Mr. President, I close by simply saying I urge our colleagues to support an opportunity for an up-or-down vote—that is all we ask—on Judge Charles Pickering.

The PRESIDING OFFICER. All time has expired.

Mr. REID. Will the majority leader yield for a question not related to the Pickering nomination?

Mr. FRIST. Through the Chair, I will be happy to yield.

Mr. REID. Mr. President, we were originally going to have a vote on the global warming issue. It would have been about 12:45 p.m. This will necessitate that vote occurring around 1:15 p.m., but under the regular process here, on Thursdays we do not vote during the hour of 1 p.m. to 2:15 p.m. I wonder if the leader will be able to at this time indicate that the managers of the Healthy Forests issue should be here about 1:15 p.m., or thereabouts, so they can start on that issue prior to voting on the global warming issue, which I hope can occur at 2 o'clock because there are a number of people on our side who need to vote on that. I hope the leader understands what I am saying.

Mr. FRIST. Mr. President, I do. Let me talk to the managers before actually agreeing to anything. I have not talked with them about the scheduling. Before committing to a schedule, let me make an announcement right after this vote.

Mr. LOTT. Mr. President, has all time expired?

The PRESIDING OFFICER. All time has expired.

Mr. LOTT. Mr. President, I ask unanimous consent that the cloture vote be vitiated and that the Senate immediately proceed to a vote to confirm the nomination of Judge Charles Pickering to the Fifth Circuit Court of Appeals.

Mr. REID. I object.

The PRESIDING OFFICER. Objection is heard.

CLOTURE MOTION

The PRESIDING OFFICER. By unanimous consent, pursuant to rule XXII, the Chair lays before the Senate the pending cloture motion, which the clerk will report.

The assistant legislative clerk read as follows:

CLOTURE MOTION

We the undersigned Senators, in accordance with the provisions of rule XXII of the Standing Rules of the Senate, do hereby move to bring to a close debate on Executive Calendar No. 400, the nomination of Charles W. Pickering, Sr., of Mississippi, to be United States Circuit Judge for the Fifth Circuit.

Bill Frist, Orrin Hatch, Trent Lott, Conrad Burns, Lamar Alexander, Arlen Specter, Mitch McConnell, Mike DeWine, Chuck Hagel, Rick Santorum, Craig Thomas, Thad Cochran, John Ensign, Lindsey Graham, Elizabeth Dole, Michael B. Enzi, Gordon Smith.

The PRESIDING OFFICER. By unanimous consent, the mandatory quorum call has been waived.

The question is, Is it the sense of the Senate that debate on the nomination of Charles Pickering, Sr., of Mississippi, to be United States Circuit Judge for the Fifth Circuit shall be brought to a close? The yeas and nays are mandatory under the rule. The clerk will call the roll.

The assistant legislative clerk called the roll.

Mr. REID. I announce that the Senator from North Carolina (Mr. EDWARDS) and the Senator from Massachusetts (Mr. KERRY) are necessarily absent.

I also announce that the Senator from Nebraska (Mr. NELSON) is absent attending a family funeral.

I further announce that, if present and voting, the Senator from Massachusetts (Mr. KERRY) would vote ''nay.''

I further announce that, if present and voting, the Senator from Nebraska (Mr. NELSON) would vote ''yea.''

The PRESIDING OFFICER (Mr. ENSIGN). Are there any other Senators in the Chamber desiring to vote?

The yeas and nays resulted—yeas 54, nays 43, as follows:

[Rollcall Vote No. 419 Ex.]

YEAS—54

Alexander	DeWine	McCain
Allard	Dole	McConnell
Allen	Domenici	Miller
Bennett	Ensign	Murkowski
Bond	Enzi	Nickles
Breaux	Fitzgerald	Roberts
Brownback	Frist	Santorum
Bunning	Graham (SC)	Sessions
Burns	Grassley	Shelby
Campbell	Gregg	Smith
Chafee	Hagel	Snowe
Chambliss	Hatch	Specter
Cochran	Hutchison	Stevens
Coleman	Inhofe	Sununu
Collins	Jeffords	Talent
Cornyn	Kyl	Thomas
Craig	Lott	Voinovich
Crapo	Lugar	Warner

NAYS—43

Akaka	Dorgan	Lieberman
Baucus	Durbin	Lincoln
Bayh	Feingold	Mikulski
Biden	Feinstein	Murray
Bingaman	Graham (FL)	Nelson (FL)
Boxer	Harkin	Pryor
Byrd	Hollings	Reed
Cantwell	Inouye	Reid
Carper	Johnson	Rockefeller
Clinton	Kennedy	Sarbanes
Conrad	Kohl	Schumer
Corzine	Landrieu	Stabenow
Daschle	Lautenberg	Wyden
Dayton	Leahy	
Dodd	Levin	

NOT VOTING—3

Edwards	Kerry	Nelson (NE)

The PRESIDING OFFICER. On this question, the yeas are 54, the nays are 43. Three-fifths of the Senators duly chosen and sworn not having voted in the affirmative, the motion is rejected.

CLIMATE STEWARDSHIP ACT OF 2003

The PRESIDING OFFICER. Under the previous order, the Senate will resume consideration of S. 139, which the clerk will report.

The assistant legislative clerk read as follows:

A bill (S. 139) to provide for a program of scientific research on abrupt bankrupt climate change, to accelerate the reduction of greenhouse gas emissions in the United States by establishing a market-driven system of greenhouse gas tradeable allowances that could be used interchangeably with passenger vehicle fuel economy standard credits, to limit greenhouse gas emissions in the United States and reduce dependence upon foreign oil, and ensure benefits to consumers from the trading in such allowances.

Pending:

Lieberman/McCain amendment No. 2028, in the nature of a substitute.

The PRESIDING OFFICER. The assistant Democratic leader.

Mr. REID. Mr. President, we are now on global warming. Because of scheduling problems, the managers of the bill, Senator INHOFE, Senator MCCAIN, and Senator LIEBERMAN, have agreed to each give up 15 minutes on their side. Therefore, the vote will occur at 12:45. I ask unanimous consent that be the case—that the vote occur at 12:45.

