604
Castle Valley, UT 84532
maryobrien10@gmail.com

OCEANTIC NETWORK

March 21st, 2025

Chairman Shelley Moore Capito
U.S. Senate Committee on Environment & Public Works
406 Dirksen Senate Office Building
Submitted electronically via: permitting@epw.senate.gov

Re: Oceantic Comments in Support of Improving the Federal Environmental Review and Permitting Process to Drive Continued Investment Opportunities

Dear Chairman Shelley Moore Capito,

The Oceantic Network is a 501(c)(3) nonprofit organization dedicated to advancing the offshore energy market and building a strong, locally driven supply chain. Since 2013, Oceantic Network has connected businesses and governments to support policies that drive industry growth while equipping companies with the education, tools, and connections needed to succeed. With over 400 supply chain members, the Oceantic Network works to ensure offshore wind energy development strengthens the economy, expands domestic manufacturing, and delivers reliable, affordable clean energy to the grid.

Offshore wind energy is already becoming one of the foundational energy sources that our coastal states will depend upon and maximizing the economic benefits it brings to the whole nation – including greater employment and enhancing national security through stronger steel and maritime sectors – requires a dependable and consistent pipeline of work investors and businesses can plan around, derived through a predictable permitting process. With just six commercial-scale projects either operational or under construction, offshore wind has already attracted $25 billion in supply chain investments for new ports, factories and steel mills, and vessels, and spurred over 2,000 sub-supplier contract awards over 40 states.

Greater economic activity over the past few years, however, has been hampered by a lack of confidence in the permitting process which the Committee can play an important role in reforming. Current state planning goals equal more than 20 times this initial buildout, and harnessing that economic opportunity into new steel mills and expanded shipyards requires confidence in the permitting process. The Oceantic Network encourages the Committee to place consistency, predictability, and transparency at the center of its attempts to reform the U.S. energy permitting process.

Attracting Investment Requires Consistent Permitting, Mitigating Long Development Timeline

The offshore wind industry in the United States is still relatively new, but it is advancing rapidly. In recent years, the sector has grown significantly, evolving to a shovel-ready energy industry with active construction and electricity flowing into the grid. The country's first offshore wind project, the Block Island Wind Farm (30 MW), began construction in Rhode Island state waters

OCEANTIC NETWORK
1340 SMITH AVENUE, SUITE 200 / BALTIMORE, MD 21209
+1 (443) 652-3242 / OCEANTICNETWORK.ORG

in 2015. Since then, 36 federal lease areas have been secured on the Outer Continental Shelf (OCS), with more than 5,800 MW currently under construction.

Each offshore wind project is a complex, multi-billion-dollar investment and ensuring the proper and careful siting of the project on OCS requires careful evaluation from the federal government. As a result, identifying proper lease areas, engaging in meaningful deconfliction processes, conducting competitive auctions (that has netted the U.S. Treasury over $6 billion), and undergoing a extensive environmental review process can take up to 10 years. For a single project, this timeline represents significant systematic risk. This risk can be mitigated for supply chain members or investors through a predictable and consistent permitting system – to date the U.S. market has attracted $25 billion in supply chain invest due to the industry confidence industry in the current process. In fact, the current framework was largely developed under the first Trump Administration, and the confidence it instilled in the investor market led to a $250 million cable manufacturing plant expansion in Goose Creek, South Carolina that is employing over 200 today.

Offshore wind can play a significant role in the revival of the U.S. steel industry. Like any business investment, attracting new offshore wind components manufacturing to the U.S. is facilitated by a visible business pipeline and belief the market will yield years of consistent work. For offshore wind, that includes new facilities to produce large steel monopile foundations or towers that can only be fabricated in specialty facilities. Largely due to the damaging inflationary period experienced under the last administration, the U.S. does not have an operational plant, but that could change with proposals to build a new tower manufacturing facility somewhere on the southern East Coast and a new monopile foundation factory in Baltimore harbor.

Significantly, U.S. steel mills are investing heavily in themselves to become opportunity ready for offshore wind buildout. Major domestic suppliers JSW Steel and Nucor have invested substantial capital to meet the unique standards required by the offshore wind industry, with Nucor investing $1.7 billion into its Brandenburg, KY facility and JSW Steel investing $610 million and $145 million into its Baytown, TX and Mingo Junction, OH mills, respectively. As of the writing of this document, the Baytown facility employs 540 personnel, and the Mingo Junction facility employs 330. As downstream suppliers, these plants are dependent on a consistent buildout of the U.S. industry and could become underutilized assets.

A further cornerstone of the offshore wind opportunity is shipbuilding. Already, over 50 vessels have been ordered and/or launched in service of the industry injecting $1.7 billion into U.S. shipyards However, just as with new manufacturing investments, long-term commitments are necessary to finance new vessel builds —especially for the larger, more complex vessels that offshore wind requires. Massive capital ships like Wind Turbine Installation Vessels (WTIVs) and Service Operation Vessels (SOVs) range from $100 million to $715 million and can require up to 7 years of chartering commitments from financial institutions, a feat already difficult with consistent permitting. Furthermore, these investments are not abstract commitments with localized benefits. Steel from Huntington, WV and Axis, AL is building the *Charybdis*—currently America's only domestic WTIV—while Bollinger Shipyard in Port Pascagoula, MS

supported buildout of the *ECO Edison*, America's first offshore wind-dedicated SOV, and will build a quartet of auxiliary tugs and barges for Maersk Offshore W (due next year).

Full deployment of the offshore wind industry requires multiples of this level of vessel activity, including up to five WTIV installation vessels, cable-lay vessels, and dozens more mid-and-smaller craft for everything from survey work to daily maintenance operations.

Offshore Wind is Already Employing Thousands and Strengthening National Infrastructure

The offshore wind industry is already creating good American jobs, revitalizing local economies, and attracting new investments into shipbuilding and steel production. In early 2025, Oceantic published a new report, "Offshore Energy at Work" which tells the stories of American shipyards, factories, and ports where thousands of people are building the infrastructure necessary to deliver reliable, homegrown energy and meet our country's growing power needs. To inform the publication, Oceantic traveled across the country in 2024, collecting photos and videos that provide a firsthand look at the welders, engineers, and shipbuilders who are building this new American industry.

According to Oceantic's OSW Market Dashboard, an industry database that tracks supplier-level contracts and investments, investors have targeted over $25 billion into the U.S. supply chain across 40 states (with $10 billion injected in 2024 alone) for new vessels, manufacturing facilities, and transmission systems, strengthening the domestic economy and national security. Oceantic can also identify 2,000 supply chain contracts for everything from engineering services to supplying steel for Gulf shipyards, or chartering vessels from experienced offshore service providers; owing to the industry's roots in and continued overlap with the oil and gas industry, approximately 25% of these contracts are going to firms located in the Gulf Coast region.

These investments and level of business activity can be magnified with a permitting process that industry can faithfully depend upon. Developing the full capacity of leased areas across the U.S. would contribute $78.7 billion to the U.S. economy (GDP), according to a Louisiana State University study. Maximizing domestic employment and investment requires a consistent permitting pipeline. The first Trump Administration laid important groundwork to this end, and reforms on the legislative level can unlock the potential of this industry.

Sincerely,

/s/ Sam Salustro

Sam Salustro
Senior Vice President of Market and Policy Strategy
Oceantic Network

OCEANTIC NETWORK
1340 SMITH AVENUE, SUITE 200 / BALTIMORE, MD 21209
+1 (443) 652-3242 / OCEANTICNETWORK.ORG

PACIFICORP

825 NE Multnomah St
Portland, OR 97232

March 21, 2025

The Honorable Shelley Moore Capito
Chairwoman
Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairwoman Capito and Ranking Member Whitehouse:

PacifiCorp greatly appreciates the opportunity to present thoughts concerning experiences with the environmental review and permitting processes considered as needed for reforming permitting laws to allow for greater investment and modernization of the United States energy infrastructure. Pacific Power, which serves 243 communities located across Oregon, Washington and California, along with its sister electric utility, Rocky Mountain Power, which serves customers in Utah, Wyoming and Idaho, together comprise PacifiCorp. PacifiCorp serves over 2.1 million customers and has substantial assets across 10 states in the western United States. PacifiCorp is the largest private transmission owner in the western United States and its network is critical to the movement of electricity between and within the pacific northwest, intermountain west, and southwest regions. With over 10,833 Megawatts of generation capacity from hydropower, coal, gas, wind, solar, geothermal and biomass resources, over 17,500 miles of high-voltage transmission, and more than 66,300 miles of distribution network, PacifiCorp is an "all of the above" energy company. PacifiCorp owns 3,299 megawatts of renewable and non-carbon capacity. As a proud member of the Berkshire Hathaway Energy family of businesses, PacifiCorp is best known to customers as their local power company, driven by the needs of its customers and communities.

PacifiCorp's Energy Gateway transmission expansion project is the largest of its kind in the United States. The $13 billion investment totals 2,300 miles, provides access to the west's abundant and diverse energy resources and is the foundation for a more resilient and reliable western grid.

PacifiCorp is actively engaged in discussions at both state and federal levels regarding additional transmission expansion in the region and is studying and planning projects identified within and beyond its Integrated Resource Plan (IRP). This process includes long-term planning to ensure the transmission system integrates effectively with other utility systems in the Western Electricity Coordinating Council (WECC).

PacifiCorp was a founding partner in the Western Energy Imbalance Market that has saved customers across the west over $6.6 billion to date. The market has saved PacifiCorp customers

over $745 million while simultaneously reducing greenhouse gas emissions and improving reliability during extreme weather events.

To magnify the benefits of market collaboration, PacifiCorp is planning to join the Extended Day-Ahead Market as a next step in its commitment to deliver safe, reliable and low-cost power.

Since 2019, PacifiCorp has invested over $500 million in system hardening and advanced technologies to mitigate wildfire risk and extreme weather impacts and plans to invest another $2 billion between 2024 and 2026. The company has installed a network of over 450 weather stations, which will grow to 640 by 2026, across six states, providing continuous real-time information to a team of internal meteorologists. These experts employ a custom 30-year weather research and forecast model to provide weather and fire risk forecasts across 141,500 square miles. PacifiCorp has installed over 400 advanced relay and recloser devices through 2023 and plans to install another 450 devices by 2026. These devices support enhanced safety settings for rapid fault detection and isolation. The company has completed a rebuild of 389 miles of overhead covered conductor and underground lines through 2023 and plans to rebuild an additional 1,600 miles of lines by 2026. PacifiCorp has received grant awards of $150 million from the United States Department of Energy, which will be matched dollar for dollar by the company, for a total of $300 million in wildfire mitigation and smart grid technology investments in areas that primarily serve disadvantaged communities in its service areas.

PacifiCorp has enhanced vegetation management in transmission and distribution rights-of-way, including annual inspections in high-fire-risk areas and hazard tree removal. An expanded in-house emergency management team coordinates PacifiCorp's emergency operations center with external first response agencies during extreme weather events.

PacifiCorp also invests in cost-effective energy resources and develops competitive transmission projects to meet the load service and electric reliability needs of its customers. The demands placed on the electric grid and the need to enhance its reach, capacity, and security have never been more pronounced. Consider that most of the U.S. high-voltage transmission system was built before 1980, when the prevailing model was to site large, bulk power plants in remote areas and run transmission through sparsely populated regions to reach load centers.

Today, most electricity is still generated from central station power plants, and the last era of transmission build-out was designed to accommodate that structure. However, with the explosive growth of renewable fuels, electricity is increasingly coming from a growing number of smaller, technologically diverse energy sources. These large, utility-scale sources are often located far from areas of high energy demand and require new electric infrastructure to deliver cleaner electricity to consumers. Even with the growth of small-scale, distributed energy resources, the transmission grid remains the most effective "virtual battery," capable of absorbing excess generation and efficiently moving it where needed.

With the population growth across the West in recent years, maintaining and modernizing existing infrastructure—as well as siting and constructing new electricity infrastructure—has become increasingly important. However, as the need for expansion grows, so do the challenges in achieving it. Community opposition arises at all levels of government, and since 1980, increased

environmental regulations and the potential for endangered and threatened species habitat encroachment have introduced new obstacles to siting, construction, and operation.

These changes and challenges are natural and understandable—but they can be overcome with thoughtful and balanced public policy solutions. To fulfill our collective mission of ensuring the necessary energy infrastructure to meet today's needs while fostering future growth and prosperity, I would like to share specific considerations for the Committee that would benefit from Congressional attention.

A common commitment between industry and government is essential for modernizing the grid. While federal policy plays a significant role in the development of electrical infrastructure, electricity market conditions and state regulatory decisions must also be considered. The evolving energy resource mix, reliability demands, and security concerns necessitate new investment.

The United States bulk transmission system has served the country well for decades, but it is aging, does not reach key resource areas and lacks the capacity to meet the growing needs of electricity consumers. Additionally, significant improvements in both cyber and physical security are necessary and must be addressed through new infrastructure.

With increased industrial growth and rising customer demand, new transmission infrastructure is needed to replace aging systems and support expanding energy needs. Siting electrical transmission lines—approving their route and authorizing construction—is particularly challenging in the West, where federal land jurisdictions account for half or more of the landownership. Previous reform efforts have aimed to streamline the process by consolidating schedules and limiting required documentation. However, these changes primarily shifted the burden onto the applicant, requiring extensive work before submitting a land use application to a federal agency. While the procedural steps have changed, the overall requirements remain the same, leading to no significant reduction in permitting timelines—only a shift in when federal landowner engagement occurs.

When federal land is not involved, siting authority resides with the states. If a transmission line crosses state boundaries, approvals are typically required from multiple state governments along its path. A single state or county can also block a transmission project that is otherwise supported by neighboring jurisdictions. The Department of Energy, as authorized by Congress in 2023, now can serve as the single federal approval authority for siting transmission lines that cross state boundaries. This process is new and still in the early stages of implementation, so its efficiency and cost-effectiveness have yet to be fully assessed. A preliminary review suggests that it may introduce an additional layer of bureaucracy within the National Environmental Policy Act (NEPA) process, with the agency primarily serving to coordinate involvement from other federal agencies.

New transmission systems may resemble legacy infrastructure in appearance but incorporate modern technologies that enhance efficiency, reliability and security.

New transmission infrastructure will be more reliable, efficient and smarter. In addition to adding redundancy to the Western Grid, PacifiCorp has integrated advanced metering and telemetry into both new and existing transmission assets to provide real-time system visibility. The company has also implemented dynamic line rating equipment and composite core lines to increase line ratings and capacity. Accelerating these investments will enhance system reliability for customers and help mitigate the risks of weather events, natural disasters or intentional disruptions.

Energy Gateway has been privately financed, but federal funding remains an important tool.

Since becoming a Berkshire Hathaway Energy business, PacifiCorp has been able to leverage its strong credit and access to low-cost capital to privately finance transmission projects, reducing the need for significant government financial assistance, to the benefit of both its retail and wholesale customers. Recently, the company applied for and was awarded federal funds, with the potential for loans funded by the Department of Energy for transmission expansion projects to address growing demand. PacifiCorp is not the only transmission developer in the region, and the system is only as modern as the systems it is interconnected with. It is possible that other systems could also be developed and modernized with federal assistance, which would increase the reliability and efficiency of the entire region.

Congressional attention is needed to improve the federal transmission permitting, siting and review processes.

As the largest transmission owner in the western United States, PacifiCorp has long supported measures to better coordinate the existing federal permitting and siting processes for major electric transmission projects on public lands to reduce uncertainty for project applicants and streamline the approval process.

Additionally, as part of the ongoing effort to permit and site the multi-state Energy Gateway transmission project, as well as numerous regional transmission expansion projects, among the nation's largest currently in development, PacifiCorp has first-hand experience with federal processes that require agency review and action. PacifiCorp offers the following observations and recommendations based on these experiences and perspectives.

First, undue delays in obtaining federal regulatory permits only serve to postpone the construction of needed transmission projects and the clean energy, reliability and other benefits such projects provide to customers. To give an idea of the delays experienced, consider the Record of Decision received on the last day of the 2008-2016 administration for the Gateway West project segment. It described the long and tortuous review and approval process, beginning with the "initial application in May 2007"—almost ten years for a project designed to bring energy to customers and relieve congestion constraints on the system. Likewise, the Record of Decision under NEPA for the 200-mile cross-tie transmission project, from the Clover substation in central Utah to Robinson Summit in central-eastern Nevada, is delayed due to pending litigation surrounding the Approved Resource Management Plan Amendments (ARMPA) for Greater Sage Grouse. To

continue developing America's vast energy resources, delivering them to customers and maintaining an efficient and reliable electric grid, completing transmission projects on a timely basis will be essential, particularly where the life cycle of transmission development tends to be much longer than the life cycle of resource project construction.

Without PacifiCorp's regional transmission projects, which must cross public lands, there will be no means to transport a diverse set of new generating resources to distant load centers. As a result, some of the nation's largest and best energy resources will remain unable to contribute as they wait for transmission lines to be sited and built. The most critical path item to achieve this objective is schedule predictability within the federal permitting process. Substantial process improvements, once realized, will deliver significant benefits to the nation's utility customers who depend on adequate, reliable and reasonably priced electricity to carry on their daily business. These improvements will support vital economic growth across the country while preserving and protecting the environment. The greatest efficiencies to be gained are through better permit application coordination between federal and state agencies and clear and consistent execution of NEPA. Accordingly, Berkshire Hathaway Energy recommends focusing on improving that part of the federal permitting and siting process. Previous efforts by federal agencies and Congress to streamline the process, though well-intended, have missed the mark in achieving efficiencies. The Department of Energy's effort in 2013 focused on an integrated interagency pre-application process, which could not dovetail well with NEPA, resulting in duplicative requirements that simply added time and expense. The FAST-41 initiative did not deliver permitting efficiencies but provided centralized reporting and status updates for large projects.

Second, PacifiCorp appreciates that Congress sought to improve the federal transmission siting process in 2005 when it added new Section 216(h) to the Federal Power Act, giving the Department of Energy new lead agency authority to coordinate the approval of all required federal authorizations and related environmental reviews for "national corridor" transmission projects on public lands. The intention was also to give the Federal Energy Regulatory Commission (FERC) additional authorities to improve the development and permitting process. While the courts have restricted its value and the Department of Energy has tried to accomplish Congress's intent to identify and coordinate permitting reviews, it is hoped that this committee will review Section 216(h) to address concerns raised by the courts and improve the coordination provisions.

Order 1977 modifies existing standards for FERC's approval of permits for the construction or modification of electric transmission facilities in Department of Energy-designated corridors, as well as preconditions to the use of eminent domain authority. Order No. 1977 is intended to reinvigorate FERC's limited transmission siting authority for interstate electric transmission projects and provides a path for FERC to use its jurisdiction under Section 216 of the Federal Power Act to grant siting permits to developers of transmission projects located in certain designated geographic regions of the country (National Interest Electric Transmission Corridors, or "NIETCs"), even when the developer has been unable to secure siting permits from the applicable state or local authority. Permits issued under Section 216 confer eminent domain authority to the project developer.

This rule is only applicable to potential PacifiCorp transmission projects in Oregon currently, as the potential NIETCs are only inclusive of the company's service territory in Oregon.

On August 10, 2023, the Memorandum of Understanding (MOU) was published to establish a Coordinated Interagency Transmission Authorization and Permits (CITAP) program. This program targets lines that facilitate interstate commerce and are expected to require an environmental impact study. This MOU could potentially change the timing it takes to get a project to construction by initiating pre-filing whenever sufficient project-related information is available. Additionally, as part of the application review process, FERC will conduct an environmental analysis to identify and inform stakeholders of the potential environmental impacts, as required by NEPA. Pre-meetings are required between the commission and the applicant, and the applicant will develop a Project Participation Plan to facilitate stakeholder communication. This MOU essentially puts more of the project schedule's critical milestones into the hands of the applicant to control.

Schedule driven permitting is key to a successful transmission project.

PacifiCorp encourages Congress to ensure that the efficiency and effectiveness of multiple agency reviews and decisions on major transmission projects are improved, and that the uncertainty surrounding federal cooperating agency reviews is reduced, so that needed transmission expansion can keep pace with the nation's evolving resource mix, driven by a rapidly changing policy landscape. Congress should take steps now to ensure that federal agencies provide the schedule certainty that is lacking today and assign clear accountability within the cooperating agencies to meet permitting milestones within reasonable, fixed timeframes. 10 years, by any measure, is too long for infrastructure projects. Similar measures are needed to ensure that national energy policies are reflected in staff-level decisions and that federal agency management creates feedback loops to ensure confidence that field staff are implementing their duties in accordance with current policies. Each of these recommendations, if adopted, would have the positive effect of facilitating the timely release of critical review documents and mitigating the permit schedule uncertainties facing project sponsors by averting potential conflicts in federal policy objectives.

Regulatory consistency across all jurisdictions is paramount.

By taking more time, not only is the potential for more alternatives increased, but federal agencies are continually adopting, developing and changing policies, manuals and instructions that require additional analysis and create new compensatory mitigation requirements for projects that have been in permitting for many years. These projects do not get "grandfathered." This occurred with PacifiCorp's Gateway West and Gateway South projects regarding sage grouse protection, landscape-level mitigation, lands with wilderness characteristics and new conservation easements funded by the Natural Resources Conservation Service – U.S. Department of Agriculture, which conflict with proposed transmission line rights of way.

The use of Programmatic Environmental Impact Statements (EIS) was a useful tool in the 2000s that allowed for a large landscape to be addressed under a robust NEPA analysis. Developers could then tier off the Programmatic EIS and prepare an Environmental Assessment (EA) to focus on the project's impacts and expedite the permitting efforts on localized environmental impacts. The

use of Programmatic EISs should be considered for large expanses of public land offerings to clarify the permitting process and assist developers with certainty in time and expenses.

Linear projects are required to address the Clean Water Act, specifically Section 404, which requires an individual permit for discharges with potentially significant impacts. Section 404 also allows the Army Corps of Engineers, as the acting authorized agent, to establish a general permit that authorizes discharges with minimal environmental effects. The Corps' most recent set of general permits, Nationwide Permits (NWPs), became effective in 2022 and will expire in 2026. Transmission projects rely on NWP 57 to develop projects without needing to secure an individual permit, which can take years to complete. PacifiCorp encourages Congress to renew the NWPs, which are set to expire in 2026, now to extend the process in support of energy development. Without certainty in permit applicability and the ability to use the NWPs, a project currently in development (permitting, routing and siting) may have to change course in 2026 and endure a lengthy permitting process to obtain an individual permit.

Regarding the Clean Air Act, PacifiCorp has experienced unattainable requirements in right of way grants to use Tier 3 equipment on projects. In one instance, on Energy Gateway South, this requirement could not be met because a Tier 3 emergency generator is not even manufactured in the size needed to support the substation design requirements. Air Quality Act policies are overly complex and are typically delegated at the individual state level, meaning they cannot possibly cover all scenarios. As a result, they require consistency in both application and applicability over time.

Above all, federal agencies must be required to meaningfully collaborate to ensure consistent application of permitting requirements and clear communication of those requirements between field, state and federal agency headquarters levels before the start of the permitting process and throughout its duration. Establishing a Memorandum of Agreement between the lead federal agency and the developer to work collaboratively in meeting the developer's build schedule would help control the regulatory timeline and support the forecasted costs. PacifiCorp's experience has shown that this structure works well where it has been implemented, such as on PacifiCorp's Sigurd-to-Red Butte #2 segment. This practice needs to be made a federal priority so its benefits can be more widely realized. PacifiCorp believes it is reasonable for the federal lead agency to complete the NEPA environmental impact statement (EIS) process, from right of way application to the Record of Decision and the right of way grant, within three years. Schedule certainty is as critical, if not more important, than any actual benchmark.

One other area that impacts the project construction schedule is the requirement for the Federal Agencies to use a third-party contractor, as outlined in their decision record for major projects, to serve as their "eyes and ears" during construction activities for field observations and inspections. This arrangement is costly for the applicant/company and has not proven to be very effective in securing final decisions from the Federal Agency to move through the construction, reclamation, and project closeout phases. In some instances, we have found that Federal Agencies are using these contractors as a staff extension, not specifically related to the defined criteria in the approved Record of Decision. This has led to delays and increased costs due to changing requirements post-Record of Decision, as well as additional field visits and construction changes, since the Federal

land management agency will not accept the third-party contractor's opinion/advice to issue a decision.

Based on the company's experience, further federal coordination around transmission permitting and siting should be prioritized, with the goal of ensuring consistent and expedited treatment of transmission projects requiring interagency and intergovernmental coordination.

Targeted reforms can address specific barriers in the permitting process, facilitating the development of critical transmission infrastructure and land management.

While building new, modern transmission infrastructure is vital to the nation's economic goals, maintaining that infrastructure is also a critical area where Congress and the federal government can provide support. This paper will address two issues: the importance of keeping trees away from power lines, and the challenges posed by the decentralized decision-making structure of federal agencies in achieving that goal. Put simply, it is believed that integrated vegetation management is an environmentally sound, cost-effective method for keeping trees away from power lines, and it is suggested that the U.S. Forest Service, as well as the Bureau of Land Management, adopt policies to utilize integrated vegetation management on federal lands throughout the country.

The nation's electric system is partially comprised of hundreds of thousands of miles of transmission lines that span North America. These lines are divided into three interconnects: eastern, western, and Texas. Interconnected lines allow the transmission of electricity to areas of greatest need, which can shift due to weather conditions. The system is efficient in that it has reduced the need to build power plants that may only be needed occasionally to cover peak loads in specific localities. While interconnects are efficient, they have been vulnerable to failure in cases of widespread high demand, such as region-wide heat waves. Failures have occurred three times in the past 20 years when heavily loaded lines were knocked out of service after sagging into trees. Electricity from these lines was diverted to other lines, overloading them and causing them to trip offline. This sent their lost capacity to other heavily loaded lines, knocking them out of service and eventually creating a series of cascading events that resulted in widespread blackouts. The most notorious of these grid collapses occurred on August 14, 2003, when 50 million people in eastern North America were left without power, some for weeks.

The August 2003 blackout led to an intense review by utilities, the Federal Energy Regulatory Commission (FERC), the North American Reliability Corporation (NERC), and others. For the utility industry, the most significant result has been the development of a vegetation management standard by NERC, approved by FERC. The standard is subject to potential compliance penalties of up to $1.6 million per day, per violation, for utilities that allow trees to grow into transmission lines, with the objective of preventing cascading blackouts caused by trees. The ramifications of the NERC vegetation management standard are that FERC has a zero-tolerance policy regarding vegetation contact with power lines. The challenge for the utility industry is how best to comply with this zero-tolerance policy when confronted with hundreds of thousands of miles of lines spanning a vast continent.

One way the industry has responded is through the development of national consensus standards through the American National Standards Institute. The American National Standard for Tree Care Operations (ANSI A300) was issued in nine parts by the green industry, including representatives from the USDA Forest Service and the National Park Service. The International Society of Arboriculture has also published best management practices to accompany the ANSI A300 series.

ANSI A300 Part 7 (2012) adapts the principles of integrated pest management to a concept called integrated vegetation management (IVM). In the case of integrated vegetation management, the "pest" populations are "incompatible" plants. Incompatible plants may include noxious weeds, invasive plant species, or any vegetation that managers consider inappropriate for a given site. In a utility context, the inappropriate plants are often those that have the potential to interfere with or limit access to electric facilities at some point in their life.

ANSI A300 Part 7 defines IVM as a system for managing plant communities in which managers set objectives, identify compatible and incompatible vegetation, consider action thresholds and evaluate, select and implement the most appropriate control method(s) to achieve their established objectives. The choice of control method(s) is based on their environmental impact and anticipated effectiveness, given site characteristics, security, economics, current land use and other factors.

The ideal objective for the utility industry is to use IVM principles to establish plant communities composed of species that will never interfere with electric facilities. A useful tool is a biological control known as cover-type conversion, which provides a competitive advantage to short-growing, early successional plants, allowing them to thrive and successfully compete against unwanted tree species for sunlight, essential elements and water. It often requires the selective use of herbicides against incompatible species to enable desirable species to become established. The early successional plant community is relatively stable and resistant to trees. As this community becomes more established, the need for intervention decreases. In the long run, the industry considers this type of biological control to be the most appropriate method, at least where it can be done effectively.

The wire-border zone concept is an important management philosophy that can be applied in many areas through cover-type conversion. W.C. Bramble and W.R. Byrnes developed it in the mid-1980s based on research that began in 1952 on a transmission right of way in the Pennsylvania State Game Lands 33 Research and Demonstration project.

The wire zone is the section of a utility transmission right-of-way beneath the wires, extending on both sides to a specified distance. The wire zone is managed to promote a low-growing plant community dominated by grasses, herbs and small shrubs (e.g., under three feet at maturity). The border zone is the remainder of the right of way and is managed to establish small trees and tall shrubs (e.g., under 25 feet in height at maturity). The concept may be modified to accommodate side slopes and changes in topography. When properly managed, diverse, tree-resistant plant communities develop in both the wire and border zones. These communities not only protect the electric facility and reduce long-term maintenance but also enhance wildlife habitat, forest ecology and aesthetic values. It cannot be applied everywhere. For example, in some fire-prone areas, the border zone may not be appropriate, as it could contribute ladder fuels that exacerbate the spread

of wildfire. However, wherever it can be applied, it has proven useful in enhancing wildlife habitat and protecting electric facilities.

The benefit of IVM and cover-type conversion is that they work with nature rather than against it, decreasing costs and the utility's footprint over time. Furthermore, IVM can create opportunities to enhance the environment. For example, the EPA is actively supporting pollinator protection. The National Pollinator Protection Campaign, a collaboration of over 140 groups dedicated to promoting pollinators in North America, endorses integrated vegetation management on utility rights-of-way to expand pollinator habitat comprised of meadow or prairie species. These communities align with the industry's objectives as well, as the species that make up meadows and prairies will never interfere with the use of transmission lines. A central point is that, rather than viewing transmission corridors as sacrifice areas, industry, government, private environmental groups and the public can work together to use them as areas of opportunity to provide much-needed habitat that may otherwise be threatened, while simultaneously protecting the nation's electric supply.

The utility industry considers integrated vegetation management to be a sustainable, cost-effective and environmentally sound approach to protecting the critical electric grid. Federal agency management in Washington, DC, has agreed, as signatories to the [2006] MOU with Edison Electric Institute member utilities, which emphasized the application of IVM principles. Federal agencies have also participated in the development of the American National Standard for Tree Care Operations (ANSI A300), including Part 7, IVM. Many local managers agree and consider IVM to be the best approach for maintaining electric utilities that cross federal property. However, from the industry's perspective, some view electric rights-of-way as loss areas and work to impede maintenance, including vegetation management.

The inconsistent viewpoints of federal land managers create difficulties for utilities because local authorities are empowered to make their own decisions about what is or is not appropriate in their jurisdictions. This arrangement creates unpredictable directives regarding what is authorized on utility corridors on federal lands, despite land managers ostensibly working with the same policies and procedures. Many utilities express frustration that requirements can change dramatically at district boundaries, which are ecologically arbitrary. In other cases, authorization changes substantially when one individual transfers or retires and is replaced by someone with different views. To illustrate the degree of difficulty this creates, consider that PacifiCorp's facilities cross 33 different national forests. Each national forest is divided into three or four districts, each with independent decision-making authority. This means PacifiCorp foresters may have to work individually with well over 100 different governing authorities within the USDA Forest Service alone. Add to that several regions of the Bureau of Land Management, national parks, and federal wildlife refuges—all of which have ongoing personnel changes—and one can understand how working with federal agencies can be so problematic and time-consuming.

Local decision-makers who oppose utility vegetation management can delay timely authorization for required routine maintenance. Redundancy and repetition in reviews and work requirements can be introduced, causing delays without a corresponding benefit. In some cases, permission to remove dead and dying trees or other vegetation that poses a threat to transmission facilities may be denied, creating unnecessary risk. Living trees continue to grow toward power lines, and dying

trees remain a threat to fall onto electric facilities, regardless of the decision timeline. As a result, the inability to carry out routine maintenance can lead to emergency situations. These factors can unnecessarily raise costs, expose the electric grid to outages—including catastrophic grid failure—and increase fire risk. However, this is not to say these problems are universal. On the contrary, some districts understand the issues and cooperate within the context of responsible land management.

Yet, PacifiCorp and other utilities continue to encounter problems with local federal decision-makers. Cybersecurity, national security, industry, commerce and domestic life all depend on the flawless functioning of electrical interconnects. This is why FERC has a zero-tolerance policy for tree contacts on interconnected transmission lines. The benefits electricity provides are too important to be left to a patchwork of independent assessments made by individuals who may or may not have expertise in electricity or vegetation management and may or may not understand the ramifications of their decisions on the electrical system. The industry would like to see broader policy directives that not only take into consideration important environmental and land management issues but also acknowledge the importance of the electric interconnect, the negative impact trees can have on it, and the cost of maintaining the electric grid to the public. Moreover, the industry would like to see decisions based on research, rather than opinion. From that perspective, this means leveraging proactive integrated vegetation management to create plant communities that contribute to the environment without threatening the nation's electric supply. If protecting the electric grid is so important that the federal government cannot tolerate contacts between trees and interconnected transmission lines, all facets of the government should work with the industry to help meet that objective.

Thank you for the opportunity to provide comments about PacifiCorp's experiences with the existing environmental review and permitting processes. PacifiCorp and Berkshire Hathaway Energy look forward to working further with the committee on these important issues.

Sincerely,

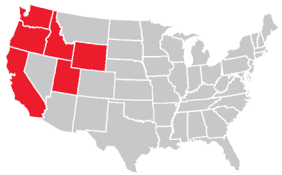


Todd Jensen
Vice President, Project Delivery
PacifiCorp

JUST THE **FACTS**

PACIFICORP

SERVICE AREA	141,500 square miles
ELECTRIC CUSTOMERS SERVED	2.1 million
NET-OWNED GENERATION CAPACITY	10,833 megawatts
OWNED RENEWABLE AND NONCARBON CAPACITY	3,299 megawatts





CINDY A. CRANE
CEO
PacifiCorp

- PacifiCorp serves 2.1 million customers through its two divisions:
  - Rocky Mountain Power serves customers in Utah, Wyoming and Idaho.
  - Pacific Power serves customers in Oregon, Washington and California.
- PacifiCorp owns and operates the largest grid in the western U.S. with 17,100 miles of transmission lines across 10 western states.
- The company owns and operates a diverse portfolio of generation resources in eight states comprised of coal, natural gas, hydroelectric, solar, geothermal and the largest owned wind fleet by a regulated utility in the Western U.S.
- PacifiCorp owns and manages 46,000 acres of lands reserved for wildlife habitat, forestry and recreation.





CONNECTING THE WEST

- PacifiCorp's Energy Gateway transmission expansion project is the largest of its kind in the U.S. The $13 billion investment totals 2,300 miles, provides access to the West's abundant and diverse energy resources, and is the foundation for a more resilient and reliable Western grid.



> CONTINUED ON BACK

CUSTOMERSERVICE EMPLOYEECOMMITMENT ENVIRONMENTALRESPECT REGULATORYINTEGRITY OPERATIONALEXCELLENCE FINANCIALSTRENGTH

- PacifiCorp was a founding partner in the Western Energy Imbalance Market that has saved customers across the West over $5 billion. The market has saved PacifiCorp customers over $745 million while simultaneously reducing greenhouse gas emissions and improving reliability during extreme weather events.
- To magnify the benefits of market collaboration, PacifiCorp is planning to join the Extended Day-Ahead Market as a next step in its commitment to delivering safe, reliable, low-cost power.

WILDFIRE MITIGATION AND EXTREME WEATHER RESILIENCE

- Since 2019, PacifiCorp has invested over $500 million in system hardening and advanced technologies to mitigate wildfire risk and extreme weather impacts and plans to invest another $2 billion between 2024 and 2026.
  - The company has installed a network of over 450 weather stations, growing to 640 by 2026, across six states that provide continuous real-time information to a team of internal meteorologists. These experts employ a custom 30-year weather research and forecast model to provide weather and fire risk forecasts across 141,500 square miles.
  - PacifiCorp has installed over 400 advanced relay and recloser devices through 2023 and plans to install another 450 devices by 2026. These devices support enhanced safety settings for rapid fault detection and isolation.
  - The company has completed a rebuild of 389 miles of overhead covered conductor and underground lines through 2023 and plans to rebuild an additional 1,600 miles of lines by 2026.
  - PacifiCorp has received grant awards of $150 million from U.S. Department of Energy that will be matched dollar for dollar by the company for a total of $300 million in wildfire mitigation and smart grid technology investments in areas that primarily serve disadvantaged communities in its service areas.
- PacifiCorp has enhanced vegetation management in transmission and distribution rights-of-way, including annual inspections in high fire risk areas and hazard tree removal.
- An expanded in-house emergency management team coordinates PacifiCorp's emergency operations center with external first response agencies during extreme weather events.



Pattern Energy Group 2 LP
888 Westheimer, Suite 350
Houston, TX 77006

T +1 713 308 4200
www.patternenergy.com

About Pattern Energy

Pattern Energy ("Pattern") is a leading developer, owner and operator of wind, solar, transmission, and energy storage projects in the United States and North America. Pattern's transmission projects generate many direct and indirect benefits to communities throughout the United States, including connection to diverse energy resources, which provides increased electric reliability benefits, and significant consumer savings. Collectively, Pattern's projects create thousands of construction jobs with a hiring priority for local workers, millions of dollars of opportunity for local businesses to provide materials and services throughout the construction period, millions of dollars in new, annual revenue to local communities, and a new source of income for landowners who host energy production and transmission facility infrastructure.

Pattern has developed and placed into operation more than 6,000 megawatts ("MW") of wind and solar power projects, including 30 utility-scale energy generation facilities. Over the last two decades, Pattern has also developed, financed, and/or managed construction of billions of dollars in transmission infrastructure projects and related generation in the United States. These projects include transmission projects under development, construction, built and/or owned by Southern Spirit Transmission, LLC ("Southern Spirit"), Western Spirit Transmission LLC ("Western Spirit"), SunZia Transmission, LLC ("SunZia"), Western Interconnect LLC ("Western Interconnect"), and Trans Bay Cable LLC ("Trans Bay Cable").

- The Southern Spirit Transmission project will be a ±525-kilovolt ("kV") high-voltage direct current ("HVDC") transmission line, which will extend approximately 400 miles from western Louisiana to Mississippi. This transmission line has been in development since 2010.

- In coordination with the New Mexico Renewable Energy Transmission Authority ("RETA"), Pattern developed the Western Spirit Project, which is a 155-mile, 345-kV transmission line in New Mexico. RETA and Pattern transferred Western Spirit transmission to the Public Service Company of New Mexico in December 2021.

- Pattern is constructing SunZia, a 550-mile, ±525-kV high voltage direct current ("HVCD") transmission line that, once operational, will be used to transmit over 3,000 MW of Pattern-owned wind generation from New Mexico to markets in the Western United States.

- Pattern developed, constructed, and is currently operating the Western Interconnect Project, which is a 39-mile, 345-kV high-voltage alternating current merchant transmission line connecting Public Service Company of New Mexico's Blackwater substation to a 345-kV switching station located in Curry County, New Mexico.

- Finally, Pattern managed construction of the first and only merchant transmission line in California, Trans Bay Cable, a 53-mile, ±200-kV undersea HVDC line connecting Pacific Gas & Electric Co.'s Potrero Substation to its 230-kV transmission line in Pittsburg, California.

Pattern's experience in transmission development, along with our cautionary tale of permitting delays and legal challenges, make us uniquely positioned to inform permitting reform discussions.

SunZia Transmission's Permitting History

Pattern Energy's firsthand experience permitting one of the largest transmission lines in U.S. history exemplifies the challenges and obstacles to advancing large energy infrastructure for the benefit of consumers, energy providers, and the nation.

SunZia began development in 2006 and submitted a Right-of-Way ("ROW") grant application to the Bureau of Land Management ("BLM") in 2008. The following year, environmental review of the Project began under the National Environmental Policy Act ("NEPA"). In 2011, the Federal Energy Regulatory Commission ("FERC") authorized SunZia to secure transmission capacity anchor tenants and in 2012 the Project was selected as a federal "Fast Track" project. The following year in 2013, the BLM published the Final Environmental Impact Statement ("FEIS"), and the final Record of Decision was issued in 2015, selecting the transmission route based in part on the fact it was the route that had the least impact on cultural resources. An alternative route that would have gone through the Tucson region was rejected based on feedback from stakeholders, including tribal input.

In 2016, some eight years after SunZia first submitted its ROW grant application, the BLM granted SunZia its ROW grant. That same year, SunZia received Arizona state siting approval from the Arizona Corporation Commission ("ACC") and FERC approved Pattern Energy's generation as anchor tenant for the first 1,500 MW of transmission capacity.

Despite the extensive, prior permitting process, the Department of Defense ("DOD") raised concerns about the proximity of the proposed transmission line to military testing north of the White Sands Missile Range. In response, Pattern and the Department of Interior began developing a reroute in New Mexico to address concerns around the White Sands Missile Range. Pattern collaborated closely with stakeholders, seeking input in developing new route alternatives and measures to minimize and mitigate impacts. In 2020, Pattern, with support from environmental groups and the White Sands Missile Range, submitted a ROW grant amendment application to the BLM to change a portion the Project route in New Mexico. In 2021, 14 months after SunZia submitted the ROW grant amendment application and SunZia was designated as a FAST 41 project, the BLM began a new NEPA review to analyze the proposed reroute in New Mexico.

In 2022, SunZia closed in on its permitting finish line. BLM published its draft EIS for the amended SunZia ROW grant in New Mexico, and SunZia received additional approvals for minor changes to the project from the ACC in Arizona. In May of 2023, the BLM published its Final EIS and issued SunZia its amended ROW grant later that year. In sum the entire permitting process started in 2008 and ended in 2023— 15 years in duration.

In December of 2023, Pattern closed over $11 billion in construction financing for SunZia Transmission and Wind and began construction, 15 years after initiating the permitting process. However, the achievement of this milestone was soon overshadowed with costly and burdensome litigation.

The following month, the Center for Biological Diversity and Archaeology Southwest, along with two tribes (San Carlos Apache and Tohono O'odham Nation), filed litigation in federal court against the BLM challenging a portion of the route in the San Pedro Valley in Arizona that was finalized without legal challenge in 2016 when the original ROW was issued.