The PRESIDING OFFICER. Is there objection? Without objection, it is so ordered.

Under the previous order, there are 90 minutes equally divided for debate between the chairman and the Senator from Connecticut, or their designees.

Mr. LIEBERMAN. Mr. President, I yield 6 minutes to the distinguished Senator from Washington.

The PRESIDING OFFICER. The Senator from Washington is recognized.

Mrs. MURRAY. Mr. President, I rise to support the Climate Stewardship Act offered by Senators LIEBERMAN and MCCAIN and to cosponsor this aggressive plan to fight global warming.

When President Bush walked away from the Kyoto Protocol negotiations in March 2001, he promised the American people he would come up with an alternative. More than 2 years later, the President has yet to deliver on his promise and we simply cannot wait any longer to start making progress.

Here in the Senate we have a worthy plan that will cut greenhouse gas emissions. I want to applaud Senators LIEBERMAN and MCCAIN for presenting this meaningful and comprehensive plan.

The McCain-Lieberman bill will require mandatory greenhouse gas emissions reductions in the United States from broad sectors of our economy. Rather than just aiming to limit industrial emissions—as other plans have done—this legislation will require emissions reductions from four major sectors of the economy: electric utilities; industrial plans; transportation; and large commercial facilities. These four sectors contribute 85 percent of the greenhouse gases produced in America.

The McCain-Lieberman legislation relies on a national ''cap and trade'' system to reduce the air pollutants that contribute to climate change. Many of my colleagues are familiar with this approach. It was first used on a national scale to combat acid rain under Title IV of the Clean Air Act

Amendments of 1990. A cap and trade system establishes an overall total limit on emissions and then allows pollution sources to trade emissions allowances. It gives participants the flexibility of the marketplace, and it works.

In fact, the acid rain program has reduced sulfur dioxide emissions from power plants—and it has done it at less than a quarter of the predicted cost to industry.

The McCain-Lieberman program will mandate that by 2010, the four sectors involved must reduce their emissions to 2000 levels. This is a meaningful and substantial reduction in emissions—a 5 percent reduction over the next 7 years.

Some critics suggest that you can't ''grow the economy'' without emitting more greenhouse gases. We know that is not true. As the acid rain program proved, the cap and trade system works well.

There were nay-sayers in 1990, and they were proven wrong. There are nay-sayers now, and we must prove them wrong again.

This is also an opportunity for American companies to get ahead of trends that we know are coming. We know that the future of energy production lies in renewable energy and in alternatives to fossil fuels. I want American workers to lead the way, and I want American companies to share in the benefits.

It is projected that over the next 20 years, $10–$20 trillion will be spent globally on new energy technologies. This is an enormous market, and much of the investment will take place outside of the U.S., in places such as China. I want American companies to sell the technologies that will be needed and used throughout the world. By passing this legislation, we will give American companies incentives to pursue new, clean energy technologies. And new technologies mean new jobs—especially compared to older energy sources.

Today, for every 1 percent of market share, renewable energy technologies generate 12,500 jobs. By the same measure, the coal industry only generates 3,000 jobs.

So this new technology holds a lot of promise in helping American companies and the American economy.

Let me mention briefly the President's so-called clear skies plan. This administration's approach to global climate change has been to focus on reducing greenhouse gas intensity. That is the ratio of carbon emission to gross domestic product. What most people do not know is greenhouse intensity is already declining. As the economy modernizes, it naturally becomes more efficient in terms of energy use, so when the President says he wants to reduce greenhouse gas intensity by 18 percent over the next 10 years with his Clear Skies Initiative, we should ask how much would the intensity decrease over the next 10 years without the Clear Skies Initiative.

The answer is stunning and underscores how little this administration really wants to do to reverse global warming. According to CRS, greenhouse gas intensity is projected to fall by over 14 percent over the next 10 years under current environmental regulations. The President's proposal is nearly as weak as existing law. President Bush thinks the Federal Government's primary climate change goal should be to encourage voluntary measures to reduce greenhouse gas intensity by only 4 percent over the next decade.

That is an utterly irresponsible approach to global warming. Our country should be taking an aggressive lead on reducing pollution. I am confident by using market-oriented strategies and new technologies, American ingenuity can find ways to reduce emissions without harming the economy. As I mentioned earlier, it will help our economy.

The threat of global warming is real. The Pacific Northwest stands to lose much from climate change from increasing severe storms to rising sea levels to negative impacts on our forests, our coasts, our salmon, and our agriculture. Those resources define the quality of life where I live.

In Washington State, increasing temperatures over the next decades could cause salmon in Puget Sound to migrate north. It could cause some crops to shift their natural habitats into Canada.

The western governors understand this. In September, the governors of California, Oregon, and my home State of Washington got together to curb greenhouse gas emissions by promoting tougher emissions standards for new power plants.

Governors and legislatures in the Northeast have taken similar measures.

Soon the Nation will face a patchwork of regional regulations, making it costly and cumbersome for industries to comply.

We in Congress need to take action since this White House has failed to act. It's time for a real policy to reduce our impacts on the global climate.

We know that a clean environment contributes to the health and quality of life for every Washingtonian and for every American. The McCain-Lieberman bill is an important first step.

I urge my colleagues on both sides of the aisle to vote for this legislation.

I ask unanimous consent to have printed a New York Times article that reported on the regional regulations.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the New York Times, Oct. 29, 2003]

THE WARMING IS GLOBAL BUT THE LEGISLATING, IN THE U.S., IS ALL LOCAL

(By Jennifer 8. Lee)

WASHINGTON, Oct. 28—Motivated by environmental and economic concerns, States have become the driving force in efforts to combat global warming even as mandatory programs on the Federal level have largely stalled.

At least half of the States are addressing global warming, whether through legislation, lawsuits against the Bush administration or programs initiated by governors.

In the last three years, State legislatures have passed at least 29 bills, usually with bipartisan support. The most contentious is California's 2002 law to set strict limits for new cars on emissions of carbon dioxide, the gas that scientists say has the greatest role in global warming.

While few of the State laws will have as much impact as California's, they are not merely symbolic. In addition to caps on emissions of gases like carbon dioxide that can cause the atmosphere to heat up like a greenhouse, they include registries to track such emissions, efforts to diversify fuel sources and the use of crops to capture carbon dioxide by taking it out of the atmosphere and into the ground.

Aside from their practical effects, supporters say, these efforts will put pressure on Congress and the administration to enact Federal legislation, if only to bring order to a patchwork of State laws.

States are moving ahead in large part to fill the vacuum that has been left by the Federal Government, said David Danner, the energy adviser for Gov. Gary Locke of Washington.

''We hope to see the problem addressed at the Federal level,'' Mr. Danner said, ''but we're not waiting around.''

There are some initiatives in Congress, but for the moment even their backers acknowledge that they are doomed, given strong opposition from industry, the Bush administration—which favors voluntary controls—and most Congressional Republicans.

This week, the Senate is scheduled to vote on a proposal to create a national regulatory structure for carbon dioxide. This would be the first vote for either house on a measure to restrict the gas.

The proposal's primary sponsors, Senator John McCain, Republican of Arizona, and Senator Joseph I. Lieberman, Democrat of Connecticut, see it mainly as a way to force senators to take a position on the issue, given the measure's slim prospects.

States are acting partly because of predictions that global warming could damage local economies by harming agriculture, eroding shorelines and hurting tourism.

''We're already seeing things which may be linked to global warming here in the state,'' Mr. Danner said. ''We have low snowpack, increased forest fire danger.''

Environmental groups and officials in state governments say that energy initiatives are easier to move forward on the local level because they span constituents—industrial and service sectors, Democrat and Republican, urban and rural.

While the coal, oil and automobile industries have big lobbies in Washington, the industry presence is diluted on the state level. Environmental groups say this was crucial to winning a legislative battle over automobile emissions in California, where the automobile industry did not have a long history of large campaign donations and instead had to rely on a six-month advertising campaign to make its case.

Local businesses are also interested in policy decisions because of concerns about long-term energy costs, said Christopher James, director of air planning and standards for the Connecticut Department of Environmental Protection. As a result, environmental groups are shifting their efforts to focus outside Washington.

Five years ago the assumption was that the climate treaty known as the Kyoto Protocol was the only effort, in town, said Rhys

Roth, the executive director of Climate Solutions, which works on global warming issues in the Pacific Northwest states. But since President Bush rejected the Kyoto pact in 2001, local groups have been emerging on the regional, state and municipal levels.

The Climate Action Network, a worldwide conglomeration of nongovernment organizations working on global warming, doubled its membership of state and local groups in the last two years.

The burst of activity is not limited to the states with a traditional environmental bent.

At least 15 states, including Texas and Nevada, are forcing their state electric utilities to diversify beyond coal and oil to energy sources like wind and solar power.

Even rural states are linking their agricultural practices to global warming. Nebraska, Oklahoma and Wyoming have all passed initiatives in anticipation of future greenhouse-gas emission trading, hoping they can capitalize on their forests and crops to capture carbon dioxide during photosynthesis.

Cities are also adopting new energy policies. San Franciscans approved a $100 million bond initiative in 2001 to pay for solar panels for municipal buildings, including the San Francisco convention center.

The rising level of state activity is causing concern among those who oppose carbon dioxide regulation.

''I believe the states are being used to force a federal mandate,'' said Sandy Liddy Bourne, who does research on global warming for the American Legislative Exchange Council, a group contending that carbon dioxide should not be regulated because it is not a pollutant. ''Rarely do you see so many bills in one subject area introduced across the country.''

The council started tracking state legislation, which they call son-of-Kyoto bills, weekly after they noticed a significant rise in greenhouse-gas-related legislation two years ago. This year, the council says, 24 states have introduced 90 bills that would build frameworks for regulating carbon dioxide. Sixty-six such bills were introduced in all of 2001 and 2002.

Some of the activity has graduated to a regional level. Last summer, Gov. George E. Pataki of New York invited 10 Northeastern states to set up a regional trading network where power plants could buy and sell carbon dioxide credits in an effort to lower overall emissions. In 2001, six New England states entered into an agreement with Canadian provinces to cap overall emissions by 2010. Last month, California, Washington and Oregon announced that they would start looking at shared strategies to address global warming.

To be sure, some states have decided not to embrace policies to combat global warming. Six—Alabama, Illinois, Kentucky, Oklahoma, West Virginia and Wyoming—have explicitly passed laws against any mandatory reductions in greenhouse gas emissions.

''My concern,'' said Ms. Bourne, ''is that members of industry and environment groups will go to the federal government to say: 'There is a patchwork quilt of greenhouse-gas regulations across the country. We cannot deal with the 50 monkeys. We must have one 800-pound gorilla. Please give us a federal mandate.' '' Indeed, some environmentalists say this is precisely their strategy.

States developed their own air toxics pollution programs in the 1980's, which resulted in different regulations and standards across the country. Industry groups, including the American Chemistry Council, eventually lobbied Congress for federal standards, which were incorporated into the 1990 Clean Air Act amendments.

A number of states are trying to compel the federal government to move sooner rather than later. On Thursday, 12 states, including New York, with its Republican governor, and three cities sued the Environmental Protection Agency for its recent decision not to regulate greenhouse-gas pollutants under the Clean Air Act, a reversal of the agency's previous stance under the Clinton administration.

''Global warming cannot be solely addressed at the state level,'' said Tom Reilly, the Massachusetts attorney general. ''It's a problem that requires a federal approach.''

Mrs. FEINSTEIN. Mr. President, I rise in support of the McCain-Lieberman amendment. I would like to begin by thanking the distinguished Senators from Arizona and Connecticut for their work on this bill. Their efforts are moving the Senate and the country forward on this very important issue.