The Plaintiffs alleged a violation of the National Historic Preservation Act, however, in reality their claim challenged the BLM's prior decision in 2016 to approve a route through the San Pedro Valley. They argued that BLM should have treated the entire Valley as a landscape-scale traditional cultural property, but there was no evidence offered to support such a claim, including during prior site visits with tribal members. Pattern worked in concert with the BLM to attempt to address this belated concern, including pausing its construction start date, but sadly to no avail.

Having exhausted all other options, SunZia successfully intervened in the case as a defendant to protect its investment in this landmark transmission project. The Plaintiffs moved for a preliminary injunction to stop the project, which the district court denied on April 16, 2024. On June 6, 2024, the district court granted SunZia's and Interior's motions to dismiss the case for the untimely filing of their case. The court agreed that the Plaintiffs' grievance was with BLM's decision to locate the route through the San Pedro Valley, which had been made nearly a decade ago in 2016. The court noted the many opportunities for the plaintiffs to participate in the permitting process, the careful consideration of cultural resources by the BLM, and the finality of the route decision in 2016.

On June 11, 2024, the Plaintiffs appealed the district court's decision to the 9th Circuit Court of Appeals and oral argument is scheduled for March 26th, 2025. Pattern is cautiously optimistic that the 9th Circuit will affirm the lower court's dismissal of the case. The record clearly shows that BLM and Pattern Energy (and its predecessor) engaged in comprehensive consultation with affected tribes regarding the project, including ensuring the inclusion of traditional knowledge in the identification of cultural sites and mitigation measures and the use of cultural monitors.

The record also shows that under a six-year statute of limitations, the time to challenge the approval of the Project started in 2015 when Interior issued its Record of Decision approving the federal ROW grant for the project. Other important factors to consider are Pattern's significant investment of resources to build the project, the lack of any new discovery of cultural resources on the site during construction, which is 80% complete in the San Pedro Valley, and the historic contribution of this transmission project to America's transmission grid capacity and resiliency.

If the Ninth Circuit allows this project to proceed on schedule, it will reach commercial operation in 2026, 18 years after initiating federal permitting.

<u>Permitting Reform</u>

Major energy infrastructure projects such as SunZia often have a federal nexus, which requires federal agencies and developers meet rigorous federal review and permitting requirements. This federal nexus triggers review under NEPA along with a myriad of other federal permitting requirements, such as the Endangered Species Act, the National Historic Preservation Act, the Bald and Golden Eagle Protection Act, the Clean Water Act, and other statutes.

The NEPA review process remains a complex, multi-year endeavor that results in lengthy, dense agency decisions that require significant workforce capacity, time, and expense. Other federal permitting requirements, like the ones mentioned above, add to the layers of complexity, delay, and high costs. Pattern's experience has been that even with early and meaningful stakeholder engagement, respectful and valuable government to government consultation with affected tribal nations, and the adoption of significant avoidance, minimization, and mitigation measures to reduce impacts, there inevitably will be legal challenges to projects a similar magnitude to SunZia.

We welcome stakeholder input, critical assessment of our plans, and open dialogue and transparency to develop projects in a manner that minimizes harm and protects vital species, cultural and natural resources, and community values. However, we also believe an overly litigious process has chilled investment in opportunities for the country to tackle the pressing energy needs of our day. There are repeat plaintiff organizations that challenge infrastructure projects regardless of any benefit they may bring to electric grid reliability, energy independence, and economic benefits to communities across America.

The standing requirements to file suit are fairly liberal, which understandably is important to ensure parties with interests can gain access to the courts, but without clear, universal rules, the patchwork of rulings on this issue results in piecemeal decisions about who can sue and how often. The unrelenting level of litigation not only burdens government agencies, but also the judicial system where federal judges are asked to opine on cases involving a history of decades of permitting review, thousands of pages of analysis, and examination of scientific findings beyond their expertise.

The recent SCOTUS *Corner Post* decision inadvertently invites more litigation into federal permitting as it has inspired litigants to identify newly discovered injuries from prior, years old agency decisions on projects, which we are experiencing in the current litigation in the 9th Circuit. The Plaintiffs in the case are making this exact argument – that they should be able to challenge a right of way granted in 2016 nearly a decade later because BLM authorized construction to proceed on the project in 2023 instead of halting the project and changing its original route in 2023 to avoid a newly-alleged landscape cultural resource property that covered an area over 3,000 square miles and that had not been raised when the original siting decision was made.

While the *Corner Post* decision arose from the impact of a rulemaking years later, it unfortunately did not clearly cabin its impact to that scenario. Federal agency approvals of infrastructure projects require a different approach. It is critical that regulated entities be able to rely on federal land use authorizations and permit decisions without the threat of legal challenges many years later by opponents who had ample opportunity, early in the process, to lodge their legal grievances. Providing a

more definitive time frame to file complaints against project authorizations would help address this concern. Under the FAST 41 Statute, covered infrastructure projects have a reduced statute of limitations of 2 years, so this is not an entirely new concept. Other statutes have much more limited windows to appeal a federal action, such as the 90-day appeal deadline under the Clean Water Act and the Clean Air Act.

Large infrastructure projects require significant capital investments and have a need for predictability and durability of government approvals. The threat of litigation has a chilling effect for both industry and agencies' priorities. The reality of this is demonstrated by the slow pace at which critical infrastructure is being built across the U.S. It is unacceptable that a 550-mile transmission line project would take over 15 years to permit. The U.S. will fail to meet the increased energy demand needs and fall behind the global artificial intelligence arms race under our current protracted and unpredictable permitting environment. Large infrastructure projects are prominent, notorious, and subject to ample public notice, providing the public with numerous opportunities to participate. If parties want to challenge a project's authorization, they should do so after duly participating in the administrative process and filing a challenge in court if they deem fit but in a timely manner.

Additional permitting reform recommendations are summarized below:

- Require timelines for agencies to initiate NEPA review (e.g., publishing notice of intent in federal register to conduct an EIS, starting Environmental Assessment) after receipt of an application that may require NEPA review (e.g. ROW grant application).

- Require notice of intent to sue letter to agency under NEPA and other application statutes within reasonable time frame like other statutes and require evidence of failure to address specific comments/concerns raised during public comment periods or the consultation process.

- Standing requirements – statutorily require a showing of significant, long standing, direct interest instead of infrequent, one-time interests or asserting an interest on behalf of another co-plaintiffs' interest.

- Address *Corner Post* concerns making clear that federal project approvals/funding, etc. must be challenged within a specified time to avoid late-stage legal challenges years later.

- Provide that NEPA review can be used for NHPA compliance and that consultation requirements under NEPA and NHPA can be met simultaneously instead of requiring separate, often repetitive, consultation requirements.

- To respect tribal sovereignty, adopt a requirement that only federally recognized tribes or authorized tribal representatives can claim a cultural resource property interest under the NHPA and have standing to sue.

- Adopt a presumption in support of energy development that enhances the nation's grid resiliency and power capacity.

Testimony of Dena Horton, Deputy Director, Pacific Northwest Waterways Association

Prepared for the Senate Environment and Public Works Committee

Addressing Improving the Federal Environmental Review and Permitting Processes

U.S. Senate

March 21, 2025

Chairman Capito, Ranking Member Whitehouse, and Members of the Committee; Thank you for the opportunity to provide this testimony. My name is Dena Horton, and I serve as the Deputy Director of the Pacific Northwest Waterways Association (PNWA). PNWA is a non-profit, non-partisan trade association that advocates for federal policies and funding in support of regional economic development. Founded in 1934, our membership has grown to over 150 entities and includes ports, public utilities, farmers, forest product producers, and public agencies that support navigation, transportation, energy, trade, and economic development throughout the Pacific Northwest.

We take our mission of providing economic development and jobs for our region seriously along with ensuring environmental stewardship so our navigation infrastructure can coexist with species and their critical habitat. We support the goal of the Endangered Species Act (ESA) to prevent extinction of species and the negative effects extinction has on ecosystems that also support human life.

Environmental Baseline and Conservation Calculator

In order for ports, marine terminals, and marinas to perform maintenance on their existing infrastructure and to build new infrastructure in environments with ESA listed species in the area, they must secure permits. Most often these maintenance or new project permits are through the U.S. Army Corps of Engineers as the lead agency, but if grants from other federal agencies are involved, then sometimes the U.S. Department of Transportation's Maritime Administration (MARAD) or Federal Highways Administration or even the Federal Rail Administration may be the lead agency for a permit. The lead agency will need to consult with NOAA Fisheries and U.S. Fish and Wildlife Service (USFWS) to ensure the ESA Section 7 consultation process is completed for the maintenance or new project permit.

As we understand it, Congressional intent for the ESA and other environmental legislation is that the law be implemented consistently across the country by federal agencies. While species, topography, climate, and other ecosystem factors may be different from region to region, the process by which the laws are interpreted and implemented through regulation by federal agencies is intended to be consistent. Consistent application of regulations and procedures in implementing the ESA will ensure that no one region is put at a competitive disadvantage compared to others. Regardless of which port, marine terminal, or marina is applying for a maintenance or development permit, the process to receive the permit and to determine the appropriate level of mitigation should be the same.

However, beginning in 2018, without conducting any economic impact analysis or stakeholder engagement with the regulated public, the West Coast Region Office of NOAA Fisheries internally began applying a different definition of the environmental baseline than what was commonly understood from previous practice under ESA Section 7 consultation for maintenance and building permits. Rather than considering the existing structure and its effects as part of the environmental baseline condition, the NOAA Fisheries West Coast Region Office definition of

environmental baseline no longer included the existing structure for the effects analysis. As a result, in addition to mitigating for the maintenance or building action, applicants were also expected to mitigate for the effects of the structure's continued existence in the environment on species and habitat for decades into the future, typically between 30-50 years. This essentially required all port and marina maintenance projects to undergo lengthy formal consultation even for the most basic maintenance work and the effects calculation dramatically increased the costs of maintenance and other projects.

The Corps initially did not agree with the new interpretation and did not believe they had the authority to require mitigation for maintenance projects under the ESA. NOAA Fisheries negotiated and entered into a Memorandum of Resolution with the Corps in 2022. Under the Memorandum, the Corps agreed to adopt NOAA Fisheries' new interpretation of environmental baseline and increased mitigation requirements for maintenance projects under the Corps' regulatory program and to apply it nationwide. However, the only region where this agreement was being formally implemented was in the West Coast Region, most acutely in Puget Sound. In May 2023, Representative Cliff Bentz (OR-2) requested a formal legal opinion from NOAA Fisheries' counsel explaining how the Memorandum did not constitute Administrative Rulemaking. To my knowledge, he did not receive a formal reply.

In June 2023, NOAA Fisheries and USFWS proposed the Agency Coordination rulemaking to formally change the environmental baseline and increase mitigation (also known as "conservation offsets") for maintenance projects during the ESA Section 7 consultation process. Under this new interpretation of environmental baseline, the agencies are not including the existing structure and its current/previously permitted effects as part of the existing baseline condition. The rule was finalized in March 2024 as proposed noting that public comments were dismissed.

As you can imagine, the mitigation or conservation offset requirements for the existence of the entire project for 30-50 years substantially increases costs to even the most basic maintenance project. It also makes projects such as removing creosote pilings and replacing them with steel and removing overwater dock structures and replacing them with light penetrating grated decking excessively costly even though the end result would improve water quality and salmon habitat, maintain the existing footprint of the structure, and not change the structure's intended purpose.

Under this new conservation offset scheme, there is no more "one and done" mitigation for a project. Under this new environmental baseline interpretation, if an entity performs maintenance and pays the conservation offset, they will have to pay it again in the future. If maintenance is needed again or on a different segment of the structure, then more conservation offsets would be required even though it was paid under the previous maintenance permit. The amount of conservation offset would take into account the amount previously paid, but the entity would be responsible to pay for the entire structure's existence for the length of time the structure's useful life was extended beyond the last time conservation offsets were paid. Applicants end up mitigating for the structure's existence over and over again.

To implement this policy on the ground and assess the conservation offsets required, the West Coast Region Office of NOAA Fisheries developed a conservation calculator that is applied to the Puget Sound only and nowhere else in the country. This calculator was designed based on waterfront residential development and not permanently modified industrial environments like those found at ports, marine terminals, and marinas. Unfortunately, the conservation calculator results generate excessively high mitigation costs even for the most routine maintenance activities that previously were permitted through informal consultation and rarely required additional mitigation.

PNWA has port members that have seen their maintenance project costs for marina dredging, dock repairs, and other activities increase between 20% to 80%. In some cases, the cost of the conservation offset mitigation exceeds the cost of the maintenance project. As a result, one of our rural ports has completely given up trying to perform in-water maintenance work on their docks. At some point, their docks will not be safe for human use and will eventually fail. Infrastructure that cannot be maintained and collapses into a water environment has a negative effect on species and the habitat too.

As a result of undergoing formal consultation, Corps nationwide permits for maintenance projects are delayed and often take two or three years to complete. In addition to hiring more consultants to complete modeling, studies, and permit applications, the project costs also increase over time as the costs of materials, mitigation, and inflation increase. PNWA has members with federal and state grants in jeopardy of being returned because permits cannot be secured in a timely manner to execute or obligate the grant funding and the amount of funds from the grant may no longer cover the increased cost of the project and the mitigation. This leaves the applicant scrambling to find additional funds by delaying other projects or potentially deferring the maintenance project altogether.

Real Stakeholder Engagement and Economic Impact Analysis
For the 2024 Agency Coordination rule finalized by NOAA Fisheries and USFWS, the agencies pre-determined that the rule was not an "economically significant rule" on the front end of the process so they did not perform robust economic impact analysis and stakeholder engagement from the start. The agencies acknowledged they received input from stakeholders and essentially finalized the rule as they proposed it. During the ESA Section 7 consultation process, when ports point out that the conservation calculator results represent dramatic increases in costs, NOAA Fisheries response is that they cannot consider the cost, only what is best for the species. When the agencies fail to engage the regulated community in advance of rulemaking, fail to do adequate economic impact analysis on the front end of rulemaking, and then ignore comments from the regulated public during rulemaking, they should not act surprised when applicants raise concerns about the dramatic cost increases the agencies ignored from the beginning. The rulemaking process does not feel like a transparent, inclusive process that ends up achieving buy-in from the regulated public. PNWA supports more robust economic impact analysis and stakeholder engagement on the front end of the rulemaking process.

Addressing Additional Significant Delays in the Consultation Process
Currently, NOAA Fisheries and USFWS have 135 days to process a formal consultation under ESA Section 7 once the agencies determine the project permit application is complete. However, this is not truly reflective of the time it takes for consultation.

It typically takes about six months of working with the action agency, like the Corps, before the Corps has enough project information to transmit the application to NOAA Fisheries and USFWS for ESA Section 7 consultation. The 135 day clock does not commence once the Corps transmits the application information. It begins once NOAA Fisheries and USFWS have assigned a project number, assigned a biologist to review the application for sufficiency, and once the agencies have determined they have enough information about the project to proceed to consultation. If they don't have enough information, the applicant will likely need to do additional modeling, research, and respond to the agencies' questions which can take even more time. It can take 9 months to a year to get to the point where NOAA Fisheries and USFWS have enough information to proceed to consultation. From the applicant's perspective, eighteen months have passed since their application was first submitted to the Corps and the agencies are finally ready to start the 135-day consultation shot clock. Meanwhile, the applicant cannot start putting out their project for bid because they don't have permits in hand and their two-year grant funding time limit is running out. Improvements are needed to cut down on the delay caused by the time it takes for NOAA Fisheries and USFWS to acknowledge receipt of the application, assign a project number, complete the sufficiency review, and ensure completion of the consultation within the statutory time limit.

Conclusion
PNWA supports the environmental baseline clarification currently proposed in H.R. 1897, the Endangered Species Act Amendments Act of 2025 as it aims to restore the widely accepted definition of environmental baseline for ESA Section 7 consultations related to maintenance and building permits. This legislation will ensure that only the maintenance action and effects of the maintenance action are addressed in the permitting process. This legislation will promote a consistent application of the environmental baseline nationwide and ensure that mitigation costs are reasonable for proposed activities. It is hoped that the Committee and the Senate will also support these needed improvements to ESA Section 7 consultations. Ports, marine terminals, and marinas need a timely, predictable, and cost-effective permitting process to maintain infrastructure, supply chains, competitive trade while promoting sustainable waterways for navigation and species.

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

May 21, 2025

The Honorable Shelly Moore Capito
Chairman
U.S. Senate Environment and Public Works Committee
410 Dirksen Senate Office Building
Washington, D.C. 20510

RE: Federal Permitting Reform

Dear Chairman Capito,

Edison International is the parent company of Southern California Edison (SCE), an all-electric utility serving approximately 15 million people in a 50,000 square-mile area of Central, Coastal and Southern California.

SCE appreciates the opportunity to share its experience with the Senate Environmental and Public Works Committee in response to the request for input on the need to modernize federal environmental reviews and permitting processes. Under current law and regulation, it generally takes years for SCE to obtain necessary federal approvals to build and maintain the critical energy infrastructure that provides continued access to reliable sources of energy. SCE strongly supports improvements that create a more efficient, environmentally sound and legally durable process for deploying critical energy infrastructure and technologies while maintaining a reliable electric system.

While SCE remains committed to building and maintaining energy infrastructure needed for its customers, the process of building new infrastructure and/or maintaining and upgrading existing infrastructure remains challenging, as project siting and extensive environmental and land-use permitting slow the project completion significantly. The result of these delays is that it now takes 12-14 years to bring critical new energy infrastructure projects online. Accordingly, SCE supports federal permitting reforms that improve the efficiency of the permitting and approval process for new energy infrastructure projects. Future legislative and regulatory efforts on permitting reform must streamline processes to assure cost-effective and timely development of critical electric infrastructure. Furthermore, permitting reform should consider the impact of the permitting process on the ability of utilities like SCE to operate and maintain its existing infrastructure in a safe and reliable manner.

SCE respectfully submits the following proposals for improving and streamlining the federal permitting and review process to the Senate Environment and Public Works Committee.

NEPA Reform:

SCE supports the NEPA reform comments submitted by its trade association, the Edison Electric Institute. Additionally, SCE suggests that NEPA policy should:

P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, CA 91770
626-302-1212

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

- Implement a "shot clock" for judicial reviews. Reducing these timelines without changing existing rights to seek judicial review should mitigate one of the major areas of delay.
- Broaden the scope of actions eligible for a categorical exclusion (CE) by requiring agencies to adopt and utilize CEs established by other agencies to streamline processes and ensure consistency.
- Require expedited review for critical infrastructure projects and/or energy infrastructure projects that address the energy emergency described in the "Declaring A National Energy Emergency" Executive Order
    - Eliminate the alternatives analysis requirement for applicant proposed projects that meet this definition.
- Revisit previous efforts to require "shot clocks" to address delay in agency processes. Require timely initiation through:
    - Revising the two year "shot clock" for Environmental Impact Statements (EIS) to begin at application filing, not from an agency's completeness determination.
    - Mandating agencies issue a Notice of Intent (NOI) and begin the scoping process within 60 days of filing an application.
- Preliminary design should be sufficient to complete a NEPA analysis. Analyses based on preliminary designs prevent the unnecessary commitment of resources and impacts to schedule that result from developing a detailed design before an alternative is selected.
- Implement the option for an applicant-prepared NEPA documents across all agencies to reduce agency workload and externalize the cost of conducting NEPA analyses in support of applicant proposed projects.

Agency Staffing and Training:

- While reforms to the siting and permitting process are necessary to speed up timelines, ensuring that federal departments and agencies are adequately staffed to process the necessary volume of permit applications is also essential for the timely approval of these critical projects.

- In addition to adequate staffing, it is important that the staff involved in siting and permitting roles be trained and provided with guidance to perform these roles. This is especially critical for projects under review amid agency procedural changes as well as future projects.

- Consideration of federal staff augmentation consistent with federal contracting procedures to allow contracting with third-party contractors for project siting and permitting role and clarity that these roles will continue in agency future states.

P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, CA 91770
626-302-1212

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Federal Agency Coordination:

- Due to separate requirements of permits required for energy infrastructure there is often overlap, lack of consistency, and differing timelines among the agencies issuing the permits that results in inefficiencies and increases the time to obtain approval to commence project construction. Likewise, there are often inconsistent mitigation requirements from agencies issuing permits that impacts efficient project construction.

- Develop a permitting coordination entity with enforceable and actionable permitting authority similar to the Federal Permitting Improvement Steering Council for energy infrastructure projects. To be effective, this entity would have enforcement authority to require permitting agencies adhere to project development timelines.

Federal and State Agency Coordination:

- Allow the use of state environmental impact analysis document in place of federal impact analyses to eliminate duplication, when available (*e.g.* use of CEQA documents for impact analysis).

- Enhance Federal-State Coordination: Improve coordination between federal and state agencies to streamline environmental review process.

    - For projects that require both state and federal approval, require agencies to agree on a set of alternatives that will be analyzed in each agency's document to avoid situations where one agency analyzes and/or selects an alternative that is not considered reasonable by the other agency.

- Emergency Response: Ensure prompt and efficient emergency operations on federal lands by clarifying authority of ROW holders to take action and establish consistent processes. For example, federal agencies do not consistently recognize state-declared emergencies, causing delays in securing federal permits and approvals necessary to carry out emergency work.

Stakeholder Input:

- Require federal agencies to prepare and provide project applicants with stakeholder feedback received during the scoping process within 30 days of the close of the comment period, ensuring applicants could consider potential issues early in the NEPA process.

Permitting Existing Facilities and Activities:

- Reduce/Eliminate Permitting Requirements for Upgrades to or Operation & Maintenance of Existing Facilities and Upgrades

P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, CA 91770
626-302-1212

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

- Exempt work on existing facilities (maintenance or upgrades) from permitting requirements, regardless of land management plans (e.g. facilities within the Desert Renewable Energy Conservation Plan, Area of Critical Environmental Concern, National Monuments, Wilderness, etc.).
  - Example: hydroelectric facilities should be allowed to renew Special Use Permits even if located in wilderness areas.

Perpetual Grant Approvals:

- Agencies should approve grants in perpetuity to ensure long-term project stability and funding.

Thank you for this opportunity to provide our stakeholder input as part of this process. SCE appreciates the Committee's willingness to take industry feedback on the challenges associated with federal permitting and NEPA review of utility infrastructure projects.

P. O. Box 800
2244 Walnut Grove Avenue
Rosemead, CA 91770
626-302-1212

March 21, 2025

The Honorable Shelley Moore Capito
Chairman
U.S. Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
U.S. Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

RE: SEIA Submission for Senate Environment and Public Works Committee hearing titled, "Improving the Federal Environmental Review and Permitting Process," February 19, 2025

Dear Chairman Capito and Ranking Member Whitehouse,

The Solar Energy Industries Association (SEIA) is the national trade association of the U.S. solar and storage industry, which employs nearly 280,000 Americans. We represent over 1,200 organizations that promote, manufacture, install, and support the development of solar and storage energy.

A. Introduction

Electricity demand is projected to grow in the U.S. by 337 terawatts over 2024 levels by 2028.[1] This growth represents the largest demand growth since World War II. To meet this unprecedented demand, the U.S. needs an "all of the above" energy strategy to serve new facilities and maintain U.S. energy leadership. As the fastest deployable energy resource, the solar and storage industry is well positioned to play a large part in meeting this new demand.[2]

This amount of new solar and storage generation requires an unprecedented growth and deployment of new and upgraded interregional transmission lines. Yet today it can take up to 10 years to permit a single transmission line. For the U.S. to meet this surge in energy demand and to compete on a global scale, we must enact siting and permitting policies that make it easier and faster to get new power on the grid and enable competition from new low-cost resources.

This Congress has an opportunity to deliver common sense permitting reforms that provide the predictability, consistency, and timely decision-making needed for large scale energy projects, without jeopardizing environmental protections. SEIA supports the following policy principles as guidelines to help policymakers understand the solar and storage industry's position on permitting issues within this Committee's jurisdiction.

---

[1] SEIA analysis of 2023 NREL Standard Scenarios Mid-Case, available at https://scenarioviewer.nrel.gov/

[2] SEIA analysis of EIA Form 860M data for plants that have started reporting to EIA prior to seeking regulatory approval and plants which have reached operating status. Due to the low number of coal and nuclear plants developed over the past decade, additional desk research provided supplemental data for the last 3 nuclear facilities to come online and for all coal facilities commissioned since 2010.

March 21, 2025

1. Enacting permitting reforms that will speed the planning and buildout of major electricity transmission projects—particularly interregional connections—is essential to U.S. economic prosperity and technology leadership and achieving our national security and competitiveness.

2. Expediting the National Environmental Policy Act (NEPA) approval process for projects that bring net benefits and comply with existing environmental laws is an effective first step toward meeting the nation's energy needs.

3. Locating suitable areas for solar installations is challenging due to land use conflicts and restrictions. Encouraging collaboration between all authorities with jurisdiction over siting to identify and make more appropriate sites available for solar and storage development is essential.

4. Providing funding and training to ensure federal agencies have sufficient resources in their base budgets to conduct advanced planning and accelerated and coordinated reviews and permit decisions is a critical piece in building up the capacity necessary to improve the energy permitting system.

To further build upon the principles outlined above, the following are more specific recommendations that address critical siting and permitting barriers for all energy projects, provide clarity and transparency in the permitting process, and work to find efficiencies that balance public health, the environment, and the economy.

B. Transmission

Strengthening and Streamlining FERC's Transmission Siting Authority: support policies that seek to clarify and strengthen FERC's transmission siting authority in order to ensure that the US is able to site, permit, and build the transmission lines required to bring expanded solar and storage energy capacity on to the grid. Establishing an Office of Transmission at FERC may be helpful in ensuring that transmission is planned and built to maximize reliability and economic benefits.

Cost Allocation: We encourage Congress to direct FERC to require electric utilities to allocate the cost of grid upgrades to the customers benefiting from those upgrades, based on a broad set of benefits that are in the national interest. Cost allocation methodologies that discourage distributed generation, energy efficiency, demand response, or energy storage should be prohibited.

Speeding and Streamlining Grid Interconnection: We encourage Congress to direct FERC to create a rule addressing the inefficiencies of existing interconnection procedures. The rule should direct FERC to develop queue management best practices, including advanced computing and automation, to streamline the interconnection review process.

C. National Environmental Policy Act

NEPA Timeline and Costs: The Fiscal Responsibility Act (FRA) of 2023 included the most substantive amendments to NEPA since the statute was enacted. Creating new deadline requirements for the completions of environmental assessments (EAs) and environmental impact statements (EISs) should help provide developers more certainty on timelines and costs while speeding up the permitting timeline. However, industry needs further certainty in NEPA implementation. For example, uncertainties around NEPA potential litigation can adversely affect project financing and other key steps in project development. SEIA encourages this Congress to support bipartisan support policies that streamline and standardize the federal environmental review process.

NEPA Process Reforms: FRA provisions such as Section 107 which created a strong lead agency role with provisions for joint lead agencies to coordinate the preparation of environmental permitting documents provide a strong foundation for improved NEPA processing. However, agencies cannot realize the benefits of these process reforms without the appropriate resources. We strongly urge Congress to support complete funding for agencies that conduct environmental reviews, including funds to hire technical experts and contractors that have experience in the complexities of the environmental review process. Constrained agency resources delay permitting for infrastructure of all kinds, putting us further behind our adversaries in building the economy of the future.

Categorical Exclusions: Strategic and appropriate use of categorical exclusions can help agencies accelerate the deployment of transmission and generation infrastructure by ensuring resource intensive EAs and EISs are targeted toward proposed actions that truly have the potential to cause significant environmental effects. This Congress should build upon the progress made in the FRA and encourage agencies to continue establishing new CEs and expanding the use of existing CEs to responsibly increase environmental review efficiency. As an example, the solar and storage industry would benefit from an additional categorical exclusion for geotechnical testing and metrological station installation. These elements of project development, which include activities such as geotechnical borings, test pits, and pile load testing, occur during site selection and due diligence and involve little to no soil disturbance. Despite the low environmental impact, projects are often required to do a full environmental assessment prior to conducting these traditional exploratory activities. A categorical exclusion for such activities would streamline this critical early stage of project development where there is little to no impact on the surrounding environment.

D. Clean Water Act

CWA Section 404 permits: many solar, storage, and transmission projects require a Section 404 Clean Water Act permit from the Army Corps of Engineers (USACE). This is particularly true for projects built east of the Mississippi where the landscape is very wet. A Section 404 permit is required for activities that involve the "discharge of dredged or fill materials" into waters of the U.S. USACE administers the permits and enforces permit provisions, while EPA interprets policies, determines the scope of exemptions and comments on individual applications.[3]

Currently, the USACE permit process under Section 404 can be a significant bottleneck for generation and transmission projects. USACE is a resource constrained agency and developers can wait years for a USACE engineer to come out to a site and certify a developers' federal waters and wetland survey results when qualified consultants are doing the mapping in the first place. A self-certification program for wetlands and streams under the Section 404 program for consultants to get certified by a USACE engineer, with continuing education requirements as appropriate, would relieve this burden on an overburdened permitting agency.

E. Conclusion

The siting and permitting of new clean energy and transmission assets is a foremost barrier to the level of deployment necessary to satisfy rising electricity demand, safeguard America's national security, advance U.S. economic competitiveness. SEIA encourages Congress to consider bipartisan policies that promote and facilitate the growth of solar and storage in the United States. We look forward to working with the

[3] Environmental Protection Agency, *Permit Program under CWA Section 404*. https://www.epa.gov/cwa-404/permit-program-under-cwa-section-404

March 21, 2025

Chairman, Ranking Member, and members of the EPW Committee to continue building upon momentum around these critical challenges.

SOUTHERN ENVIRONMENTAL LAW CENTER

Ten 10th Street NW, Suite 1050
Atlanta, GA 30309
southernenvironment.org

T 404 521 9900
F 404 521 9909

March 21, 2025

Re: Letter for the Record on the U.S. Senate Committee on Environment and Public Works Hearing: "Improving the Federal Environmental Review and Permitting Process" Held on February 19, 2025"

Dear Senators:

Thank you for the opportunity to submit comments on the February 19, 2025, hearing "Improving the Federal Environmental Review and Permitting Process." Southern Environmental Law Center (SELC) submits this comment on behalf of itself as well as the Mobile Environmental Justice Action Coalition (MEJAC), a community organization based in the historic Africatown community of Mobile, Alabama, and Memphis Community Against Pollution (MCAP), an environmental justice organization based in Memphis, Tennessee. Our comments focus on air pollution permitting under the federal Clean Air Act.[1] We ask that this letter be included in the congressional record.

SELC, together with MEJAC, MCAP, and other clients and partner groups across the South, advocates for effective and enforceable air permits designed to assure that industrial facilities comply with their Clean Air Act pollution control obligations. These permits are issued by state and local environmental agencies pursuant to rules that have been approved by EPA as part of Clean Air Act State Implementation Plans. Sometimes our efforts focus on air pollution permits issued to "major" sources, including Title V operating permits, Prevention of Significant Deterioration (PSD) permits, and Nonattainment New Source Review (NSR) permits. It is even more common, however, for us to focus on improving so-called "minor NSR" permits issued for the construction of "minor" new sources and modifications to existing major sources that purportedly will not result in emissions (or an emission increase) above the major source threshold. It is critical for the public have an opportunity for comment on draft air permits for both major and minor sources. While the value of a public comment opportunity on air permits for major sources is readily apparent—such sources will emit large amounts of air pollution that indisputably has the potential to degrade ambient air quality and harm public health and welfare—a public comment opportunity on minor NSR permits also is essential.

Most importantly, a public comment opportunity on minor NSR permits helps to ensure that the operational and control requirements included in such a permit are sufficient to ensure that the facility's emissions do in fact remain below the major source threshold. Specifically, the Clean Air Act defines whether a facility is "major" based on whether it "emit[s], or ha[s] the potential to emit" a regulated air pollutant above the applicable major source threshold, [2] and federal regulations allow a source with the "potential to emit" above the major source threshold

[1] SELC also is joining comments on the hearing that address permitting under other environmental statutes.
[2] 42 U.S.C. § 7602(j) (generally applicable definition of "major stationary source" and "major emitting facility) under the Clean Air Act). *See also* 42 U.S.C. § 7479(1) (defining "major emitting facility" for purposes of the Clean Air Act's PSD program), *id.* § 7661(2) (defining "Major source" for purposes of the Clean Air Act's Title V operating permits program).

to be regulated as "minor" if it accepts enforceable limits sufficient to ensure that its emissions remain below that threshold.[3] Such limits are frequently included in minor NSR permits. To be "enforceable," such a limit must be both legally and practicably enforceable.[4] In our experience, it is often the case that limits in draft permits are unenforceable. For example, sometimes a limit is inaccurate, meaning that even if the facility complies with the limit (e.g., a limit on hours of operation or production), the facility's emissions will still be over the major source threshold. Other times, limits are not accompanied by any kind of monitoring, recordkeeping or reporting, so neither regulators nor the public can determine whether the source is complying. Due to inadequate potential-to-emit limits, a so-called "minor" source may be emitting air pollution well above the major source threshold, potentially significantly degrading ambient air quality and contributing to ambient air quality standard violations. Subjecting minor NSR permits to public scrutiny makes it far more likely that potential-to-emit limits will be accurate and effective.

Even if a minor NSR permit does not include a potential-to-emit limit, it may turn out that the purportedly minor new source or modification emits above the major source threshold. This can occur when a facility has significantly under-estimated its emissions by using a defective emission factor. This type of mistake is not uncommon, and public comment can help guard against it.

Not only is an opportunity for public involvement in minor NSR permitting important in terms of protecting public health and the environment, but it also helps to head off legal challenges to final permit actions. First, members of the public can challenge a minor NSR permit in state administrative and judicial forums regardless of whether they had an opportunity to comment on the draft permit.[5] Resolving public concerns regarding the accuracy and enforceability of a potential-to-emit limit prior to final permit issuance makes it less likely that concerned parties would choose to challenge the permit in these state forums. Second, a minor NSR permit issued without public comment can be challenged by members of the public during Title V permitting, which typically occurs years after the minor NSR permit is issued.[6] Finally, a facility that is subject to an unenforceable potential-to-emit limit (or that is improperly permitted without such a limit) can be held accountable in an enforcement action for constructing and operating without the required major source permit.[7] Thus, shortcutting the minor NSR

---

[3] *See, e.g.,* 40 C.F.R. § 51.166(b)(4) (defining "Potential to emit" for purposes of the Clean Air Act's PSD program), 40 C.F.R. § 70.2 (defining "Potential to emit" for purposes of the Clean Air Act's Title V operating permit program).

[4] *See, e.g., In the Matter of Kentucky Syngas, LLC*, Order on Petition No. IV-2010-9, at 30 (EPA, June 22, 2013), https://www.epa.gov/sites/default/files/2015-08/documents/kentuckysyngas_response2010.pdf (explaining that a potential-to-emit limit "can be relied upon . . . only if it is legally and practicably enforceable").

[5] *See, e.g.,* S.C. Code Ann. § 48-6-30(D)(1)(2) (2024).

[6] *See, e.g., In the Matter of Suncor Energy (U.S.A.), Inc.*, Order on Petition Nos. VIII-2022-13 & VIII-2022-14, at 48 (EPA, July 31, 2023), https://www.epa.gov/system/files/documents/2023-08/Suncor%20Plant%202%20Order_07-31-23.pdf (allowing minor NSR concerns to be raised in addressed in a Title V petition for EPA objection because, *inter alia*, "the current Title V renewal proceeding is the first permit action in which these NSR issues have been subject either to public notice and comment or the opportunity for judicial review"); *In the Matter of Coyote Station Power Plant*, Order on Petition Nos. VIII-2019-1 & VIII-2020-8, at 12 (EPA, Jan. 15, 2021), https://www.epa.gov/sites/default/files/2021-01/documents/coyoteorder2021.pdf (same).

[7] *See, e.g., U.S. v. Louisiana-Pacific Corp.*, 682 F.Supp. 1122, 1133-1134 (explaining that because "compliance with blanket restrictions on actual emissions would be virtually impossible to verify or enforce," such limits cannot be

permitting process by eliminating the opportunity for public comment likely would backfire; without public process, a facility is likely to face more risk, uncertainty and potential for delay.

It is important to recognize that so-called "minor" changes to facilities can in fact be extraordinarily significant. For example, the Tennessee Department of Environmental Conservation recently approved the Tennessee Valley Authority's construction of an entirely new methane-gas-fired power plant as a "minor" change to an existing coal plant. These very large construction projects are classified as "minor" based on complex emissions calculations involving determinations of baseline emissions, future projected actual emissions, and netting of emission increases and decreases. Such determinations can be highly controversial. The opportunity for public comment on draft permits goes a long way toward ensuring that minor source determinations are lawful and resolving public concerns before it is necessary to file a permit challenge or citizen suit enforcement action.

As this committee evaluates how it might revise federal permitting requirements, we strongly urge you to consider the importance of public participation opportunities in both major and minor air permitting. While subjecting proposed air permitting determinations to public review and comment takes some extra time up front, public process pays large dividends in terms of protecting public health and welfare and resolving meritorious concerns prior to litigation.

Sincerely,



Keri N. Powell
Southern Environmental Law Center
Air Program Leader & Carol Remmer Angle Senior Attorney for Community Health
(678) 433-6851
kpowell@selc.org

Ramsey Sprague
President
Mobile Environmental Justice Action Coalition
Ramsey@MEJACoalition.org

KeShaun Pearson
President
Memphis Community Against Pollution
kpearson@memphiscap.org

relied upon to demonstrate that a source is "minor" in an enforcement action against a facility for constructing without first obtaining a PSD permit).

nature sustainability

Brief Communication

https://doi.org/10.1038/s41893-023-01218-1

Environmental impact assessments not the main barrier to timely forest management in the United States

Received: 2 February 2023

Accepted: 15 August 2023

Published online: 5 October 2023

Check for updates

Cory L. Struthers[1] ✉, Kathryn J. Murenbeeld[2] & Matthew A. Williamson[2]

Environmental impact assessment (EIA) processes are commonly used by government agencies to evaluate the merits and environmental risks of natural resource management decisions. Citing EIA as red tape, decision makers from across the political spectrum are increasingly circumventing EIA to expedite implementation of necessary actions for climate resilience and clean energy. Few studies have quantified the extent that EIA is the main barrier to efficient implementation. We combine administrative data from the US Forest Service with survival analysis to show that, for most actions, the Forest Service takes as long or longer to award first contracts and roll out initial activities than to comply with the 1970 National Environmental Policy Act (NEPA), and that NEPA compliance accounts for approximately one-fifth of planned implementation time.

The passage of large climate spending bills in the United States (the 2022 Inflation Reduction Act, the 2021 Infrastructure Investment and Jobs Act) and policymakers' concomitant efforts to circumvent environmental impact assessment to expedite energy infrastructure development is a timely reminder that battles over policy benefits continue in agency decision making[1–3] and that the effectiveness of legislative change depends on how the legislative change is implemented. Environmental impact assessment (EIA) is a generic term for a process by which governments consider the potential environmental impacts of their decisions[4] and is the bedrock of environmental policy and law worldwide. Despite the benefits of EIA, such as gathering information and securing public legitimacy[5], instances of minimizing or wholesale exempting long-standing procedures such as EIA to accelerate implementation are becoming more common in the United States and elsewhere[6]. Within the United States, the Council on Environmental Quality (CEQ) eliminated the cumulative impacts analysis required by the 1970 National Environmental Policy Act (NEPA) in response to President Trump's instructions to 'modernize' the federal EIA process (Executive Order 13807), Governor Newsom of California has used 'trailer bills' to site energy infrastructure with minimal environmental review[7] and Congress during both the Bush and Obama administrations excluded certain actions from EIA through the 2003 Healthy Forest Restoration Act and 2014 Farm Bill[8]. Although the CEQ restored cumulative effects analysis in NEPA soon after Biden entered office, Democratic leadership has tried to advance Senator Joe Manchin's energy-permitting reform legislation since the Inflation Reduction Act's passage. This legislation includes a one- to two-year deadline on most NEPA processes and decreases the statute of limitations on agency decisions by more than 90% (ref. 9). The 2023 Fiscal Responsibility Act included several of these provisions[10].

Exempting and modifying EIA for the purpose of making faster decisions begs the question: to what extent is EIA the barrier to efficient implementation of government priorities? This brief provides evidence that the time it takes a major US public lands agency to implement decisions is not well explained by the time it takes to complete EIA. NEPA, which requires US federal agencies to disclose and analyse the potential environmental impacts of their actions (for example, projects, permits) using 'the best available science' and public input, is often the scapegoat of sluggish government decision making. Studies show that the most rigorous NEPA analyses take agencies such as the US Forest Service (USFS) an average (median) of 2.5–3.5 years to complete[11–13], but they lack clear implications without a reference point. Is 2.5–3.5 years a long or short time? Does EIA take too long? Is it red tape,

[1]School of Public and International Affairs, University of Georgia, Athens, GA, USA. [2]Human–Environment Systems, Boise State University, Boise, ID, USA. ✉e-mail: cstruth@uw.edu

 https://doi.org/10.1038/s41893-023-01218-1

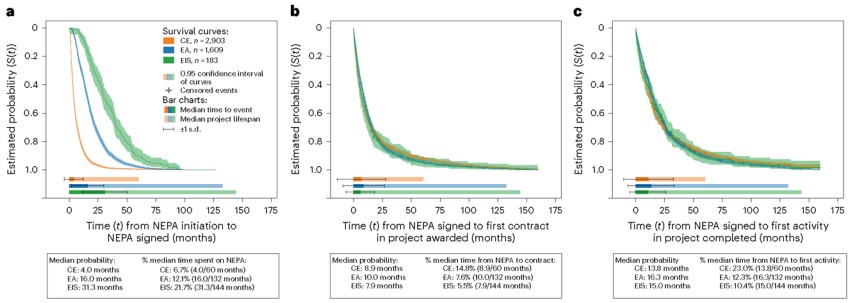


Fig. 1 | Time to complete NEPA, first contract and first activity for each category of analysis. a–c, Survival curves for each analysis type and event (completion of NEPA (**a**), completion of contract (**b**) and completion of first activity (**c**)) along with their 95% confidence interval (shaded regions). Horizontal bar charts depict the descriptive median time to completion (dark shaded region) and the action's planned duration (light shaded bars), or lifespan, along with the ±1 standard deviation for the descriptive median time to completion. Median probabilities are used to calculate the percentage of time spent on a given task as a proportion of planned lifespan. Median probabilities are 0–4 months longer than descriptive medians. Descriptive summaries of time to completion and lifespan are provided in Supplementary Table 1.