I strongly believe that it is time for the United States to take real action against climate change. The science is solid. It is time to stop debating whether to do something and start discussing how to do it.

This modest bill is an affordable and crucial step forward. It is time to act.

The McCain-Lieberman amendment would create the infrastructure needed to track and trade greenhouse gas emissions and require the U.S. to return to year 2000 emissions levels by 2010.

The amendment would give us 7 years to reach year 2000 level emissions. Because of the recession, our national emissions actually went down in 2001. So we are actually at about year 2000 levels right now.

So we have 7 years just to get back to our current level of emissions. This is a modest step but it is a step forward.

As the world's largest greenhouse gas emitter, the U.S. has a duty to act.

With only 4 percent of the world's population, we produce 20 percent of the world's greenhouse gas emissions. Much of the world is already reducing their greenhouse gas emissions. The world is counting on us to do the same.

If we continue to ignore the problem, it will only get worse. If we wait, we will need to make bigger cuts in our emissions and we will have less time. Action will become more expensive rather than less.

I understand that many people are concerned about the costs of any efforts to reduce emissions. I also want to make sure that whatever program we wind up with is a good deal for the American people.

I strongly believe that the cap and trade program in this bill is a good deal for America.

Concerns about the cost of action are important.

But I want to ask my colleagues to consider very carefully the cost of doing nothing. The evidence is getting stronger and stronger that climate change will be very expensive.

According to the best available research, not acting will cost my State dearly. Our large population, our geography, and especially our reliance on snow runoff for water make California extremely vulnerable to global warming.

Frankly, the models predicting the impacts of global warming on California are frightening.

Climate change threatens the agricultural and natural resource industries that are central to California's economy and quality of life.

As the Senate knows, I am especially concerned about the future of California's water supply. More than 36 million people live in California right now, and we expect to have 50 million people by 2020.

Even without climate change, it would be a struggle to supply enough water for all of these people. But report after report indicates that climate change will further threaten a water supply that is already tight.

Models from NASA, Lawrence Livermore National Laboratories, and the Union of Concerned Scientists all indicate that climate change is likely to increase winter rain and decrease snowfall in California.

More winter rain means winter flooding. Less snow means less water for the rest of the year.

But California's natural environment as we know it depends on gradual runoff from snow.

Furthermore, we have spent billions of dollars on water infrastructure in California that depends on this runoff. And yet we already struggle to provide enough water for our farms, our cities, and our fish and wildlife.

As my colleagues know, I have worked hard to plan for the future of California's water supply. Climate change threatens even to make those plans insufficient.

We are already seeing alarming changes. According to scientists at Lawrence Livermore National Laboratory, the past century has seen a decline in spring and summer runoff in some California streams.

In 1910, half of the Sacramento River's annual runoff took place between April and July.

Today, that number is closer to 35 percent and is continuing to decline. We can no longer count on this runoff.

We are also already seeing a rise in sea level. Average sea level has risen considerably in San Francisco since 1850, with the most marked increase occuring since 1925. My colleagues from coastal states understand the potential cost of rising sea levels to coastal communities.

We are seeing other effects of climate change throughout the world:

The Union of Concerned Scientists has found that the global sea level has risen about three times faster over the past 100 years than the previous 3,000 years.

In July, the World Meteorological Organization released an unprecedented warning about extreme weather events. According to the organization's press release, ''recent scientific assessments

indicate that, as the global temperatures continue to warm due to climate change, the number and intensity of extreme events might increase.''

According to the World Meteorological Organization, the United States experienced 562 tornadoes in May of this year. The tornadoes killed 41 people. This was 163 more tornadoes than the United States had ever experienced in one month.

We are seeing similar record extremes around the world. These extreme weather events are a predicted result of climate change.

Climate change is also affecting some of our most treasured places. Last November, the Los Angeles Times published an article about the vanishing glaciers of Glacier National Park in Montana. Over a century ago, 150 of these magnificent glaciers could be seen on the high cliffs and jagged peaks of the surrounding mountains of the park. Today, there are only 35. And the 35 glaciers that remain today are disintegrating so quickly that scientists estimate the park will have no glaciers in 30 years.

Closer to home for me, on October 12 of this year, the Los Angeles Times reported that glaciers in the Sierra Nevada are disappearing. Many of these glaciers have been there for the last thousand years.

We are seeing similar melting around the world, from the snows of Mt. Kilimanjaro in Tanzania to the ice fields beneath Mt. Everest in the Himalayas.

Dwindling glaciers offer a clear and visible sign of climate change in America and the rest of the world.

We are already seeing some of these changes. The science tells us to expect even more. The evidence that climate change is real is overwhelming: including reports from the National Academies of Science, the Intergovernmental Panel on Climate Change, and even the Congressional Budget Office.

To quote a CBO report released in May, ''scientists generally agree that continued population growth and economic development over the next century will result in substantially more greenhouse gas emissions and further warming unless actions are taken to control those emissions.''

The Intergovernmental Panel on Climate Change estimates that the Earth's average temperature could rise by as much as 10 degrees in the next 100 years—the most rapid change in 10,000 years.

The latest evidence also indicates that climate change is likely to lead to more forest fires. Models indicate that warming will lead to dryer conditions in many places. Furthermore, warming is allowing bark beetles to spread farther north and to higher altitudes than ever before.

In parts of Alaska, bark beetles now have two generations per year instead of one, leading to drastic increases in population and destruction of our forests.

As we know too well, dry conditions and insect kill makes our forests into tinder boxes.

I strongly believe that we have the evidence that we need in order to act. Not addressing climate change will cost us dearly.

Yet, so far, the United States has not really taken action against climate change. Not only are we not part of the Kyoto Protocol, but the administration refuses to take part in shaping another solution. This is a big mistake.

We emit more greenhouse gases than any nation on Earth. The world is counting on us, and we have a responsibility to help.

We should be a leader—not an obstacle—when it comes to combating global warming. In his speech to the joint session of Congress—which many of us cited as among the best we have ever heard—British Prime Minister Tony Blair challenged the U.S. to take action now. Mr Blair said:

> Climate change, deforestation, the voracious drain on natural resources cannot be ignored. Unchecked, these forces will hinder the economic development of the most vulnerable nations first and ultimately all nations.

Mr. Blair went on to say:

> We must show the world that we are willing to step up to these challenges around the world and in our own backyards. If this seems a long way from the threat of terror and weapons of mass destruction, it is only to say again that the world security cannot be protected without the world's heart being won. So America must listen as well as lead.

Prime Minister Blair is right. If we fail to act now, we will face devastating consequences in the future. We will impose those same consequences on future Americans and the rest of the world.

Continued failure to act will also further strain our relationships with our allies. These relationships are already tense enough.

The administration has said that we need more research before acting. I agree that we should continue to study climate change. But we also need to start reducing our emissions of greenhouse gases now.

Prime Minister Blair has committed to a 60 percent cut in Britain's emissions by 2050. We need to make sure the U.S. is not left behind.

The McCain-Lieberman amendment is the right place to start.

This is a modest amendment. We would need to be back to our current level of emissions by 2010. In reality, much of the reduction in ''net emissions'' will come through increased carbon sequestration in forest and agricultural land. Emissions could actually increase as long as there is enough sequestration to offset the increases.

The amendment is comprehensive. The amendment covers six greenhouse gases and the vast majority of our greenhouse gas emissions.

The amendment is low cost. Repeated analyses have shown that cap-and-trade programs are the most cost effective way to reduce emissions. According to the Massachusetts Institute of Technology, this amendment would cost less than $20 per household over the life of the program—we can afford this cost.

The amendment would not lead to rapid fuel switching to natural gas. According to the Massachusetts Institute of Technology, coal use would actually continue to increase under this amendment. Natural gas use would decrease from business as usual because the bill would spur conservation measures.

During the latest energy crisis, California showed that conservation can make a huge difference. This bill will help us create better incentives for conservation.

Even the Energy Information Administration, EIA, says that this amendment would not result in fuel switching. EIA was concerned about the costs of the original Climate Stewardship Act. I believe that the agency's models are flawed and biased toward higher costs. But even those models indicate that this amendment will cost little and will not lead to price spikes.

There is a lot of misinformation floating around about this amendment. Some of the models were analyzing the Kyoto Protocol, which would have required a 20 percent emissions reduction by 2010. This amendment requires us to get back to our current emissions by 2010, an entirely different proposition.

Other models are based on an ''energy shock.'' Coming from California, I am quite familiar with energy crises. Shocks happen when businesses do not have time to prepare. This amendment is not a shock. We are giving industry 7 years' warning. According to the Massachusetts Institute of Technology, 7 years is enough time for the economy to adjust without job losses.

Businesses throughout the country have shown that efforts to reduce emissions can increase efficiency and actually save companies money.

Voluntary programs simply are not doing the job. We need to give incentives for all companies to increase efficiency and cut emissions.

We need to move forward with a national solution to climate change. So far, we have placed all of the burden on the states.

I am proud to say that California has been a leader. California has created a registry of greenhouse gas emissions that will be a model for the nation. Several other states are already looking to adopt the California Climate Action Registry's standards.

Similarly, California has a groundbreaking regulation affecting greenhouse gas emissions from automobiles.

Many states are moving forward, and they are now pressing harder for Federal action.

Local officials are also pressing for a national plan. My colleagues know that I am partial to mayors. Recently, 155 mayors, including 38 from my State alone, signed a statement calling for national action.

State and local programs are important and I applaud these efforts. But we need national leadership on this issue.

The McCain-Lieberman approach has widespread public support. According to a recent national poll, three-fourths of Americans support this approach to global warming—including solid majorities from both parties. We need to listen.

We know that agreement on climate change is possible in the Senate. The Senate has passed a modest provision in the Energy Bill 2 years in a row. The Foreign Relations Committee has recognized the urgency of the issue for our diplomatic relations.

It is time for the entire Senate to go on record on this important topic. We need to show Americans and the rest of the world that we are listening and that we are doing something about climate change.

I believe we can unite behind this bill and move the debate forward.

As Mr. Blair said, we have a responsibility to listen and to lead. I urge my colleagues to support this amendment.

Mr. INHOFE. Mr. President, I will yield in a minute to the Senator from Nebraska.

Last night we went into a lot of detail in this debate and I used three groups of scientists, numbering over 20,000, who refute the science on which global warming is based. Only two criticisms did I get from the other side. One was comments I made about supposedly misquoting Professor Schneider. After looking at this, I find I did not misquote him at all. He is one who adheres to the MIT study that says there is far less than 1 percent chance temperatures would rise to 5.18 degrees or higher, while there is a 17 percent chance that temperatures would rise lower than 1.4 degrees. These are the guys who are for this.

More significant—and this is setting the framework for this debate today. This is not about a pared-down bill McCain-Lieberman are coming up with now. They have both said this is just a start.

I will quote Professor Wigley, one I was criticized for misquoting. We find out I did not. He said:

> Senator Inhofe quotes my 1998 publication . . . where I pointed out that adhering to the emissions reductions outlined in the Kyoto Protocol would have only a small effect on the system. What he fails to point out is this analysis assumed that Kyoto was followed to 2010, and there were no subsequent system climate mitigation policies. The point of the paper was to show that Kyoto was to be considered only the first step of a long and complex process of reducing our dependency on fossil fuels as a primary energy source.

The chart of Senator SUNUNU shows how little change would be possible under this.

I yield to the Senator from Nebraska for 8 minutes.

Mr. HAGEL. I very much appreciate the leadership of the chairman on this issue and on this important debate.

I am here this morning to discuss the United States response to global climate change. How our Nation addresses global climate change may prove to be one of the most important economic and environmental decisions of our time. As we debate the McCain-Lieberman Climate Stewardship Act of 2003, it is important to keep in mind this is not a debate about who is for or against the environment. There is no Member of Congress who wants dirty air, dirty water, a dirty environment, or declining standards of living for their children and grandchildren. We all agree on the need for a clean environment. We all want to leave our children a better, cleaner, more prosperous world.