'the excess amount of delay above and beyond that generated by other factors'[14], as some claim?

We use administrative data to compare how long it takes the USFS to complete the NEPA process relative to other necessary steps in implementation. Our analysis examines 4,695 actions involving fuels management, silviculture and invasive species from January 2009 to June 2021. USFS NEPA is an important case both because NEPA serves as an EIA model for many US states and countries, and because the USFS conducts more NEPA analyses than any other agency[13] and is responsible for managing climate hazards such as wildfire across 8% of US landmass.

Except for decisions with statutory exemptions, NEPA and CEQ rules require agencies to consider and disclose the potential environmental impacts of all major federal actions through a 'systematic, interdisciplinary' analysis that can involve public participation[15]. If the action is likely to have significant environmental impacts, the agency must prepare an Environmental Impact Statement (EIS) that analyses the potential effects of the proposed action and a set of alternatives while soliciting and responding to public comment. If the action is 'not likely to have significant effects' or the 'significance of the effects is unknown', the agency prepares an environmental assessment (EA) that analyses the proposed action; public comment is not required but encouraged. If impacts are found to be significant, the agency prepares an EIS. However, if the impacts are insignificant or mitigation can reduce the impacts to an insignificant level, then a finding of no significant impact (first case) or mitigated finding of no significant impact (second case) is prepared. Finally, if an action fits within a category predetermined by the agency and CEQ to 'not normally have a significant effect on the human environment', the official can prepare a categorical exclusion (CE), which exempts the action from most analysis and public comment requirements[16]. Over 80% of USFS actions are processed as CEs[11].

On the basis of survival analysis of more than 4,500 silviculture, fuels and invasive species management actions, we compare the time it takes agency offices to comply with NEPA relative to other implementation tasks. Figure 1 shows the probability of an action's NEPA decision being signed (Fig. 1a), first contract being awarded (Fig. 1b) and first activity being completed (Fig. 1c).

Results show that the NEPA process is typically faster than, or equivalent to, awarding first contracts and finishing first activities post-NEPA for the majority of landscape interventions. Median survival—the time at which the probability of the event occurring is 50%—is a standard summary statistic for reporting survival curves[17]. For actions processed as CEs (62% of actions), median survival is 4.0 months for completing NEPA compared with 8.9 months for awarding the first contract and 13.8 months for implementing the first activity. For actions processed as EAs (34% of actions), the median survival is 16.0 months for completing NEPA compared with 10.0 months for awarding the first contact and 16.3 months for implementing the first activity. The pattern differs for actions processed as EISs (4% of actions). Whereas first contracts (7.9 months) and first activities (14.8 months) have similar median survivals to actions processed as CEs and EAs, the median survival for NEPA completion is longer: 31.3 months (2.6 years). Results show that across decision types, EIA is a fraction of total implementation time. On the basis of probabilities estimated from the survival curves, officials spend 7% (actions processed as CEs) to 12% (actions processed as EAs) to 22% (actions processed as EISs) of an action's total planned lifespan on NEPA compliance.

The 4% of actions processed as EISs are unique in that the NEPA process takes one to two years longer than awarding the first contract and implementing the first activity. Measures of project complexity suggest that a protracted assessment process is potentially prudent. Actions analysed as EISs have implementation horizons that exceed a decade on average (Fig. 1); as illustrated in Fig. 2, these actions tend to be more complex than actions eligible for CE or EA. Grouped by NEPA decision type, Fig. 2 plots the distribution of planned affected area (size) and number of activities. Whereas the median action processed as a CE or EA is 100 and 625 ha, respectively, the median action processed as an EIS is 1,363 ha. Likewise, actions reviewed through EIS have triple the number of activity types as actions processed through CE or EA.

Yet the NEPA process is not lengthy for all large actions. NEPA analyses for actions in the upper tenth percentile of affected area tend to take less than 20 months to complete, including for major infrastructure development (Fig. 2a inset). For example, the NEPA process for the Ruby Pipeline Project, which laid 675 miles of natural gas pipeline across four Western states with eight cooperating agencies, took a

 https://doi.org/10.1038/s41893-023-01218-1

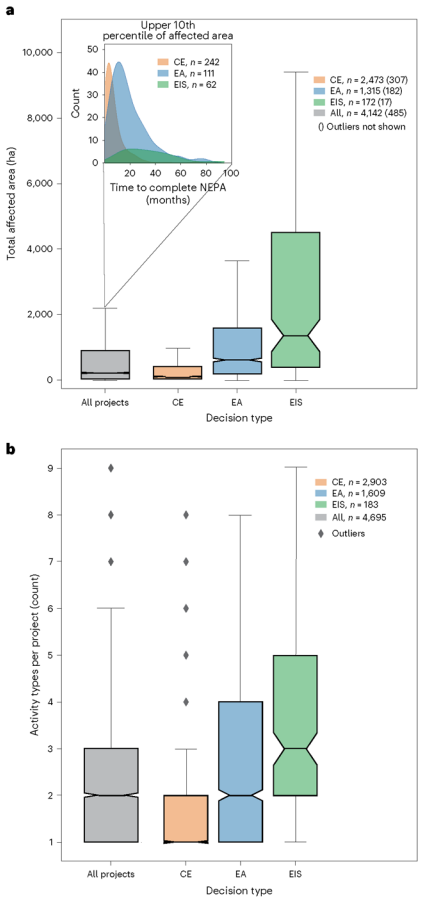


Fig. 2 | Action complexity by analysis type. a,**b**, Comparison of two metrics: size (**a**) and number of unique activity types (**b**). We calculate affected area (**a**) by summing hectares being considered for treatment through activities included in the FACTS database. We calculate the number of unique activity types (**b**) by summing the number of unique activity categories described for a given project in the Forest Activity Tracking System database. Box-and-whisker plots depict the interquartile range (boxes) and an outlier function (IQR × 1.5, whiskers). Descriptive summaries for each analysis type are provided in Supplementary Table 2.

little over a year (421 days). Similarly, the longest NEPA processes are not necessarily the largest. Among the upper tenth percentile of time to completion, treated area ranges from less than 1 to over 70,000 ha.

EIA exemptions are increasingly appealing to decision makers. Especially concerning are new pressures on politicians that hold pro-regulation views, who now have electoral incentives to hurry climate and energy decisions to claim credit for benefits that may take years to observe. Our results show that the USFS takes as long or longer to award first contracts and complete first on-the-ground activities than to complete NEPA processes for most actions and that EA and EIS processing accounts for approximately one-fifth of total planned implementation time. We find that for the rare major actions that require an EIS, the NEPA process takes an average of 2.6 years. Generally (but not always), actions analysed through EIS are larger in size, longer term and involve more activities—possibly justifying time spent on stakeholder engagement and effects analysis. Lengthy timelines for complex analyses may also reflect fits and starts in NEPA processing due to agency vacancies, poor data and staff management, changes in congressional budgets and evolving needs of cooperating agencies and stakeholders[12,13,18]. Despite similarities in the NEPA process and EIA elsewhere, the applicability of our findings to international settings requires further research.

Calls for evaluating the performance of US EIA[19] and administrative procedures[20] are increasingly strong for good reason: how the government sources and weighs information to comply with statutory processes involves equity[21,22], efficiency[23] and adaptability[24] concerns. However, EIA exemption is a politically convenient strategy with high risks under a changing climate future, historic inequity and government mistrust. We do not deny the importance of evaluating, funding, reimagining and modifying EIA—particularly to elevate community perspectives disadvantaged by existing procedural models. Our research on one of the largest producers of NEPA analyses—the USFS—calls attention to efficiency barriers that slow implementation after EIA. Altering contracting regulations, streamlining federal and state policies, revitalizing natural resource industries in rural places and investing in agencies' technical and personnel resources may accelerate actions that promote clean energy and climate resilience without disenfranchisement. Curtailing robust, deliberative decision making may risk overlooking or underestimating potential environmental impacts and eroding public trust while failing to expedite the implementation of necessary actions.

Methods

We merge the Forest Activity Tracking System (FACTS) Common Attributes geodatabase[25] with the USFS Planning, Appeals, and Litigation System data on NEPA compliance dataset[26] and use survival analysis to analyse the time it takes agency offices to complete the NEPA process, award their first contract and complete their first activity; calculate the proportion of time spent on NEPA relative to the action's planned lifespan; and examine the relationship between NEPA analysis type and action complexity. FACTS is the USFS database of record for prescribed burns, invasive species management and timber harvest[25], which account for a large share of USFS workload[11]. The analyses include 4,695 actions (2,903 CEs, 1,609 EAs and 183 EISs) in the FACTS database with associated NEPA decision dates, initiated from January 2009 to June 2021.

We collected additional data to extend the end date of Fleischman et al.[26] from December 2018 to June 2021. Actions that have not yet received a NEPA decision are excluded from the analysis because they have no signed NEPA date and thus no start date to assign to second outcomes (awarding contracts, first activities). On the basis of the set of actions without a signed NEPA date in the original version (7-2021) of Fleischman et al.[11], we expect the number of unobserved actions in this analysis to be relatively small (less than 5% of the total observations in our analysis) and more heavily skewed towards later years in the analysis. A skew towards later years indicates that unobserved actions are progressing through the planning phase normally but that insufficient time has passed to observe any of the subsequent actions.

A small number of right-censored (incomplete) cases may increase uncertainty around the survival estimates for NEPA analyses but would not change the inferences we make by comparing timelines across different implementation tasks.

We use the Kaplan–Meier estimator, a non-parametric approach that estimates the survival probability, $S(t)$, or the number of observations persisting (for example, incomplete NEPA analyses) divided by the total number of observations 'at risk' (for example, all analyses) at time t (ref. 27). The Kaplan–Meier estimator is robust for handling censored events (projects that have not awarded a contract or completed an activity; $n = 314$ and 589, respectively). Results from the survival analysis show the predicted probability of an event occurring as a function of elapsed time, either from NEPA initiation to NEPA signing or from NEPA signing to the event. The proportion of time spent on NEPA relative to the action's planned lifespan is calculated using the median probability for time spent on NEPA relative to the median lifespan because median probability accounts for censorship. The median lifespan starts at the fiscal year of NEPA initiation and ends at the fiscal year of the last activity planned for the action.

We calculate affected area (Fig. 2a) by summing hectares being considered for treatment through activities included in the FACTS database. In our sample, 553 actions (12%) are either missing spatial information (520) or are in the Planning, Appeals, and Litigation System dataset but not the FACTS dataset (33). These are not included in Fig. 2a (400 (30) CEs, 109 (3) EAs, 11 EISs) or the median estimates. We checked distributions by decision type, activity and region to investigate whether missingness appears systematic and found no concerning patterns.

Mann–Whitney U tests (two-sided) indicate differences in size and activities according to analysis type (CE, EA, EIS) are statistically significant at $P < 0.01$. Box-and-whisker plots (Fig. 2) depict the interquartile range (boxes) and 95% confidence intervals of the interquartile range (whiskers). We remove outliers from the visualization in Fig. 2 and provide further detail here. CEs, 307 projects with an upper limit of 992.1 ha, are removed from the figure. For EAs, 182 projects with an upper limit of 3,712.7 ha are removed from the figure. For EISs, 17 projects with an upper limit of 10,660 ha are removed from the figure. Within Fig. 2a, the outliers for each NEPA type are removed before plotting the box plots. For 'All projects', the outliers for the sample as a whole are included but not shown. The upper limit in this case is 2,211.6 ha with 138 CE, 281 EA and 66 EIS projects not shown as dots above the whiskers.

Analysis was conducted in R version 4.0.4 (packages: survival 3.2-7) and Python version 3.8.13 (packages: pandas, numpy, datetime, matplotlib, seaborn, sksurv.nonparametric.kaplan_meier_estimator, survive.KaplanMeier).

Reporting summary

Further information on research design is available in the Nature Research Reporting Summary linked to this article.

Data availability

The datasets analysed in the study are publicly available in two locations: (1) Fleischman et al.[11], PALS: https://conservancy.umn.edu/handle/11299/211669; (2) FACTS Common Attributes File: https://data.fs.usda.gov/geodata/edw/datasets.php.

Code availability

The code for this manuscript is available at https://github.com/SpaSESLab/Struthers-NEPA-Delays and https://doi.org/10.5281/zenodo.8072329.

References

1. Stokes, L. C. *Short Circuiting Policy: Interest Groups and the Battle Over Clean Energy and Climate Policy in the American States* (Oxford Univ. Press, 2020).
2. Portman, M. E. Regulatory capture by default: offshore exploratory drilling for oil and gas. *Energy Policy* **65**, 37–47 (2014).
3. Lowande, K. & Potter, R. A. Congressional oversight revisited: politics and procedure in agency rulemaking. *J. Politics* **83**, 401–408 (2021).
4. Morgan, R. K. Environmental impact assessment: the state of the art. *Impact Assess. Proj. Appraisal* **30**, 5–14 (2012).
5. Emerson, K. & Baldwin, E. Effectiveness in NEPA decision making: in search of evidence and theory. *J. Environ. Policy Plan.* **21**, 427–443 (2019).
6. Bond, A., Pope, J., Morrison-Saunders, A., Retief, F. & Gunn, J. A. E. Impact assessment: eroding benefits through streamlining? *Environ. Impact Assess. Rev.* **45**, 46–53 (2014).
7. Cart, J. Labeling it 'rushed' and 'lousy,' California lawmakers OK Newsom's power plan. *CalMatters* https://calmatters.org/environment/2022/06/california-power-plant-deal/ (2022).
8. *Forestry Provisions in the 2014 Farm Bill (P.L. 113-79)* (CRS, 2014); https://crsreports.congress.gov/product/pdf/R/R43431/3
9. Bittle, J. & Sadasivam, N. Overdue reform or underhanded deal? Here's what's in Manchin's permitting bill. *Grist* https://grist.org/energy/manchin-permitting-deal-mountain-valley-pipeline/ (2022).
10. Fiscal Responsibility Act of 2023. *Congress.gov* https://www.congress.gov/bill/118th-congress/house-bill/3746 (2023).
11. Fleischman, F., Struthers, C., Dockry, M., Scott, T. & Arnold, G. US Forest Service implementation of the National Environmental Policy Act: fast, variable, rarely litigated, and declining. *J. Forest.* **118**, 403–418 (2020).
12. Ruple, J. C., Pleune, J. & Heiny, E. Evidence-based recommendations for improving National Environmental Policy Act implementation. *Columbia J. Environ. Law* https://doi.org/10.52214/cjel.v47iS.9479 (2022).
13. *Environmental Impact Statement Timelines (2010–2017)* (Council on Environmental Quality, 2018); https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timelines_Report_2018-12-14.pdf
14. Pandey, S. K. & Bretschneider, S. I. The impact of red tape's administrative delay on public organizations' interest in new information technologies. *J. Public Adm. Res. Theory* **7**, 113–130 (1997).
15. *Code of Federal Regulations: Title 40—Protection of the Environment* Chapter V, Sections 1500–1508 (US NEPA, 2023); https://www.ecfr.gov/current/title-40/chapter-V/subchapter-A
16. *NEPA Practice: Categorical Exclusions* (CEQ, accessed 3 December 2022); https://ceq.doe.gov/nepa-practice/categorical-exclusions.html
17. Goel, M. K., Khanna, P. & Kishore, J. Understanding survival analysis: Kaplan–Meier estimate. *Int. J. Ayurveda Res.* **1**, 274–278 (2010).
18. *Bureau of Land Management: Better Workforce Planning and Data Would Help Mitigate the Effects of Recent Staff Vacancies* GAO-22-104247 (Government Accountability Office, 2021).
19. Emerson, K. et al. Toward NEPA performance: a framework for assessing EIAs:'. *Environ. Impact Assess. Rev.* **97**, 106879 (2022).
20. Balla, S. J., Beck, A. R., Meehan, E. & Prasad, A. Lost in the flood?: agency responsiveness to mass comment campaigns in administrative rulemaking.*Regul. Gov.* **16**, 293–308 (2022).
21. Einstein, K. L., Glick, D. M. & Palmer, M. *Neighborhood Defenders: Participatory Politics and America's Housing Crisis* (Cambridge Univ. Press, 2019).
22. Ulibarri, N., Figueroa, O. P. & Grant, A. Barriers and opportunities to incorporating environmental justice in the National Environmental Policy Act. *Environ. Impact Assess. Rev.* **97**, 106880 (2022).

23. Trnka, J. & Ellis, E. Environmental reviews and case studies: streamlining the National Environmental Policy Act process. *Environ. Pract.* **16**, 302–308 (2014).
24. Timberlake, T. J. & Schultz, C. A. Policy, practice, and partnerships for climate change adaptation on US national forests. *Climatic Change* **144**, 257–269 (2017).
25. *Download National Datasets* (USFS, accessed 4 December 2022); https://data.fs.usda.gov/geodata/edw/datasets.php
26. Fleischman, F., Struthers, C., Dockry, M., Scott, T. & Arnold, G. US Forest Service Planning, Appeals, and Litigation Data on NEPA compliance, 2005–2018. *Data Repository for the University of Minnesota* https://doi.org/10.13020/3xfe-2m18 (2023).
27. Rich, J. T. et al. A practical guide to understanding Kaplan–Meier curves. *Otolaryngol. Head Neck Surg.* **143**, 331–336 (2010).

Acknowledgements

We thank multiple USFS staff for their assistance in interpreting the FACTS database. In addition, F. Fleischman and J. Abrams provided feedback that improved this article. Funding for this work was provided by the Wilburforce Foundation. Additional support for M.A.W. was provided by the NSF Idaho EPSCoR Program and by the National Science Foundation under award number OIA-1757324.

Author contributions

C.L.S., K.M. and M.A.W. designed the research. C.L.S. led the writing of the manuscript. K.M. and M.A.W. conducted analyses. All authors contributed to the draft of the manuscript and subsequent revisions.

Competing interests

The authors declare no competing interests.

Additional information

Supplementary information The online version contains supplementary material available at https://doi.org/10.1038/s41893-023-01218-1.

Correspondence and requests for materials should be addressed to Cory L. Struthers.

Peer review information *Nature Sustainability* thanks Jamie Pleune and the other, anonymous, reviewer(s) for their contribution to the peer review of this work.

Reprints and permissions information is available at www.nature.com/reprints.

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit http://creativecommons.org/licenses/by/4.0/.

© The Author(s) 2023

nature portfolio

Corresponding author(s): Cory Struthers

Last updated by author(s): July 25, 2023

Reporting Summary

Nature Portfolio wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Portfolio policies, see our Editorial Policies and the Editorial Policy Checklist.

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

n/a	Confirmed	
☐	☒	The exact sample size (*n*) for each experimental group/condition, given as a discrete number and unit of measurement
☒	☐	A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
☐	☒	The statistical test(s) used AND whether they are one- or two-sided *Only common tests should be described solely by name; describe more complex techniques in the Methods section.*
☐	☒	A description of all covariates tested
☐	☒	A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
☐	☒	A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)
☐	☒	For null hypothesis testing, the test statistic (e.g. *F*, *t*, *r*) with confidence intervals, effect sizes, degrees of freedom and *P* value noted *Give P values as exact values whenever suitable.*
☒	☐	For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
☒	☐	For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
☒	☐	Estimates of effect sizes (e.g. Cohen's *d*, Pearson's *r*), indicating how they were calculated

Our web collection on statistics for biologists contains articles on many of the points above.

Software and code

Policy information about availability of computer code

Data collection	Data came from the established sources discussed below.
Data analysis	Analysis was conducted in R version 4.0.4 (packages: survival 3.2-7) and Python version 3.8.13 (packages: pandas, numpy, datetime, matplotlib, seaborn, sksurv.nonparametric--kaplan_meier_estimator, survive--KaplanMeier). The code for this manuscript is available at https://github.com/SpaSESLab/Struthers-NEPA-Delays; DOI: 10.5281/zenodo.8072329.

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Portfolio guidelines for submitting code & software for further information.

Data

Policy information about availability of data

All manuscripts must include a data availability statement. This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A description of any restrictions on data availability
- For clinical datasets or third party data, please ensure that the statement adheres to our policy

The datasets analyzed in the study are publicly available in two locations:

Fleischman et al. 2021, PALS: https://conservancy.umn.edu/handle/11299/211669
FACTS Common Attributes File: https://data.fs.usda.gov/geodata/edw/datasets.php

Human research participants

Policy information about studies involving human research participants and Sex and Gender in Research.

Reporting on sex and gender	N/A
Population characteristics	N/A
Recruitment	N/A
Ethics oversight	N/A

Note that full information on the approval of the study protocol must also be provided in the manuscript.

Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

☐ Life sciences ☒ Behavioural & social sciences ☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see nature.com/documents/nr-reporting-summary-flat.pdf

Behavioural & social sciences study design

All studies must disclose on these points even when the disclosure is negative.

Study description	The study is observational and relies on quantitative data from the US Forest Service (USFS). We merge the Forest Activity Tracking System Common Attributes geodatabase (FACTS) (USFS, n.d.) with the US Forest Service Planning, Appeals, and Litigation Data on National Environmental Policy Act (NEPA) compliance dataset (PALS) (Fleischman et al., 2021) and use survival analysis to analyze the time it takes agency offices to complete the NEPA process, award their first contract, and complete their first activity; calculate the proportion of time spent on NEPA relative to the action's planned lifespan; and descriptively examine the relationship between NEPA analysis type and action complexity.
Research sample	The research sample includes all USFS actions (4,695) involving fuels management, silviculture, and invasive species from January 2009 - June 2021. The two datasets used are listed above. The PALS database includes information on the NEPA process. The FACTS database includes information on awarding contracts and activity timelines. USFS actions that do not involve fuels management, silviculture, and invasive species activities are not analyzed because the FACTS database does not record timelines concerning these actions. The research sample is representative of USFS decision-making on these issues and in the time period studied. USFS NEPA is an important case both because NEPA serves as an environmental assessment model for many US states and countries, and because the USFS conducts more NEPA analyses than any other agency and is responsible for managing climate hazards like wildfire.
Sampling strategy	This is an observational study where the universe of possible cases is complete. No sampling strategy was used.
Data collection	The two databases were downloaded by the researchers from the following websites: Fleischman et al. 2021, PALS: https://conservancy.umn.edu/handle/11299/211669 FACTS Common Attributes File: https://data.fs.usda.gov/geodata/edw/datasets.php The researchers were not blinded to the study hypotheses.
Timing	Data collection (downloading databases) was conducted in November 2021. The data in the study period include observations from 2009-2021.
Data exclusions	USFS actions that do not involve fuels management, silviculture, and invasive species activities are excluded because the FACTS database does not record timelines concerning these actions. Years prior to 2009 were excluded because of major policy changes to Categorical Exclusions (CEs) in 2008 and because the PALS record is generally more reliable in the late 2000s. USFS actions that have not yet completed the NEPA process are excluded from analysis because NEPA signed dates serve as the start dates for the other two completion outcomes (awarding contract, first activity).
Non-participation	No participants were included in this study.
Randomization	This is an observational study where the universe of possible cases is complete. No randomization was used.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems		Methods	
n/a	Involved in the study	n/a	Involved in the study
☒	☐ Antibodies	☒	☐ ChIP-seq
☒	☐ Eukaryotic cell lines	☒	☐ Flow cytometry
☒	☐ Palaeontology and archaeology	☒	☐ MRI-based neuroimaging
☒	☐ Animals and other organisms		
☒	☐ Clinical data		
☒	☐ Dual use research of concern		

The Wilderness Society
1801 Pennsylvania Avenue NW
Washington, DC 20006
March 21, 2025

Dear Chairman Capito and Ranking Member Whitehouse,

The Wilderness Society (TWS) writes to formally submit one study published in the journal *Nature Sustainability* and a letter penned by TWS and over 130 fellow organizations for the Hearing Record following the Environment and Public Works Committee's February 19 hearing entitled "Improving the Federal Environmental Review and Permitting Processes."

We are opposed to actions – both in Congress and the Administration – that seek to weaken or dismantle environmental laws and regulations that directly engage the public in the federal government's planning processes that could significantly impact the environment. That includes our strong opposition to H.R. 471, the Fix Our Forests Act (FOFA), which was recently considered by the Senate Committee on Agriculture, Nutrition, and Forestry's Subcommittee on Conservation, Forestry, Natural Resources, and Biotechnology on March 6, 2025. FOFA undermines the National Environmental Policy Act and the Endangered Species Act while targeting the judicial review process that would restrict the public's ability to hold the government accountable when it breaks the law.

Attached, please find a peer-reviewed study published in the journal *Nature Sustainability*, which illuminates the reality that, while commonly cited as barriers to efficient U.S. Forest Service environmental review processes, environmental impact assessments are not a substantial barrier to timely forest management. We have also included a letter recently circulated with Senate offices that outlines the conservation community's concerns with the FOFA legislative text in detail.

We hope these contributions help advance permitting discussions as they relate to forestry, and we welcome any questions you may have. Thank you for your time.

Sincerely,

Michelle Gullett
Senior Government Relations Representative
The Wilderness Society

Dear Members of the US Senate:

On behalf of our millions of members and supporters, our organizations write to express our strong opposition to the “Fix Our Forest Act” as passed by the House of Representatives on January 23, 2025, and any version that retains the policies of Sections 106, 121 or 122 or anything similar to the provisions that we share concerns about in the below letter. This legislation is being rushed through Congress, having gone through none of the proper Committee process in the 119th Congress thus far. **We urge all members to oppose this legislation**.

This legislation purports to be about sound forest management and fire, but it could actually make fires worse, and is really about stifling citizen voices, removing science from land management decisions, and legislating a large-scale rollback of the Endangered Species Act (ESA) and National Environmental Policy Act (NEPA) on millions of acres of federal lands. Its sweeping provisions remove scientific review and accountability to benefit the short-term interests of extractive industries, and do not solve the problem of worsening wildfires.

Instead of focusing on proven ways to protect communities such as home hardening and science-based forest management projects, this legislation will open millions of acres of federal land to logging without scientific review and community input, which may increase the risk of wildfires. This bill also paves the way for increasing the number of miles of permanent logging roads and removing large old trees that naturally confer fire resilience. Older trees also store a disproportionately high amount of carbon, mitigating against climate change that fuels fires. Road density has been linked with an increase in human-caused wildfires—as the density of roads increase, so do wildfire ignitions. Logging roads also fragment forest habitat and are sources of chronic sediment that harm water quality in rivers and streams. During a time of mass extinction, the bill also removes ESA consultation requirements designed to prevent harm to imperiled species. Finally, compounding these harms, it removes rights to judicial review, effectively barring citizens from holding federal agencies accountable.

Our organizations recognize the challenge in addressing threats posed by climate change, including increased risks from fire. Unfortunately, the majority of this bill would harm forests, communities, the climate, water, and biodiversity. Federal land managers already have broad procedural authorities: 85% of management on National Forest lands now proceeds under categorical exclusions (CEs). Further changes to bedrock environmental laws will only exacerbate harm to our forests. In particular, Congress should not be undermining ESA protections amidst an extinction crisis. As such, we are fully **opposed to this legislation as a whole**.

Our organizations welcome the chance to be part of this critical discussion, and we detail our concerns with specific sections of the legislation below.

Section 2: Definitions

(7) HAZARDOUS FUELS MANAGEMENT ACTIVITIES.—Section 2 of the bill defines "hazardous fuels management activities" in a way that does not require that the activity be intended for the purpose of reducing hazardous fuels. Instead, it encompasses "any vegetation management activities (or combination thereof) that reduce the risk of wildfire...." This leaves room to justify any "mechanical thinning" or other vegetation management activity (such as clear cut logging) as risk reduction and could therefore fall within the definition of "hazardous fuels management activities." Our organizations **oppose** the use of this broad definition, which invites confusion and potential abuse.

Title I: Landscape Scale Restoration

Subtitle A - Addressing Emergency Wildfire Risks in High Priority Firesheds

Subtitle A Section 101 waives the designation of fireshed management areas from the requirements of NEPA. A fireshed, as delineated by the Forest Service, is a very large area, typically 250,000 acres (390 square miles), and fireshed management areas comprise multiple firesheds. The fireshed assessments of these fireshed management areas are also waived from NEPA review. Doing so cuts critical scientific and public input from the process and risks inaccurate assessments and designation.

Subtitle A Section 106 encourages logging and other activities within designated fireshed management areas and categorically excludes these activities from detailed NEPA review. Along with unfettered logging, Section 106(a) calls for removal of dead and dying trees (trees which are essential for forest health and regeneration), chemical applications, undefined mechanical thinning, and grazing to be used on federal and non-federal lands deemed to have higher wildfire risk. This provides a vehicle for the agencies to carry out fireshed management projects for reasons unrelated to fire management and without the standards, responsibility, and accountability that would otherwise exist. **Section 106(b) amends the Healthy Forests Restoration Act to increase numerous existing CEs to 10,000 acres, or 15 square miles (an acreage that the Forest Service has testified may have significant impacts).** Treatment across this large acreage is likely to have significant impacts on habitats, watersheds, and ecosystems. Authorizing huge logging projects without objective and detailed environmental and administrative review, which limits public engagement and the use of best available science, is unacceptable because it does not facilitate appropriate projects for our forests and community safety.

Although this Subtitle is couched as wildfire-related, in fact it is simply a rollback of environmental laws. Section 106(a)(3)(A) states that "emergency" provisions in regulations implementing the ESA and NEPA are applicable "[f]or any fireshed management area designated under section 101" of the bill.[1] In so doing, the legislation requires no finding of an actual emergency. Instead, it extends these emergency provisions to areas comprising

[1] [1] These provisions include 50 C.F.R. § 402.05, which allows informal consultation under alternative procedures, with formal consultation deferred until after the emergency is under control. Under this bill, consultation appears intended to be deferred as long as the bill is in force. As a result, it would not occur until long after the harm to endangered and threatened species has happened, and it is too late to avoid or mitigate that damage.

hundreds of thousands of acres – without requiring that the exempt projects be directed at reducing wildfire risk. Our organizations **oppose** these provisions within Subtitle A.

Subtitle C - Litigation Reform

Section 121 of the bill contains several provisions that inappropriately and severely limit long standing judicial review standards for certain Forest Service and BLM actions. This section makes changes to standards for injunctive relief which is not within the committee's jurisdiction. Alarmingly, Section 121 also allows forest management projects to proceed even when a court finds a plan legally insufficient. Furthermore, even when the court finds a plan legally insufficient, it gives the agency the opportunity to proceed in some circumstances without ever remedying the legal violation, as long the agency did not "entirely fail to prepare" an EA or EIS. This is no legal requirement at all.

Section 121 also dramatically limits the time to seek judicial review to 120 days after the date of publication of a notice in the Federal Register of agency intent to carry out the fireshed management project. This abbreviated timeframe places an undue burden on interested parties and communities with limited resources and would likely have the unintended consequence of leading to more litigation, not less, as interested parties may be forced to file suit to protect their legal rights. This is especially true if a claim requires a pre-suit notice period, such as the 60-day notice period required by the ESA. Finally, Section 121 creates a new, restrictive standard for standing to sue by requiring a litigant to have participated in the rulemaking in a very specific way that goes beyond the standard required by federal courts for Article III standing. We therefore **oppose this provision** of the bill.

Section 122 of this bill, known as "Cottonwood", would weaken the ESA by broadly exempting the U.S. Forest Service and the BLM from the regulatory requirement under Section 7 of the ESA to reinitiate consultation when new information indicates that implementation of land management plans may be harming threatened or endangered species in a manner that was not previously anticipated. Reinitiation of consultation at the forest plan level is rare, but imperative because it provides the only mechanism to change management practices and apply them uniformly at the landscape scale, thereby avoiding extinction-by-a-thousand-cuts from consultation that occurs solely at the project level. In a recent FOIA request, it was found that reinitiation of consultation at the forest plan level for either new information, newly listed species or designation of critical habitat has only occurred 6 times from 2017-2020 to date and the process was completed relatively quickly.[2] Exempting the Forest Service and BLM from the requirement to reinitiate consultation would harm listed species and codify climate denial. We therefore **oppose this provision** of the bill.

Title II: Protecting Communities in the Wildland Urban Interface

Section 204 creates a new categorical exclusion for the development and approval of vegetation management, facility inspection, and operation and maintenance plans for electric utility line rights-of-way. The forest management activities conducted under this section would not be subject to the preparation of an EA or an EIS under NEPA - exclusions that our

[2] Data available at FOIA Public Document Search (biologicaldiversity.org).

organizations oppose. There is no evidence that this authority is necessary, given that the Forest Service in particular has dozens of existing CEs that could be used for this purpose, and the agency now has the ability to "borrow" CEs from other federal agencies, some of which already allow this kind of activity: no new CE authority is therefore necessary. Additionally, this Section cross references clause iii of Section 106(a)(3) and therefore has the potential to to extend, automatically, exemption from ESA consultation, as it is not clear whether the intent is to incorporate Section 106(a)(3)(A) or 106(a)(3)(B). We **oppose this section** and legislative proposals that seek to expand the use of CEs further.

Title III - Transparency and Technology

Finally, **Section 305** of the bill proposes a study of potentially moving the Forest Service headquarters. This bill is not the place, nor is this the time, to divert resources amidst the challenges confronting the agency. Indeed, many high-level staffers presently live (and work) outside the existing headquarters. And, both Forest Service regions and individual forest supervisors have significant decision-making power under the status quo. Any such move would come at considerable cost to taxpayers and staff without adding value. It also risks the loss of institutional knowledge if individuals leave the agency, as occurred when BLM moved its headquarters.

Thank you for considering these comments and suggestions. Our organizations welcome the opportunity to be part of the critical discussion around climate change and wildfires. We recognize the need for science-backed policies to help protect communities from wildfire, such as the various community defense and home hardening recommendations put forth by the 2023 Wildland Fire Mitigation and Management Commission Report. We would like to specifically recognize Sections 201 and 202 of this legislation, which promote research and grant funding for community defense measures and home hardening projects. We would welcome the opportunity to work with members of Congress to advance legislation that reflects the recommendations of the Commission and follows the best scientific guidance. Unfortunately, this legislation does not do that and includes many problematic provisions that are not in line with the Commission's recommendations, and we ask you to **oppose the "Fix Our Forests" Act**.

Sincerely,

Center for Biological Diversity
Defenders of Wildlife
Earthjustice
Environment America
League of Conservation Voters
Natural Resources Defense Council
Sierra Club
Silvix Resources
The Wilderness Society
350 Bay Area Action
350 Salem OR

350 Seattle
350PDX
Alaska Rainforest Defenders
Alaska Wilderness League
Allegheny-Blue Ridge Alliance
Alliance for the Wild Rockies
Alpine Lakes Protection Society
American Bird Conservancy
Animal Welfare Institute
Archaeology Southwest
AthensCounty's Future Action Network, acfan.org
Atowi Project
Battle Creek Alliance/Defiance Canyon Raptor Rescue
Bird Alliance of Oregon
Buffalo Trace Preservation Group
California Chaparral Institute
California Environmental Voters
California Native Plant Society
California River Watch
Californians for Western Wilderness
CalWild
Cascade Forest Conservancy
Cascadia Wildlands
Central Oregon LandWatch
Climate Communications Coalition
Climate Justice Alliance
Climate Writers
Coalition to Protect America's National Parks
Colorado Wild Public Lands
Community Clean Water Institute
Conservation Congress
Conservation Northwest
Creation Justice Ministries
CURE
Doctors and Scientists Against Wood Smoke Pollution
Dogwood Alliance
Eagle Summit Wilderness Alliance
Eco-Integrity Alliance
Elnu Abenaki Tribe
Endangered Species Coalition
Environmental Law & Policy Center
Environmental Protection Information Center - EPIC
Extinction Rebellion Vermont
Forest Unlimited

Forests Forever
FOUR PAWS USA
Friends of Blackwater, Inc.
Friends of the Bitterroot
Friends of the Clearwater
Friends of the Inyo
Friends of the Kalmiopsis
Gallatin Wildlife Association
Gila Resources Information Project
Great Old Broads for Wilderness
Great Old Broads for Wilderness, Cascade-Volcanoes Chapter
Green America
Green Cove Defense Committee
Green Snohomish
GreenLatinos
Heartwood
Idaho Conservation League
Indiana Forest Alliance
John Muir Project
Kalmiopsis Audubon Society
Klamath Forest Alliance
Klamath Siskiyou Wildlands Center
Lassen Forest Preservation Group
Los Padres ForestWatch
Massachusetts Forest Watch
Meadow Clare Farm
Natural Resources Law
New Jersey Forest Watch
New Mexico Wild
New Mexico Wildlife Federation
Northcoast Environmental Center
Northeastern Minnesotans for Wilderness
Nuestra Tierra Conservation Project
Old-Growth Forest Network
Olympic Climate Action
Oregon Wild
Partnership for Policy Integrity
Presbyterians for Earth Care
Project Eleven Hundred
Protect Our Woods
RESTORE: The North Woods
SAFE Alternatives for our Forest Environment
Salem Audubon Society
San Juan Citizens Alliance

San Luis Valley Ecosystem Council
Santa Fe Forest Coalition
Save Our Sky Blue Waters
Sierra Foothills Audubon Society
Sierra Forest Legacy
Snowlands Network
Soda Mountain Wilderness Council
Southeast Alaska Conservation Council
Southern Environmental Law Center
Southern Utah Wilderness Alliance
Standing Trees
StopVTBiomass
Swan View Coalition
Terrahana
The Enviro Show
The Fire Restoration Group
The Forest Advocate
The Ocean Project
Thurston Climate Action Team (TCAT)--Tree Action Group
Trust for Public Land
Tuleyome
Umpqua Natural Leadership Science Hub
Umpqua Watersheds
Upper Gila Watershed Alliance
Utah Physicians for a Healthy Environment
WE ACT for Environmental Justice
Wendell State Forest Aliance
West Virginia Highlands Conservancy
Western Environmental Law Center
Western Watersheds Project
White Mountain Conservation League (WMCL)
Wild Hope
Wild Watershed
WildEarth Guardians
Wilderness Watch
Winter Wildlands Alliance
Women's Earth and Climate Action Network (WECAN) International
Yaak Valley Forest Council

U.S. Chamber of Commerce

1615 H Street, NW
Washington, DC 20062-2000
uschamber.com

March 21, 2025

To the Members of the Senate Committee on Environment and Public Works:

Today, the single biggest obstacle to building the infrastructure of the future is a broken permitting system. It is why the U.S. Chamber of Commerce ("U.S. Chamber") is committed to advancing legislative recommendations that will reform the permitting process so that we can build the quality infrastructure needed for a stronger future.

For decades, permitting challenges have hindered investment, delayed projects, and in some cases, led to cancellations due to continuous delays and cost overruns. Our current permitting system is fundamentally broken. Critical infrastructure projects from broadband access and transmission lines to pipelines, roads, and bridges are unnecessarily delayed. The process to get these projects underway is outdated and insufficient to meet the needs of our modern society. There is bipartisan consensus that we need to modernize our permitting process—now we need bipartisan action.

Public and private sector infrastructure projects will improve our economy and the lives of millions of Americans. Investing in highways, bridges, transit systems, and ports will move people and goods more quickly and efficiently. Building new energy production, transmission, and distribution projects promises to improve energy reliability and reduce emissions. Expanding access to broadband can close the digital divide, and rebuilding failing water systems will ensure safe drinking water. And we can strengthen our national security by expanding domestic production of critical technologies and the raw materials they require. But America cannot accomplish any of this if the outdated, inefficient, and unpredictable permitting process is not improved.

The Chamber has highlighted various projects that have been significantly delayed due to the current permitting system. The average time to obtain a federal permit is 4.5 years while some take a decade or more, depending on the project. The US-70 Havelock Bypass in North Carolina took an astonishing 27 years to permit, let alone the time to build. Similarly, permits for public transit projects take more than five years on average, while ports and electric transmission lines can take nearly a decade or more.

A recent S&P Global study[12] found that by removing permitting roadblocks preventing the expansion of natural gas pipeline expansions out of the low-cost Marcellus region in Pennsylvania would save American consumers billions. For residential natural gas consumers in the Northeast, expanding access to natural gas would equate to $15 billion in cost savings. Natural gas prices in Boston and New York would fall by an average of 27 percent and 17 percent, respectively, with peak heating month declines of 30 percent and 20 percent. These types of permitting roadblocks and delays are raising costs on families and highlight the urgent need for reform.

To support meaningful, durable legislative reforms to the permitting process, the U.S. Chamber launched a campaign, Permit America to Build[3], uniting nearly 350 organizations from various sectors and from every corner of the country to advocate for comprehensive legislative reform. Our message focuses on the following principles:

- Predictability – Project developers and financers must have an appropriate level of certainty regarding the scope and timeline for project reviews, including any related judicial review.
- Efficiency – Interagency coordination must be improved to optimize public and private resources while driving better environmental and community outcomes.
- Transparency – Project sponsors and the public must have visibility into the project permitting milestones and schedule through an easily accessible public means.
- Stakeholder Input – All relevant stakeholders must be adequately informed and have the opportunity to provide input within a reasonable and consistent timeframe.

This committee's efforts are crucial for reducing bureaucratic hurdles and ensuring that projects can proceed without unnecessary delays. We urge Congress to act swiftly on a bipartisan basis to enact comprehensive permitting reform. The future of our nation's infrastructure, economy, and global leadership depends on it.

We look forward to working with you to achieve these critical permitting reforms and ensure that America remains a leader in innovation and development.

---

[1] Unleashing the Marcellus & Utica: Easing Pipeline Constraints in the Northeast, S&P Global, March 6, 2025, https://www.spglobal.com/content/dam/spglobal/global-assets/en/special-reports/lng-study/US-LNG-Impact-Study-Phase2.pdf.
[2] U.S. Chamber of Commerce Press Release, https://www.uschamber.com/energy/new-s-p-global-study-demonstrates-economic-environmental-benefits-of-u-s-lng and Fact Sheet https://www.uschamber.com/assets/documents/S-and-P-Global-Phase-2-LNG-Impact-Study -US-Chamber-March-2025-Factsheet.pdf.
[3] U.S. Chamber of Commerce, Permit America to Build, https://www.uschamber.com/major-initiative/permit-america-to-build#

Sincerely,



Marty Durbin
Senior Vice President, Policy
President, Global Energy Institute
U.S. Chamber of Commerce

USET
SOVEREIGNTY PROTECTION FUND

1730 Rhode Island
Avenue, NW
Suite 406
Washington, DC 20036
P: (615) 872-7900
F: (615) 872-7417
www.usetinc.org

March 21, 2025

Testimony of the United South and Eastern Tribes Sovereignty Protection Fund
For the Record of the Senate Environment and Public Works Hearing on
"Improving the Federal Environmental Review and Permitting Processes"

The United South and Eastern Tribes Sovereignty Protection Fund (USET SPF) is pleased to provide the Senate Environment and Public Works Committee (Committee) with the following testimony for the record of the February 19, 2025 hearing on, "Improving the Federal Environmental Review and Permitting Processes." During the hearing, witnesses testified, and Senators agreed, that there was a significant need to reform the federal environmental review and permitting processes. While USET SPF agrees that reform is needed to support infrastructure deployment on and off Tribal Lands by removing cumbersome and bureaucratic barriers that hinder such construction activities, an entire overhaul of these processes must be conducted in a responsible manner.