The debate on climate change, however, has moved beyond the Kyoto protocol. In 1997, by a 95–0 vote, this body, the Senate, adopted the Byrd-Hagel resolution which stated the United States would not sign any international treaty that excluded action on the part of developing nations or that would cause serious economic harm to the United States.

However, the concerns about our climate have not abated. We should recognize the efforts of Senators MCCAIN and LIEBERMAN and others on this particular issue. Although I disagree with the approach they have proposed, I understand and share their concerns. It is important to keep the debate moving forward in order to develop and implement practical policies to deal with climate change.

The McCain-Lieberman bill would create mandatory emissions reductions for greenhouse gasses here in this country. The consequences of such mandates are severe. This bill would raise energy prices for consumers, agricultural producers, business, and industry, and have a very negative impact on our economy. The mandates would also be very difficult to reach.

The Department of Energy's own independent Energy Information Administration projects the greenhouse gas emission levels in 2010 would have to be reduced by 14 percent in order to achieve the 2000 emission level quota set by this bill, not the 1.5 percent reduction that supporters of this bill are claiming.

This means utilities and manufacturers will have to find alternatives to coal, the predominant fuel used in this country. In most cases, this means switching to natural gas. That would mean higher costs for homeowners, businesses, industry, and farmers, as well as possible natural gas shortages.

A fuel shift of this magnitude demanded by this bill for the utility industry would require natural gas production and pipeline capacity this country simply does not have nor will have in 2010.

We have recently seen the effects of high natural gas prices in this country. A recent GAO report concluded the natural gas price fight in the years 2000 to 2002 led to a 25 percent reduction in domestic production of nitrogen fertilizer and a 43 percent in nitrogen imports. This was a significant blow to this country, especially to our agricultural producers.

Record demands and higher prices for natural gas caused America's farmers and ranchers to spend an additional $1.5 billion just to plant and fertilize their crops this past spring.

The question we are faced with is not whether we should take action but what kind of action would best address the climate change challenge we face now and into the future. Our actions should be focused on incentivizing and achieving voluntary emissions reductions in developing and disseminating clear technologies.

I supported such actions in the past in addressing our national climate change policy: The establishment of a voluntary registry for carbon emissions reductions; tax credits for emissions reductions; and research into climate change science and carbon sequestration. Closing the gaps in our knowledge, our science, our industry, and our technology builds a solid foundation for a wise climate policy for the future.

Although there are inconsistencies in the science, there has been a human impact on the Earth's atmosphere—we all accept that—and we should consider steps to mitigate that impact. The sooner we begin, the smaller and less painful the changes will have to be in the future. Global warming does not recognize national borders. The changes under consideration today are proposed solely for the United States, but our global warming policy must be broader. The United States alone cannot improve the Earth's climate. The only way forward is through international cooperation and collaboration—engaging, helping, partnering with all nations, especially developing nations. Developing nations are quickly becoming the major emitters of greenhouse gasses, but they are exempted from international agreements to reduce these emissions. There are some good reasons for this. These nations cannot achieve greenhouse gas reductions until they achieve higher standards of living. They lack clean energy technology, and they cannot absorb the economic impact of the changes necessary for emissions reductions. Our partnerships with developing nations can help increase the efficiency of their energy use and reduce their greenhouse gas emissions. Industrialized nations must help less developed nations by sharing cleaner technology so developing countries can leapfrog over the highly polluting stages of development that the United States and other countries have already been through. The Bush administration has taken the initiative in developing these public-private partnerships and projects with all developing nations.

The United States Chamber of Commerce has called for a Marshall plan for developing emissions-free technologies. Part of that plan includes the dissemination of those technologies to developing nations. This will take time. We should be thinking and planning 20 to 50 years out.

By partnering with developing nations, we will export American technology and expertise, and improve all economies along the way.

These are the types of plans the U.S. should be reviewing. Investments can be spread over time and gradual and effective change is the least painful to individuals, industries and nations—and it is the most lasting. It also allows all nations to participate in workable climate change policies. It is the only way to ensure both global climate change success and global prosperity.

Mr. President, I yield the floor.

Mr. NELSON of Florida addressed the Chair.

The PRESIDING OFFICER. Who yields time?

Mr. LIEBERMAN. Mr. President, I yield my friend and colleague from Florida 6 minutes.

The PRESIDING OFFICER. The Senator from Florida is recognized for 6 minutes.

Mr. NELSON of Florida. Mr. President, thank you. And in 6 short minutes I want to give you my observations of why this is an extremely critical piece of legislation to the future of Planet Earth.

I bring back to my mind's eye a picture that is embedded in my memory, looking out the window of our spacecraft 17 years ago back at Planet Earth. It is such a beautiful creation, suspended in the middle of nothing. It is a blue and white ball—blue from the oceans and white from the clouds—suspended in the middle of this black backdrop of space that goes on and on for billions of light years—an airless vacuum. And there, suspended in the midst of it is life. It is our home.

When you look at the rim of the Earth from space, you see a thin little film, and that is the atmosphere that sustains all of life. From space, the Earth looks so beautiful and yet it looks so fragile. From that experience of 17 years ago, it made me want to be all the more a better steward of this planet, particularly when, with the naked eye, from that altitude I could actually see, for example, coming across South America—with the color contrast—the destruction of the rain forest in the upper Amazon region and, from the same window of the spacecraft, see the results of that destruction. Looking to the east, to the mouth of the Amazon River, I could see the silt that discolored the waters of the Atlantic for hundreds of miles.

I give you that backdrop purely as an intro to tell you that when we face a major change in climate, it is going to have devastating effects on the very delicate ecological balance that we have on this Earth.

Clearly, one of the places that would be most devastated would be my own State of Florida, which has more coastline than any other State. The rising of the temperatures would cause the rising of the oceans. The scientific community, that has been fairly unanimous on this—despite what you hear in this debate, that there is this disagreement in the scientific community—it is overwhelming in the scientific community that what is going to happen is that the oceans are going to rise.