The deployment of new infrastructure projects by streamlining the federal environmental review and permitting processes remains a major concern for USET SPF because of the potential impacts to Tribal sovereignty, cultural and sacred sites, and the public health and lifeways of our communities. We have serious concerns regarding changes to the National Environmental Policy Act (NEPA), especially with an abridged review process, since the federal government is already failing to uphold its current process. Reforming these processes absent Tribal consultation and involvement would further threaten our inherent sovereignty, cultural and sacred sites and public health and lifeways of our communities. Prompt and early consultation is required with Tribal Nations when these reviews and permits include areas that would affect Tribal Lands and interests, both within our jurisdictional boundaries as well as on our traditional homelands that currently exist outside of these boundaries. Tribal Nations must also be empowered to efficiently conduct these reviews and permitting activities by receiving the necessary appropriations from Congress, technical assistance from relevant federal agencies, and support to connect with external utility services (e.g., the energy grid, broadband backhaul, water infrastructure, etc.) when we pursue infrastructure deployment on our homelands.

USET SPF is a non-profit, inter-tribal organization advocating on behalf of thirty-three (33) federally recognized Tribal Nations from the Northeastern Woodlands to the Everglades and across the Gulf of Mexico.[1] USET SPF is dedicated to promoting, protecting, and advancing the inherent sovereign rights and authorities of Tribal Nations and in assisting its membership in dealing effectively with public policy issues.

[1] USET SPF member Tribal Nations include: Alabama-Coushatta Tribe of Texas (TX), Catawba Indian Nation (SC), Cayuga Nation (NY), Chickahominy Indian Tribe (VA), Chickahominy Indian Tribe–Eastern Division (VA), Chitimacha Tribe of Louisiana (LA), Coushatta Tribe of Louisiana (LA), Eastern Band of Cherokee Indians (NC), Houlton Band of Maliseet Indians (ME), Jena Band of Choctaw Indians (LA), Mashantucket Pequot Indian Tribe (CT), Mashpee Wampanoag Tribe (MA), Miccosukee Tribe of Indians of Florida (FL), Mi'kmaq Nation (ME), Mississippi Band of Choctaw Indians (MS), Mohegan Tribe of Indians of Connecticut (CT), Monacan Indian Nation (VA), Nansemond Indian Nation (VA), Narragansett Indian Tribe (RI), Oneida Indian Nation (NY), Pamunkey Indian Tribe (VA), Passamaquoddy Tribe at Indian Township (ME), Passamaquoddy Tribe at Pleasant Point (ME), Penobscot Indian Nation (ME), Poarch Band of Creek Indians (AL), Rappahannock Tribe (VA), Saint Regis Mohawk Tribe (NY), Seminole Tribe of Florida (FL), Seneca Nation of Indians (NY), Shinnecock Indian Nation (NY), Tunica-Biloxi Tribe of Louisiana (LA), Upper Mattaponi Tribe (VA), and the Wampanoag Tribe of Gay Head (Aquinnah) (MA).

Tribal Consultation Must Be a Paramount Requirement in Any Reform to Environmental and Permitting Review Processes

The U.S. has long engaged in a nation-to-nation, sovereign-to-sovereign relationship with Tribal Nations. It has also assumed an ongoing solemn, legal duty to Tribal Nations to ensure the protection of Tribal and individual Native lands, assets, resources, and treaty and trust recognized rights. These obligations are, in part, embedded in statutes that fund essential programs and services for Tribal communities, funding that is legally required, regardless of political priorities. While we strongly support robust and strengthened national infrastructure, any infrastructure build-out, in Indian Country and beyond, must not occur at the expense of Tribal consultation, sovereignty, sacred sites, cultural resources, or public health.

Prior to introducing legislation, it is imperative that the Committee consult with Tribal Nations as it gathers comments on changes to the federal environmental review and permitting process and as it drafts related legislation. In recognition of our nation-to-nation relationship and federal trust and treaty obligations, the U.S. must consult with Tribal Nations on federal actions affecting us. Further, legislation should also direct agencies that are directly deploying or funding infrastructure projects to conduct prompt and early consultation on program activities prior to permit submission and development of deployment plans or construction activities. Bringing Tribal Nations in at the project development process/stage will ensure an abbreviated permitting process and limit litigation risk. While USET SPF fully supports the improvement of environmental review and permitting processes across the nation, it cannot occur at the expense of Tribal sovereignty or the federal government's trust and treaty obligations to Tribal Nations to safeguard our communities and cultural and natural resources.

Though USET SPF acknowledges the necessity to expand needed infrastructure throughout our homelands and beyond, we assert that the construction and expansion of infrastructure development must not be accomplished by curtailing or undermining existing Tribal review processes. Laws governing these review processes include NEPA, the National Historic Preservation Act (NHPA), and the Native American Graves Protection and Repatriation Act (NAGPRA). Requirements under these laws, particularly Section 106 of the NHPA, ensure that Tribal sacred sites are identified and protected, in fulfillment of the federal government's trust and treaty obligations. When these reviews are conducted properly and promptly, all parties to the permitting process benefit and projects are expedited. We urge the Committee and Congress to ensure Tribal Nations have not only a seat at the table but a meaningful voice in federal decisions that may affect our rights and interests. One important way to amplify Tribal voices is by mandating that Tribal Nations are required signatories on memoranda of agreement and programmatic agreements resulting from NHPA Section 106 review processes.

Fully Fund and Provide Technical Assistance to Tribal Nations to Effectively Participate in Environmental Review and Permitting Processes

As part of our inherent sovereignty, Tribal Nations have oversight and authority for environmental and permitting reviews on Tribal Lands. However, project proposals and construction occurring on our traditional homelands located outside of our jurisdictional boundaries often proceed with limited to no coordination with Tribal Nations, which can lead to irreparable harm to our sacred sites and other areas of cultural/historical significance, as well as critical natural resources, such as nearby waterways, which are essential for our communities. While we agree that the NEPA review process needs to be reexamined on Tribal Lands for projects being pursued by Tribal Nations, USET SPF strongly opposes the streamlining of NEPA and other permitting review processes on our traditional lands outside our jurisdictional boundaries without early engagement and clear and uniform consultation with Tribal Nations. Just as the federal government has trust and treaty obligations to protect our cultural heritage and well-being, it also has

obligations to empower us to exercise self-determination and utilize funds and other resources to protect what is important to us.

The resources available to Tribal Nations to fully participate in the NEPA review process have always been inadequate—yet another reminder of the federal government's failure to uphold its trust and treaty obligations to Tribal Nations through federal funding. For instance, while funding for THPOs received an increase in Fiscal Year 2023 appropriations, after remaining stagnant for far too long, these funding levels are still insufficient to support the costly and time-consuming review of assessments, leases, and permits for proposed infrastructure projects. This issue has been further compounded due to the enactment of COVID-19 relief laws, the Bipartisan Infrastructure Law, and the Inflation Reduction Act, which made historic investments in infrastructure deployment. While necessary, these investments further exacerbated and strained the resources, personnel, and capacity of Tribal Nations to effectively participate in and review NEPA permits within and outside of our jurisdictional boundaries. Providing sufficient resources for Tribal Nations to adequately participate in the NEPA review process, as well as consultation activities, will ultimately amount to abbreviated permitting timelines.

We remind the Committee that Tribal participation in these programs and activities can be successful if they are funded by Congress at the appropriate levels to ensure that we can hire the necessary qualified Tribal Historic Preservation Officers (THPOs), engineers, planners, and other personnel required to effectively participate in these environmental and permitting reviews. In addition, a great example of successful inclusion of Tribal Nations in environmental review and permitting is the FAST-41 Permitting Dashboard, which offers a clear and concise permitting tracking platform. Additionally, the Federal Communications Commission's antenna and tower siting system (also known as the Antenna Structure Registration (ASR) System) is another great example of how to expedite permitting by allowing Tribal Nations to denote our general areas of interest, ensuring we are included early in the project development process and avoid unnecessary delays prior to the submission of a permit.

Further, any reduction in federal agencies' permitting staff will greatly impact the capacity of Tribal Nations to participate in environmental and permitting reviews. These federal personnel are essential for authorizing the award of critical resources necessary to participate in these reviews or issue authorization or approval for the finalization of an environmental review or permit. These reviews require specific technical expertise and knowledge that Tribal Nations may not have in-house and thus rely on federal agencies to provide as part of trust and treaty obligations. Without these resources, Tribal consultation during the environmental review and permitting process amounts to an unfunded mandate, as we are not provided with the necessary resources and assistance to effectively participate in the processes.

In addition, it is important to note that in the instances that Tribal Nations have a THPO and/or a cultural or natural resources department dedicated to conducting environmental, cultural, historic preservation, and permitting reviews, oftentimes these individuals and departments are inundated with multiple projects and permit applications that exceed available capacity and resources. Reviews of these projects can also be lengthy because they are often broken into multiple, segmented reviews of a single project and span across multiple agency jurisdictions and oversight authorities. Additionally, these individuals and departmental staff may fulfill multiple roles within their Tribal government due to the historic and persistent failures of the federal government to fund its trust and treaty obligations, including appropriating the necessary resources for these positions. It is not uncommon for a THPO/cultural resource manager to also fulfill the role of a natural resource manager or serve in an emergency management role.

Further, with the issuance of Executive Order (EO) 14154, "Unleashing American Energy", the Council on Environmental Quality (CEQ) has been directed by the Administration to provide guidance on implementing

NEPA while also rescinding CEQ's NEPA regulations found at 40 CFR 155 *et seq*. The EO also directs agencies to, "undertake all available efforts to eliminate all delays within their respective permitting processes, including through, but not limited to, the use of general permitting and permit by rule." Agencies must now go through their respective consultation process with Tribal Nations on any amendments to their environmental review or permitting processes. Since participating in these review processes is already a burdensome, time consuming, and costly effort for Tribal Nations, we must navigate each agency's review processes to fulfill these requirements. This effort exacerbates already limited Tribal Nation resources to fully participate in these reviews since NEPA regulations are already inconsistent across federal agencies.

For these reasons, we urge Congress to uphold its trust and treaty obligations to Tribal Nations and allocate the appropriate funding for Tribal Nations to fully engage in the environmental review and permitting processes on infrastructure projects being considered for leasing and development outside of our jurisdictional boundaries. This would benefit both the federal government and Tribal Nations by hastening review processes, limiting the potential for costly and lengthy litigation, and advancing the United States' infrastructure development priorities. While we support responsible consideration of environmental and permitting reforms, USET SPF will continue to oppose any legislative efforts until legislation respects Tribal Nation sovereignty and does not threaten environmental review and permitting processes on Tribal homelands and beyond.

Any Senate action to reform and streamline NEPA and other permitting processes, on federal lands and such other lands outside our Tribal jurisdictions, must receive input from Tribal Nations. Again, we remind and urge the Committee to engage Tribal Nations through meaningful consultation before any legislation is developed or considered in response to the February 19, 2025 hearing on these issues. Congress has trust and treaty obligations to ensure that any legislative overhaul to environmental review and permitting for infrastructure projects is not enacted without Tribal consultation. Further, we remind the Committee that Tribal Nations have extensive experience in navigating the deployment of federal infrastructure in a way where multiple interests are satisfied[2] and our cultural heritage is preserved. Thus, we are committed to exploring solutions with our federal partners that will benefit both Tribal Nations and the deployment of critical infrastructure nationwide.

Conclusion

USET SPF acknowledges the need to modernize federal environmental review and permitting processes. Critical infrastructure projects have long been needed in Indian Country and continue to face uncertainty, delays, and associated increased costs. We acknowledge that there is a need for a consistent and streamlined environmental review and permitting process in Indian Country. Therefore, agencies must carry out NEPA consistently per the statute and Congress is positioned at an opportune time to guide federal agencies on how these efforts can be conducted appropriately in consultation and partnership with Tribal Nations. USET SPF remains committed to protecting vital Tribal historic, cultural, and environmental reviews, as well as Tribal consultation requirements, as streamlined federal permitting processes are being considered. This includes working toward a model that seeks Tribal Nation consent for federal action in recognition of our inherent sovereign equality.

---

[2] USET was instrumental in the creation of the Federal Communications Commissions' (FCC) Tower Construction Notification System that provides for expedited cultural reviews of cell phone tower siting, as well as a best practices agreement between member Tribal Nations, the FCC, and project proponents. *Available at* https://docs.fcc.gov/public/attachments/DOC-253516A2.pdf.

Vaulted Deep
11000 Richmond Avenue, Suite 191
Houston, TX 77042

Chairman Shelley Moore Capito
March 21st, 2025

Dear Chairman Capito,

Thank you for the opportunity to respond to the Committee on Environment and Public Work's (EPW) request for stakeholder input on permitting as discussed during the February 19 hearing, "Improving the Federal Environmental Review and Permitting Processes." Vaulted respectfully submits the below comments outlining the company's experience with the permitting process, with the hope that they will be helpful to the Committee's work on the topic.

Vaulted is a Houston-based company that uses advanced deep well injection methods to deploy a proprietary, proven, safe slurry injection technology able to geologically sequester organic wastes, which solves a variety of waste management challenges and results in permanent sequestration underground. Vaulted works with the agriculture industry and municipalities to dispose of their organic wastes like biosolids, livestock wastes, and paper sludge that otherwise would have gone to a landfill, been dumped in a waterway, or spread on land. By sequestering these wastes deep underground, Vaulted reduces local environmental and human health harms and prevents the embodied carbon in these wastes from being released back into the atmosphere.

Slurry injection has already been successfully adopted in various settings, including in support of oil and gas production and, over the past 15 years to manage human and animal organic wastes. However, permitting changes are necessary to fully unlock the technology's benefits for American agriculture, wastewater systems, and municipalities.

While slurry injection has been successfully adopted in certain settings, adoption of our technology has been hampered by the fact that it is not specifically identified within Environmental Protection Agency's (EPA) existing well class structure. We recommend that Congress and the EPA create a dedicated well pathway or modify an existing pathway under EPA's Underground Injection Control (UIC) Program for sequestration of non-hazardous organic solid and semi-solid materials like slurrified organic wastes.

Currently, projects can only be permitted using the UIC Class V Experimental Well designation in most jurisdictions. As was the case for carbon dioxide wells (now permitted under Class VI), the Class V

Vaulted Deep
11000 Richmond Avenue, Suite 191
Houston, TX 77042

process has been useful for demonstrating slurry injection technology, but is ill-equipped for widescale commercial deployment. There is a perception that the Class V process cannot be relied upon for long-term installations. There is also confusion around applying an experimental well class to a proven technology like slurry injection, as well as around the fact that slurry injection involves the slurrifying of solids and semi-solids not otherwise allowed in well classes that typically allow liquids. The best way to address this permitting bottleneck would be to widen an existing well class to include slurried waste injection, or to create a new well class altogether. A well class intended and designed specifically for slurried biomass waste injection will make the process less cumbersome and time-consuming, as well as provide guidance for primacy states on the safe and efficient permitting of the wells.

Again, thank you for holding this critical permitting hearing and for allowing companies like Vaulted to provide input.

Sincerely,



Omar Abou-Sayed
Co-Founder & Executive Chairman, Vaulted Deep

March 21, 2025

Senator Shelley Moore Capito
Chair
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Senator Sheldon Whitehouse
Ranking Member
Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Response to Senate EPW Hearing on "Improving the Federal Environmental Review and Permitting Processes"

Chair Capito and Ranking Member Whitehouse,

As organizations accountable to the frontline and environmental justice communities, we write this letter to submit as part of the open record for the Senate Environment and Public Works Committee's February hearing on ***Improving the Federal Environmental Review and Permitting Processes.*** We ask that this letter and attached materials be included as part of the Congressional record.

Communities of color and/or low income are disproportionately impacted by pollution from our nation's fossil fuel-centered energy system. Black Americans are 75% more likely than white Americans to live in communities that border a polluting facility and, on average, are exposed to 38% more polluted air than white Americans.[1] This burden, combined with historical racist policies and underinvestment, has similarly made these environmental justice communities most vulnerable to the first and worst effects of the climate crisis. It is critical for the health and safety of these overburdened communities that we rapidly make a just and equitable transition to a clean energy system and end the perpetuation of environmental injustices. These communities cannot continue bearing the costs of our country's energy system.

Numerous attempts at so-called "permitting reform" legislation have consistently failed to advance through Congress, chiefly because those attempts ignored the needs of environmental justice communities and attempted to weaken the Federal permitting process under the National

[1] https://www.catf.us/wp-content/uploads/2017/11/CATF_Pub_FumesAcrossTheFenceLine.pdf



Environmental Policy Act (NEPA).[2] It is a false narrative that NEPA is the main cause of project delays. Attempts to dismantle NEPA are direct attacks on the environmental justice communities that rely on the statute's foundational protections for public participation. Our groups continue to insist that a vision for a permitting process that truly centers communities is reflected in H.R. 1705/S. 919, the A. Donald McEachin Environmental Justice for All Act.[3] This landmark bill was drafted in direct partnership between the late Representatives Donald McEachin and Raúl Grijalva with impacted communities.[4] As such, the bill directly reflects environmental justice communities' continued calls to strengthen NEPA and protect their rights to public participation. In the spirit of Representatives McEachin and Grijalva's legacies, we urge you to adhere to their and our communities' shared vision.

Protect the National Environmental Policy Act

The National Environmental Policy Act (NEPA), commonly referred to as the "People's Environmental Law," has been the fundamental tool for communities to democratically participate in the permitting processes for projects that directly impact their neighborhoods. We vehemently oppose the false narrative that project delays are caused by the NEPA process. Numerous scientific studies, as well as analysis released by the Government Accountability Office,[5] have repeatedly shown that NEPA is not the main cause of project delays. One review of 41,000 NEPA decisions between 2004 and 2020 found that delays were mainly caused by inadequate agency budgets and staffing, delays in receiving information from permit applicants, and compliance requirements of other laws.[6] The same review found that "a less rigorous level of analysis often failed to deliver faster decisions." A separate study of 53 utility-scale renewable projects that were delayed or blocked between 2008 and 2021 similarly concluded that "early engagement with potential local opponents can avoid extended delays or project cancellations."[7] Eighteen states, as well as Washington, D.C. and Puerto Rico, have legislation similar to NEPA.[8] For the other states that lack the equivalent legislation, the Federal legislation is critical.

Any attempt to address the permitting process cannot weaken NEPA. Instead, the statute and its implementation must be strengthened. Our recommendations include:

- Authorize increased funding for NEPA implementation to increase subject matter expertise within the offices and Federal agencies responsible for permitting, similar to

---

[2] https://thehill.com/policy/energy-environment/5042875-carper-manchin-house-republicans-bipartisan-energy-talks/

[3] https://www.congress.gov/bill/118th-congress/house-bill/1705

[4] https://hnrdems.medium.com/the-environmental-justice-for-all-act-a-historic-effort-for-a-historic-bill-26a2a372d898

[5] https://www.gao.gov/products/gao-18-693t

[6] https://journals.library.columbia.edu/index.php/cjel/article/view/9479

[7] https://www.sciencedirect.com/science/article/pii/S0301421522001471

[8] https://ceq.doe.gov/laws-regulations/states.html



the $1 billion for NEPA implementation environmental justice groups successfully advocated to be included in the Inflation Reduction Act[9]
- Promote increased communication between offices and agencies responsible for the permitting process
- Incorporate environmental justice analyses and cumulative impact analyses as requirements under NEPA, consistent with provisions in the Environmental Justice for All Act

Protect the Right to Challenge

We strongly urge the committee to maintain the current 6-year statute of limitations for challenging NEPA actions under the Administrative Procedure Act. Accordingly, we strongly disagree with the proposal mentioned during the hearing and in previous iterations of permitting reform legislation to shorten that time period to 150 days. This potential shortened timeline is a direct contravention of NEPA's citizen suit provision, which acts as a backstop to improper decision-making. Analysis has shown that such a shortened time frame would actually increase litigation, as plaintiffs file lawsuits to preserve their legal claims.[10] Not only would a shortened time limit potentially congest dockets, it would introduce additional unfairness for environmental justice communities with limited capacity. Communities need time to collect the legal and financial resources to appropriately challenge approved actions. To protect this right, we recommend:

- Maintain the 6-year statute of limitations required under the Administrative Procedure Act for challenging Federal agency actions

Protect Public Participation Opportunities

Success stories from across the country highlight that when communities are properly consulted, projects move at the proper pace.[11] The NEPA process should commit involved Federal entities and project proponents to the following requirements:

- First, Early, and Ongoing engagement and education with affected communities
- Ensure communities have full and equal access to public comment systems by utilizing varied methods of outreach, providing effective public notice for commenting opportunities, establishing appropriate time frames to participate, and protecting disability and language accessibility

---

9 https://ceq.doe.gov/docs/nepa-practice/CEQ%20EIS%20Timelines%20Report%20Release_01_13_2025.pdf

10 https://foe.org/wp-content/uploads/2024/11/Final-Summary-and-Analysis-of-Energy-Permitting-Reform-Act-of-2024.pdf

11 https://www.americanprogress.org/article/nepa-permitting-process-crucial-to-renewable-infrastructure-project-success/

- Use programmatic environmental review, so the affected community can discuss the full breadth of potential projects in its area and make decisions about the benefits and harms

Fundamental Best Practices

In 2022, WE ACT for Environmental Justice published our ***Community Engagement Brief*** to provide a framework for ensuring the full, meaningful, and just participation of overburdened and underinvested communities historically restricted from decision-making processes.[12] With the caveat that every community has distinct needs and requires tailored frameworks, we uplift our guiding principles for community engagement, listed below:

- Identify all communities that could be directly or indirectly affected by the project or policy
- Go beyond minimum requirements and establish a cohesive framework for stakeholder outreach
- Make every effort to maximize community participation
- Build trust by fully documenting and publishing all community engagement interactions and exchanges

Furthermore, our brief includes best practices for public participation through the NEPA process, specifically:

- Ensure communities are educated and have an understanding of the NEPA process, the duties and scope of agencies involved in the process, and the proposed project
- Open a continuous stream of communication between your agency and the impacted communities
- Ensure that participation occurs at multiple levels within the agency and among different groups within the affected community or communities.

Solutions Exist to Center Environmental Justice in Permitting

The ***A. Donald McEachin Environmental Justice for All Act*** is the solution to strengthen the permitting process under NEPA and truly center communities in the transition to clean energy. By grounding the NEPA process and analysis in the Jemez Principles for Democratic Organizing[13] and the Principles of Environmental Justice,[14] late Representative Donald McEachin and the recently-departed Representative Raúl Grijalva ensured that the bill answered for decades of environmental racism.

If Congress is seeking solutions to accelerate the buildout of transmission infrastructure, they should adopt the recommendations found in the ***Transmission Principles,*** published by WE

---

[12] https://www.weact.org/wp-content/uploads/2022/10/Community-Engagement-Brief-092322-FINAL.pdf
[13] https://www.ejnet.org/ej/jemez.pdf
[14] https://www.ejnet.org/ej/principles.pdf

ACT for Environmental Justice and environmental groups.[15] These principles offer solutions to build out much needed transmission infrastructure and connect clean energy projects to communities. Previous attempts at so-called permitting reform have not been good faith proposals to accelerate transmission buildout, and have instead attacked NEPA with the false narrative that the statute is the main cause of project delays. This narrative is not based on evidence or in reality. These previous attempts at permitting reform have threatened the environmental protections that are critical for the survival of the most burdened communities in our country.

Two powerful examples of how unjust, uninformed decision-making can decimate communities are Port Arthur, Texas and Cancer Alley, Louisiana. Port Arthur, Texas is home to some of the world's largest oil refineries and liquified natural gas terminals.[16] Despite contributing heavily to our country's economy, residents of this predominantly Black and Brown community have borne severe costs. More than 30% of the households in Port Arthur live at or below the poverty line.[17] According to the Medical Society Consortium on Climate and Health, Port Arthur is in the 90th percentile for incidence of heart disease and in the 90th percentile for asthma.[18] Black people in Jefferson County, where Port Arthur is located, suffer cancer rates 15% higher than average Texans. In Louisiana, the next state over, sits "Cancer Alley," an 85-mile long stretch of land along the Mississippi River, connecting Baton Rouge to New Orleans. This stretch of land is home to approximately 150 oil refineries, plastics plants, and chemical facilities. Cancer rates in this predominantly Black area are 50 times the national average.[19]

For decades, communities have repeatedly made Congress aware of these communities' health crises, and consistently offered solutions.[20] Instead of Congressional action to address their suffering, attempts at permitting reform legislation have again and again been proposed to improve processes for fossil fuel companies while making environmental justice communities sicker. We urge the committee to protect the health and natural environments of frontline communities by adopting our recommendations to preserve and fully implement NEPA review.

Signed,
WE ACT for Environmental Justice
Center for Earth, Energy, and Democracy

---

[15] https://weact.org/wp-content/uploads/2022/12/Transmission-Principles-Letter-121522.pdf, https://www.weact.org/wp-content/uploads/2023/06/06222023_transmission_whitepaper_final.pdf
[16] https://earthjustice.org/feature/john-beard-port-arthur-community-action-network
[17] https://www.vice.com/en/article/sentenced-to-death-what-its-like-living-in-a-cancer-plagued-oil-town/
[18] https://medsocietiesforclimatehealth.org/latest-news/in-the-belly-of-the-beast-health-justice-and-resilience-in-port-arthur/
[19] https://www.epa.gov/sites/default/files/2019-12/documents/waiting_to_die_final.pdf
[20] https://www.nytimes.com/2021/06/29/opinion/biden-environmental-justice-pipelines.html

December 15, 2022

Dear President Biden,

On behalf of the undersigned organizations, we write to provide a roadmap for building the transmission infrastructure we need to achieve our climate goals and prevent harm to impacted communities, which means ensuring there are opportunities for meaningful and timely input. The attached *Principles for Accelerating Clean Energy Deployment Through a Transmission Buildout in an Equitable Clean Energy Future* (Transmission Principles) provides a set of recommendations to help address current challenges related to transmission planning, siting and cost allocation. In combination with the significant transmission development opportunities provided through the Inflation Reduction Act (IRA) and the Infrastructure Investments and Jobs Act (IIJA), these *Transmission Principles* will help facilitate the needed growth of interstate transmission to support a 100% clean electricity grid while protecting communities' health and the environment.

Many recent legislative proposals containing transmission reform, including the *Building American Energy Security Act of 2022,* have failed to live up to these principles. Perhaps most importantly, the process laid out in these proposals lacked adequate and meaningful engagement with key stakeholders and ignored the concerns of those who would be directly impacted by energy infrastructure development. It is essential we build trust with the communities most impacted. We must learn from these lessons as we embark on the greatest infrastructure build-out in nearly a century thanks to the historic investments in the IRA and IIJA. Now more than ever, we need strong environmental review and public engagement processes to avoid harming communities while effectively speeding up development of much-needed infrastructure to enable a rapid clean energy transition.

We also need to build more transmission to rapidly bring online clean energy to meet climate goals and limit harmful pollution from fossil fuels. More transmission will make the grid more reliable and resilient to the climate disasters we face with increasing frequency. Various estimates say we need to double or triple the rate at which we are building out the electric transmission system to deliver on the promises of the IRA. This transmission can help unlock the roughly terawatt of renewables and storage currently waiting to connect to the grid because of arcane interconnection rules, transmission constraints, and bottlenecks. Critically, a major component of a transmission buildout is working with the communities. A recent study from MIT[1] concludes that a significant hurdle in developing clean energy infrastructure projects is local opposition -- and early community engagement can avoid delays or cancellations. To address this major slow down and to ensure that our new transmission is developed in an equitable manner, we must work with the very communities that our infrastructure is supposed to serve and not against them.

The attached *Transmission Principles* includes a combination of recommended administrative and legislative actions to spur more transmission development to deliver on the promise of the IRA and IIJA.

---

[1] https://renewable-energy.mit.edu/.

The recommendations include comprehensive and inclusive transmission planning; streamlined federal siting for certain large interstate transmission projects with a robust federal review process; and cost allocation requirements that holistically reflect the multiple benefits provided by transmission solutions. Thanks to your leadership in securing new resources through the IIJA and the IRA, these recommendations – some of which can be adopted under existing law – would work alongside historic investments in transmission development and in efficient and effective environmental reviews.

We look forward to continuing to work with you to ensure equitable and fast-paced development of the clean energy infrastructure we need to address the climate crisis.

Sincerely,
Center for American Progress
Environmental Defense Fund
Earthjustice
League of Conservation Voters
National Hispanic Medical Association
Natural Resources Defense Council
Sierra Club
Union of Concerned Scientists
WE ACT for Environmental Justice

Principles for Accelerating Clean Energy Deployment Through Transmission Buildout in an Equitable Clean Energy Future

The below set of Principles for Accelerating Clean Energy Deployment through Transmission Buildout in an Equitable Clean Energy Future presents ideas to address challenges related to transmission siting, cost allocation and planning. Importantly, this set of principles is not meant to be considered alongside any proposal related to rolling back environmental permitting or boosting fossil fuel development at communities' expense. ***We continue to unequivocally oppose any such environmental permitting rollback proposal.*** *In addition to this transmission-focused set of recommendations,* ***we strongly support passage of the Environmental Justice for All Act****, which is essential legislation to ensure that the clean energy transition centers, protects and supports communities that have endured decades of fossil fuel pollution. It is important to recognize that while the siting/permitting proposal below is intended to improve the permitting process for certain transmission projects, it is one small piece of what is needed to address transmission-related barriers to achieving a 100% clean grid, and* ***action can be taken now to address transmission using existing authorities****, particularly with the passage of the IIJA and IRA. Finally, some of the recommendations below reaffirm existing FERC authority to advance transmission-related reform.*

Electric Transmission Planning

- FERC must promulgate a rule requiring all FERC-jurisdictional electric transmission planning processes to achieve at a minimum, the following:
    - Provide proactive outreach to and offer meaningful opportunities for affected communities who would be impacted by the proposed line to weigh in on options or solutions and help guide the planning determination.
    - Calculate all the benefits of transmission, including reasonably foreseeable GHG emissions data.
    - Take into account, minimize, and aim to avoid as far as possible, local environmental and social impacts from siting transmission, especially impacts in environmental justice and Tribal communities.
    - Ensure that, to the extent reasonably feasible but without impairing its mandate to assess and minimize environmental impacts on EJ and Tribal communities, the proposed transmission solution makes use of any existing rights of way, for any type of infrastructure.
- FERC must establish Environmental Justice liaisons (either within or outside of the Office of Public Participation) to support ongoing consultation and advanced planning in environmental justice communities and tribal nations. Include a budget for these positions.
    - Environmental Justice liaisons must establish a community partnership and communications program that employs the strengths of tribal, state, and local

governments, as well as community-based organizations, faith-based organizations, schools, media, businesses, social services, ethnic organizations, and others to support transmission planning and implementation in affected communities.

- FERC must promulgate a rule requiring interregional electric transmission planning or specifying that regions plan for a minimum amount of interregional transfer capacity.

Siting/Permitting

- Add legislative language amending the Federal Power Act to establish a new avenue for federal siting/permitting.
- In addition to maintaining the National Interest Electric Transmission Corridor process, provide a bright-line definition for when a transmission line developer may obtain FERC review of its request to site regional or interregional transmission in lieu of existing review processes. If a developer of such a line seeks siting for the line and files an application with FERC, FERC must review the line.
- Two separate routes for developers to secure FERC review:

    1. The existing National Interest Electric Transmission Corridor process; or

    2. Direct FERC review if all of the following apply to the transmission siting proposal:

        - 2 or more states
        - 1000 MW or larger
        - Enables renewables, reduces congestion or improves reliability
        - Selected via the process laid out in "Transmission Planning" Section

- FERC siting review process:
    - In its review process, FERC must provide stronger protections for all impacted stakeholders—especially landowners and tribal and environmental justice communities—than it currently does under the Natural Gas Act, by rule or legislation. At a minimum, FERC must:
        - Assess the environmental impacts on impacted landowners and communities, including tribal and environmental justice communities.
        - Ensure its methodology accurately accounts for all impacted environmental justice communities.
        - Ensure effective public notice to all impacted landowners and communities.
        - Ensure that, to the extent reasonably feasible but without impairing its mandate to assess and minimize environmental impacts on EJ and Tribal communities, the route makes use of any already disturbed existing rights of way, for any type of infrastructure.
        - Ensure meaningful and timely opportunity for input from impacted landowners and communities, including tribal and environmental justice communities, and state and local governments.

- Ensure close and proactive interagency coordination where overlapping permitting jurisdiction exists, especially with agencies charged with managing federal public lands and waters.
- Incorporate a transmission advisory board provision similar to what is in the CHARGE Act, with the addition of mechanisms to ensure accountability.

Cost Allocation

- Add legislative language amending the Federal Power Act for broad FERC cost allocation.
  - Require FERC to adopt a cost allocation methodology for regional and interregional lines that holistically reflects the multiple benefits provided by transmission solutions, including economic, reliability, operational, public policy, resilience to extreme weather, and environmental benefits (including reductions in carbon emissions and reducing harm to EJ communities).
  - Permit FERC to allocate costs for such lines in proportion to share of demand for energy within the region served by the line where multiple benefits exist across the load served or where a benefit is known to exist but cannot reasonably be quantified.
  - Explicitly allow FERC to set cost allocation for transmission to offshore wind.

BUILDING TRANSMISSION TO SECURE A CLEAN & EQUITABLE ELECTRICITY GRID

Transmission plays a central role in achieving a 100% clean electricity grid. To accelerate the essential transition from fossil fuel-fired power plants to renewable energy, we need to build more transmission to move clean energy across the country in addition to scaling up local, distributed clean energy resources.

Transmission is also critical to ensuring grid reliability and resilience, particularly as we face extreme weather events caused by climate change. However, we are not building transmission at the pace and scale needed today: The current annual growth rate of transmission infrastructure is just 1 percent. The result is a backlog of roughly 8,000 generators waiting to connect to the grid and significant uncertainty for clean energy developers about whether and when their projects will be able to provide power to homes and businesses. The transmission bottleneck leaves huge climate benefits on the table, including those made possible through the Inflation Reduction Act. To fully realize the IRA's emissions reductions benefits and transition to a clean grid, we need to at least double current transmission capacity by the end of this pivotal decade.

We urgently need policy reform. We need to modify and improve the rules of the road for planning, paying for, and siting transmission. And we need to create a federal pathway for siting transmission lines that are essential to bringing new renewable generators online. But we must also reject the false choice between quickly ramping up transmission and protecting communities from harmful permitting decisions. Urgency cannot become a pretext for gutting the requirements of environmental review and public engagement as we embark on what could be the greatest U.S. infrastructure build-out in nearly a century. To build transmission faster and more fairly, we need smart reforms that target the drivers of the transmission bottleneck while preserving critical environmental, health, and community protections and enhancing community engagement.

This whitepaper offers a solution set for building transmission to advance an equitable clean energy future. The recommendations described below were first issued in late 2022 in The Principles for Accelerating Clean Energy Deployment Through a Transmission Buildout in an Equitable Clean Energy Future (Transmission Principles), a roadmap for building transmission to achieve our climate goals and prevent harm to impacted communities.[1] As discussed in the Transmission Principles, many of the reforms needed can be implemented under existing legal authorities. For example, the Federal Energy Regulatory Commission (FERC) has the authority to account for the full benefits of transmission; ensure meaningful public engagement

EARTHJUSTICE · NRDC · SIERRA CLUB · WE ACT FOR ENVIRONMENTAL JUSTICE · CAP · Environmental Defense Fund · Union of Concerned Scientists · NHMA National Hispanic Medical Association · LCV

[1] *The following groups released the Transmission Principles in December 2022: Center for American Progress Environmental Defense Fund, Earthjustice, League of Conservation Voters, National Hispanic Medical Association, Natural Resources Defense Council, Sierra Club, Union of Concerned Scientists, and WE ACT for Environmental Justice.*

and consultation, particularly in environmental justice and tribal communities; and require interregional planning. Other reforms require legislative action, such as creating a pathway for federal siting of large, interregional transmission projects that support new renewable generation and codifying and expanding methods for identifying the costs and benefits of transmission projects and deciding who pays. Taken together, these reforms can help us solve the transmission bottleneck and secure a clean and equitable energy future. Notably, none of these proposed reforms erode bedrock environmental protections that are essential to building an equitable clean energy economy.[2]

I. Transmission Planning

To build the clean energy future we need, we must plan for it. While the energy transition is underway, the failure to comprehensively and holistically plan for changes to the grid–including the transmission we need to support clean energy coming online–is a serious threat to reliable, affordable electricity service and to reaching our climate goals. FERC has the authority and responsibility to require effective transmission planning and to improve the interconnection process. Currently, FERC has rulemakings underway to implement regional planning and interconnection reforms and is expected to initiate another proceeding soon on interregional planning. FERC must finalize strong rules that support the identification and construction of new transmission projects and help to connect new energy projects to the grid.

A. FERC must finalize strong transmission planning and interconnection rules to address transmission needs, maximize consumer benefits, and ensure meaningful opportunities for community engagement.

FERC is undertaking an effort to reform its transmission planning rule to make transmission planning broader, more forward-looking, fairer, and more cost-effective. FERC must move quickly to finalize this rule and require transmission planners to participate in regional transmission planning processes that take a long-term look at transmission needs driven by changes in the resource mix.

While FERC's proposal is a good start, FERC must strengthen its proposed rule in several ways. First, transmission planners must offer meaningful opportunities for interested stakeholders, including potentially affected communities, to help guide the planning determination. Planning processes should be designed and equipped to solicit and receive public input early on and throughout the planning process relating to identifying transmission needs and proposed solutions, including cost-benefit analyses and non-wires project solutions. Meaningful and informed stakeholder engagement early in the planning process can help surface community concerns about potential siting locations and allow the planner to identify less burdensome transmission solutions at the outset. Evidence has shown that prioritizing early and meaningful stakeholder engagement has helped speed the execution of transmission projects.[3]

Second, FERC's proposed rule does not establish minimum requirements for scenario assumptions and benefit assessments. But such requirements are the only way to fully understand the costs and benefits of transmission. FERC must establish a minimum set of transmission benefits and must require transmission planners to calculate all such benefits, including reasonably foreseeable greenhouse gas emissions data.

Third, transmission planning should also consider, minimize, and aim to avoid as far as possible, local environmental and social impacts from siting transmission, especially impacts in environmental justice (EJ) and Tribal communities. While many of these impacts will not be known until the transmission goes through siting and permitting, the transmission planning process should at least

[2] *In addition to the reforms discussed in this whitepaper, ensuring adequate agency capacity to conduct effective and efficient environmental reviews is essential.*
[3] *Marian Swain, Managing Stakeholder Conflicts Over Energy Infrastructure: Case Studies from New England's Energy Transition 93-95 (2019) (Master's Dissertation, Mass. Inst. Tech. available at https://dspace.mit.edu/bitstream/handle/1721.1/123922/1140072907-MIT.pdf?sequence=1&isAllowed=y); Paul Joskow, Facilitating Transmission Expansion to Support Efficient Decarbonization of the Electricity Sector, MIT Ctr. For Energy and Env't. Policy Rsch. Working Paper Series), June 2021, at 44-47.*

recognize where a proposed transmission solution may be sited in sensitive environmental areas or environmental justice or Tribal communities when assessing the costs of such projects and whether they can be built.

Finally, the transmission planning process should prioritize solutions that make use of any existing rights of way, for any type of infrastructure, to the extent reasonably feasible but without impairing its mandate to assess and minimize environmental impacts on environmental justice and Tribal communities. Generally, siting transmission projects in existing rights-of-way that include existing infrastructure may reduce adverse environmental impacts, in comparison to siting transmission projects in undisturbed areas. And this has precedent–for example, the Midwest Independent System Operator (MISO) recently approved the largest suite of transmission projects in the U.S., 90% of which will use existing and adjacent rights of way.

B. FERC must establish Environmental Justice Liaisons to support consultation and planning in environmental justice communities and tribal nations.

The Principles of Environmental Justice call for the community's right to "participate as equal partners at every level of decision making, including needs assessments, planning, implementation, enforcement and evaluation."[4] As the nation faces one of the largest transmission development opportunities in nearly a century, regulators and developers must adopt a just, equitable, and community-forward approach that centers environmental justice communities and other affected stakeholders throughout a project's lifecycle.

Environmental justice communities and advocates have historically called upon FERC to strengthen procedural justice through increased transparency, accessibility, and the facilitation of meaningful engagement between affected communities, FERC, and project developers. FERC must use its existing authority to advance that goal. Specifically, we recommend that FERC establish Environmental Justice Liaisons ("EJ Liaisons"). EJ Liaisons would be employees of the Commission and housed within the Office of Public Participation ("OPP"). They would be charged with helping foster first, early, and ongoing engagement between affected communities, the Commission, and project developers; creating clear and accessible pathways for engagement; and ensuring that information is clearly and adequately communicated to stakeholders. Indeed, affected communities are the foremost experts on the best interests and needs of their specific region, as well as best practices for engagement, and EJ Liaisons would work closely alongside communities to develop trust and partnership.

EJ Liaisons would ensure that project developers are contacting affected stakeholders as an initial step, to maximize opportunities for communication and early identification of concerns. EJ Liaisons would also increase FERC's capacity to build partnerships with affected stakeholders through engagement that reflects the specific characteristics of the community. Environmental justice communities are not monolithic, and best practices for engagement in one community may not necessarily apply to all communities. One such example is identifying where the environmental advocates are located within a community. In some communities, environmental advocates may sit on advisory boards or within traditional environmental organizations; in others, advocates may be school board members, social service, media, or small business professionals, religious or spiritual leaders, or members of other community-based organizations. The EJ Liaison role would increase FERC's capacity to identify and work closely with those individuals. Another example is identifying the most effective and accessible method of communication for local residents. Some communities may rely on physical postings or newspaper announcements for information, while others may rely on online platforms.

Lastly, as agents of the Office of Public Participation, EJ Liaisons would provide key services, such as

[4] *The First National Environmental People of Color Environmental Leadership Summit, The Principles of Environmental Justice https://www.ejnet.org/ej/principles.pdf (October 1991).*

trainings and workshops; providing information on proceedings and working with developers to communicate about projects; and responding to technical assistance needs.

C. FERC must require interregional transmission planning.

It is extremely difficult to build interregional transmission in the U.S., even though such projects can provide significant benefits to consumers, increase reliability and resilience, and support new renewable generation across the country. The reality is that planning regions have failed to plan for and build interregional lines because they have struggled to communicate and coordinate across differences in planning criteria, modeling approaches, and cost allocation practices. To overcome existing barriers and ensure reliability in the face of increasing impacts from climate change, FERC must mandate that planning regions account for a minimum amount of interregional transfer capacity and establish effective interregional planning and cost allocation policies.

FERC should require interregional planning using common assumptions, methods, and timelines for action as well as uniform modeling approaches. With a consistent approach to assessing project benefits, for example, adjoining regions will be able to evaluate an interregional transmission project on an even playing field. Interregional lines will no longer need to go through at least two separate regional transmission planning processes, with different underlying assumptions and benefits calculations, in addition to an interregional coordination process–the so-called "triple hurdle." And where projects face a split vote across regions, FERC must act as the default decision maker. Finally, FERC should consider creating a new interregional planning body, which could be tasked with developing long-term plans and cost-allocation practices for interregional projects.

II. Transmission Siting

Fundamentally, any effort to build more transmission to rapidly bring online clean energy, which is necessary to meet climate goals and limit harmful pollution from fossil fuels, will require improvements in the transmission siting process. Among the most important improvements needed to the transmission siting process are strong environmental review and a more proactive engagement of impacted communities, both of which can help build consensus around line siting and design. In addition, the federal government can and should also take action to improve the regulatory atmosphere by nurturing an efficient federal siting process for certain large interstate transmission projects with robust federal review; this process should offer a limited set of high-priority transmission projects an alternative to state and local processes that may not be able to consider regional and interregional benefits of transmission and can impose unnecessary delay or barriers to project development.

A. One federal siting pathway exists under current DOE and FERC authority: NIETCs and expanded backstop.

The existing rules governing transmission siting already offer the federal government, specifically DOE and FERC, an avenue for expediting the siting and approval of high priority transmission lines. Through the National Interest Electric Transmission Corridor (NIETC) designation process, the DOE is authorized to designate NIETCs, over which FERC is then given backstop siting authority if a state lacks the authority to approve siting, denies a siting application, or fails to act on a siting application for a project in the NIETC. The NIETC and backstop siting provisions have been recently strengthened by the Infrastructure Investment and Jobs Act (IIJA), as a result of which there are tangible steps the DOE and FERC can and should be taking to site certain high-priority transmission lines within a NIETC.

At the DOE, more should be done to improve the process for identification and designation of NIETCs based on the Department's expanded authority under the IIJA. The DOE recently has moved forward to implement its expanded authority, including by establishing its Building a Better Grid Initiative and issuing a draft National Transmission Needs Study. The draft Needs Study is a strong start to support the need to expand transmission planning, particularly interregional transmission, enhance reliability, support electrification efforts, and reduce costs for consumers. However, the draft fails to account for clean energy development and associated transmission needs that the Inflation Reduction Act supports. DOE should finalize the study quickly, adopting a baseline that incorporates high load and high clean energy assumptions and the potential for offshore wind. In addition, DOE should fulfill the promise of the Better Grid Initiative by working with Native Tribes, environmental justice communities, and other stakeholders "to increase coordination and transparency; to employ available tools and resources to support the development of nationally significant transmission projects; and to improve transmission siting, permitting, and authorization processes." [5]

At FERC, the Commission is revisiting its backstop siting authority in the wake of IIJA through a rulemaking. Specifically, FERC's backstop siting rule proposes to formally implement the agency's authority to act in the face of state siting denials; to begin implementing its backstop authority concurrently with state processes that first year; to require more effective engagement with landowners by project developers; and to require an environmental justice engagement plan. All of these are useful plans, but FERC can and should do more to effectively implement its backstop authority. Specifically, it should more effectively coordinate with overlapping state processes to reduce the burden on impacted communities; establish permanent effective liaison positions to better engage environmental justice and tribal communities; and formalize a more effective coordination with DOE of its NEPA and other federal environmental obligations.

If DOE and FERC act expeditiously and equitably to implement their strengthened transmission siting authorities post-IIJA, there is potential for significant improvement in the siting process, which could lead to an urgently needed acceleration of the transmission planning and construction process. Comprehensive federal rules will not just offer developers of certain high-priority projects the confidence to move forward with transmission plans; they will also offer an implicit warning to states not to needlessly withhold siting approval. This should yield significant transmission buildout over the next decade and beyond.

B. One federal siting pathway requires new authority by amending FPA: New direct FERC siting authority for certain high voltage interstate projects.

The legislative arena offers an even more effective pathway to equitably approve siting applications for high-capacity transmission projects. As we proposed in the Transmission Principles, the most efficient strategy is to amend the Federal Power Act to establish a new avenue for federal siting/permitting for certain large-scale projects that meet the following bright-line definitions:

- Serving two or more states
- Having a capacity of 1000 MW or larger
- Enabling renewables, reducing congestion, or improving reliability
- Selected via an equitable and inclusive transmission planning (or equivalent) process

Under this legislative proposal, FERC would have siting authority over projects meeting these criteria without first having to go through state processes; but such new authority would not need to displace the NIETC designation process, which could still serve

[5] *Building a Better Grid Initiative To Upgrade and Expand the Nation's Electric Transmission Grid To Support Resilience, Reliability, and Decarbonization, 87 Fed. Reg. 2,770 (Jan. 19, 2022).*

as a tool for the DOE to coordinate the planning, siting, and construction of particularly high-priority transmission corridors. Creating another federal pathway, as proposed here, would also empower FERC to enforce stronger protections and access for all impacted stakeholders–especially landowners and tribal and environmental justice communities–than are currently available.

III. Cost Allocation

Current court precedent provides that the costs of transmission must be "roughly commensurate" with the benefits of that transmission. Yet most transmission planning processes fail to meet this standard because they do not evaluate the comprehensive benefits of transmission. This failure is driven in large part by FERC's existing regional transmission planning and cost allocation rule,[6] which expressly permits planning authorities to arbitrarily silo the evaluation of transmission needs, solutions, and benefits into three separate categories–economic, reliability or public policy–that fail to consider multiple types of benefits by definition. Because of this flawed premise, the economic benefits of so-called reliability projects are not generally considered in cost allocation, nor are economic and reliability benefits of so-called public policy projects. The result is that the benefit assessment and proposed cost allocation of any given transmission project only accounts for a narrow slice of benefits for that project. The proposed FERC transmission planning rule does not fully fix this–instead, it would allow planning authorities to limit which benefits they choose to assess and proposes to rely on states to agree to cost allocation without requiring a default cost allocation that would broadly allocate the costs to all beneficiaries.

While FERC has authority to broadly allocate costs roughly commensurate with benefits, it has not yet chosen to do so as broadly as it should. Congress should step in by amending the FPA to require transmission planning that evaluates future needs under multiple scenarios that take into account expected future generation resources, potential climate change impacts, and compliance with public policy goals. The FPA should also require such planning to assess the multiple benefits provided by proposed portfolios of transmission solutions and to allocate costs for those projects commensurate with those benefits. Such authority–even if just a reaffirmation of FERC's existing authority–would require FERC to adopt a cost allocation methodology for regional and interregional lines that holistically reflects the multiple benefits provided by transmission solutions, including economic, reliability, operational, public policy, resilience to extreme weather, and environmental benefits (including reductions in carbon emissions and reducing harm to environmental justice communities). To provide FERC with a straightforward way to implement this mandate, Congress should revise the FPA to allow FERC to allocate costs in proportion to share of energy demand to any region accruing calculable benefits.

Finally, offshore transmission facilities built to facilitate the integration of offshore wind are not located in any FERC-jurisdictional transmission planning region. Therefore, Congress could provide certainty about FERC's authority to allocate costs for such facilities by amending the FPA to make clear that FERC can require planning and cost allocation for these offshore wind transmission facilities.

[6] *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, Order No. 1000, 136 FERC ¶ 61,051, (2011)*..


COMMUNITY
ENGAGEMENT
BRIEF
Ensuring environmental justice communities participate in decision-making on the Justice40 Initiative and beyond.
WE ACT
FOR ENVIRONMENTAL JUSTICE
JUSTICE 40RWARD

INTRODUCTION

The Bipartisan Infrastructure Law and Inflation Reduction Act (2022) allocate nearly $2 trillion in public funding throughout the country. Federal agencies and departments have a tremendous responsibility to distribute these funds equitably, and we have a tremendous opportunity to make structural changes that address the health and well-being of vulnerable people.

It is well-documented that discriminatory land-use practices and investment decisions have led to vulnerable people residing in highly polluted areas. Thus it is critical that communities of color, low-income communities, and environmental justice communities participate meaningfully in decision-making on key issues related to this legislation.

Community engagement and participation are the cornerstones to creating and implementing equitable, sound and transformational policies, projects, programs and practices. This issue brief provides guidance and highlights best practices for meaningful public participation and robust analysis that yields tangible benefits and investments in underserved and overburdened communities.

Every community has unique needs that require a tailored framework; therefore, this guidance should not be regarded as all-encompassing but rather serves as a starting point for the federal family, companies and project developers to establish a strong foundation that ensures mutually beneficial policy and project outcomes.



GUIDING PRINCIPLES

The foundational principles of environmental justice and democratic organizing established in the Principles of Environmental Justice (1991) and Jemez Principles of Democratic Organizing (1996) must be the starting point for approaching community engagement, public participation and community benefit agreements.

FUNDAMENTAL BEST PRACTICES FOR COMMUNITY ENGAGEMENT

Full and transparent community engagement is necessary to ensure just and equitable policies and project implementation, especially given the historic and current marginalization of environmental justice communities.

Engagement is not merely community involvement: True engagement fully incorporates the community into all facets of the decision-making process. Entities should therefore:

1) Identify all communities that could be directly or indirectly affected by the proposed policy or project.

- Account for communities that could be affected by cumulative impacts, geographic proximity, economic interconnectedness, disruption of existing social structures, etc.
- Establish collaborative processes (ex. open meetings, electronic submission forms, an online map that is open to comments, etc.) whereby communities can identify and designate themselves to be environmental justice communities and/or disadvantaged communities.
- Use the EPA EJSCREEN tool (there is an absence of federal data related to air and water quality, but state-level EJ screening tools can compensate for deficiencies.)

2) Go beyond the minimum requirements of the legislation and establish a cohesive framework for stakeholder outreach.

- Interface with community members early and frequently.
- Couple community meetings with other engagement strategies, such as "focus groups… and consultations with commissions, advisory boards, and community-based organizations."
- Establish orientation values and principles to guide collaboration among community members and outside entities.
- Prioritize racial justice and racially equitable results when determining policy/project investments and benefits, designing processes, and defining concrete and measurable indicators of success.

FUNDAMENTAL BEST PRACTICES FOR COMMUNITY ENGAGEMENT

3) Make every effort to maximize community participation.

- Strive for multimodal outreach strategies (ex. digital and print forms, door-to-door recruitment) that make information accessible to all, especially in communities with limited broadband.
- Offer wraparound services to promote community attendance at convenings (ex. transportation options, reimbursement of childcare costs).
- Account for health conditions and disabilities that may limit in-person attendance (ex. providing hybrid and virtual options for public engagement).
- Arrange for translation services (if you stipulate that individuals request language translation services, advertise guidelines well in advance and ensure that requests are made in relevant languages.)
- Distribute technical/training/orientation materials in advance of any event, and ensure that such resources are easily understood and translated into relevant languages.
- Identify a pro-bono lawyer to assist with interpreting legal documents and reviewing technical policies.
- Guarantee that meeting places are accessible, ensure that community members have the opportunity to request accommodations and modifications in advance of any convening and incur any costs related to requested accommodations and modifications.
- Consider how convenings and information gathering are designed, scheduled and structured; for example, think about what times and locations are most convenient for community members, use handheld voting devices, collect written comments via "dyads where people 'interview' each other," incorporate breakout groups, etc.
- Issue monetary or equally valuable compensation to recognize individual/community participation and acknowledge the value of information (ex. lived experience, local knowledge, community feedback).
- Create easy and accessible methods for community members and environmental justice groups to share comments and concerns during any policy, project or program phase (i.e. planning, implementation, monitoring, evaluation), giving advance notice for the start of public comment periods and ensuring that public comment periods are a minimum of 90 days.

1. Environmental Justice Leadership Forum (EJ Forum), "EJLF Jamboard"; Government Alliance on Race and Equity (GARE) "Racial Equity Toolkit"



FUNDAMENTAL BEST PRACTICES FOR COMMUNITY ENGAGEMENT

4) Build trust by fully documenting and publishing all community engagement interactions and exchanges.

- Be clear and truthful about the information that is being collected; this is especially critical in communities where members may have varying documentation statuses and/or do not want to engage with the government or corporate entities.
- Convey how community input is impacting policy/project/program planning and implementation — transparency is essential to ensuring good faith in the process, so correspondence should include all community concerns, and offer an accompanying rationale for the inclusion or exclusion of each concern.
- Publish the outcomes of community convenings (ex. via electronic updates, summary announcements at subsequent meetings, formal reports, etc.)
- Provide community feedback and updates in a timely fashion, in writing and within 60 days.
- Credit the people and/or organizations whose ideas or feedback were incorporated in the final policy/project/program (ex. verbal or written acknowledgements, attributed comments, etc.)

2. Government Alliance on Race and Equity (GARE) "Racial Equity Toolkit"
3. The Job Accommodation Network (JAN) Job Accommodation Network
4. Government Alliance on Race and Equity (GARE) "Racial Equity Toolkit"

Who are the most affected community members who are concerned with or have experience related to this proposal? How have you involved these community members in the development of this proposal?

What has your engagement process told you about the burdens or benefits for different groups?

What has your engagement process told you about the factors that produce or perpetuate racial inequity related to this proposal?"



ENVIRONMENTAL JUSTICE ANALYSES

In the issuance of Executive Order 12898 ("Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations") federal agencies were directed to "analyze the environmental effects, including human health, economic, and social effects, of their proposed actions on minority and low-income communities."

Environmental justice analyses are vital components of both community engagement and formal environmental reviews (which evaluate distributional impacts). When considering the unprecedented funding for climate mitigation programs in the Bipartisan Infrastructure Law and Inflation Reduction Act, it is vital that environmental justice analyses be conducted to offer a complete picture of possible project and policy impacts on already overburdened communities. For example, though the White House Environmental Justice Advisory Council has identified numerous climate mitigation strategies that could harm communities yet , projects with these identified harms have already been funded.

Environmental justice analyses are critical to minimize harms and protect environmental justice communities. Environmental justice analyses must be completed before project/policy implementation and even prior to issuing Requests for Information (RFIs), Requests for Proposals (RFPs), or other introductory enquiries. Additionally, environmental justice analyses should be performed by a vetted environmental justice scientific consultant and financed by the project developer or agency.

When conducting environmental justice analyses, entities should:

1) Identify pre-existing environmental, social and economic stressors in the community to contextualize potential impacts and areas of concern that should be addressed.

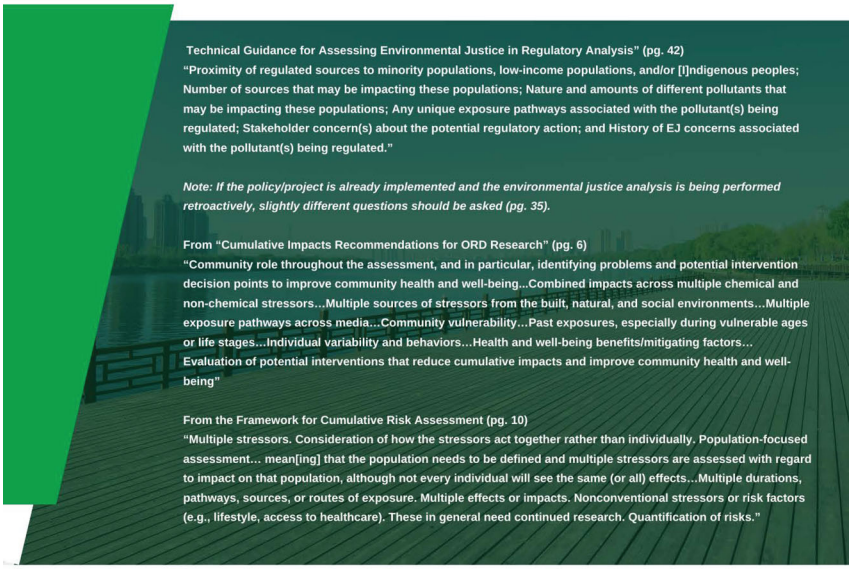
- Use national and state-level environmental justice screening tools — including but not limited to EJSCREEN (EPA) and CEJST (Climate and Economic Justice) — to determine if the community is an environmental justice community.
- Engage community members in ground-truthing to remedy deficiencies in the state and federal environmental justice screening tools; researchers define ground-truthing as a "community-based participatory strateg[y]... in which community partners, supported by researchers, gather data about pollution sources and their proximity to 'sensitive receptors.'"
- Layer health-equity data into analyses of environmental justice communities to provide a more comprehensive picture of environmental burdens.

ENVIRONMENTAL JUSTICE ANALYSES

2) Determine the specific ways the proposed policy/project could interact with environmental justice issues that are unique to the community, paying particular attention to cumulative impacts; the EPA cites cumulative impacts to be "the total burden – positive, neutral, or negative – from chemical and non-chemical stressors and their interactions that affect the health, well-being, and quality of life of an individual, community, or population at a given point in time or over a period of time."

- Perform a cumulative impact/risk assessment to identify compounding interactions, exacerbations and mitigations (Note: While "cumulative impacts" and "cumulative risks" are often used interchangeably, the scientific data that supports each term is different; in this document, both of these terms reference the cumulative burden of various emitting sources and pollutants.)

Box 2 outlines three different approaches to conducting a cumulative impact/risk assessment.



ENVIRONMENTAL JUSTICE ANALYSES

- Research how environmental justice communities were affected by similar and/or past policies/projects by looking at academic studies, literature reviews and lived experiences (e.g. public comments, feedback collected from town halls, interviews, reports from local organizations).
- Include a climate impact assessment if the proposed policy/project will alter the greenhouse gas emissions in the community.
- Conduct extensive community engagement to form concrete goals for how the proposed policy/project will relieve environmental injustices, and include final outcomes in Community Benefit Agreements (detailed below).
- Connect federal environmental justice regulations (e.g. Executive Order 12898, the Justice40 Initiative) to proposed policies, and use this relationship to inform and shape environmental justice goals.

3) Utilize mixed methods (quantitative and qualitative) when collecting data to best record the environmental justice impacts of the policy/project.

- Research what analytical methods have been used in similar and/or past policy/project implementation; these could include "proximity-based approaches, risk-assessment, mixed methods, and more."
- Collect, analyze and present data through the lenses of race/ethnicity and income level to most accurately identify environmental injustices and determine potential long term health effects (race/ethnicity, in particular, is a key indicator of environmental injustices, research shows that race is a better indicator of exposure to air pollution than income); if results cannot be quantified by race/ethnicity or income, structure data collection in another way that "sheds light on potential EJ [environmental justice] concerns."
- Establish "comparison groups" to illustrate whether the policy/project is causing differential impacts among various populations and/or communities (these groups should be chosen early in the process to maximize the breadth of collected data.)
- Employ precautionary principles to "bridge the gap between weakly understood causes of environmental damages and potentially costly policy interventions"; the four components of precautionary principles are "taking preventative action in the face of uncertainty, shifting the burden of proof to the proponents of an activity, exploring a wide range of alternatives to possibly harmful actions and increasing public participation in decision-making."
- Follow EPA practices for data collection and analysis.

Note: Steps 2 and 3 will likely work in tandem.

4) Follow the Fundamental Best Practices for Community Engagement (detailed above) when performing environmental justice analysis, and disseminating collected data and findings.



COMMUNITY BENEFITS AGREEMENTS

Community Benefit Agreements (CBAs) are "legal agreements between community groups and developers, stipulating the benefits a developer agrees to fund or furnish in exchange for community support of a project."

Often, for a CBA to be successful, community organizations must form a united front among different stakeholders and enforce the legal provisions in the document. The following guidelines offer ways an external entity can create a community contract in good faith, to unburden communities from taking on a disproportionate share of the work and guarantee full adherence to the CBA .

1) Ensure there is a shared understanding of a CBA, with a focus on what should be contributed, and the measurable outcomes that determine successful implementation.

- Have unaffiliated negotiator(s)/facilitator(s) with a strong understanding of environmental justice present proposed projects to the community, which curtails project owner/developer bias.
- Provide easily accessible and comprehensible educational materials on CBAs and their benefits, ensuring that materials are highly publicized and available in both electronic and printed formats.
- Organize forums during the CBA deliberation process to discuss the merits and deficits of past CBAs, and take note of community feedback.
- Collaborate with community members to determine the best quantifiable results for measuring CBA success, for example, monetary investment goals, emission reduction targets, pollution mitigation metrics, etc.
- Come to a legal agreement with the community about potential consequences and repercussions for CBA compliance failure; these could include financial restitution, pollution mitigation and remediation, project termination, etc.

2) Prioritize and maximize the participation of disadvantaged community members and/or community subsets.

- Make sure that the CBA includes concrete steps and measurable goals for advancing racial justice and equity.
- Identify the unique barriers that underprivileged community members may have with respect to CBA participation, and address these using the **Fundamental Best Practices for Community Engagement** (detailed above).

COMMUNITY BENEFITS AGREEMENTS

3) Ensure that a large cross section of community members, groups and organizations agree on the CBA terms (because limited adoption is insufficient to begin project implementation).

- Identify community subsets (e.g. "minority-owned small businesses, low-income transit riders, subsistence fishers," etc.) and make sure that their voices are represented at CBA deliberations.
- Support any coalition-building efforts that will streamline communication between the outside entity and the community at-large.

4) Update the community about CBA implementation on a regular basis.

- Capture and document project progress in plain language.
- Issue reports on project progress, and ensure that these reports are highly publicized, available in both electronic and physical formats, and appropriately translated.
- Hold forums where community members can provide feedback on the trajectory of the CBA, and incorporate this input into subsequent implementation steps.

POSSIBLE COMMUNITY BENEFITS



PUBLIC PARTICIPATION WITHIN THE NEPA PROCESS

The NEPA process mandates environmental review, and every time "a federal agency develops a proposal to take a major federal action," the NEPA process is initiated.

This can be an opportunity for impacted communities to provide critical input for the just and sustainable implementation of a project that could significantly affect their health and the surrounding environment. Recent changes in NEPA have restricted avenues for public participation and dismissed considerations of cumulative impacts on EJ communities. Therefore, it is critical for agencies that complete the NEPA process to actively expand community input on proposed projects. Several best practices for encouraging public participation as a federal agency are listed below.

1) Ensure that there is a shared conception of the NEPA process, the duties and scope of your agency, and the proposed project.

- Provide easily accessible and understandable educational materials on these three topics. These should be highly publicized, and available for both electronic and physical access.
- Organize forums before or early on in the NEPA process to convey the cited. information.

2) Open a continuous stream of communication between your agency and the impacted communities.

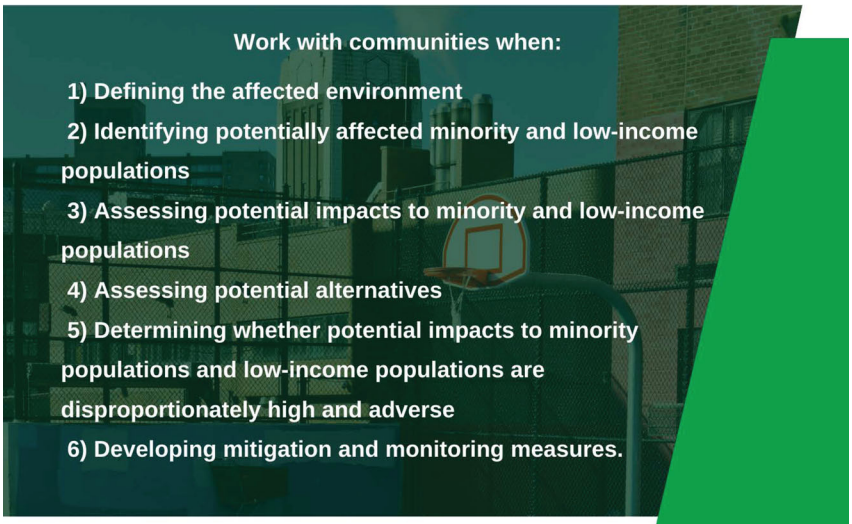
- Establish multiple opportunities early on for community input throughout the NEPA process.
- Give at least 90 days for public comment once the public comment period is open.
- Designate a member of the agency to act as an outreach leader; they (and potentially their team) should be available as often as possible to receive community feedback via highly publicized channels, for example, from a manned call/text line or email address, P.O. Box, contact form on the agency website, etc.
- Examine and work to overcome barriers community members may have in engaging with communication efforts; barriers can be "cultural, institutional, geographic, economic, historical, linguistic, or other," and it is critical to listen to the community about what these barriers may be.

PUBLIC PARTICIPATION WITHIN THE NEPA PROCESS

3) Ensure that participation occurs at multiple levels within the agency and among different groups within the affected community or communities.

- Establish "leadership positions" specifically for community members; these positions can be part of high-level, collaborative boards, committees, etc.
- Identify and reach out to subsets within a community, such as "minority-owned small businesses, low-income transit riders, subsistence fishers," etc.

4) Follow the Fundamental Best Practices for Community Engagement (detailed above) in all community engagement efforts undertaken by the agency.



WE ACT FOR ENVIRONMENTAL JUSTICE
1854 Amsterdam Avenue, 2nd Floor, New York, NY 10031 // 212-961-1000
50 F Street, NW, Suite 550, Washington, DC 20001 // 202-800-5896
Web: weact.org // Facebook: weactforej // Twitter: weact4ej // Instagram: weact4ej
For more information reach out to: Naadiya Hutchinson, naadiya.hutchinson@weact.org

Testimony of Susan Jane M. Brown, Western Environmental Law Center

**U.S. House of Representatives Natural Resources Committee,
Subcommittee on Federal Lands**

**Legislative Hearing on
H.R. 200, H.R. 1473, H.R. 1567, and H.R. 1586**

March 23, 2023

Chairman Tiffany, Ranking Member Neguse, and members of the subcommittee, thank you for the opportunity to join you today to discuss H.R. 200, the *Forest Information Reform Act*, and H.R. 1567, the *Accurately Counting Risk Elimination Solutions Act*.

My name is Susan Jane M. Brown, and I am a Senior Staff Attorney with the Western Environmental Law Center (WELC). We are based in Eugene, Oregon, with offices in Portland, Bend, and Lostine, Oregon; Seattle, Washington; Taos and Santa Fe, New Mexico; Buena Vista, Colorado; and Helena, Montana. WELC uses the power of the law to defend and protect the West's treasured landscapes, iconic wildlife, and rural communities. We combine our legal skills with sound conservation biology and environmental science to address major environmental issues in the West in the most strategic and effective manner. WELC works at the national, regional, state, and local levels and in all three branches of government. We integrate national policies and regional perspective with the local knowledge of our 150+ partner groups to implement smart and appropriate place-based solutions.

WELC is also deeply engaged in collaborative forest conservation in Oregon, working closely with the Blue Mountains Forest Partners and Harney County Forest Restoration Collaborative on the Malheur National Forest, the Deschutes Collaborative Forest Project on the Deschutes National Forest, and the Northern Blues Forest Collaborative on the Umatilla and Wallowa-Whitman National Forests, all located in eastern and central Oregon.

I am a proud environmental litigator. My primary focus of litigation is federal public lands forest management, and my practice includes cases involving the Endangered Species Act, National Environmental Policy Act, National Forest Management Act, Oregon and California Lands Act, and other land management statutes. I am an Adjunct Professor of Law at Lewis and Clark Law School, where I have taught Forest Law & Policy to upper division law students for the past 14 years. Both my litigation and pedagogy have been heavily influenced by not only my collaborative experience, but also my tenure as Natural Resources Counsel for Congressman DeFazio, a former Member of this Committee.

Today I am testifying on H.R. 200, the *Forest Information Reform Act*, and H.R. 1567, the *Accurately Counting Risk Elimination Solutions Act*.

H.R. 200, the *Forest Information Reform Act*

H.R. 200, the *Forest Information Reform Act*, would exempt the Forest Service and Bureau of Land Management (BLM) from reinitiating consultation on applicable land management plans (forest plans) in three circumstances: 1) when a new species is listed under the Endangered Species Act (ESA); 2) when new critical habitat is designed under the ESA; or 3) when new information about a listed species or its critical habitat becomes available. The legislation is a false solution in search of a nonexistent "problem" and should not advance out of the Subcommittee.

Intentionally ignoring the dangers of climate change is reckless and myopic at best, and yet disregarding new information about climate change effects on listed species and their critical habitat is exactly what H.R. 200 does. Climate change is dramatically affecting our forests, whether manifested as increased droughts, insects, disease, floods, wildfire, species range shifts, or other effects.[1] Most forest plans are woefully out of date[2] and do not address how climate change could affect national forest resources and provide direction to lessen the impacts to wildlife and human communities. Ignoring these obvious ecological changes by failing to reinitiate consultation on forest plans to ensure that native biodiversity is conserved for future generations is akin to burying one's head in the sand and hoping for the best. But this is not what the National Forest Management Act (or the Federal Land Policy and Management Act) require of our federal land managers: instead, the Forest Service and BLM must use the best available science to inform land management,[3] and sometimes that best available science indicates that land management plans require reevaluation.

Additionally, H.R. 200's purported reliance on project-level consultation rather than plan-level consultation will not create efficiencies or conduct sufficient analysis as required by the ESA in two ways.

One, many types of forest management do not require or do not receive project-level authorization and therefore will not be subject to project-level consultation. For example, both winter and summer recreational off-road vehicle use is not subject to project-level authorization and yet often has significant adverse effects on listed species and their critical habitat. Likewise, domestic livestock grazing authorization, while subject to project-level (or, allotment-level) analysis and consultation, is woefully behind schedule and many western allotments either have no environmental analysis at all, or analysis that is decades-old. This use of the national forests also can have substantial adverse effects on listed species and critical habitats, and yet would generally escape ESA review under H.R. 200.

Two, project-level consultation intentionally looks only at the project decision under consultation and often fails to consider the cumulative effects on listed species and critical habitat of many

---

[1] United Nations Intergovernmental Panel on Climate Change (IPCC), *Synthesis Report of the IPCC Sixth Assessment Report, Summary for Policymakers*, available at https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_-SYR_SPM.pdf (March 20, 2023).

[2] Erin H. Ward, Katie Hoover, and Pervaze A. Sheikh, Congressional Research Service, *Legal and Practical Implications of the Ninth Circuit's Cottonwood Environmental Law Center v. U.S. Forest Service Decision Under the Endangered Species Act*, CRS Report R47201 (Aug. 2, 2022) (hereinafter "CRS"), 3.

[3] *See*, 16 U.S.C. § 1604; 43 U.S.C. § 1712(b)(2).

different uses of a national forest on either that project's geography or across the entire national forest: this broadscale look only happens at the forest plan level. Consequently, a project-level consultation on a timber sale (for example) only looks at how that timber sale affects the listed species and critical habitat within that timber sale area, and not how climate change, increased wildfire occurrence and severity, and reduced water flows affect that species and its habitat that exists across the national forest. This piecemeal approach fails to capture important ecological effects at the appropriate scale.[4] While project-level consultation is essential, it is not, alone, sufficient.

In addition to being bad policy, the justification for H.R. 200 rests on false premise. As the Subcommittee well knows, responding to the Ninth Circuit Court of Appeals' affirmation of *Pacific Rivers Council v. Thomas*, 30 F.3d 1050 (9th Cir. 1994) (*Pacific Rivers*) in *Cottonwood Law Center v. United States Forest Service*, 789 F.3d 1075 (9th Cir. 2015) (*Cottonwood*) has been of high interest to those in Congress who believe that *Cottonwood* hinders forest management within the jurisdiction of the Ninth Circuit (i.e., Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, Oregon, Washington, Guam, and the Northern Mariana Islands). In response to this interest, the Congressional Research Service (CRS) released a report in August 2022 that sought to bring clarity to these claims, *Legal and Practical Implications of the Ninth Circuit's Cottonwood Environmental Law Center v. U.S. Forest Service Decision Under the Endangered Species Act*. Two important facts emerged from CRS' review.

First, CRS concluded that "Estimating or analyzing the effects of the *Cottonwood* decision (and the subsequent omnibus legislative fix) on [Forest Service, FS] operations and resources is challenging, primarily due to data constraints."[5] Although the Forest Service has alleged in congressional testimony and elsewhere that *Cottonwood* precludes expeditious implementation of forest management activities and that "reinitiating consultation "'takes numerous resources away from getting work done on the ground,'"[6] CRS found that in fact

> The FS has provided limited data to support or refute these claims. Similar to many other federal agencies, the FS does not routinely track or report the cost or personnel time associated with the development of forest plans or project-level decisions, engaging in consultation, or responding to administrative or judicial challenges to those decisions. For project-level planning, the FS does not routinely track the time between the publication of a decision document and the on-the-ground implementation of that project. Because of these limitations, there is insufficient baseline data with which to authoritatively identify and compare the effect specific factors may have on staffing or project development and implementation timelines. These data constraints also limit resource allocation

[4] Indeed, this approach essentially asks each project-level consultation to do the work of plan-level consultation. Because under H.R. 200 there would be no requirement to reinitiate consultation on a forest plan in most cases, each project-level consultation would require more analysis in the first instance, rather than personnel being able to incorporate the more comprehensive and current forest plan-level analysis into project-level consultation, and would require personnel to reanalyze plan-level effects in each project-level analysis. This is not an efficient process.
[5] CRS, 16.
[6] CRS, 16 FN 111 (quoting former Forest Service Chief Vicki Christensen).

comparisons between those national forests bound by the different circuit court decisions.[7]

It is alarming that – *based on no objective data whatsoever* – the Forest Service would allege that an appellate court decision that merely affirms what has been black letter law in the largest Court of Appeals for more than thirty years precludes mission critical work. As an agency that is statutorily bound to make land management decisions based on interdisciplinary scientific information,[8] the Forest Service's policy position is disappointing to say the least.[9]

Second, "CRS examined FS timber harvest data from FY2015 (the year *Cottonwood* was decided) through FY2021 and was unable to identify any noticeable difference in the overall volume of timber sold or harvested across the entire NFS and between the NFS units covered by the Ninth Circuit relative to other NFS units."[10] The lack of a causal relationship between *Cottonwood* and timber sold or harvested between the Ninth and Tenth Circuits further indicates that *Cottonwood* is not the demon its detractors suggest.[11]

Information received from a Freedom of Information Act (FOIA) request to the Forest Service seeking data on the instances when the agency was compelled to reinitiate consultation between 2017-2020 shows that reinitiation of consultation happens rarely and can be concluded quickly. Across the 154 national forests and 20 national grasslands that comprise the National Forest System, the agency reinitiated consultation on only 7 plans per year on average,[12] most frequently (12 instances) due to the Forest Service voluntarily amending or modifying its forest plan, a situation that does not implicate *Cottonwood* or its fixes including H.R. 200.[13] Four plans in the southwest required amendment due to a court order finding that the Forest Service failed to address the recovery of Mexican spotted owls, another situation not implicated by *Cottonwood*.

Four plans required reinitiation based on changed conditions, and two plans required reinitiation based on new information, situations where H.R. 200 would apply. In three situations new critical habitat designations compelled reinitiation and only in one situation was reinitiation required due to the listing of a new species under the ESA. Thus, less than half of the forest plan reinitiations (i.e., 10 instances) were due to situations implicated by *Cottonwood*. In addition, the

---

[7] CRS, 16; *see also id.* at FN 112 (explaining that time and expense data that *was* verifiable lacked context to evaluate its significance).
[8] 16 U.S.C. § 1604.
[9] That the agency has steadfastly held this position in the Biden Administration is perplexing, given the Administration's purported emphasis on the use of science in decisionmaking and the need to address the biodiversity and climate crises by conserving important landscapes. *See*, *Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking*, 86 Fed. Reg. 8,845 (Jan. 27, 2021); Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7,619 (Feb. 1, 2021).
[10] CRS, 17.
[11] Indeed, since *Cottonwood* merely affirms what has been the law in the Ninth Circuit since 1994 when *Pacific Rivers* was decided, and yet the national forests within the Ninth Circuit have consistently been the highest timber volume producing forests since 1994, it is a truism that neither *Cottonwood* nor *Pacific Rivers* have had any meaningfully adverse effect on timber production. *See*, United States Forest Service, *Forest Products Cut and Sold from the National Forests and Grasslands*, available at https://www.fs.usda.gov/forestmanagement/products/cut-sold/index.shtml (last visited March 18, 2023).
[12] The FOIA request and responsive documents are available upon request.
[13] CRS, 3, 13.

FOIA response indicated that in many of these situations the agency was able to initiate and complete consultation in days or weeks without lengthy environmental documentation. The "problem" allegedly posed by *Cottonwood* is, in fact, much ado about very little and does not warrant congressional intervention involving the nation's premier wildlife conservation law.

Although the need for H.R. 200 is neither supported by the facts nor is good policy, there are two solutions that should enjoy bipartisan support.

First, Congress should eliminate the annual Interior Department appropriations rider that exempts the Forest Service from the National Forest Management Act requirement to revise its forest plans not more than every 15 years.[14] Although the Forest Service's 2012 National Forest Management Act planning rule envisions revising plans within 3-4 years, it is questionable at best whether the agency is in fact making diligent progress towards revising the more than 100 forest plans that require updating.[15] Eliminating this exemption could increase the urgency and rate at which the Forest Service revises its plans.

Second, Congress recently invested more than $8 billion in new money in Forest Service land management through the Infrastructure Investment and Jobs Act and the Inflation Reduction Act, including for forest planning and ESA consultation. The agency now has a substantial influx of funding to accomplish foundational land management planning and species consultation, which should make the need for H.R. 200 obsolete. Congress should wait and see how the Forest Service utilizes this new investment before intervening in the reinitiation process.

H.R. 1567, the *Accurately Counting Risk Elimination Solutions Act*

As a policy matter, although WELC understands the utility and ease of "counting acres," we instead believe that land managers, the public, and decision makers should be focused on measuring the *outcomes* of land management. Until Congress directs the agencies to measure and report on outcome-based indicators of performance rather than outputs, however, WELC generally supports the premise of H.R. 1567 with two small alterations based on our direct experience with the purpose of the legislation in the context of collaborative forest management.

By way of background, as my opening statement notes, WELC is a member of several forest restoration collaborative groups in eastern Oregon. I am a founding member of the Blue Mountains Forest Partners (BMFP), which works with diverse stakeholders on the Malheur National Forest to restore large landscapes to reduce wildfire risk, conserve wildlife habitat, and contribute to economic development of rural communities dependent on national forest management. In 2012, the Malheur was designated as a Collaborative Forest Landscape Restoration Act (CFLRA) project, which brought 10 years of additional funding to the Forest

[14] *See*, Pub. L. 117–103, div. G, title IV, § 407, Mar. 15, 2022, 136 Stat. 410.
[15] The 21-member Federal Advisory Committee chartered to advise the Forest Service on implementation of the 2012 planning rule, on which I served for 6 years including 2 years as co-chair, provided 66 consensus recommendations to Secretary Vilsack in 2018 regarding how the Forest Service might improve and expedite its forest planning and amendment process. United States Forest Service, *Planning Rule FACA Committee, FACA Committee Recommendations* (available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd-575909.pdf) (Feb. 3, 2018). Few of those consensus recommendations have been implemented.

Service for the collaborative implementation and monitoring of large landscape restoration projects on the Forest.[16]

BMFP takes our applied science, monitoring, and adaptive management very seriously. Based on the experience and knowledge of our restoration contractorsand forest products industry partners, BMFP became concerned that we were not "finishing treatments," meaning that while the commercial timber harvest always occurred, other restoration actions – prescribed burning, meadow restoration, precommercial thinning, etc. – often lagged far behind or did not occur at all: when multiple restoration actions were proposed for the same acres (i.e., precommercial thin + commercial thin + fuels treatment + wildlife enhancement + prescribed fire on the same acre), only some of the actions were actually timely completed. And yet, the Forest Service always reported substantial "acres treated" in annual budgetary and congressional reports, which did not square with BMFP's on-the-ground experience.

With a few years of implementation of our Collaborative Forest Landscape Restoration Program (CFLRP) project under our belts, in 2018 we asked our partners at The Nature Conservancy (TNC) to provide BMFP with an overview of the extent of our restoration work across the Forest and whether we were treating sufficient acres to reduce wildfire risk and restore ecological integrity across the landscape. Dr. Kerry Kemp, a forest ecologist with TNC and now with the Forest Service, spent months working with the Forest Service and agency databases to get a complete picture of what acres we had touched with what restoration action(s) and what action(s) remained in order to "finish" the necessary restoration BMFP and our partners believed needed to occur.

Unfortunately, we were unable to complete our review. However, we did learn that it was clear that the Forest Service's understanding of what restoration actions had and had not occurred was completely different than the experience of contractors who were doing the actual work on the ground (and being paid by the federal government to complete that work). Whether an issue of the lack of standardized training of agency staff who use the database (employees have different ways of viewing the data based on their area of expertise), agency turnover and the lack of new staff familiarity with the Forest's program of work, lack of a standardized definition of "complete," or political pressure to show "acres treated" and "board feet harvested," it was apparent that the Forest Service was double- and triple-counting acres and yet still not finishing the job in the woods.

This is not an issue of sloppy or misleading contractors either. BMFP's restoration contractors and logger partners keep detailed records of their work in the woods and know exactly what work should occur on what acres because they are under contract to complete that work; but they also know when they aren't able to operate on those acres due to weather, timing, or other constraints.[17] Consequently, our restoration contractors and logger partners have long lists of

[16] The Collaborative Forest Landscape Restoration Program (CFLRP) is incredibly successful in building social license around forest restoration and enjoys rare bipartisan support. WELC strongly supports this program and urges Congress to support its reauthorization and an expanded funding appropriation.