Can you imagine what that is going to do to a place such as my State of Florida, where most of the development in the State is along the coastline? With the rise of the temperatures, that means the storms are going to be more ferocious and frequent.

Florida is this land we know as paradise, that is a peninsula that sticks down in the middle of something we know as ''Hurricane Highway.'' The storms are going to become more ferocious and frequent, and the plagues are going to be more intense.

If that is not enough for passing this legislation and blunting the critics of this legislation—you would think that argument would stand on its own, but there is even more. And I must say, I was delighted, in the hearing we had in our Commerce Committee on this issue, to see, for the first time, some American insurance companies step up and say this is going to be a problem.

In the past, European companies have stepped up. But now subsidiaries of those companies, doing business in America, are acknowledging the same thing, that it will have devastating effects upon our business climate here in this country.

For example, the reinsurance company, Swiss Re—this is their quote from our Commerce Committee hearing:

> Swiss Re believes the best way to lessen potential loss is through sound public policy, utilizing market mechanisms which strike the right balance between environmental precaution and societal policy objectives.

Because the person testifying for Swiss Re said, ''Climate change driven natural disasters are forecasted to cost the world's financial centers as much as $150 billion per year over the next 10 years,'' that should be sufficient reason for us to stop putting our heads in the sand and saying global warming is not a problem. We know it is a problem environmentally. Now we have to recognize that it is going to be a major problem with regard to American business and all of the investments we have, particularly since so much of our urbanized area is along the coast of the United States.

So, Mr. President, I wanted, as one voice, who strongly supports the McCain-Lieberman legislation, to speak in favor of it.

The PRESIDING OFFICER. The Senator's time has expired.

Who yields time?

Mr. CRAIG addressed the Chair.

The PRESIDING OFFICER. Who yields time?

Mr. INHOFE. Mr. President, I yield up to 10 minutes to Senator CRAIG.

The PRESIDING OFFICER. The Senator is recognized for 10 minutes.

Mr. CRAIG. Mr. President, as many of my colleagues in the Senate know, I have been fascinated and awed by the complexity of the climate change issue for quite some time.

Certainly, being born and raised in the high desert region of the State of Idaho located in the rugged and majestic Pacific Northwest, I grew up with reverence for the natural beauty of our world and a deep respect for the awesome power of nature.

I have stated several times on the floor of the Senate that climate change is one of the most significant issues of our time. I have not changed my view.

I come to the floor of the Senate today to both compliment my colleagues, Senators MCCAIN and LIEBERMAN, for their determination to legislatively address the issue of climate change and to object to the manner in which they have chosen to do so.

Their proposal, S. 139, The Climate Stewardship Act, is portrayed by its proponents to be a modest legislative attempt to reduce emissions of carbon dioxide and other greenhouse gases.

It is hard for me accept the word ''modest'' as an accurate descriptive term for the legislation when I measure the bill by what it does—it regulates carbon dioxide—a gas that is not a criteria pollutant under the Clean Air Act is not a poisonous gas or toxic substance, and does not represent a direct threat to public health.

When I decided to enter politics, I was guided by a deep belief in personal freedom—the maximum amount possible for the citizens of our Nation that is consistent with an orderly society.

By freedom I mean the opportunity to achieve one's true potential, whether as an individual, a community, or a business. Freedom spawns discovery and innovation and in turn discovery and innovation solve problems and create opportunities. Regulation is the antithesis of freedom. It certainly retards, if not completely extinguishes our natural desire to discover and be innovative, and yet, we, as a Nation, seem more and more inclined to willingly accept the form of a regulatory state.

I am periodically awed by the prescience of Alexis de Tocqueville's 1839 work—''Democracy in America.'' In Part II of Chapter 6, Tocqueville voiced perhaps his greatest concern for the future conditions of American democracy.

In general terms, he said that democracies have a sort of soft ''despotism'' to fear. That is, conditions of democracy include toward men's equality, and in that equality, the government takes care of all of man's necessities, needs, and desires, in order to maintain this patterned equality among men. Tocqueville's description of this ''soft despotism'' aptly describes the modern regulatory state.

I note that there are 2,620 pages in the 1936 Federal Register, a year after the Federal Register Act was passed in 1935. In the Federal Register for the year 2000, there are 74,258.

A quote from Chapter 6 of Tocqueville's work is quite pertinent

to our discussion here. In discussing the regulatory threat, he states:

> That power is absolute, thoughtful of detail, orderly, provident, and gentle . . . It provides for their security, foresees and supplies their necessities, facilitates their pleasures, manages their principal concerns, directs their industry, makes rules for their testaments, and divides their inheritances . . . Thus it makes the exercise of free choice less useful and rare, restricts the activity of free will within a narrower compass, and little by little robs each citizen of the proper use of his own faculties.

Tocqueville goes on to note that regulation:

> is not at all tyrannical, but it hinders, restrains, enervates, stifles, and stultifies so much that in the end each nation is no more than a flock of timid and hardworking animals with the government as its shepherd.

Now, let me be clear, regulation, indeed, has its place. But this extremely powerful Government tool should be employed only as a last resort after facts developed by a comprehensive and systematic analysis clearly indicate that it is necessary to protect the public welfare.

It is with this analytical perspective that I have reviewed carefully the underlying scientific and economic support for this bill, S. 139.

The bill assumes that there is currently a definitive scientific basis for imposing a regulatory structure on industry. I am unable to agree with that basic assumption. There is no definitive evidence supporting regulation. Surface temperatures have warmed. We are not sure why. Since the mid-1990s, I have paid close attention to the developing science on global warming.

Indeed, I have organized and attended meetings at scientific research venues, set-up and participated in numerous conference calls with scientists from the National Academy of Sciences, and, along with the Board of the NAS convened a high level conference at the Academy's headquarters in Washington, DC to discuss the state of the science on global warming.