[17] Another issue that BMFP has identified is that the acres analyzed for restoration activities in approved National Environmental Policy Act (NEPA) documents are often much greater than the acres that the Forest Service advertises to contractors for either commercial or noncommercial treatment. Thus, acres are "left on the table" that could and should receive restoration.

acres that still require restoration activities, some of which have been outstanding for years if not decades.

This is not an isolated incident. BMFP participates in numerous coalitions of forest collaborative groups across the west, and nearly all of them report similar issues and frustrations. Investigative journalists have also identified this problem.[18] H.R. 1567, the *Accurately Counting Risk Elimination Solutions Act*, would address a substantial portion of this problem by bringing transparency to the "counting acres" issue. WELC suggests two modest alterations to the legislative proposal.

First, Section 2(d)(1)(B)(i) defines "hazardous fuels reduction activity" to exclude "a wildland fire managed for resource benefits," but this exclusion should be reconsidered before the bill advances out of the Subcommittee. The use of beneficial fire (whether prescribed or a natural ignition) for resource benefit is a significant tool in the forest restoration toolbox[19] and must be encouraged if we are to successfully address the Wildfire Crisis.[20] The Forest Service should be able to "count" these beneficial fire acres, provided the fire in fact had positive resource benefits as most wildland fires do.[21]

Second, after consultation with Tribes and cultural fire practitioners, the Subcommittee should consider including "cultural burning" within the scope of the legislation and consider including the following definitions in Section 2:[22]

> 'Cultural burn' means the intentional application of fire to land by an Indian tribe or cultural fire practitioner to achieve cultural goals or objectives identified by a tribal ordinance, traditional tribal custom or law of an Indian tribe, such as subsistence, ceremonial activities, biodiversity or other benefits.
>
> 'Cultural fire practitioner' means a person associated with an Indian tribe with experience in burning to meet cultural goals or objectives, including subsistence, ceremonial activities, biodiversity or other benefits.
>
> 'Indian tribe' means a federally recognized Indian tribe.

---

[18] Adiel Kaplan and Monica Hersher, NBC News, *The Forest Service is overstating its wildfire prevention progress to Congress despite decades of warnings not to* (available at https://www.nbcnews.com/news/investigations/forest-service-overstating-wildfire-prevention-progress-congress-decad-rcna41576) (Aug. 9, 2022).

[19] Hessburg et al., *Climate, Environment, and Disturbance History Govern Resilience of Western North American Forests*, 7 FRONT. ECOL. EVOL. 239 (2019). doi: 10.3389/fevo.2019.00239

[20] United States Forest Service, *Confronting the Wildfire Crisis: A Strategy for Protecting Communities and Improving Resilience in America's Forests* (available at https://www.fs.usda.gov/managing-land/wildfire-crisis) (Jan. 2022).

[21] Merschel et al., *An ecological perspective on living with fire in ponderosa pine forests of Oregon and Washington: Resistance, gone but not forgotten*, TREES, FORESTS AND PEOPLE 4 (2021) available at https://www.sciencedirect.com/science/article/pii/S2666719321000133?via%3Dihub.

[22] Oregon State Legislature Representative Pam Marsh has proposed these definitions as an amendment to Oregon House Bill 2985, which would create a Prescribed Fire Liability Pilot Program in the State. In turn, these definitions were borrowed from California's Senate Bill 926, enacted into law in 2022, that created a Prescribed Fire Liability Pilot Program in that state.

Although it no longer occurs at the rate or extent as it did prior to European colonialization, cultural burning is an important tool to restore forest ecological integrity, as well as a manifestation of Indigenous sovereignty. Indigenous burning played a critical role in establishing forest ecosystems and continues to play a necessary stewardship role today. Tribes and Indigenous people across the country have used fire for thousands of years, and cultural burning practices are essential to the stewardship of plants and animals for food, fiber, and sustenance, the provision of community safety, and Tribal ceremonial, spiritual and religious practices. Thus, cultural burning should be "counted" by the Forest Service as a legitimate forest restoration action.

WELC would be pleased to work with the Subcommittee to make these alterations to H.R. 1567.

Conclusion

I look forward to discussing H.R. 200 and H.R. 1567 with the Subcommittee and answering any questions that the Subcommittee may have. Thank you for the opportunity to share my thoughts and experiences with you.

Sincerely,



Susan Jane M. Brown, Senior Staff Attorney
Western Environmental Law Center
Ph: 503-914-1323
Cell: 503-680-5513
brown@westernlaw.org
www.westernlaw.org

To: The Honorable Shelley Moore Capito, Chairman, The Honorable Sheldon Whitehouse, Ranking Member
U.S. Senate Committee on Environment & Public Works
From: T. Lane Wilson, Senior Vice President and General Counsel, Williams
Date: March 21, 2025
Re: Bipartisan Request on the National Environmental Policy Act and Permitting Reform

Thank you for holding the recent Hearing on "Improving the Federal Environmental Review and Permitting Process" and launching a bipartisan effort on the National Environmental Policy Act (NEPA) and permitting reform. Below, please find information with regard to Williams' experience with the Clean Water Act (CWA) and NEPA, as well as our suggested solutions to streamline the regulatory process and reform judicial review. Meaningful permitting reform solutions for the midstream sector will ensure that America can meet growing demands for affordable, reliable natural gas, especially in currently underserved parts of the country.

RESTART Act Helps Streamline Permitting

Senators Shelley Moore Capito and John Barrasso have been leaders in addressing our nation's broken permitting system. Their Revitalizing the Economy by Simplifying Timelines and Assuring Regulatory Transparency (RESTART) Act addresses permitting reform to boost production, lower energy prices, and prevent endless delays.

And Senator Barrasso's Spur Permitting of Underdeveloped Resources (SPUR) Act should be reintroduced this Congress to ensure that interstate infrastructure projects, including interstate natural gas pipelines, are protected from states delaying or denying issuing a Clean Water Act Section 401 Certification. Importantly, the bill addresses judicial review to ensure there is "clear and convincing evidence" before a permit can be remanded or denied. These vital reforms can be found in Section 3004 (Promoting Interagency Coordination for Review of Natural Gas Projects) and Section 3011 (judicial review).

We encourage the reintroduction of the RESTART Act and the SPUR Act in this Congress and look forward to working with the Senate Environment and Public Works and the U.S. Senate Energy and Natural Resources Committees on enacting, in whole or in part, the most impactful provisions of this legislation.

Abuse of Clean Water Act 401 to Block Interstate Pipelines

Problem: Currently, a single activist state can block a proposed interstate natural gas project, regardless of the benefits it would bring, through an abuse of the Clean Water Act's Section 401 review process by state regulators and the uncertainty arising from associated litigation.

Solution = Clean Water Act Reform: Since interstate pipeline projects are uniquely vulnerable to CWA 401 certifications being weaponized against them, Williams recommends amending Section 401 of the Clean Water Act to exempt natural gas infrastructure projects that seek FERC authorizations pursuant to Section 7 of the Natural Gas Act (NGA) from needing to obtain a CWA 401 certificate.

Congress can provide meaningful relief by exempting projects subject to NEPA reviews conducted by the Federal Energy Regulatory Commission (FERC) from CWA 401 certificates and ensuring that FERC considers potential water quality issues within the NEPA process for natural gas pipelines. A similar logic could be applied to transmission lines that are covered by the Federal Power Act (FPA).

These projects are interstate, deemed to be in the national interest, and will be subject to NEPA reviews that will incorporate other environmental statutes, including the CWA within the EPW jurisdiction. Exempting these projects would create efficiencies and prevent any one state from obstructing interstate commerce, while other CWA provisions like section 404 (dredge and fill permits) will guarantee water quality protections remain in place.

Pipelines Stopped/Delayed by Weaponization of Clean Water Act 401:

- Millennium Bulk Coal Terminal (Washington State)
- Millennium Pipeline Valley Lateral Project
- Constitution Pipeline
- Northeast Supply Enhancement Project (NESE)
- Northern Access 2016 Project
- Transmission Projects for ConEd & National Grid
- Mountain Valley Pipeline (delayed by 4th Circuit Court of Appeals, finally approved by an act of Congress)
- Jordan Cove LNG Export Terminal

Impacts to American Families and Businesses from Cancellations

The weaponization of CWA against projects – especially Constitution (2016) and NESE (2019), taught the industry that it could not build large interstate projects to provide natural gas to the Northeast. No pipeline of any significance has been proposed or built in the Northeast since.

New S&P Global research on the economic benefits of unlocking Appalachian gas found[i]:

- Lack of access to this low-cost gas has pushed gas prices in Boston, Chicago, and New York up to 160% higher than Henry Hub (and elsewhere in the U.S.) in peak months feeding into higher electricity prices to consumers;
- Expanding Northeast exit capacity by 6.1 Bcf/d could reduce Henry Hub gas prices by ~$0.20/MMBtu, benefitting Americans across the country;
- Northeast markets could see 20 percent to 30 percent gas price declines – $2.25/MMBtu in Boston and $1.23/MMBtu in New York in peak months; and
- Cumulative savings to 2040 reach $76 billion, far exceeding the estimated $14 billion in capital costs necessary for the pipeline expansions.

NEPA Reform is Needed to Build Energy Infrastructure

Problem: NEPA is a procedural statute designed to prescribe a process for more informed decisions, not to mandate particular results or specific outcomes. Unfortunately, serial litigants have taken advantage of the overly broad direction and transformed NEPA into a never-ending circus of litigation. According to the Department of Justice (DOJ), NEPA is the most litigated statute.[ii] Notably, a study published in the Environmental Law Institute (ELI) analyzed 355 major transportation and energy infrastructure projects between 2010-2018 and found that 28 percent of the projects requiring an environmental impact statement faced predevelopment legal challenges and 89 percent of those challenged involved a claim of a NEPA violation.[iii]

Solution = Reforming Evidentiary Bar: To help curb this abuse by Courts and endless litigation by environmental activists, Williams recommends reforming the evidentiary bar to provide greater durability for federal authorizations and principled guardrails to ensure challenges and authorizations are based on a reasonable standard.

Congress should consider adding "standard of review" provisions within NEPA to require a reviewing court to uphold an environmental document or final agency action if either (a) there is enough evidence in the agency's record for reasonable minds to accept to determination, even if it is possible to draw contrary conclusions, and whether or not the evidence is cited by the agency; or (b) the claim challenging a NEPA action is not substantiated by "clear and convincing evidence." The Court should be required to uphold the final agency action if either condition (a) or (b) is met.

To prevent the Courts from vacating approvals by agencies, Williams also recommends amending NEPA to ensure that remand is the only remedy.

Examples of Costly and Time-Consuming Delays due to NEPA Processes
Well-organized activist groups have developed a playbook to delay – and ultimately cancel – projects they oppose (often for purely political reasons). They pick apart the relative agencies' record to find any unfathomable scenario

to claim the project may have potential harm. Even if the agency conducts an analysis, litigants challenge the analysis and argue that the analysis is "arbitrary and capricious," and thus violating the Administrative Procedures Act (APA). This runs contrary to the intent of the statute – to operate procedurally with deference to agencies' analysis. Courts and activist jurists have played into this handbook by inappropriately applying the "arbitrary and capricious" standard of review, and instead of giving deference to agency analysis, they are finding agency actions arbitrary simply because they do not agree or like the agency's conclusion.

A number of recent D.C. Circuit cases illustrate the importance of amending NEPA to reform the standard of review.

In *City of Port Isabel v. FERC*[iv], on July 16, 2024, the D.C. Circuit held that FERC's explanation for its failure to use air emissions data from a nearby air monitor (instead of a different air monitor that was also nearby the terminals) was arbitrary and capricious. FERC explained that it did not use data from the nearby air monitor because the required three years of emissions data was not available at that monitor and another monitor was closer to the relevant environmental justice communities. The DC Circuit found FERC's explanation to be arbitrary and capricious because FERC did not say the data was not available and verified and there were also environmental justice communities near the other monitor.

On July 30, 2024, in *New Jersey Conservation Foundation, et al. v. FERC*[v], the D.C. Circuit vacated and remanded the authorizations to increase capacity within an existing pipeline right-of-way in Pennsylvania. The project, Williams' Transco Regional Energy Access Enhancement Project (REA), had been in service providing natural gas to supplies for more than 4.4 million homes for more than eight months. In this case, the petitioners argued that the Commission failed to adequately explain its decision not to make a significance determination regarding greenhouse gas ("GHG") emissions and failed to discuss possible mitigation measures. The D.C. Circuit found that even though significant analysis was conducted by FERC, it failed to conclude that the GHG emission were significant. The D.C. Circuit vacated the certificate for the project.

The proposed standard of review described above would likely have prevented the outcomes in both *City of Port Isabel v. FERC* and *New Jersey Conservation Foundation, et al. v. FERC* by requiring that the Court's analysis give more deference to the agency's NEPA analysis. It would also require claims to satisfy the "clear and convincing" evidence standard, which would mitigate frivolous claims.

---

[i] https://www.spglobal.com/en/research-insights/special-reports/major-new-us-industry-at-a-crossroads-us-lng-impact-study-phase-2#Unleashing
[ii] https://crsreports.congress.gov/product/pdf/IF/IF11932
[iii] https://www.elr.info/articles/elr-articles/nepa-litigation-over-large-energy-and-transport-infrastructure-projects
[iv] https://shorturl.at/O08Qw
[v] https://www.cadc.uscourts.gov/internet/opinions.nsf/E0685AE8C4FB8AF985258B6A00518216/$file/23-1064-2067300.pdf

ZETA | ZERO EMISSION TRANSPORTATION ASSOCIATION

Statement for the Record
Senate Committee on Environment and Public Works
"Improving the Federal Environmental Review and Permitting Processes"
Hearing date: February 19, 2025
Submitted: March 21, 2025

Chairman Capito and Ranking Member Whitehouse:

The Zero Emission Transportation Association (ZETA) is a federal coalition focused on advocating for the advancement of the electric vehicle (EV) supply chain. ZETA is committed to enacting policies that drive EV adoption, create hundreds of thousands of jobs, and maintain American EV manufacturing dominance in global markets. We appreciate the opportunity to provide comments on this extremely important issue.

The ongoing expansion of the domestic EV sector creates vast economic opportunities for the United States, which are projected to generate hundreds of thousands of domestic jobs and help sharpen our global competitiveness in the field of advanced manufacturing. However, these opportunities can only be fully accessed through an efficient and predictable permitting process for mining, manufacturing, and refining projects.

As demand for electric vehicles continues to grow at home and abroad, the need for mineral commodities, including lithium, cobalt, nickel, graphite, and copper, will likewise rise precipitously. Mining is essential for the United States to fulfill demand in the electric vehicle and clean energy sectors, not to mention other mineral applications in defense, consumer electronics, and advanced computing. Unfortunately, bringing a new mine online in the United States can take well over a decade, with recent data indicating an average of 29 years from first discovery to first production.[1] The dearth of domestic processing and refining capacity is even more dire; for instance, the United States has only two copper smelters operating today, down from approximately 20 in previous decades.[2] For comparison, China currently operates approximately 50 copper smelters.[3]

One important step to allow for more domestic mineral production is the enactment of S. 544, the Mining Regulatory Clarity Act. Recently reintroduced by Senator Cortez Masto and Senator Risch, S. 544 is the result of a years-long, bipartisan effort to reestablish certainty for mineral producers

---

[1] Bonakdarpour, Mohsen, Hoffman, Frank, and Rajan, Keerti, "Mine development times: The US in perspective," S&P Global, June 2024, https://www.reuters.com/markets/commodities/us-mine-development-timeline-second-longest-world-sp-global-says-2024-07-18/.
[2] Congressional Testimony of Dr. Morgan D. Bazilian, Professor and Director, Payne Institute for Public Policy at Colorado School of Mines before the Committee on Natural Resources, Subcommittee on Energy and Mineral Resources, February 6, 2025, https://www.congress.gov/119/meeting/house/117845/witnesses/HHRG-119-II06-Wstate-BazilianM-20250206.pdf.
[3] Ibid.

in the United States while maintaining our nation's high standards of environmental protection. We would encourage any permitting efforts to include this critical piece of legislation.

Further, like numerous other industries across the United States, aspects of EV production are adversely impacted by the unpredictable timelines and lack of transparency throughout the National Environmental Policy Act (NEPA) permitting process. In particular, this often lengthy and burdensome process impacts mineral development projects, many of which are located on or near federally-owned land in the western United States. Additionally, a more timely and efficient judicial review process for permitted projects would dramatically improve U.S. competitiveness as a mineral and battery producer.

ZETA would like to work with the Chairman, Ranking Member, and other members of the Committee to find a balanced approach to improve timelines and transparency in NEPA reviews while maintaining stringent environmental standards. Only then will there be true certainty for the ongoing development of mineral production projects, which are so vital to the domestic supply chain of EVs and dozens of other advanced technological applications.

ZETA is grateful to Chairman Capito, Ranking Member Whitehouse, and members of the Committee for their continuing efforts to forward the cause of permitting reform. Improving our permitting processes for mining and refining is critical to ensuring the entire EV supply chain continues to flourish in the United States, now and in the many years to come.

March 21, 2025

ACORE Submission for Senate Environment and Public Works Committee hearing titled, "Improving the Federal Environmental Review and Permitting Process," February 19, 2025

The Honorable Shelley Moore Capito
Chairman
U.S. Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Sheldon Whitehouse
Ranking Member
U.S. Senate Committee on Environment and Public Works
410 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Capito and Ranking Member Whitehouse:

The American Council on Renewable Energy ("ACORE") respectfully submits the following comments in response to the Committee's February 19, 2025 hearing titled, "Improving the Federal Environmental Review and Permitting Process."

About ACORE

Founded in 2001, ACORE is the oldest full-spectrum clean energy organization in the United States. We are a national 501(c)(3) nonpartisan, nonprofit organization with membership that spans the entire energy value chain, including clean energy developers, institutional investors, corporate buyers of clean energy, manufacturers, electric power generators, retail energy providers, and other stakeholders. In 2023, roughly 85 percent of the thriving clean energy growth reported nationwide was financed, developed, owned, or contracted for by ACORE members.

Introduction

During the February 19 hearing, Chairman Capito recognized that durable, effective permitting reforms will require bipartisan engagement from Energy and Public Works ("EPW") as well as other Committees in the House and Senate.

While these comments are primarily focused on the National Environmental Policy Act ("NEPA") issues within EPW's jurisdiction, ACORE and its membership also remain supportive of the balanced approach to permitting across generation and transmission resources and sectors represented in the Energy Permitting Reform Act ("EPRA") (S. 4753, 118th Congress), which was advanced on a strong, bipartisan 15-4 vote by the Senate Energy and Natural Resources Committee in 2024. We also reference in these comments some of the specific provisions within EPRA that represent beneficial improvements in permitting reform.

ACORE would like to acknowledge and applaud Chairman Capito's principles for permitting reform legislation as articulated during the hearing,[1] which can be summarized as:

- Legislation must help all types of projects, not just politically favored projects or projects that will support the infrastructure needs of some Americans, but not others.
- Legislation should provide clarity and transparency in permitting processes.
- Legislation should examine every stage of the permitting process to find efficiencies while balancing public health, the environment, and the needs of our economy.

These comments recommend reforms that seek to meet each of these principles. ACORE and its members stand ready to work with the Chairman, Ranking Member, members of the EPW Committee, as well as other Congressional Committees, the Administration, and stakeholders, to achieve the durable, efficient, and effective permitting reforms that are necessary to meet the needs of a 21st century economy.

Challenges Presented by the Permitting Status Quo

Despite the critical need for an expansion of electricity transmission to meet the nation's growing energy demand while ensuring energy affordability and reliability, permitting both clean energy and transmission projects often entails lengthy and complex processes. A recent study from the

[1] Opening Statement of Chairman Shelley Moore Capito, U.S. Senate Committee on Environment and Public Works, hearing titled, "Improving the Federal Environmental Review and Permitting Processes," February 19, 2025, available online at: https://www.epw.senate.gov/public/_cache/files/3/9/39c3e947-4b10-4889-987b-ee8da5a75d82/4A24993F04AFEBCDEFA30C14E76607609C9474D04B6FD971E106A0BA1FA385E5.spw-02192025-improving-federal-environmental-review-and-permitting-process.pdf

North American Electric Reliability Corporation ("NERC") found that between 35 and 58 gigawatts of interregional transmission are needed to ensure reliability during extreme weather events.[2] But these critical interregional transmission lines can take 10 years or even longer to complete.[3] While local, state and federal permitting all impede the approval process, reforms are still needed to obtain further efficiencies in NEPA compliance and especially to reduce post-NEPA litigation. Uncertainties around NEPA timelines, costs and potential litigation can all adversely affect project financing, materials procurement, and other key steps in project development.

1. Litigation Under NEPA

The U.S. Department of Justice has identified NEPA as the nation's most frequently litigated environmental statute.[4] A Stanford University analysis of litigation against 355 transportation and energy projects required to undertake an Environmental Impact Statement ("EIS") between 2010 and 2018 further reveals such challenges.[5] All of the projects examined had completed the EIS at the time of the study but were now facing litigation, highlighting a critical distinction between the administrative obligations under NEPA and the often-perilous legal process that can play out thereafter, with "years and likely millions of dollars of direct costs in early project planning and permitting."[6]

2. NEPA Environmental Study Process

---

[2] North American Electric Reliability Corporation, *Interregional Transfer Capability Study, Final Report* (Nov. 2024), available at: https://www.nerc.com/pa/RAPA/Documents/ITCS_Final_Report.pdf

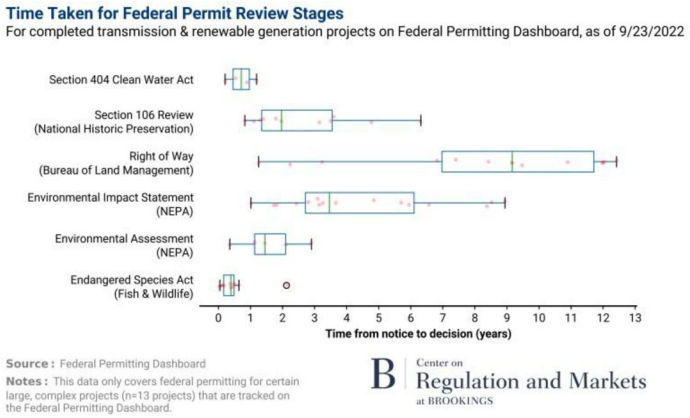
[3] See for example, The Bipartisan Policy Center, *Finding the Goldilocks Zone for Permitting Reform* (Jan. 2024) at 10, stating that permits for interstate transmission lines "can take upward of 10 years," available at: https://bipartisanpolicy.org/report/golidlocks-zone-bipartisan-permitting-reform-deal/; The Nature Conservancy, *Permitting Modernization: Accelerating A Clean Energy Transition and Benefitting Nature* (visited in March 2025) noting that transmission approval times "can stretch to over a decade," available at: https://www.nature.org/en-us/about-us/who-we-are/how-we-work/policy/permitting-reform-policy/

[4] Congressional Research Service, *National Environmental Policy Act: Judicial Review and Remedies* (Sep. 2021), available at: https://crsreports.congress.gov/product/pdf/IF/IF11932.

[5] Bennon, M. & Wilson, D., *NEPA Litigation Over Large Energy and Transport Infrastructure Projects* (Oct. 2023), available at: https://cddrl.fsi.stanford.edu/publication/nepa-litigation-over-large- energy-and-transport-infrastructure-projects.

[6] Id.

The EIS process itself can be extensive and delay clean energy and transmission project development. For example, the Brookings Institution scrutinized a set of 13 "national-priority" clean energy and transmission projects covered under Title 41 of the Fixing America's Surface Transportation Act ("FAST-41"),[7] concluding that completing the EIS and obtaining the Right-Of Way ("ROW") from the Bureau of Land Management ("BLM") were two of the largest sources of delay for such projects – with the EIS taking as long as nine years (see Figure below).[8] ROW authorizations depend on the completion of the NEPA process, and as such, their timelines are directly impacted by the duration of NEPA studies.



For context, the average time to complete an EIS for all projects in 2010-2018 was 4.5 years.[9] As of June 2024, the average time for projects covered under FAST-41 to complete an EIS review

[7] FAST-41 is designed to establish a coordinated framework for federal approvals of large, complex infrastructure projects in the United States. See Permitting Council, FAST-41 for Infrastructure Permitting (n.d.), available at:https://www.permits.performance.gov/sites/permits.dot.gov/files/2020-05/FAST_41_FS_20200325.pdf.

[8] Sud, R., Patnaik, S., & Glicksman, R. *How to reform federal permitting to accelerate clean energy infrastructure: A nonpartisan way forward* (February 2023), available at: https://www.brookings.edu/articles/how-to-reform-federal-permitting-to-accelerate-clean-energy-infrastructure-a-nonpartisan-way-forward/.

[9] Council on Environmental Quality, *Environmental Impact Statement Timelines* (2010-2018) (June 2020), available at : https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timeline_Report_2020-6-12.pdf.

had decreased to approximately four years. However, 32% of current FAST-41 projects still exceeded CEQ's earlier 4.5-year average.[10] Of the projects that took longer than CEQ's average, half were transmission lines. Moreover, this timeline excludes any pre-application processes or the potential for multi-year NEPA litigation.[11] Timelines for EIS reviews are often lengthened by the prospect of NEPA litigation due to the need to "litigation-proof" the environmental reviews. Furthermore, a 2024 analysis by the Niskanen Center and the Clean Air Task Force, described in the testimony of Nicole Pavia before this Committee, examined 37 transmission lines with a minimum voltage of 115kV and a minimum length of five miles that were subject to NEPA, finding that the EIS itself took between 1.2 and 11 years, and that 27% of the projects faced litigation or significant opposition, resulting in delays or cancellations.[12]

As shown in another analysis by the Niskanen Center, NEPA generally impacts larger projects. The transmission projects requiring an EIS between 2010 and 2020 made up 3.5% of projects by number, but 26% of the total domestic transmission line miles.[13]

Towards a 21st Century NEPA

There are many opportunities to create greater efficiency in the NEPA compliance process without sacrificing environmental protection, as described below:

1. ***Simplify the NEPA compliance process.***

[10] Of 34 projects examined, 11 took longer than 4.5 years to complete an EIS, ranging between 4.7 and 9.3 years to complete an EIS.

[11] For example, see Adelman, D.E. & Glicksman, R.L. *Presidential and Judicial Politics in Environmental Litigation* (May 2018) finding that the median NEPA litigation time frame was about two years, available at: https://arizonastatelawjournal.org/wp-content/uploads/2018/05/Adelman_Pub.pdf

[12] Boling, T. et al. *Evidence-Based Recommendations for Overcoming Barriers to Federal Transmission Permitting* (April 2024), available at: https://www.niskanencenter.org/evidence-based-recommendations-for-overcoming-barriers-to-federal-transmission-permitting/.

[13] Manitius, N, Cavert, J, & Kelly, C, *Contextualizing Electric Transmission Permitting: Data from 2010 to 2020* (March 2024), available at: https://www.catf.us/resource/contextualizing-electric-transmission-permitting

While establishing deadlines for environmental studies is important, as was included in the 2023 Fiscal Responsibility Act ("FRA"), additional measures are needed to improve the process more comprehensively and can be undertaken by the permitting agencies without legislative changes.

a. Expand the use of Categorical Exclusions. Categorical exclusions may be granted by agencies to specific categories of actions that do not have an adverse environmental impact and, therefore, may comply with NEPA without conducting environmental studies. Agencies can create new exclusions or adopt exclusions from other agencies. For example, the U.S. Department of Energy ("DOE") expanded its categorical exclusions by removing the mileage limitation for upgrades and rebuilds of existing transmission lines, removing the acreage limitation for solar projects in previously disturbed areas, and adding a new exclusion for storage projects in previously disturbed areas.[14] Moreover, there should be a clear and timely process for agencies to adopt categorical exclusions from other agencies.

b. Avoid duplicative studies. A Programmatic EIS ("PEIS") helps to streamline decision-making and can avoid duplicative studies by allowing a single EIS to cover groups of projects with similar features and other broad actions, such as programs, policies, and rulemakings, although additional project-specific NEPA analysis may be required. A PEIS can be used for geographic areas with fewer resource conflicts and should be structured to avoid individual projects within that area having to perform an EIS. For example, under the Desert Renewable Energy Conservation Plan, permitting is streamlined for energy projects within specific Development Focus Areas (DFAs) that were identified as having minimal resource conflicts.[15]

c. Create a thorough pre-application process. Defined pre-application processes to collect information from the developer and consult with agencies early in the process could minimize later delays. For example, such a process was included in both DOE's Coordinated Interagency Transmission Authorization and Permits ("CITAP") program that streamlines the transmission

[14] U.S. Department of Energy, *National Environmental Policy Act Implementing Procedures*, Final Rule (April 30, 2024), available at: https://www.energy.gov/sites/default/files/2024-04/doe-10-cfr-1021-final-rule-2024-04-30-final.pdf.

[15] See *About the Desert Renewable Energy Conservation Plan*, available at: https://drecp.databasin.org/pages/about-drecp/; *Desert Renewable Energy Conservation Plan – Permitting Fact Sheet*, available at: https://www.energy.ca.gov/sites/default/files/2019-12/DRECP_Permitting_Fact_Sheet_ada.pdf.

permitting process and in FERC's backstop siting authority process.[16] These processes also provide an opportunity for the project developer to conduct early community engagement and develop measures that will provide benefits to the community, such as funding for economic development projects. As discussed later, pre-application and other processes outside of the studies should also be subject to reasonable deadlines.

d. Early and upfront engagement with affected communities and landowners. Upfront and early engagement is a well-established practice for reducing opposition to planned projects. For example, DOE's CITAP program will require project proponents to submit public participation and engagement plans as part of the permitting process.

2. Legislative Improvements to NEPA and Related Processes

In addition to improvements to the NEPA process, there are further steps that require legislative action, including the following:

a. Strengthen and streamline FERC's backstop siting authority for transmission. FERC's backstop siting authority is an important tool, but it has not yet been used. Under current rules, projects can be subject to NEPA twice – first within the process of designating a National Interest Electric Transmission Corridor ("NIETC"), which is itself subject to NEPA, and second for the individual transmission line itself. DOE is currently accepting public comments on three proposed NIETC designations.[17] However, it could take about two years to complete the NIETC designation process and set the stage for FERC to use its backstop siting authority. An important reform is therefore to establish a process for FERC to use this authority without relying on the NIETC designation, as has been proposed in EPRA.[18]

---

[16] U.S. Department of Energy, *Coordinated Interagency Transmission Authorizations and Permits Program* (April 2024), available at: https://www.energy.gov/gdo/coordinated-interagency-transmission-authorizations-and-permits-program; U.S. Federal Energy Regulatory Commission, *Applications for Permits to Site Interstate Electric Transmission Facilities,* Docket No. RM22-7-000; Order No. 1977 (May 2024), available at: https://www.federalregister.gov/documents/2024/05/29/2024-10879/applications-for-permits-to-site-interstate-electric-transmission-facilities

[17] U.S. Department of Energy, *National Interest Electric Transmission Corridor Designation Process*, available at: https://www.energy.gov/gdo/national-interest-electric-transmission-corridor-designation-process.

[18] Sec. 401 of the Energy Permitting Reform Act of 2024.

b. Ensure sufficient resources are available to permitting agencies. Establishing deadlines for environmental reviews will have a limited impact if federal agencies do not have sufficient resources to complete them, as Ms. Pavia pointed out in her testimony. Congress should consider additional resources to alleviate the agency capacity shortages that are delaying energy infrastructure projects of all types. Not only do the permitting agencies require sufficient staff, but staff with the necessary expertise. Therefore, priority should be given to hiring staff with expertise and experience in the range of actions involved in NEPA compliance – from the conduct of environmental studies to community engagement.

While having sufficient resources and expertise is essential, there may be additional opportunities for the Committee to explore, including allowing the applicants themselves to conduct the required environmental studies with their own experts or third-party consultants instead of the agencies; establishing a team of specialized NEPA consultants for the agencies; or encouraging agencies to create teams of dedicated permitting staff.

c. Address delays that occur prior to initiation and following completion of the NEPA studies. The deadlines established for the environmental studies in the FRA are positive steps, but delays can and do occur in earlier stages of the NEPA process before these studies begin (e.g., through an agency delaying in starting an EIS process through a Notice of Intent publication in the Federal Register), as well as after the completion of the final EIS and the issuance of the Record of Decision ("ROD"). An overarching deadline could be established that begins with the initial project application, including any pre-application process and ends with the ROD, not just the EIS. One good example of this approach is found in EPRA that would have required the establishment of timelines for multiple stages of the permitting process, including the determination of whether an application is complete; issuance of a notice of intent for projects requiring an environmental impact statement; cost recovery agreement; and right-of-way approval.[19] Additional deadlines could also be established for other key steps, such as initiating and completing the stakeholder process.

Agencies should also ensure that their NEPA process achieves early integration of non-NEPA federal permitting statutes, such as the National Historic Preservation Act ("NHPA") and

[19] See Sec. 206 of the Energy Permitting Reform Act of 2024.

Endangered Species Act ("ESA"), which can overlap with the NEPA process but may sometimes result in unforeseen and costly delays after an ROD under NEPA has been issued, particularly for projects on BLM-managed land. NEPA Section 1502[24] states that: "To the fullest extent possible, agencies shall prepare draft environmental impact statements concurrent and integrated with environmental impact analyses and related surveys and studies required by all other Federal environmental review laws and Executive orders applicable to the proposed action."

d. Fully utilize and explore opportunities to identify new Categorical Exclusions. Agencies should fully utilize the existing categorical exclusions while also seeking new opportunities to expand their categorical exclusions. But there are still steps that Congress can take.

Should agencies struggle to develop the body of evidence necessary to establish that such categories of actions do not cause significant environmental effects, Congress should as an additional measure identify certain actions that are categorically excluded, without the need for agencies to develop such categories individually.[20]

Moreover, in accordance with the FRA, the Forest Service and the BLM have taken the positive step of adopting the DOE's categorical exclusions for renewable energy and transmission.[21]

e. Expand the Scope of FAST-41 Coverage and Encourage State Participation. Projects covered under FAST-41 are displayed on a publicly available dashboard that displays their environmental review status and agencies' progress on target completion dates while affording projects various forms of assistance that can improve the permitting outcomes, such as enhanced legal protections, a two-year statute of limitations, and improved interagency coordination.[22] However, senior officials with the Federal Permitting Improvement Steering Council

[20] These categorical exclusions would still be subject to agency requirements to determine that no extraordinary circumstances exist.

[21] See Adoption of Categorical Exclusion Notices: https://www.federalregister.gov/documents/2024/11/08/2024-26036/adoption-of-categorical-exclusions-under-section-109-of-the-national-environmental-policy-act; https://www.federalregister.gov/documents/2025/01/16/2025-01057/notice-of-adoption-of-categorical-exclusions-under-section-109-of-the-national-environmental-policy.

[22] See Permitting Dashboard: https://www.permits.performance.gov/projects/fast-41-covered. Also see Permitting Council. FAST-41 for Infrastructure Permitting, available at: https://www.permits.performance.gov/sites/permits.dot.gov/files/2020-05/FAST_41_FS_20200325.pdf.

("Permitting Council"), a federal agency created by the FAST-41 statute to implement and model its provisions, recently acknowledged in congressional testimony the current limitations in the data that is available on the dashboard, such as the average timeline for completion of FAST-41 covered projects.[23] FAST-41 coverage is also limited to projects with a total investment of more than $200 million, including for states, which may voluntarily opt-in to FAST-41. A lower total investment threshold for energy and grid-related projects to participate in FAST-41 is a warranted reform,[24] to which a complement would be greater collaboration under FAST-41 among state governments, the Permitting Council and other federal agencies. Congress and the Permitting Council should consider more explicitly incentivizing states to opt-in to FAST-41, such as by tying participation to the use of any available or future funds earmarked for federal permitting assistance.

Moving forward, the Permitting Council should pursue more direct collaboration with developers to ensure that they are afforded sufficient guidance throughout the FAST-41 process, especially greater transparency when federal agencies miss their target completion dates for environmental reviews, and concrete actions that an agency can take to avoid further delays by leveraging input from developers.

3. Reform the Judicial Process to Reduce Litigation Risk

Greater efficiencies in the NEPA process must be paired with reforms that reduce the risk of litigation after the NEPA requirements are completed. A common basis for such lawsuits is the allegation that the federal agency responsible for NEPA implementation has not fully complied with the requirements of the environmental studies.[25] Such litigation can result in a court injunction to cease project development, at least until the litigation has been resolved.[26] As noted

[23] See Senate Homeland Security and Governmental Affairs Committee Hearing titled, "Oversight of the Permitting Council: Improving Transparency and Coordination" (July 2024): https://www.hsgac.senate.gov/hearings/oversight-of-the-permitting-council-improving-transparency- and-coordination/.

[24] See Sec. 104 of EPRA, which lowers the total project investment threshold to $50 million.

[25] See Liskow, Z.D., *Getting Infrastructure Built: The Law and Economics of Permitting* at 5 (April 2024), explaining that "[a]fter an agency completes any of these environmental reviews, especially the production of an EIS, the agency may be sued for not producing a thorough enough document," available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4775481

[26] See Liskow at 5 (April 2024). Also see Bennon & Wilson at 10840-10841 (October 2023).

earlier, the prospect of litigation can by itself extend the length of time involved in preparing an environmental study due to the need to "litigation proof" the study.[27]

Earlier and more meaningful community engagement and specific agreements to provide direct benefits to communities can reduce such litigation, but additional reforms will be needed to directly mitigate this risk, while also preserving citizens' rights to challenge certain projects. Such reforms include the following:

a. Shorten the deadline for a plaintiff to file a lawsuit. A straightforward and fair restriction on litigation would be to reduce the window of time for a plaintiff to bring a lawsuit from the six-year allowance under the Administrative Procedure Act ("APA") to two years or less. For example, the FAST Act established a two-year statute of limitations for certain infrastructure projects that require environmental review under NEPA.

In addition, reducing the window for litigation must also be accompanied by revisions to the Supreme Court's decision in *Corner Post, Inc. V. Board of Governors of The Federal Reserve System*.[28] In this case, the Court ruled that that the six-year time frame does not begin "until the plaintiff is injured by final agency action."[29] As a result, there is now no clear time limit on legal challenges because newly created entities can claim injury from an action, such as a project authorization that occurred years earlier. Along with shortening the timeframe, legislation should also mitigate the difficulties created by the *Corner Post* decision by clarifying that the timeframe begins with the agency action, not injury.[30] However, given the uncertainty created by his decision, a shorter statute of limitations may be warranted. Under EPRA, there is a 150-day statute of limitations which begins on the date of the final agency action granting or denying authorization of a project.

---

[27] See Liskow at 5 (April 2024). Also see Bennon & Wilson at 10840-10841 (October 2023).

[28] *Corner Post, Inc. v. Board of Governors of The Federal Reserve System,* No. 22–1008 (U.S. July 1, 2024).

[29] Ibid at 1.

[30] As Justice Jackson explains in her dissent, "Congress can amend §2401(a), or enact a specific review provision for APA claims, to state explicitly what any such rule must mean if it is to operate as a limitations period in this context: Regulated entities have six years from the date of the agency action to bring a lawsuit seeking to have it changed or invalidated; after that, facial challenges must end. See Ibid. (Jackson, J. Dissenting at 24).

b. Fully clarify agency discretion under NEPA to consider all alternatives. One reason lawsuits can easily be brought under NEPA is the ability of plaintiffs to claim that the EIS did not study all alternatives to the project.[31] Agencies should only analyze technically and economically feasible alternatives as determined in consultation with project developers who have greater knowledge of such alternatives. These improved practices would be strengthened by changes to the APA that would give agencies greater discretion in determining the alternatives for the EIS, whereby a project could still proceed even if the agency does not consider every possibility.[32]

c. Establish processes to accelerate the projects subject to judicial claims. Two provisions of EPRA would help reduce the delays caused by litigation. First, the legislation would require courts to establish an expedited review of litigation regarding a federal authorization for energy and transmission projects; and second, it would establish a 180-day deadline for agencies to act when a court remands an environmental review back to an agency.[33]

d. Limit a federal court's ability to enjoin or halt a project in response to the initiation of litigation. Courts should not be able to halt the construction of a project solely because litigation has been initiated. One measure to curtail this practice would be to establish clear criteria that limit when projects can be halted by a court, such as only where a NEPA analysis is deficient in a respect that would have changed the agency's final decision to approve.

Conclusion

A 21st century NEPA, with the reforms described in these comments, can protect the environment and support effective public engagement, while paving the way for a future built around growing domestic energy production. Reducing impediments to siting and permitting of energy and transmission infrastructure will be essential to meeting growing electricity demand, leading to more economic growth, job creation and affordable energy.

---

[31] See Liskow and Bennon & Wilson. Also see Senator Shelly Moore Capito's (R-WV) Revitalizing the Economy by Simplifying Timelines and Assuring Regulatory Transparency (RESTART) Act: https://www.epw.senate.gov/public/_cache/files/4/f/4f2a46c5-0215-4be0-9ed8-63b517fab09f/61F3BBA10475E6DBC93B7F7177B10349.restart-act-text-capito-final.pdf

[32] See Liskow at 27.

[33] See Sec. 101 of EPRA.

Federal agencies' recent actions to update NEPA help build momentum for further improvements. But additional policy changes are needed to reduce the risk of post-NEPA litigation and ameliorate siting and permitting barriers in coordination with state, local, and Tribal governments. Moreover, there are numerous opportunities to obtain greater efficiencies in the NEPA process itself, such as by expanding categorical exclusions and addressing delays in the process prior to the initiation of environmental studies.

ACORE stands ready to work with the Committee on achieving improvements to the permitting process that benefit all resources and looks forward to further engagement on this important issue.

Respectfully submitted,

Elise Caplan, Vice President, Regulatory Affairs
caplan@acore.org
Jeremy Horan, Vice President, Government Affairs
horan@acore.org
American Council on Renewable Energy
1150 Connecticut Ave, NW, Suite 401
Washington, DC 20036

Setting The Record Straight on Florida's 404 Program

1. Florida Obtains 404 Permitting Authority Lawfully

In 2018, Florida's Legislature passed a bill that gave DEP authority to begin the public rulemaking process to better protect the state's wetlands and surface waters by assuming the federal dredge and fill permitting program under section 404 of the federal Clean Water Act within certain waters. The rulemaking process was completed on July 21, 2020.

Through this process, Chapter 62-331, Florida Administrative Code, "State 404 Program," was created to bring in the requirements of federal law not already addressed by the existing Environmental Resource Permitting (ERP) program. Minor changes were also made to the ERP rules in Chapter 62-330, F.A.C., to facilitate assumption. Florida submitted its assumption package to the EPA on Aug. 20, 2020. EPA approved Florida's program on Dec. 17, 2020. The State 404 Program became effective on Dec. 22, 2020, the date EPA published approval in the Federal Register.

2. Florida's 404 Program Unprecedented Divestment

Just before midnight on Feb. 15, 2024, a federal judge in Washington D.C. issued an order divesting, at least for now, the Florida Department of Environmental Protection (DEP) of its authority to issue State 404 Program permits in Florida.

a. Judge Randolph D. Moss disagreed with the program's approach for protecting endangered species, even though it is modeled after an approach approved by a federal circuit court in 2018. Rather than adhere to previous precedent in making a decision, Judge Moss chose to disregard that authority, finding the circuit court's approval of that program to be "a critical misstep."

3. 1,000+ 404 Project Applications Are Affected and Suspended

More than 1,000 404 State permit applications were pending before DEP and are presently disrupted. Beyond large-scale development projects, Judge Moss' decision directly impedes efforts to review and authorize a wide range of 404 permit applications that benefit the environment and the public, including:

b. Projects to restore America's Everglades and prevent damaging discharges from Lake Okeechobee.
c. Public projects to build or improve sidewalks, bridges, utilities, roads and highways across the state.
d. Solar energy projects, including solar power stations and other electric utility projects impacting grid reliability.
e. Stormwater infrastructure repairs and improvements at U.S. Naval Air Station-Pensacola due to damage from Hurricane Sally.
f. Projects to build or improve medical facilities, including a new emergency center in South Florida.

g. Projects to construct new or improve existing school facilities, including construction of a new charter school in Jacksonville.

4. State + Federal Wildlife Agencies HAD Strong Dual Review Partnership

Under the state's approach, every application for a permit is provided to the U.S. Fish and Wildlife Services (FWS) and Florida Fish and Wildlife Conservation Commission (FWC) for review for potential listed species impacts, regardless of whether it is a "no affect" or "may affect" project.

a. This approach ensures a comprehensive review of potential effects and impacts to federal and state-listed species and their habitats as well as any potential avoidance and minimization measures that may be needed. Florida provided more than 6,000 applications to FWS and FWC. Of those, approximately 5,000 did not require species coordination, while more than 760 received official comment letters.

5. Federal Oversight of Florida's 404 Program Was Strict and Fair

The U.S. Environmental Protection Agency (EPA) maintains stringent oversight of the State 404 Program, including federal review and comment of draft permits.

a. The State 404 Program was designed to be at least as stringent, if not more so, than the federal requirements. To that end, in the 36 months that DEP administered the program, DEP received 40 objection letters from the EPA, of which EPA subsequently withdrew 31 of them. Further, just three applications (out of more than 9,500) have been federalized, none of which were for the protection of listed species.
    i. 40 Objection letters from the EPA.
    ii. 31 Objection letters withdrawn from the EPA.
    iii. 3 Applications federalized, out of more than 9,500 applications.

6. DEP Provided Greater Certainty and Efficiency Than Corps Review

Prior to DEP's implementation of the State 404 Program, the U.S. Army Corps of Engineers (USACE) represented that annually, they received between 750 to 1,000 applications. However, in the first year of administering the program, DEP received 3,881 applications – a 288% increase over the estimated workload.

Program/Year	Permits Received	Permits Approved	Permits Denied
USACE 2014	-	685	-
USACE 2015	-	702	-
USACE 2016	-	735	-
USACE 2017	-	874	-
USACE 2018	-	850	-
DEP 2020	325	-	-
DEP 2021	3556	745	50
DEP 2022	3055	1615	113
DEP 2023	2370	1450	144

DEP 2024	229	153	7

DEP has implemented process improvements and efficiencies, and, over the last two years, DEP has closed out 8% more applications than the agency has received.

7. Florida's Potential Loss Would be a Blow to Cooperative-Federal

Should DEP ultimately be divested of its authority to issue State 404 Program permits in Florida, it is unclear what if any path would exist for any state to obtain assumption under the Clean Water Act.

a. Florida's 404 Program is a textbook example of cooperative federalism, which is a cornerstone of the Clean Water Act. Not only is this program a product of a bipartisan effort spanning multiple administrations, but it is also the product of multiple state and federal agencies working together to fashion an efficient regulatory program that offers maximum environmental protection. The ability for states to take the lead in regulating their natural resources is vital, especially for a state like Florida where its growing economy is contingent on the continued protection of its environment.

Congress of the United States
Washington, DC 20515

March 22, 2024

The Honorable Michael S. Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington D.C. 20460

The Honorable Michael Connor
Assistant Secretary of the Army – Civil Works
U.S. Department of the Army
108 Army Pentagon
Washington, D.C. 20310-0108

The Honorable Shannon Estenoz
Assistant Secretary for Fish and Wildlife and Parks
U.S. Department of the Interior
1849 C Street, NW
Washington, D.C. 20240

Dear Mr. Regan, Mr. Connor and Ms. Estenoz:

We write to express our strong support for the State of Florida's Section 404 permitting program. In 2020, Florida became the first state in more than 25 years to apply for, and receive approval, to implement a Clean Water Act (CWA) Section 404 program. Today, Florida is only the third state to assume a Section 404 program, with the most recent to do so since 1994. Florida's 404 permitting program has protected the state's valued wetlands, such as the Everglades, and has reduced wasteful duplication of effort by federal and state authorities while improving responsiveness to applicants and the communities' projects will serve.

Federal agencies maintain robust oversight and consultation with the Florida Department of Environmental Protection (FDEP) to ensure that Florida's 404 permitting program is consistent with all federal requirements. The Environmental Protection Agency maintains strict permit-by-permit oversight of Florida's permitting decisions. FDEP also coordinates closely with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the Florida Fish and Wildlife Conservation Commission on the issuance of permits that may affect any listed species or critical habitat under a Florida-specific programmatic biological opinion with incidental take statement.

Since assuming the program in December 2020, FDEP has trained more than 300 certified wetlands evaluators and staff and received approximately 9,300 applications for Section 404 permits. To date, FDEP has made thousands of permitting decisions for projects under the terms of its assumption package. This includes permits for affordable housing, senior living centers, environmental restoration, military installations, schools, roads, post-hurricane recovery and redevelopment work, and other projects necessary to accommodate Florida's growth and enhance residents' quality of life. Consistent with law, these permits have also facilitated significant environmental mitigation efforts. Florida's Section 404 program has truly been a successful example of cooperative federalism. Following Florida's example, several other states have begun to explore applying for Section 404, and further expansion of the program will serve to enhance its efficacy, while reducing the burden on overextended federal agencies.

As staunch supporters of restoring America's Everglades, our nation's most treasured wetland, we view Florida's Section 404 permitting program as critical to protecting the state's precious resources and necessary to advance Everglades restoration. Thank you for your support of the State of Florida's Section 404 program.

Sincerely,

Marco Rubio
U.S. Senator

Rick Scott
U.S. Senator

Mario Diaz-Balart
Member of Congress

Neal P. Dunn, M.D.
Member of Congress

Byron Donalds
Member of Congress

Aaron Bean
Member of Congress

C. Scott Franklin
Member of Congress

Kat Cammack
Member of Congress

Carlos A. Gimenez
Member of Congress

John H. Rutherford
Member of Congress



Gus M. Bilirakis
Member of Congress



Daniel Webster
Member of Congress



Laurel Lee
Member of Congress



Brian Mast
Member of Congress



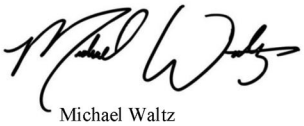
Bill Posey
Member of Congress



W. Gregory Steube
Member of Congress



Maria Elvira Salazar
Member of Congress



Michael Waltz
Member of Congress

NUCLEAR ENERGY INSTITUTE
1201 F Street NW • Suite 1100
Washington, DC 20004
nei.org

Martin J. O'Neill
Associate General Counsel

Phone: 202.713.8139
Email: mjo@nei.org

March 21, 2025

United States Senate
Committee on Environment and Public Works
Washington, DC 20510-6175

Submitted via email to permitting@epw.senate.gov

Subject: Improving the Federal Environmental Review and Permitting Processes – Hearing Record

Dear Members of the U.S. Senate Committee on Environment and Public Works:

On February 19, 2025, the U.S. Senate Committee on Environment and Public Works (EPW) held a bipartisan hearing titled "Improving the Federal Environmental Review and Permitting Processes." During the hearing, the Committee received testimony from representatives from witnesses representing the energy and homebuilding industries, labor, and non-profit organizations focused on advancing deployment of energy infrastructure. The EPW Committee opted to keep the Hearing Record open until March 21 to allow additional stakeholders to share their experiences with current environmental review and permitting processes and to identify related challenges and potential solutions thereto.

The Nuclear Energy Institute (NEI) appreciates the opportunity to provide input on this important topic.[1] As the demand for electricity continues to grow, the U.S. nuclear industry will play a crucial role in meeting the nation's energy security, grid reliability, economic development, and environmental goals via the long-term operation of the current power reactor fleet and the deployment of new reactors. Avoiding delays in the Nuclear Regulatory Commission's (NRC) licensing process, including agency environmental reviews under the National Environmental Policy Act (NEPA), is essential to fostering technological innovation and expeditiously deploying new nuclear plants.

Congress has recognized the need to improve the efficiency of federal environmental reviews to support the development of domestic energy resources, including nuclear energy. On June 3, 2023, the President signed into law the Fiscal Responsibility Act of 2023 (FRA) (P.L. 118-5). Section 321 (Builder Act) of the FRA included important amendments to NEPA that are intended to expedite the permitting process for infrastructure projects. Among other things, the FRA amendments established time and page limits for environmental impact statements (EIS) and environmental assessments (EA) with which all federal agencies must comply. In addition, on July 9, 2024, the President signed into law the Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024 (ADVANCE Act) (Pub. L. 118-67, div. B). Section 506 focuses specifically on modernizing the NRC's NEPA framework to ensure "efficient, timely, and predictable environmental reviews" of nuclear reactor license applications.

[1] NEI is the trade association for the commercial nuclear technologies industry, and our mission is to promote the use and growth of nuclear energy through efficient operations and effective policy. NEI has hundreds of members, including nuclear power plant owners and operators, reactor designers and advanced technology companies, architect and engineering firms, fuel suppliers and service companies, consulting services and manufacturing companies, companies involved in nuclear medicine and nuclear industrial applications, radionuclide and radiopharmaceutical companies, and universities and research laboratories.

Optimizing the environmental review process thus has been a priority for both the nuclear industry and NRC in recent years. To that end, NEI has made numerous recommendations to the NRC aimed at improving the efficiency of its NEPA review process, as implemented in 10 CFR Part 51 and related regulatory guidance. We refer the EPW Committee to the follow NEI submittals, for which NRC ADAMS accession numbers and hyperlinks are provided.

- *NEI Recommendations for Streamlining Environmental Reviews for Advanced Reactors* (Mar. 2020) (ML20065N155)
- NEI Comments on Scoping of an Advanced Nuclear Reactor Generic Environmental Impact Statement (June 30, 2020) (ML20183A009)
- NEI Comments on NRC Proposed Rule – "Renewing Nuclear Power Plant Operating Licenses – Environmental Review" (May 2, 2023) (ML23123A407)
- NEI Input on Regulatory Priorities for New and Advanced Reactors (Feb. 14, 2024) (ML24043A249) (Attachment – Topic 2, "Environmental Reviews")
- NEI, "Regulation of Rapid High-Volume Deployable Reactors in Remote Applications (RHDRA) and Other Advanced Reactors" (July 31, 2024) (Appendix 1, "Generically Resolved Environmental Considerations") (ML24213A337)
- NEI Input on Efforts to Modernize and Optimize NRC Environmental Reviews (Sept. 6, 2024) (ML24250A193)
- NEI Comments on NRC's Proposed Rule, "Categorical Exclusions from Environmental Review" (Sept. 20, 2024) (ML24264A112)
- NEI Comments on NRC's Proposed Rule, "Generic Environmental Impact Statement for Licensing of New Nuclear Reactors" (Dec. 18, 2024) (ML24354A067)
- Industry Comments to Inform the NRC's White Paper on "Nth-of-a-Kind Micro-Reactor Licensing and Deployment Considerations" (Dec. 20, 2024) (ML24358A266)

Collectively, these documents contain numerous recommendations for the NRC's consideration, principally including:

- Continuing NRC implementation of process improvements and technology tools, including online portals for applicant submittal and NRC review of environmental information;
- Finalizing the NRC's *Generic Environmental Impact Statement* for *Licensing of New Nuclear Reactors*, associated 10 CFR Part 51 revisions, and updated NRC guidance;
- Expanding use of environmental assessments (EA) / findings of no significant impact (FONSI), including "mitigated FONSIs" (in contrast to much lengthier EISs);

- Expanding use of categorical exclusions, including "mitigated categorical exclusions," to include licensing of micro-reactors and other advanced reactors;
- Streamlining alternatives analyses in NRC NEPA review documents by focusing those analyses on the proposed action and no-action alternative;
- Eliminating detailed, standalone "need for power" analyses in new reactor EISs/EAs and concisely addressing the need for power in the Purpose and Need Statement of the NRC's EIS/EA;
- Eliminating the need for site-specific consideration of severe accidents and related mitigation design alternatives (which are addressed as part of NRC's safety review) under NEPA;
- Considering use of an area or region-wide EIS/EA (or supplemental EIS/EA) when an applicant seeks to deploy large numbers (e.g., hundreds or more) of micro-reactors or other smaller advanced reactors within a broad region;
- Fully leveraging prior NEPA reviews and other relevant environmental analyses and data through tiering, adoption, and incorporation by reference;
- Identifying increased opportunities for other federal agencies (e.g., Department of Energy, Tennessee Valley Authority) to serve as Cooperating Agencies in NRC NEPA reviews;
- Developing clear and workable procedures to allow applicant preparation of draft EAs and EISs, as directed by the FRA amendments to NEPA; and
- Developing simpler and more expeditious (e.g., written-only) contested adjudicatory hearing procedures for new nuclear facilities.

As reflected in SECY-24-0046 and the NRC's January 6, 2025 report to Congress on ADVANCE Act Section 506, the NRC staff is implementing, or proposing to implement, many of the recommendations listed above. In this regard, NEI acknowledges the EPW Committee's March 6, 2025, letter to NRC Chairman David Wright. We agree that the Commission should prioritize voting on SECY-24-0046, especially given the considerable synergies between the NRC's response to the FRA amendments to NEPA and its response to section 506 of the ADVANCE Act. We also agree that the NRC should pursue an ambitious schedule for completing any related Part 51 rulemaking(s).

NEI recognizes that other federal environmental laws and regulations discussed during the EPW Committee's February 19 meeting can impact NRC environmental reviews of licensing actions for both operating and proposed new nuclear facilities. Namely, the NRC consults with various federal and state agencies and with Tribes to comply with other environmental statutes and to verify that required certifications and authorizations are obtained.[2] While these requirements are not subject to the deadlines

[2] For example, the NRC staff conducts consultation and compliance activities associated with statutes such as the Coastal Zone Management Act of 1972, as amended (CZMA); the Endangered Species Act of 1973, as amended (ESA); the Magnuson–Stevens Fishery Conservation and Management Act of 1976, as amended; the National Historic Preservation Act of 1966, as amended (NHPA); the

established by the FRA amendments to NEPA, they are typically completed by the NRC as part of the NEPA review process and, as such, potentially can delay issuance of the NRC's final NEPA document and/or the requested NRC license or permit.[3]

Notably, Congress already has taken some actions directed at addressing this issue. The FRA created new NEPA Section 107 (42 USC 4336a), which directs each federal lead agency to develop a schedule, in consultation with each cooperating agency, the applicant, and other relevant entities, for completing any environmental review, permit, or authorization required to carry out the proposed agency action, and to ensure that any schedule deviations are appropriately addressed. Section 506(b)(2)(F) of the ADVANCE Act directs the NRC to explore "opportunities to streamline formal and informal consultations and coordination with other Federal, State, and local governmental permitting agencies during environmental reviews of applications." As noted in SECY-24-0046, consistent with these directives, the NRC staff has developed internal procedures, and has identified other potential approaches, to facilitate the timely completion of interagency consultation and coordination activities when they are conducted in parallel with the staff's NEPA reviews. As discussed in SECY-24-0046, these other potential approaches include:

- Using the NRC preapplication process to prepare for and initiate consultations with relevant federal and state agencies and Tribal governments/organizations and conduct public outreach activities.

- Establishing and codifying detailed acceptance review criteria for information that is needed to comply with other environmental statutes to enable the NRC staff to proceed with consultations more quickly upon acceptance and docketing of an application, rather than experiencing delays gathering information after application acceptance.

- Revising NRC guidance to allow applicants to engage in consultation activities to the maximum extent possible under applicable law. For example, where permitted and appropriate, the NRC could designate a non-federal representative (i.e., an applicant or its contractor) to conduct the informal consultation or prepare a biological assessment under the ESA, in accordance with 50 CFR 402.08 ("Designation of non-Federal representative").

NEI encourages the EPW Committee to continue to track Commission approval and NRC staff implementation of these proposed approaches, and to consider whether any further legislative actions might serve to reinforce and/or augment these NRC proposals for ensuring timely completion of interagency consultation and coordination processes. In a related even, we note that two of President Trump's recent executive orders contain provisions that seek to expedite agency reviews and approvals of energy infrastructure projects under the ESA, CWA, and NEPA.[4]

Clean Air Act of 1963, as amended; the Clean Water Act of 1972, as amended (CWA); the Safe Drinking Water Act of 1974, as amended; and the Fish and Wildlife Coordination Act enacted March 10, 1934.

[3] As explained in SECY-24-0046, the NRC staff typically initiates these consultations after an applicant's submittal of an environmental report, effectively incorporating the consultation processes under the NEPA process and integrating the necessary documentation to comply with those statutes into the NEPA environmental document. While such consultations are not required to be incorporated into the NEPA process, combining NEPA with other federal requirements and consultations allows the NRC to fulfill certain public involvement requirements (e.g., section 106 of the NHPA requires public involvement) and streamline information gathering through a single process.

[4] *See* Executive Order, "Declaring a National Energy Emergency" (Jan. 20, 2025) (directing federal agencies to, among other things, identify energy-related actions that may be eligible for expedited approval under the U.S. Army Corps of Engineers (USACE) permitting provisions

The extent to which other federal laws and regulations may affect the efficiency and duration of NRC NEPA reviews of proposed licensing actions is heavily contingent upon project and site-specific factors (e.g., the presence of unique or sensitive aquatic, ecological, and historic and cultural resources). As such, we do not attempt to provide any generically-applicable or global recommendations here. However, we wish to make the EPW Committee aware of a February 24, 2025, letter that NEI sent to EPA and USACE officials. See **Attachment 1** to this letter. That letter, which was prompted by the executive orders cited above and NEI member feedback, urges the EPA and USACE to enable nuclear industry growth by collaborating on actions to facilitate efficient and consistent implementation of CWA permitting processes. In short, we asked those agencies to expedite "waters of the United States" (WOTUS) determinations by streamlining reviews of draft approved jurisdictional determinations (AJDs); resolve WOTUS definitional ambiguities by implementing clear, consistent interpretations and guidance that are aligned with recent judicial rulings (*see Sackett v. EPA,* 598 U.S. 651 (2023)); and to minimize delays in EPA/state issuance of CWA Section 401 water quality certifications, which are needed before the NRC can issue a license.

NEI appreciates the EPW Committee's efforts to improve federal environmental review and permitting processes that affect the energy and other industrial sectors, as well as the opportunity to submit this letter for inclusion in the Hearing Record. If you have any questions concerning this letter, please contact me at 202.739.8139 or mjo@nei.org.

Sincerely,

Martin J. O'Neill

Martin J. O'Neill
Associate General Counsel

Attachment: NEI Letter to U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, Subject: Clarification of the Definition of "Waters of the United States" (Feb. 24, 2025)

under the CWA or may be subject to ESA emergency consultation regulations); Executive Order, "Unleashing American Energy" (Jan. 20, 2025) (directing the Council on Environmental Quality to provide new guidance on implementing NEPA to expedite and simplify the permitting process and meet the deadlines established in the FRA amendments to NEPA).

1310

NUCLEAR ENERGY INSTITUTE
1201 F Street NW • Suite 1100
Washington, DC 20004
nei.org

Ellen C. Ginsberg
Sr. Vice President, General
Counsel and Secretary

Phone: 202.739.8140
Email: ecg@nei.org

February 24, 2025

Via Email: Best-Wong.Benita@epa.gov
Benita Best-Wong
Deputy Assistant Administrator
U.S. Environmental Protection Agency
Office of Water
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Via Email: Robyn.S.Colosimo.civ@mail.mil
Robyn S. Colosimo, P.E.
Deputy Assistant Secretary of the Army for Civil Works
U.S. Department of the Army
108 Army Pentagon
Washington, D.C. 20310

Subject: Clarification of the Definition of "Waters of the United States"

Dear Deputy Assistant Administrator Best-Wong and Deputy Assistant Secretary Colosimo,

On behalf of our members, the Nuclear Energy Institute (NEI)[1] writes to request that the Environmental Protection Agency (EPA) and United States Army Corps of Engineers (USACE or the Corps) collaborate to clarify the definition of "waters of the United States" (WOTUS) to facilitate consistent and predictable implementation of the Clean Water Act (CWA). This activity is consistent with and responsive to several Executive Orders (EO) recently issued by President Trump, including the January 20, 2025, EOs titled "Declaring a National Energy Emergency" and "Unleashing American Energy."

[1] NEI is the trade association for the commercial nuclear technologies industry, and our mission is to promote the use and growth of nuclear energy through efficient operations and effective policy. NEI has hundreds of members, including nuclear power plant owners and operators, reactor designers and advanced technology companies, architect and engineering firms, fuel suppliers and service companies, consulting services and manufacturing companies, companies involved in nuclear medicine and nuclear industrial applications, radionuclide and radiopharmaceutical companies, and universities and research laboratories.

There is clear evidence that the U.S. needs more energy to meet our economic, national security, and energy reliability needs. Demand for electricity is rising at an unprecedented rate, and the country must rise to meet the moment. On January 20, 2025, President Trump issued several Executive Orders (EOs), including "Declaring a National Energy Emergency," which directs federal agencies to accelerate the growth of the nation's energy production by expediting regulatory approvals. Among other things, the EO directs the USACE, in coordination with other federal agencies, to identify planned or potential actions supporting domestic energy supply that may be subject to regulations and nationwide permits promulgated by the Corps or jointly by the Corps and EPA. The President also issued an EO titled "Unleashing American Energy," which seeks to remove unnecessary regulatory burden to facilitate the growth. That EO expressly directs federal agencies to "undertake all available efforts to eliminate all delays within their respective permitting processes, including through, but not limited to, the use of general permitting and permit by rule."

Given that the commercial nuclear industry currently provides nearly 20 percent of U.S. electricity and is the nation's most reliable source of electricity, we see these EOs as a call to action for both the industry and agencies that play a role in licensing nuclear facilities. Although not recounted in detail here, NEI is aware of the complex history of the WOTUS issue, including the January 2023 final rule[2] and associated litigation,[3] the U.S. Supreme Court's decision in *Sackett v. Environmental Protection Agency*,[4] the subsequent conforming final rule published in September 2023,[5] and the various joint coordination memoranda and headquarters field memos on this topic.[6]

While we appreciate the efforts that the EPA and USACE have undertaken to provide clarity given the shifting legal landscape, significant uncertainty remains for our members regarding implementation of the revised definition of WOTUS. This uncertainty is compounded by delays experienced in obtaining review of draft approved jurisdictional determinations (AJDs) elevated to EPA and USACE headquarters for review. These AJDs provide NRC permit and license applicants with clarity regarding the threshold issue of determining the jurisdictional status of waters potentially impacted by projects. In this regard, they are vital to effective project planning and implementation, including the preparation of license application environmental reports that provide the basis for NRC's review of an

---

2 EPA/USACE, *Revised Definition of "Waters of the United States*, 88 Fed. Reg. 3004 (Jan. 18, 2023).
3 *See, e.g.*, *Definition of "Waters of the United States": Rule Status and Litigation Update*, available at https://www.epa.gov/wotus/definition-waters-united-states-rule-status-and-litigation-update (explaining that due to ongoing litigation on the January 2023 rule, EPA and USACE are implementing the definition of WOTUS promulgated in the January 2023 final rule, as amended by the September 2023 final rule, in 24 states, the District of Columbia, and the U.S. Territories; while implementing the pre-2015 regulatory regime and the Sackett decision in the other 26 states.)
4 598 U.S. 651 (2023).
5 EPA/USACE, *Revised Definition of "Waters of the United States"; Conforming*, 88 Fed. Reg. 61,964 (Sept. 8, 2023).
6 *See Current Implementation of Waters of the United States*, available at https://www.epa.gov/wotus/current-implementation-waters-united-states.

application under the National Environmental Policy Act (NEPA) and NRC's NEPA-implementing regulations in 10 CFR Part 51.[7] Moreover, as noted below, NRC cannot issue a license or permit until the appropriate jurisdiction has granted or waived the Section 401 certification.

We have a significant interest in the efficient administration of the CWA permitting programs by the EPA, USACE, and states. Establishing a clear definition of WOTUS — which sets the boundaries of federal jurisdiction under the CWA — is vital to consistent and predictable implementation of these permitting programs. As part of the near-term reviews required by the EOs referenced above, NEI urges the EPA and USACE to evaluate approaches to expedite the CWA permitting process and reduce unnecessary regulatory burden by resolving ongoing uncertainty regarding the definition of WOTUS in a manner consistent with the *Sackett* decision. In addition, we urge the agencies to use a process for providing such clarity that is both transparent and conducive to robust stakeholder input.

Federal licenses or permits are required for nuclear reactors as well as for the facilities that produce the nuclear fuel that powers those reactors and for many other beneficial uses of nuclear materials in medical, industrial, and academic settings. Because some of these activities may result in discharges into WOTUS, NEI members are directly affected by the implementation of the CWA permitting provisions. Applicants seeking to build and operate a nuclear reactor or other NRC-licensed facility must obtain and comply with all applicable permits and authorizations that regulate alterations and limit impacts on the hydrologic environment. Federal regulations for water quality, use, and withdrawal stem principally from the CWA.

As authorized by the CWA, the National Pollutant Discharge Elimination System (NPDES) permit program requires that all facilities that discharge pollutants from any point source into WOTUS obtain an NPDES permit. An NPDES permit is developed with two levels of controls: technology-based limits and water quality-based limits. A nuclear power plant may also participate in the NPDES General Permit for Industrial Stormwater due to stormwater runoff from industrial or commercial facilities to WOTUS. Although the EPA is authorized under the CWA to implement the NPDES program, it has authorized many states to implement all or parts of the national program. Such states may impose more restrictive criteria based on the unique regional or local environment or environmental issues.

CWA Section 401 requires that an applicant for a federal license or permit authorizing activities that may cause a discharge of regulated pollutants into navigable waters provide the federal licensing or permitting agency (e.g., NRC) with a certification from the state or appropriate water pollution control agency in which the discharge originates or will originate. This water quality certification indicates that

[7] Under a 2008 MOU with NRC, USACE often participates in NEPA reviews as a Cooperating Agency, but still performs its own analysis using guidelines in 40 CFR Part 230 to determine whether the proposed site is the "least environmentally damaging practicable alternative" (LEDPA), a determination that reflected in NRC's NEPA review of the project.

discharges from the activity or project to be licensed or permitted will comply with CWA requirements, as applicable, including that the discharge will not cause or contribute to a violation of applicable water quality standards.

Dredging and construction-related activities are regulated by provisions of CWA Section 404 (33 USC 1344) and Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 USC 401 et seq). USACE is the lead agency for enforcement of CWA wetlands requirements. However, under CWA Section 401, the EPA or a delegated state agency has the authority to review and approve, condition, or deny all permits or licenses that might result in a discharge to waters of the state, including wetlands. Thus, NRC cannot issue its license without a 401 certification or an NRC determination that a waiver has occurred. Pursuant to 10 CFR 50.54(aa), conditions in the CWA 401 certification become a condition of the NRC-issued license.

Congress also has recognized the need to improve the efficiency of federal environmental reviews to support the development of domestic energy resources, including nuclear energy. The Fiscal Responsibility Act of 2023 (FRA)[8] and, specifically, Section 321 ("Builder Act") includes important amendments to NEPA to expedite the permitting process for infrastructure projects. Among other things, the FRA amendments established time and page limits for environmental impact statements and environmental assessments with which all federal agencies must comply.

Additionally, the Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024 (ADVANCE Act) includes provisions to modernize the Nuclear Regulatory Commission's (NRC) regulations and reduce investment and deployment costs for new reactors.[9] Section 506 directed NRC to submit a report to Congress within 180 days that describes NRC's efforts "to facilitate efficient, timely, and predictable environmental reviews" of nuclear reactor license applications."

* * *

[8] Fiscal Responsibility Act of 2023, P.L. 118-5, § 321 (Builder Act) (amending 42 U.S.C. 4321 et seq.), https://www.congress.gov/118/plaws/publ5/PLAW-118publ5.pdf.

[9] Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024 (ADVANCE Act), Pub. L. 118-67, div. B (July 9, 2024), https://www.congress.gov/118/plaws/publ67/PLAW-118publ67.pdf. *See also* NRC, "Streamlining and Efficiencies – Additional Efficiency Considerations Directed by the ADVANCE Act," https://www.nrc.gov/about-nrc/regulatory/licensing/ecoe/modernizing/efficiencies.html#add.

As the Administration continues to implement policies to achieve President Trump's energy dominance agenda, we look forward to participating in any opportunities to contribute to your agency's efforts to clarify the definition of WOTUS and improve implementation of the CWA.

Thank you for your consideration.

Sincerely,

Ellen C. Ginsberg

Ellen C. Ginsberg

Senior Vice President, General Counsel and Secretary

McQuitty, Karly (EPW)

From: Kasey Kinsella <kasey@7directionsofservice.com>
Sent: Wednesday, March 19, 2025 10:38 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Kasey Kinsella
[redacted]

McQuitty, Karly (EPW)

From: Aly Evans <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 4:43 PM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Aly Evans
[redacted]
[redacted]

McQuitty, Karly (EPW)

From: symbodythedream@gmail.com <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 12:16 PM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

symbodythedream@gmail.com

,

McQuitty, Karly (EPW)

From: ajabullock3@gmail.com <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 12:13 PM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

ajabullock3@gmail.com

,

McQuitty, Karly (EPW)

From: Alice Nicholson <anicholson@currently.com>
Sent: Thursday, March 20, 2025 1:35 PM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Alice Nicholson
[redacted]

McQuitty, Karly (EPW)

From: Skip Hudspeth <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 1:43 PM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Skip Hudspeth
[redacted]

McQuitty, Karly (EPW)

From: Ann Dorsey <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 11:54 PM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Ann Dorsey
[redacted]

McQuitty, Karly (EPW)

From: Claire Stafford <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 11:53 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Claire Stafford
[redacted]

[redacted]

McQuitty, Karly (EPW)

From: Diane DiFante <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 11:58 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Diane DiFante
[redacted]

[redacted]

McQuitty, Karly (EPW)

From: Karen Hodges <khodges@jungiananalyticpraxis.com>
Sent: Thursday, March 20, 2025 11:23 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I am deeply concerned about attempts to weaken regulations protecting citizen access to clear air and water - truly existential issues. This is especially foolhardy given our present vulnerability to the accelerating effects of global warming, and the time sensitivity of any efforts to minimize those effects, so destructive to both our economic well-being and our physical health. I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water , and land.

Karen Hodges
[redacted]

McQuitty, Karly (EPW)

From: Maurice Forget <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 11:50 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Maurice Forget
[redacted]

McQuitty, Karly (EPW)

From: Paige Garriques <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 12:32 PM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Follow Up Flag: Follow up
Flag Status: Flagged

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Paige Garriques
[redacted]

[redacted]

McQuitty, Karly (EPW)

From: Patricia Bocanegra <noreply@adv.actionnetwork.org>
Sent: Thursday, March 20, 2025 6:24 PM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Patricia Bocanegra
[redacted]

McQuitty, Karly (EPW)

From: Ellen Atkinson <noreply@adv.actionnetwork.org>
Sent: Sunday, March 23, 2025 6:11 PM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Ellen Atkinson
[redacted]

McQuitty, Karly (EPW)

From: Dominique Burleson <hello@paperbacksandfrybread.com>
Sent: Thursday, March 20, 2025 11:23 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Dominique Burleson
[redacted]
[redacted]

McQuitty, Karly (EPW)

From: Dan Leonard <noreply@adv.actionnetwork.org>
Sent: Friday, March 21, 2025 10:55 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Dan Leonard
[redacted]

[redacted]

McQuitty, Karly (EPW)

From: Harold Watson <noreply@adv.actionnetwork.org>
Sent: Friday, March 21, 2025 12:23 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Harold Watson
[redacted]

McQuitty, Karly (EPW)

From: NK A <noreply@adv.actionnetwork.org>
Sent: Friday, March 21, 2025 11:37 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

NK A
[redacted]

McQuitty, Karly (EPW)

From: Sigrid Hice <noreply@adv.actionnetwork.org>
Sent: Friday, March 21, 2025 9:06 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change.

In addition, please keep in mind that energy produced with fossil fuels adversely impacts communities and public health. I suffer with asthma, and on days, when PM 2.5 pollution is at moderate levels or above, my quality of life is reduced. Too, as a gardener, I experience the increasingly adverse weather patterns caused by climate change.

I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

Sigrid Hice
[redacted]
[redacted]

McQuitty, Karly (EPW)

From: Micah McLain <noreply@adv.actionnetwork.org>
Sent: Friday, March 21, 2025 10:50 AM
To: Permitting@epw.senate.gov
Subject: Please Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

Thank you for the opportunity to provide my input. Permitting reform should not compromise environmental protection and community well-being. Instead, it should aim to improve efficiency through better coordination, increased funding for agencies, and a focus on clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only exacerbate environmental injustices and accelerate climate change. I urge the Committee to adopt a balanced approach that safeguards economic interests while also protecting the fundamental rights of communities to clean air, water, and land.

Micah McLain
[redacted]
[redacted]

McQuitty, Karly (EPW)

From: AJ cho <noreply@adv.actionnetwork.org>
Sent: Saturday, March 22, 2025 12:29 AM
To: Permitting@epw.senate.gov
Subject: Permitting Reform Must Protect Our Rights to Clean Air and Water

Chair Shelley Capito,

Dear Chairman Capito and Members of the EPW Committee,

I appreciate the opportunity to provide input. Permitting reform should not come at the expense of environmental protection and community well-being. Instead, it should enhance efficiency through improved coordination, increased agency funding, and prioritization of clean energy and climate-friendly projects. Weakening safeguards for fossil fuel infrastructure and extractive industries will only deepen environmental injustices and accelerate climate change. I urge the Committee to take a balanced approach that protects both economic interests and the fundamental rights of communities to clean air, water, and land.

AJ cho
[redacted]

From: Jewel Tomasula
To: Permitting@epw.senate.gov
Subject: comment on federal environmental review processes
Date: Friday, March 21, 2025 4:15:02 PM

As the Senate Environment and Public Works committee examines federal permitting, the Endangered Species Coalition submits these comments:

The Information for Planning and Consultation (IPaC) branch of US Fish & Wildlife Service (FWS) focuses on streamlining the section 7 consultation process. IPaC also refers to the custom-built software by FWS which allows action agencies to define their action area, request an official species list, evaluate potential impacts to species and critical habitats, and provides a step-by-step process of writing a biological assessment if necessary. IPaC is used early on in the project development process so that agencies can incorporate measures to minimize or avoid impacts into their project planning, thereby avoiding potential project delays and saving time and money.

Half of the Federal employees on the IPaC were indiscriminately fired as part of the DOGE efforts, and are only reinstated now because of court order. We urge the Senate EPW team to protect the IPaC branch federal employees and work to get them the resources they need.

Please also consider these reports and letters:

- Data contradict common perceptions about a controversial provision of the US Endangered Species Act. No project was stopped or extensively altered as a result of FWS finding jeopardy or adverse modification from 2008 to 2015.

- The Forest Service's own data show the agency only conducts 3-6 landscape level consultations per year across all regions and has only had to reinitiate consultation based on new information twice in the last five years. There are 154 national forests and 20 national grasslands, meaning that in a given year, only 2-4% of all national forests/grasslands must complete such consultations. Based on the Forest Service's own data, it has received only 24 Notices of Intent (NOI) to sue. Furthermore, NOIs do not always lead to an actual lawsuit being filed. (letter here)

- Outcomes and policy focus of environmental litigation in the United States (Nature Sustainability)

- In an analysis that stretches from 1988 to 2022, ‘pro-regulation’ plaintiffs (ENGOs and the federal government) have a far higher win rate than their ‘anti-regulation’ counterparts (firms and industry groups)

- Environmental lawsuits constitute a tiny fraction of all federal civil litigation in the United States, ranging from 0.18 to 0.67% of all cases filed annually between 1988 and 2022.

The Endangered Species Coalition is a not-for-profit, nongovernmental, nonpartisan organization. Our coalition members are diverse, including volunteer groups doing direct habitat and species protection work and state-based groups. Often our members partner with federal agencies, and often they experience the adverse environmental impacts of agencies or industries operations that are not adequately protecting the wildlife or nature they care for. Voluntary approaches and incentive-based conservation are appreciated, but they are not enough. Federal agencies and industries acting on federal land or with federal funding must be expected to adhere to science-based, mandatory regulations like those of the Endangered Species Act that keep our wildlife and the nature that sustains us safe.

Thank you for your consideration.

Jewel Tomasula, PhD
National Policy Director
Endangered Species Coalition
(202) 930-3044
she, her + why it matters

www.endangered.org
Facebook | X | Instagram

Washington, DC - the traditional homeland of the Nacotchtank, Anacostan, and Piscataway

From:	Aashna Sawhney
To:	Permitting@epw.senate.gov
Cc:	Stephen Schima
Subject:	Comments for the Record: EPW Hearing on "Improving the Federal Environmental Review and Permitting Process" Held on February 19, 2025.
Date:	Friday, March 21, 2025 4:02:18 PM
Attachments:	Outlook-s5imrc2q Letter for the Record on the EPWs Hearing Improving the Federal Environmental Review and Permitting Process Held on February 19, 2025..pdf

Hi!

Please accept the attached comments for the record.

Best,
Aashna

- - -

Aashna Sawhney (she/her)
Legislative Assistant

1001 G St NW, Suite 1000
Washington, DC 20001
T: 202.745.5202
earthjustice.org
earthjusticeaction.org
facebook.com/earthjustice
twitter.com/earthjustice

From: Brianne Miller
To: Permitting@epw.senate.gov
Cc: Jonathan Schwantes; Tyler Grassmeyer
Subject: Comments
Date: Friday, March 21, 2025 5:30:41 PM

Chairman Capito and Ranking Member Whitehouse,

Thank you for the opportunity to share comments following the hearing titled "improving the Federal Environmental Review and Permitting Processes," on February 19, 2025. Microsoft works across numerous federal agencies for permits related to our datacenter development. The current permitting processes often involve multiagency, complex multiyear reviews with no clear timelines for completion, which can hinder progress on essential energy infrastructure projects. To address these challenges, Microsoft supports the focus of this committee on comprehensive reforms that streamline permitting processes and provide regulatory certainty.

NEPA. The uncertain timelines and lack of transparency with the NEPA process can hinder economic growth and development. The committee should adopt opportunities to streamline the permitting process to establish reliable, reasonable, and transparent timelines for permitting decisions. Efforts to standardize federal permits to ensure consistent timelines across agency regional offices and across different permitting agencies. In addition, the committee should consider implementing clear and enforceable timetables for the NEPA process, concurrent reviews by agencies, and sufficiency of existing environmental analyses and studies, rather than requiring new ones for a project. These updates and reforms to NEPA could be amplified by utilizing commercially available digital tools and AI solutions to accelerate federal decision-making.

Army Corps of Engineers. The federal wetlands permitting process through the Army Corps of Engineers can vary from jurisdiction to jurisdiction. A project in one jurisdiction can take just a few months, while a nearly identical project in another jurisdiction can take over a year. As more infrastructure needs to be permitted quickly, the committee may consider standard mitigation ratios for wetlands; standardized mitigation or conservation measures coordinated with state level requirements; and standardized offsite alternatives analysis requirement or void requirements.

Use of AI and Advanced Digital Tools. AI and digital tools can help to improve the timelines and transparency of the federal permitting process. Encouraging the use of these tools and solutions by the federal government is key to achieving the pace and certainty the private sector requires to build at pace to meet US energy needs and enable economic growth. One example of where we are already seeing progress is the Microsoft generative AI-based solution to enhance the productivity of companies and licensing experts undergoing Nuclear Regulatory Commission (NRC) licensing and other nuclear licensing processes, globally. This solution trains on historic licensing data to streamline the licensing process for small modular reactors and utility partners. It automatically retrieves real -time or site specific information, such as

flood and earthquake history data for a particular area, and converts this information into documentation that can be used in licensing applications. This solution uses generative AI to apply multiple large language models designed for specific permitting or licensing tasks. Generative AI can assist with drafting documents using existing datasets, which are then plugged into a licensing workflow for human review and improvement, significantly enhancing the productivity of permitting engineers.

Adequate Staffing at Permitting Agencies. In addition to providing agencies with access to AI and digital tools, it is also essential that the agencies are adequately staffed to ensure permitting coordination and decision-making is accelerated.

Thank you for your consideration.

Sincerely,
Brianne Miller
Senior Director, US Government Affairs
Microsoft

From: Ryan McManus
To: Permitting@epw.senate.gov
Cc: Christina Baworowsky
Subject: CRES Letter on Permitting Reform
Date: Friday, March 21, 2025 5:14:34 PM
Attachments: 2025.03.06_CRES Letter on Permitting Reform to Senate EPW.pdf

---

Hello,

Please see the attached letter from CRES in response to the hearing, *Improving the Federal Environmental Review and Permitting Processes*, and the accompanying request for input on challenges and potential solutions. If have any questions regarding the letter or reforms to the permitting process, please let me know.

Thank you,

Ryan McManus
Director of Government Relations

CITIZENS FOR RESPONSIBLE ENERGY SOLUTIONS

CRES | CRES Forum
E: rmcmanus@cresenergy.com
C: 571.484.9297
1201 Pennsylvania Ave NW | Suite 220
Washington, D.C. 20004

From: Cy McNeill
To: Permitting@epw.senate.gov
Subject: Data Center Coalition Permitting Reform Recommendations
Date: Friday, March 21, 2025 3:00:25 PM
Attachments: DCC Comments- AI Action Plan 3.15.pdf

Good Afternoon,

Please see attached for comments DCC provided to the Office of Science and Technology Policy (OSTP), which included multiple recommendations on permitting reform (see pages 8-11).

Thank you for the opportunity to submit information for the record and please reach out if you have additional questions. Would be happy to set up sometime to come and talk about them.

All my best,
Cy

Cy McNeill
Director, Federal Energy Policy
Data Center Coalition
Email: Cy@datacentercoalition.org | Cell: 240-997-2720

From: Raisa Orleans
To: Permitting@epw.senate.gov
Cc: Ted Kelly
Subject: EDF"s Statement for the Record- Permitting Hearing
Date: Friday, March 21, 2025 4:27:09 PM
Attachments: image002.png
EDF Transmission Siting Comments for EPW.pdf

Please see the attached comments from the Environmental Defense Funding for inclusion in the record of the recent hearing “Improving the Environmental Review and Permitting Process.”

Please let me know if you have any questions.

All the best,
Raisa Orleans (she/her)
Associate Vice President, Federal Affairs

ROrleans@EDF.org
EDF.org | A vital Earth. For everyone.

From: Steve Caminati
To: Permitting@epw.senate.gov
Subject: EPW Permitting Hearing Comments from Pattern Energy
Date: Friday, March 21, 2025 9:59:00 AM
Attachments: Written Submission to EPW_Pattern_Final.pdf

To Whom It May Concern:

Pattern Energy appreciates the opportunity to provide comments for the Environment and Public Works Committee related to permitting reform. The Committees attention to this issue is vital in helping advance critical infrastructure needs for the country.

Please do not hesitate to follow-up with any questions.

Steve Caminati
Vice President, Government & Regulatory Affairs

Mobile: +1 614-315-5908
steve.caminati@patternenergy.com - patternenergy.com

Read how Pattern is transitioning the world to renewable energy in our latest Sustainability Report



...
This email message may contain information that is confidential and proprietary. If you are not the intended recipient, please contact the sender and destroy the original and any copies of the original message. We take measures to protect the content of our communications. However, we cannot guarantee that email messages will not be intercepted by third parties or that email messages will be free of errors or viruses.

From: Connor Dolan
To: Permitting@epw.senate.gov
Cc: Ayrea, Maggie (EPW)
Subject: EPW Submission for Permitting and NEPA Reform Hearing
Date: Friday, March 21, 2025 1:59:00 PM
Attachments: image001.png
FCHEA Permitting Position Statement.pdf

Dear Senate Committee on Environment and Public Works,

On behalf of the Fuel Cell and Hydrogen Energy Association (FCHEA), we are pleased to share our attached Permitting Reform Position Statement with you for the record following the recent Permitting and NEPA Reform hearing.

Should you have any questions, please reach out at any time.

Regards,

Connor

Connor Dolan I Vice President of External Affairs
O: 202.355.9463 | M: 703.400.3509
cdolan@fchea.org
FCHEA
Fuel Cell & Hydrogen Energy Association
1025 Connecticut Ave., NW, Suite 1000
Washington, DC 20036
www.fchea.org

From: Rhoads, Adam
To: Permitting@epw.senate.gov
Subject: FDEP Hearing Record Document Submission
Date: Tuesday, March 25, 2025 5:05:36 PM
Attachments: 03.07.2025 Setting The Record Straight on Florida.docx
Section 404 Permitting_ FL Delegation 3.22.24 SIGNED.pdf

To the EPW Committee,

Attached are two documents that the Florida Department of Environmental Protection would like to submit to the hearing record for the February 19th hearing entitled, "Improving the Federal Environmental Review and Permitting Processes."

If you have any questions, please let us know.

Thank you,

Adam Rhoads
Florida Department of Environmental Protection
Director of Federal Affairs
Adam.Rhoads@FloridaDEP.gov
Office: 850-778-7294

From: Raven Graf
To: Permitting@epw.senate.gov
Cc: Ben Serrurier
Subject: Fervo Stakeholder Input on Permitting
Date: Friday, March 21, 2025 8:35:02 PM
Attachments: Fervo Comment on Permitting Reform.pdf

Hello,

I am emailing on behalf of Fervo Energy in response to the Committee's solicitation for stakeholder input on solutions to permitting challenges.

Next-generation geothermal power can provide firm, baseload, secure, affordable, and dispatchable electricity to help meet America's growing energy needs. We are grateful for the opportunity to provide input and for your continued leadership to reform America's permitting system.

Sincerely,
Raven

--
Raven Graf
Senior Manager | Boundary Stone Partners | 484-844-2364

From: Bill Parsons
To: Permitting@epw.senate.gov
Subject: Final Grid Action Permitting Reform Comments for Senate EPW Commmittee Attached
Date: Friday, March 21, 2025 3:02:09 PM
Attachments: Final Grid Action Permitting Reform Comments for Senate EPW Committee 3-21-25.pdf

---

Thank you for your consideration.

Submitted by:

Bill Parsons
Chief Advocacy Officer
Grid Action
10 G Street, NE, Suite 440
Washington, D.C. 20002
bill.parsons@gridaction.org
301-232-7638

From: Bowman, Liz
To: Permitting@epw.senate.gov
Cc: Krekorian, Elise
Subject: For Consideration: Letter from Williams on NEPA and Permitting Reform
Date: Friday, March 21, 2025 4:38:24 PM
Attachments: 2025-03-21 Williams_EPW Permitting Open Record Response.pdf

---

Good Afternoon,

We would like to submit the attached memo for your consideration in regard to the bipartisan effort on NEPA and permitting reform.

We appreciate all your efforts and are available to discuss or answer any questions.

Thank you,

Liz

Liz Bowman
Vice President, Government Affairs
The Williams Companies, Inc.
202-213-8223 | liz.bowman@williams.com
555 13th Street NW, Suite 440 West, Washington, DC 20004
LinkedIn | YouTube | Instagram

From:	Permitting@epw.senate.gov
To:	Permitting@epw.senate.gov
Subject:	FW: Comments from Berkshire Hathaway Energy - PacifiCorp - on permitting reform
Date:	Wednesday, April 2, 2025 3:30:02 PM
Attachments:	03.21.2025 - Final Senate EPW Comments - PacifiCorp Transmission Policy Permitting Reform.pdf 2024 Just The Facts_PacifiCorp.pdf

---

From: "Schindler, Blake (Berkshire Hathaway Energy)" <Blake.Schindler@brkenergy.com>
Date: March 21, 2025 at 7:22:05 PM EDT
Subject: Comments from Berkshire Hathaway Energy - PacifiCorp - on permitting reform

Hello Team EPW –

Attached are comments from PacifiCorp regarding the request from the Chair and Ranking Member for stakeholders to share with the Committee experiences with the existing environmental review and permitting processes, identify challenges, and suggest potential solutions.

While we recognize not all recommendations are within the EPW Committee's jurisdiction, we felt it appropriate to disclose a more comprehensive outlook recognizing the overlapping jurisdictional interests between the EPW Committee and the Senate Energy & Natural Resources Committee, and the need for coordination and collaboration between the committees on these issues.

If you all have any questions, please let us know. We're happy to come in to talk more specifics if requested and look forward to being a resource for the Committee as Senators Capito and Whitehouse consider reforms that could improve the current permitting process for building energy infrastructure.

Thank you for the opportunity to provide comments.

Blake Schindler
Director, Federal Affairs
Berkshire Hathaway Energy
401 9th Street, NW, Suite 510
Washington, DC 20004
Blake.Schindler@brkenergy.com

From:	Tiffany Mendoza-Farfan
To:	Permitting@epw.senate.gov
Cc:	Drew Robertson
Subject:	Humane World Action Fund- Comments on 2/19 hearing
Date:	Friday, March 21, 2025 4:58:41 PM
Attachments:	ESA Permitting Comments_03.21.2025.pdf

Hello,

On behalf of Humane World Action Fund and Humane World for Animals, we are submitting comments following the Senate Committee on Environment and Public Work's hearing titled *"Improving the Federal Environmental Review and Permitting Processes."*

Please feel free to reach out if there are any questions.

Tiffany Mendoza-Farfán
Senior Legislative Specialist, Federal Affairs
C 202-836-2180
tmendozafarfan@humaneaction.org
She/Her
humaneaction.org

Humane World Action Fund

We fight for political and policy change to tackle the root causes of animal cruelty and suffering. Stay up to date with our work to help animals and follow us on Facebook, X and subscribe to our blog.

From: Basav Sen
To: Permitting@epw.senate.gov
Subject: Input on environmental review and permitting processes
Date: Friday, March 21, 2025 2:40:34 PM
Attachments: IPS comment on Environmental Review and Permitting 2025 03 21.pdf

---

Dear Chair Capito, Ranking Member Whitehouse, and members of the Senate Environment and Public Works Committee,

Thank you for the opportunity to provide public input on environmental review and permitting processes. Comments from the Institute for Policy Studies Climate Policy Program are attached,

Please feel free to get in touch with me if you have any questions about our submission.

Basav Sen

--
Basav Sen
Director, Climate Policy Project
Institute for Policy Studies
1301 Connecticut Ave. NW, Suite 600
Washington, DC 20036
basav@ips-dc.org/202-787-5215
he/him/his

From:	Laura Ziemer
To:	Permitting@epw.senate.gov
Cc:	Matt Lindler; Jonathan Wood; Hannah Downey; Brent Keith; Sarah Murdock; zbodhane@trcp.org; Alexander Funk; Corey Fisher (corey.fisher@tu.org)
Subject:	Letter for the Record, EPW Full Committee Hearing "Improving Environmental Review and Permitting Processes"
Date:	Friday, March 21, 2025 12:22:41 PM
Attachments:	Outlook-Logo. comp NWTF_PERC_TNC_TRCP_TU_LtrfortheRecord_EPW_2025_03_20.pdf

Dear EPW Committee staff,
Attached please find a letter for the record from National Wild Turkey Federation, Property and Environment Research Center, The Nature Conservancy, Theodore Roosevelt Conservation Partnership, and Trout Unilimted. This letter is submitted to the congressional record for the EPW Full Committee Hearing, "Improving Environmental Review and Permitting Processes," held February 19, 2025.

Thank you for the opportunity to contribute to this important area of work. Please do not hesitate to contact me at lziemer@culpkelly.law or (406) 599-2606 (mobile) if there are any issues in adding the attached letter to the congressional record.

Best regards,
Laura

Laura S. Ziemer, Partner
Culp & Kelly, LLP | M: 406-599-2606

This message is confidential and may be legally privileged or otherwise protected from disclosure. If you are not the intended recipient, please telephone or email the sender and delete this message and any attachments from your system; you must not copy or disclose the contents of this message or any attachments to any other person.

From: Mary O"Brien
To: Permitting@epw.senate.gov
Subject: Letter re: Permitting Reform Experiencese
Date: Friday, March 21, 2025 3:37:45 PM
Attachments: Letter to EPW_2025_03_21.pdf

Dear Sens. Capito and Whitehouse and Senate Environment and Public Works Committee,

Please see an attached letter submitted during your open record period.

Thank you,

Mary O'Brien

--
Mary O'Brien
Director
Project Eleven Hundred
maryobrien10@gmail.com
HC 64 Box 2604
Castle Valley, UT 84532
541.556-8801
www.projectelevenhundred.org

From: Carolyn Berndt
To: Permitting@epw.senate.gov
Cc: Judy Sheahan
Subject: Local Government Comments on "Improving the Federal Environmental Review and Permitting Processes"
Date: Friday, March 21, 2025 9:02:35 AM
Attachments: image001.png
image002.png
image003.png
image005.png

Dear Environment and Public Works Committee Members,
On behalf of the National League of Cities and the U.S. Conference of Mayors, thank you for the opportunity to submit comments for the record following the Committee's recent hearing, "Improving the Federal Environmental Review and Permitting Processes."

In March 2020, our organizations submitted comments to the White House Council on Environmental Quality on a proposed rule to update the regulations implementing the procedural provisions of the National Environmental Policy Act (NEPA).

In general, we supported efforts to modernize and clarify the regulations to facilitate more efficient, effective and timely NEPA reviews by federal agencies. We were pleased to see Congress adopt some of these NEPA reforms in the Fiscal Responsibility Act of 2023 such as:

- Codifying key elements of the One Federal Decision Framework, including development by the lead agency of a joint schedule, procedures to elevate delays or disputes, preparation of a single environmental impact statement and joint Record of Decision to the extent practicable.
- Setting deadlines for completion of NEPA review at one year for environmental assessments and two years for environmental impact statements, unless a deadline extension is agreed to by the project sponsor.
- Establishing page limits for environmental documents and paper reduction measures—300 pages for complex projects and 150 pages for less complicated ones.

As Congress further considers permitting reform proposals, it is important to maintain adequate and ample opportunity for local leaders to have input on projects that may affect their communities. Local control and decision-making authority should be preserved and not preempted at the federal or state level.

Additionally, Congress should consider excluding smaller projects, particularly non-federal projects with minimal federal funding or involvement, from the NEPA process. Doing so would reduce the administrative burden on communities, particularly small communities. Such a proposal would also complement efforts to streamline and simplify the federal grant application and compliance processes to improve access for all communities.

Finally, with regard to water infrastructure projects specifically, our organizations have supported legislation in the House to reform permitting for local wastewater treatment and water recycling projects by extending the maximum term for National Pollutant Discharge Elimination System (NPDES) permits issued under the Clean Water Act from 5 to 10 years. This change would better reflect local water infrastructure project construction schedules thereby increasing government efficiency.

Thank you again for this opportunity. We look forward to working with you as you move forward with legislative proposals. Please reach out to us if you have any questions.

Best,
Carolyn

NLC NATIONAL LEAGUE OF CITIES
A CENTURY OF STRENGTHENING CITIES

Carolyn Berndt
LEGISLATIVE DIRECTOR, SUSTAINABILITY
FEDERAL ADVOCACY

berndt@nlc.org (202) 626-3101 www.nlc.org

From: Trevor Falk
To: Ayrea, Maggie (EPW); Permitting@epw.senate.gov
Subject: NABTU Letter on Permitting
Date: Friday, March 21, 2025 1:27:41 PM
Attachments: Senator Capito and Whitehouse EPW Letter on Permitting [30].pdf

---

Hi Maggie,

I hope you had a nice week. Please find attached comments from North America's Building Trades Unions on permitting and NEPA reform.

Thank you for the opportunity and please feel free to reach out if we can provide additional information or color on any of our comments.

Best,

Trevor Falk
North America's Building Trades Unions (NABTU)
815 16th Street NW, Suite 600
Washington, DC 20006
Trevor@nabtu.org
703-994-0536 (c)

From: Charlotte Mitchell
To: Permitting@epw.senate.gov
Cc: Ben Gilsdorf; Michael Matthews; Eryn Hurley
Subject: NACo Permitting Reform Letter
Date: Friday, March 21, 2025 3:01:41 PM
Attachments: image001.png
NACo Letter to EPW on Permitting Reform 3.21.25.pdf

EPW staff,

Good afternoon! Please find NACo's submission for the record attached.

We appreciate the opportunity to share the county perspective on improving environmental reviews and permitting reform.

Please let us know if you have any questions.

Thank you,
Charlotte

Charlotte Mitchell Duyshart
Associate Legislative Director
Environment, Energy and Land Use | Gulf States Counties and Parishes Caucus
National Association of Counties (NACo)
cmitchell@naco.org
(405) 326-4754 (c) | (202) 661-8826 (o)



From: Sunny Simpkins
To: Permitting@epw.senate.gov
Subject: NAFSMA Testimony on Improving the Federal Environmental Review and Permitting Processes
Date: Friday, March 21, 2025 12:49:44 PM
Attachments: 3.21.25 NAFSMA_EPW_Enviro Permitting_Testimony.pdf

---

The National Association of Flood and Stormwater Management Agencies (NAFSMA) testimony on improving the Federal Environmental Review and Permitting Processes is attached.

If there are opportunities to provide in person testimony on this important issue NAFSMA would love the opportunity to.

Please reach out with any questions.

Best,
Sunny

Sunny Simpkins
Executive Director
NAFSMA
sunny@nafsma.org
503-705-4944
www.nafsma.org

From: Miller, Marc L - (miller47)
To: Permitting@epw.senate.gov
Cc: López Hoffman, Laura - (lauralh)
Subject: NEPA statement by Professors Laura Lopez-Hoffman & Marc Miller
Date: Friday, March 21, 2025 3:57:23 PM
Attachments: NEPAccess attachments to EPW from Lopez-Hoffman & Miller (3.21.25).pdf
Statement by Lopez-Hoffman & Miller to EPW (3.21.25).pdf

Senator Shelly Capito
Chairman
Senate Environment and Public Works Committee

Senator Sheldon Whitehouse
Ranking Member
Senate Environment and Public Works Committee

email: permitting@epw.senate.gov

Dear Senators Capito & Whitehouse,

We are NEPA scholars and researchers at the University of Arizona. Please find attached a short statement (and attachments) for the Senate Environment and Public Works Committee on "Improving the Federal Environmental Review and Permitting Processes."

Sincerely,

Marc Miller & Laura Lopez-Hoffman

Marc L. Miller
Ralph W. Bilby Professor of Law & Dean Emeritus
University of Arizona James E. Rogers College of Law
Cell: 520-820-9902
marc.miller@law.arizona.edu

Laura López-Hoffman
Professor, School of Natural Resources and the Environment
Research Professor, Environmental Policy Programs, Udall Center
University of Arizona

From: Aaron Mintzes
To: Permitting@epw.senate.gov
Subject: NGO letter re: Mining, Improving the Environmental Review and Permitting Process
Date: Friday, March 21, 2025 4:42:18 PM
Attachments: NGO letter to EPW re mine permitting.pdf

Dear EPW,

Thank you for the opportunity to share our views on improvements to hardrock mine permitting. Please see attached.

My thanks,
Aaron Mintzes

=== EARTHWORKS: Protecting Communities and the Environment

Aaron Mintzes (he/him/his)
Senior Policy Counsel, Earthworks
1612 K St. NW, Suite 904
Washington, DC 20006
202-887-1872x116 (D.C. office)
919-302-6393 (cell)
amintzes@earthworks.org
twitter: @Earthworks

CFC# 41290

The information contained in this e-mail message is intended only for the personal and confidential use of the recipient(s) named above and may contain privileged information. If the reader of this message is not the intended recipient or an agent responsible for delivering it to the intended recipient, you are hereby notified that you have received this document in error and that any review, dissemination, distribution, or copying of this message is strictly prohibited. If you have received this communication in error, please notify us immediately by e-mail, and delete the original message.

From: Casey Hollers
To: Permitting@epw.senate.gov
Subject: NGSA Letter for EPW Permitting Record
Date: Friday, March 21, 2025 10:41:19 AM
Attachments: Outlook-4szylwnp
NGSA Letter to EPW on Permitting Reform - 03.21.2025.pdf

Good morning,

Please see attached a letter from the Natural Gas Supply Association for the 'Improving the Federal Environmental Review and Permitting Processes' record from the February 19, 2025 hearing. Please let us know if you need anything else.

Thank you,
Casey

Casey Gold Hollers
Senior Director, Regulatory Affairs and Policy
Natural Gas Supply Association
900 17th Street, NW, Suite 500 | Washington, D.C. 20006
516.316.4512 (mobile)

NGSA
Natural Gas Supply Association

Markets Matter
Representing major producers and suppliers of domestic natural gas since 1965.

From: Calnek-Sugin, Talia
To: Permitting@epw.senate.gov
Cc: Green, Kabir
Subject: NRDC submission for permitting record
Date: Friday, March 21, 2025 5:26:42 PM
Attachments: NRDC_EPW Permitting Record_3.21.25.pdf

Dear EPW Committee,

Thank you for the opportunity to weigh in on the record following EPW's Feb. 19th permitting hearing. Please find NRDC's perspectives attached. We would be very happy to answer any questions you might have or to discuss the topic further. We look forward to staying in touch on this important issue.

Have a nice weekend!

Best, Talia

TALIA CALNEK-SUGIN (SHE/HER)
Senior Policy Advocate
Sustainable FERC Project

NATURAL RESOURCES DEFENSE COUNCIL (NRDC)
C 646.753.1347
TALIACALNEKSUGIN@NRDC.ORG
NRDC.ORG

From: Elizabeth Purcell
To: Permitting@epw.senate.gov
Subject: Permitting Comments - Turtle Island Restoration Network
Date: Friday, March 21, 2025 10:32:07 AM

Dear Chairman Capito, Ranking Member Whitehouse, and Members of the U.S. Senate Committee on Environment & Public Works,

My organization's mission is to mobilize people in local communities around the world to protect marine wildlife and the oceans and inland watersheds that sustain them. Our work is buoyed by thousands of supporters, volunteers and pro bono professionals, who help us extend our network around the globe. We actively fight the proliferation of the fossil fuel industry that is destroying our planet and disproportionately impacting frontline communities and the environment. We are only able to do this good work because of environmental laws like the National Environmental Policy Act and Clean Water Act that allow the public to participate in government decision-making and to fight projects that will harm frontline communities and vulnerable ecosystems in court. Turtle Island Restoration Network is very concerned about continued discussions on permitting as previous discussions have centered around weakening environmental laws and eroding opportunities for public participation. The Fiscal Responsibility Act of 2023, for example, codified the most significant damages to the National Environmental Policy Act since its enactment. As you consider further changes to our permitting system, I urge you to honor the precautionary principle and refrain from further weakening our bedrock environmental laws so that our children can grow up in a healthy environment.

Weakening Environmental Protections is Bad Politics

Americans from all ends of the political spectrum value clean air, clean water, and a home safe from climate disasters. It's a mistake to imagine fast-tracking environmental reviews will come without consequence. And it's a mistake to assume the public won't notice Congress further disenfranchising them from decision-making in a system that already favors the wealthy few. Prior attempts to weaken the National Environmental Policy Act (NEPA) have been met with unanimous opposition from the environmental justice community, and further attempts will be no different. With diminishing approval ratings for both the Democratic and Republican parties in recent weeks, it is unclear why the Committee would pursue such proposals.

Furthermore, I appreciate Senator Whitehouse's commitment not to move forward any legislation while the current constitutional crisis continues. Neither political party benefits when the authority of Congress and the Judiciary is meaningless. It may be a Republican seeking to become a monarch now, but the political pendulum will inevitably swing. All committee members should urge the President to respect our government system of checks and balances and refuse to move legislation until he does so.

Permitting Dos and Don'ts

I hope you'll consider the recommendations explaining how our government can create the clean energy future we need without sacrificing communities or our environment. First and foremost, I urge Committee members to support the following actions:

1. Please pass legislation similar to the A. Donald McEachin Environmental Justice for All Act to increase community approval of projects.
2. Please increase funding for permitting agencies so they have the resources to conduct thorough environmental reviews promptly.
3. Please maximize distributed energy resources including distributed solar, battery storage, and microgrids.

Regardless of how you decide to move forward, I urge you, at minimum, to not do the following:

1. Do **not** weaken opportunities for public participation. For example, I strongly oppose shortening comment periods and shortening the length of time communities have to challenge projects in

court.

2. Do **not** weaken environmental laws. For example, I strongly oppose lessening the amount and type of projects that require NEPA review. I also strongly oppose provisions that will inevitably weaken the quality of required environmental reviews.
3. Do **not** expand fossil fuel production. Fossil fuel production is the leading cause of the climate emergency. A deal that expands fossil fuels is a deal that harms the climate.
4. Do **not** fast track the permitting process. Fast tracking this process allows critical environmental laws and policies to be bypassed, furthering threatening our environment, vulnerable species, and frontline communities.

Thank you for your attention to my concerns.

Sincerely,

--



Elizabeth Purcell
Environmental Policy Coordinator
Turtle Island Restoration Network

Cell: 814-248-5169



Fighting for a Blue-Green Planet! SEATURTLES.ORG

From: Jeremy Horan
To: Permitting@epw.senate.gov
Cc: Noah Strand
Subject: Permitting Comments from ACORE
Date: Monday, March 24, 2025 1:21:24 PM
Attachments: Outlook-5swrydky.png
2025.03.21_ACORE Comment for Record_EPW Permitting Hearing.pdf

---

Hello,

Attached please find permitting reform comments from the American Council on Renewable Energy (ACORE). We'd welcome inclusion in the Committee hearing record if still feasible, and apologies for late submission.

Please let myself or Noah (cc'd) know if you have any questions or if we can be of further assistance to the Committee,

Cheers,

Jeremy

Jeremy Horan
(he/him/his)
Vice President, Government Affairs
American Council on Renewable Energy (ACORE)
horan@acore.org | O: (202) 843-1987
1150 Connecticut Ave NW #401 Washington, DC 20036
X | LinkedIn | Facebook | Instagram | Sign up for ACORE newsletters here.



From: Charles Ben Jackson
To: Permitting@epw.senate.gov
Subject: Permitting Reform Input
Date: Friday, March 21, 2025 4:09:22 PM
Attachments: image001.png
3.21.25 EEI Permitting Reform Recommendations.pdf

Thank you for this opportunity to submit input on challenges and potential solutions on permitting reform. Attached is the Edison Electric Institute's submission. We look forward to being a resource on this topic and working with lawmakers to address challenges in the permitting process. If you have any questions, please do not hesitate to reach out.

Best,

Ben Jackson
Senior Director, Government Relations
701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2696
202-508-5533
817-319-4314 (cell)
www.eei.org

Follow EEI on Twitter, Facebook, and YouTube.

EEI | Edison Electric INSTITUTE

From: Sam Salustro
To: Permitting@epw.senate.gov
Subject: Public Comment on Permitting Opportunities
Date: Friday, March 21, 2025 4:59:00 PM
Attachments: 2025-03-21 Oceantic EPW Comments.pdf

Good afternoon,

Thank you for the opportunity to comment. The Oceantic Network, a collection of 400+ supply chain members of the offshore wind energy industry, offer the following comments on reforming the permitting process to maximize domestic employment and revitalize steel and shipbuilding. The comments are attached.

Please feel free to reach out with any questions.
Sam

--

Sam Salustro
Senior Vice President of Market and Policy Strategy
+1 (414) 405-4134
www | in | twitter

From: Keri Powell
To: Permitting@epw.senate.gov
Cc: KeShaun Pearson; Ramsey Sprague
Subject: public input on Improving the Federal Environmental Review and Permitting Process
Date: Friday, March 21, 2025 12:43:26 PM
Attachments: Letter to Senate EPW re air permitting 3_21_25.pdf

Dear Members of the Senate Committee on Environment and Public Works:

Please accept the attached comments from Southern Environmental Law Center, Mobile Environmental Justice Action Coalition, and Memphis Community Against Pollution for entry into the hearing record entitled "Improving the Federal Environmental Review and Permitting Processes" (hearing held on Feb. 19, 2025). We appreciate this opportunity for public input.

Keri N. Powell
Air Program Leader
Carol Remmer Angle Senior Attorney for Community Health
kpowell@selc.org

Southern Environmental Law Center
Ten 10th St NW, Suite 1050
Atlanta, GA 30309
Office (678) 433-6851
Mobile: (917) 573-8853
www.selc.org

PRIVILEGE AND CONFIDENTIALITY NOTICE
This email and any attachments may be protected by the attorney-client privilege, as attorney work-product, or based on other privileges or provisions of law. If you are not an intended recipient of this message, do not read, copy, use, forward, or disclose the email or any of its attachments. Instead, immediately notify the sender by replying to this email and then delete it from your system. The unauthorized disclosure, copying, distribution, or use of this email or any attachments is prohibited

From: London Hillyer
To: Permitting@epw.senate.gov
Cc: Vanessa Robertson; Bryant Jones
Subject: RE: Improving the Federal Environmental Review and Permitting Processes
Date: Friday, March 21, 2025 3:58:53 PM
Attachments: Geothermal Rising"s Proposals for Federal Permitting Reform.pdf

---

To Whom It May Concern:

Please find attached proposals from Geothermal Rising.

Please let us know if there are any questions.

Warm regards,

--
Mr. London Hillyer
Policy Analyst (U.S. Federal and Canada)
Geothermal Rising
Use the Earth to Save the Earth

Stock photo of Washinton, D.C.

Check out the 2025 Capitol Hill Days in Washington, DC

www.geothermal.org
+1 (530) 758-2360

Follow us - LinkedIn | Twitter | Facebook | YouTube | Flickr

From: Charles Bolden
To: Permitting@epw.senate.gov
Cc: Maren Taylor; Erin Duncan
Subject: SEIA Permitting Comments
Date: Friday, March 21, 2025 4:24:28 PM
Attachments: seialogofullcolor-150px_7220e83c-509e-4acb-9e47-7854c37d0c7b.png
xlogo100x100_f030c7e1-8c4c-4436-81bd-922d4003c0ae.png
linkedin_ba6ae316-9eb5-4f2b-876b-c59f628f6b6c.png
untitled_4e1dbc49-3afd-4830-bb04-ff6aecafd6e9.png
youtube_70025260-d3a1-4597-b745-5b7ec6c90dc5.png
topwapo2years-sig-01_74251301-83ba-4001-895e-3dc6e3207ea3.png
SEIA Comment on Senate EPW Permitting Hearing 3.21.2025.docx

To whom it may concern,

Please see attached comments on behalf of the Solar Energy Industries Association (SEIA) in regard to permitting. Feel free to reach out if you have any additional questions.

Best,
Charles

Charles Bolden

Senior Director of Congressional Affairs

SEIA Solar Energy Industries Association®

cbolden@seia.org
Direct: (202) 556-2876
1425 K Street, NW | Suite 1000
Washington, D.C. | 20005

TOP WORK PLACES 2023-2024 The Washington Post
Solar Energy Industries Association is a 2024 Top Workplace! 2 Years Running

What's Happening at SEIA:
Finance, Tax and Buyers Seminar | June 24-25, 2025 | New York, NY
SEIA is ushering in a new era of American energy dominance. Learn more.

NOTICE: This message is intended only for the use of the individual(s) named above, and may be attorney/client privileged and confidential. If you are not the intended recipient, please notify the sender at (202) 682-0556 and delete this e-mail. Any unauthorized use, distribution or reproduction of this message and any attachment is strictly prohibited and may be unlawful.

From: Matthew Miller
To: Permitting@epw.senate.gov
Subject: Southern California Edison permitting reform
Date: Friday, March 21, 2025 6:29:00 PM
Attachments: SCE.Permitting.EPW.3.21.2025.docx

EPW Staff,
Attached are Southern California Edison's experience with permitting challenges and our recommended reforms.
Please let me know if you have any questions or need additional information.
Matt

From: Gerhardt, Emily Crawford
To: Permitting@epw.senate.gov
Cc: Murray, Dan
Subject: Southern Company's Ideas on Comprehensive Permitting Reform
Date: Friday, March 21, 2025 9:44:04 AM

Good morning,
Thank you for the opportunity to submit thoughts to the hearing record on Improving the Federal Environmental and Review Permitting Process. Below please find some thoughts from Southern Company. We look forward to having additional conversations with your team about building energy infrastructure to power our customers and communities.

Regards,
Dan Murray and Emily Gerhardt
Government Affairs
Southern Company

Pursue comprehensive permitting reform: The extraordinary rise in demand for electricity will require building significantly more infrastructure. This means good paying American jobs, capitalizing on American resources and fuel, and relying on American ingenuity to rise to the challenge.
If our nation needs to "build more stuff", then our permitting laws must be reformed. The following commonsense reforms would unlock American energy dominance and help energy bills remain affordable:

- CWA 401: *Allow essential energy projects to move forward by ensuring that CWA 401 reviews are appropriately targeted to direct impacts.*
    - Limit the scope of state's review under CWA 401 to only consider water quality impacts directly occurring from the project's point source discharges and not indirect impacts (e.g., those associated with upland construction activities) or the activity as a whole.
    - Limit the scope of review to water quality in directly impacted federally jurisdictional waters and not any other resources.
    - Ensure the availability of a general or "blanket" 401 certification for projects eligible for NWP coverage.
- CWA 404
    - Create a statutory definition for "single and complete" project as it relates to linear energy infrastructure (pipelines, transmission)
    - Pursue any action to strengthen/solidify the nationwide permit program (specific to linear infrastructure), e.g., by mandating the continued availability of one or more NWPs authorizing linear infrastructure.
    - Ensure that NWPs, once issued, are not reexamined more frequently than the traditional 5-year approval. In fact, consider amending CWA 404(e)(2) extending the review process (possibly to 10 years) to create certainty.
- NEPA: *ensure that NEPA is, in fact, providing the most realistic and up-to-date information to the agency decision making process.*
    - Limit effects only to those that have a close causal relationship to the proposed action

or alternative (reasonably foreseeable, not speculative, and not remote in time or geographically remote)
    - Require the alternatives analysis to reflect the goal of the requested action based on the purpose and need of the project/proposed agency action/project sponsor.
    - Return NEPA to a "procedural" process and away from "action forcing" as it has long been established in courts. NEPA does not dictate any particular outcome or dictate any "preferred" alternatives (such as "no action" or the "environmentally preferable alternative" as proposed in CEQ's Phase 2 rule).
- Judicial Review under NEPA
    - Establish a "clear and convincing" standard for judicial review of agency decisions.
    - Claimants must participate in NEPA process as a prerequisite to filing suit, and their claims should be limited to issues that they raised during the NEPA process.
    - Establish a 150-day statute of limitations to challenge final agency action
    - Alternatively, align NEPA judicial review with other landmark judicial review provisions in environmental laws (e.g., the Clean Air Act s. 307(b), (d)): 60 days to challenge and the challenge must go to a Circuit Court of Appeals
    - NEPA challenges go directly to court (vs. agency review process for objections)

From: kirk_emerson@mindspring.com
To: Permitting@epw.senate.gov
Subject: Statement on Permitting
Date: Friday, March 21, 2025 11:56:01 AM
Attachments: Emerson EPW Statement 3.21.25.pdf

Dear EPW Committee Chairs,

Please find attached my statement for the Federal Permitting Hearings.

Respectfully,

Kirk Emerson
Emeritus Professor
University of Arizona

From: Nat Adams
To: Permitting@epw.senate.gov
Cc: Lorna Shaw
Subject: Submission by Newmont Corporation re: permitting
Date: Friday, March 21, 2025 5:24:16 PM
Attachments: image001.png
250321 Senate EPW letter re Carlton Tunnel.pdf

To whom it may concern,

Please find attached submission from Newmont Corporation concerning industry experiences with the status quo around permitting.

Best regards,
Nat

Nat Adams
INTERIM HEAD – GLOBAL GOVERNMENT RELATIONS

Newmont
6900 E. Layton Ave.
Suite 700
Denver, CO 80237
M 804.347.1261

NEWMONT.COM

From: Michelle Gullett
To: Permitting@epw.senate.gov
Subject: Submission for 2/19 Hearing Record
Date: Friday, March 21, 2025 5:14:11 PM
Attachments: Outlook-o5idimdx.png
Nature Sustainability Report - EIAs and Forest Management.pdf
TWS Hearing Record Cover Letter - EPW 3.21.25.pdf
2025 Senate Letter Final - Oppose Fix Our Forests Act.pdf

Hi there,

On behalf of The Wilderness Society, I'd like to formally submit two separate documents for the Hearing Record for the 2/19 EPW Committee hearing on environmental review and permitting processes, as well as an accompanying cover letter. Please let me know if there are any questions and thank you for the opportunity to submit. Thank you!

Best,

Michelle Gullett (*she/her*)
Senior Government Relations Representative
The Wilderness Society | The Wilderness Society Action Fund
c: 505-205-3853



Disclaimer
The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

From: Landon Stropko
To: Permitting@epw.senate.gov
Subject: Submission for 2/19 Permitting Hearing (Vaulted)
Date: Friday, March 21, 2025 10:34:34 PM
Attachments: EPW letter.pdf

Greetings,

Please see the attached letter from Vaulted for the record of the 2/19 permitting reform hearing.

Best,

Landon

Landon Stropko
Invariant
202-277-1632 M
stropko@invariantgr.com

From: Susan Jane Brown
To: Permitting@epw.senate.gov
Subject: submitting information for the record
Date: Friday, March 21, 2025 11:20:51 AM
Attachments: Testimony_Brown_03.23.2023.pdf

To Whom It May Concern –

As the Committee considers permitting reform measures, please include in the record my March 23, 2023 testimony (attached) before the U.S. House of Representatives Natural Resources Committee, Subcommittee on Federal Lands on H.R. 200, H.R. 1473, H.R. 1567, and H.R. 1586, legislation that purported to address permitting challenges involving natural resource management.

Please let me know if you have any questions.

Best regards,

Susan Jane M. Brown (she/her), Principal & Chief Legal Counsel
Silvix Resources
503-680-5513
SJB@silvix.org
www.silvixresources.org

From: Dena Horton
To: Permitting@epw.senate.gov
Cc: Neil Maunu
Subject: Testimony - Improving the Federal Environmental Review and Permitting Processes
Date: Friday, March 21, 2025 4:37:43 PM
Attachments: EPW PNWA Testimony Environmental Permitting Improvements.pdf

---

Attached please find PNWA's testimony to include in the record for the Senate Environment and Public Works Hearing - Improving the Federal Environmental Review and Permitting Processes.

Please feel free to reach out if you have any questions.

From: Wall, Kate
To: Permitting@epw.senate.gov
Cc: Kessler, Danielle; Barylak, Carson
Subject: Testimony for the Record - IFAW
Date: Friday, March 21, 2025 5:02:27 PM
Attachments: image001.png
IFAW Testimony for the Record - ESA Permitting 3.21.25.pdf

Thank you for the opportunity to submit testimony for the record for the Committee's recent hearing: Improving the Federal Environmental Review and Permitting Processes.

Please let me know if you have questions or would like additional information.

Best,
Kate

Kate Wall
Senior Legislative Manager
US Office

1400 16th Street NW, Suite 330
Washington, DC 20036

+1 (202) 536-1923
www.ifaw.org

ifaw

Fast Company 2023 awardee of World's Most Innovative Non-profits

The content of this email is intended only for the use of the above-named addressee and may contain information that is confidential, proprietary, and/or legally privileged. Please notify the sender if you received this email in error.

From: Whiteman, Chad
To: Permitting@epw.senate.gov
Cc: Crocker, Nick
Subject: U.S. Chamber of Commerce Letter for Permitting Hearing Record
Date: Friday, March 21, 2025 3:42:38 PM
Attachments: image001.png
US Chamber - EPW Permitting Legislation - 3_21_2025.pdf

Members of the Senate Committee on Environment and Public Works,

I'm writing to provide the U.S. Chamber of Commerce's input for the "Improving the Federal Environmental Review and Permitting Processes" hearing record. Thank you for holding this important hearing and shining a light on the need for a better federal permitting process. This committee's efforts are crucial for reducing bureaucratic hurdles and ensuring that projects can proceed without unnecessary delays. We look forward to working with you to achieve these critical permitting reforms and ensure that America remains a leader in innovation and development.

Best Regards,
Chad

Chad Whiteman
Vice President, Environment and Regulatory Affairs
(202) 731-5713 (m)



From:	Brian Howard
To:	Kitcki Carroll; Tihtivas (Dee) Sabattus; Liz Malerba; Katie Klass
Cc:	kirk.francis@penobscotnation.org; rmcghee@pci-nsn.gov; sharris@moheganmail.com; cwilliams@coushatta.org
Subject:	USET SPF Testimony for the Record to Senate Committee on Environment and Public Works on Improving Federal Environmental Review and Permitting Processes
Date:	Friday, March 21, 2025 3:12:06 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png image007.png image008.png image009.png USET SPF Testimony for the Record to Senate EPW on Improving Federal Environmental Review and Permitting Processes_FINAL_03_21_25.pdf

Good Afternoon,

Attached are the United South and Eastern Tribes Sovereignty Protection Fund's (USET SPF) testimony for the record to the Senate Committee on Environment and Public Works hearing on, "Improving the Federal Environmental Review and Permitting Processes."

Should you have any questions or require further information, please contact Liz Malerba, USET SPF Director of Policy and Legislative Affairs, at lmalerba@usetinc.org.

Thank You,

BRIAN HOWARD, MSTP
Senior Policy Analyst
Citizen of the Gila River Indian Community

USET Sovereignty Protection Fund
1730 Rhode Island Avenue, NW, Suite 406
Washington, DC 20036

Office: 1-615-870-4147
www.usetinc.org

BECAUSE THERE IS STRENGTH IN UNITY

View the USET/USET SPF Educational Book, 3rd Edition (2025)
USET SPF Marshall Plan for Tribal Nations: A Restorative Justice and Domestic Investment Plan
Toward a New Era in the Tribal Nation–United States Relationship: Re-imagining Nation-to-Nation Diplomacy for the 21st Century









From:	Albert Yuan (WE ACT)
To:	Permitting@epw.senate.gov
Subject:	WE ACT for Environmental Justice Submission to Open Record
Date:	Friday, March 21, 2025 4:57:41 PM
Attachments:	transmission_principles_12.15.22.pdf 06222023_transmission_whitepaper_final.pdf Community-Engagement-Brief-092322-FINAL.pdf WE ACT Permitting Hearing Comments.pdf

Hello,

WE ACT for Environmental Justice would like to submit the following letter and materials as part of the open record for the Senate Environment and Public Works Committee's February hearing on Improving the Federal Environmental Review and Permitting Processes. We ask that this letter and attached materials be included as part of the Congressional record.

Sincerely,
--

Albert 'AJ' Yuan (he/him)
Legislative Coordinator | Coordinador Legislativo
WE ACT for Environmental Justice | WE ACT por Justicia Ambiental

1854 Amsterdam Avenue, 2nd Floor, New York, NY 10031 | 212-961-1000

50 F Street, NW, Suite 550, Washington, DC 20001 | 202-800-5896

Phone | Teléfono (917) 991-0124

Web | **Facebook** | **X** | **Instagram** | **Bluesky** | **Newsletter** | **Podcast**
Make a Donation | **Become a Member**