That conference, held on June 6, 2001, was a marvelous opportunity to talk with eleven scientists that included several Nobel Laureates who just finished responding to the now well publicized ''Key Questions'' request of President Bush.

We couldn't have had better timing for such a conference and the conference was set up solely to address concerns of the U.S. Senate.

Yet there were only two other Senators besides myself who made the effort to attend. Senators BINGAMAN and SESSIONS joined me, former Treasury Secretary O'Neill and former Chairman of the President's Council of Economic Advisors, Glenn Hubbard.

I can say to all in the Chamber today that the forum was a veritable feast for the mind and wonderfully successful in explaining matters of extraordinary scientific complexity. But it had to be quite a disappointment for the Academy. Only three U.S. Senators took the time to attend.

The National Academy made extraordinary efforts to get Members of the Senate to attend its intensive Climate Science Forum, including sending a letter one month in advance of the forum to each Member of the Senate, followed by a personal phone call to each Senate office.

What more could the Academy have done to encourage attendance? I don't think much else could have been done.

For some, it appears contentment on the science issue comes from simply learning about it from media reports contained in newspapers and popular magazines. Is that a fair knowledge base for regulation?

Indeed, a little over a year before the NAS conference I organized and attended, with Senator LINCOLN CHAFEE and former Senator Bob Smith, a meeting of over 30 scientists working at the Woods Hole Oceanographic Institute in Woods Hole, MA, to discuss the state of science on climate change.

Again, I could tweak the interest of only a handful of Members to join me at that excellent scientific conference held exclusively for members of the United States Senate. This issue is too economically and environmentally important for Congress to continue to have only casual interest in its scientific complexity.

Sure, there have been several congressional hearings during the last year debating different views of the science. But how much do we really learn in a couple of hours under restrictive time limits for questions, particularly when we invite mostly ''advocates'' of a particular position, instead of objective scientists? Not much. Surely, not as much as we learned at reputable scientific forums.

So, today, the Senate is asked to pass legislation that will regulate carbon dioxide, an emission that has no health impacts—we humans exhale it with every breath—and heretofore has never been listed as an ''air pollutant.'' Stated simply, the scientific case for regulation is unpersuasive.

Those Senators who assert that the science is settled are, in my opinion, simply wrong.

The 2001 NAS Report on the ''Analysis of Some Key Questions,'' often quoted to establish the basis for regulatory action, contains a sentence that is often half-quoted, and I will read it here in its entirety:

> The changes observed over the last several decades are likely mostly due to human activities, but we cannot rule out that some significant part of these changes is also a reflection of natural variability.

This is the third sentence in the summary at the very beginning of the report.

Even a cursory reading of the report indicates that the uncertainties are real and they are significant. Indeed, the report uses the words ''uncertain'' and ''uncertainty'' 43 times in its 28 pages.

Some press accounts have said that this report acknowledged a dire, near term threat to the environment from climate change. This is not true.

One of the conclusions of the Report was that:

> [a] causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes during the 20th Century cannot be unequivocally established.

Natural variations in climate that occur over decades and even centuries have been identified by the NAS as also playing a role in climate change, and so it is not correct to say that this problem results only from human activities, or that reduction of emissions of heat-trapping gases will entirely solve it.

Mr. President, 2 years before the NAS prepared its 2001 ''Analysis of Some Key Questions'' it issued one of this country's most comprehensive reports on climate change science entitled: ''Research Pathways for the Next Decade.''

The Pathways report is short on creative literature and long on technical issue framing—not particularly suitable for catchy media headlines, which may explain why many newspapers showed little interest in its existence or import. But its critical and thorough scientific analysis of the current state of our climate change knowledge is what makes the Pathways report so important to policy makers.

Now, if you are like me and you find out that America's National Research Council has just published the most comprehensive report in history on the state of Climate Science, you don't want to read all 550 pages!

You want to cut to the chase and read the report's bottom line conclusion. And the last thing you want is a report that provides more questions than answers.

But the Pathways Report authors are brutally honest. To best explain the current state of climate science they had no choice but to lay out a whole series of potentially show-stopping questions.

Let me stop for a moment and reflect on my trip to Woods Hole, MA, that I mentioned earlier. I spent a day at the Oceanographic Institute exploring these questions with over 30 scientists. It was a real eye-opening experience.

Dr. Berrien Moore, who coordinated the publication of the Pathways Report, helped lead a discussion on where science and public policy intersect.

Two themes came through clearly in those discussions:

No. 1, there are significant gaps in scientific understanding of the way oceans and the atmosphere interact to affect climate; and

No. 2, scientists need more data, especially from the oceans to better understand and predict possible changes.

It was humbling to get a glimpse of how much we don't know.

You need to know what is in the ''Pathways Report'' in order to fully understand the Research Council's ''Analysis of Some Key Questions''—if

read objectively, I think you will find that both Reports are consistent—both highlight the uncertainty of our current understanding of climate science.

Another important point to highlight is that the United Nations Framework Convention on Climate Change does not define what is meant by ''dangerous interference with the climate system'' nor does it specify a ''dangerous'' level of greenhouse gas concentrations.

To my knowledge, no Federal or federally supported scientific entity has firmly established what is a ''dangerous'' level of greenhouse gas. We simply don't know!

Recently, James Schlesinger, a former Secretary of Energy under President Jimmy Carter stated in the Washington Post:

> We cannot tell how much of the recent warming trend can be attributed to the greenhouse effect and how much to other factors. In climate change, we have only a limited grasp of the overall forces at work. Uncertainties have continued to abound—and must be reduced. Any approach to policy formation under conditions of such uncertainty should be taken only on an exploratory and sequential basis. A premature commitment to a fixed policy can only proceed with fear and trembling.

The President understands that reality.

The administration's Scientific Strategic Plan for climate change research is a valuable effort to develop a framework for acquiring and applying knowledge of the Earth's global environment through research and observations. It is a long overdue decision and should be welcomed by all.

The President's approach is most prudent. At this time, it is my preferred option over regulation. Despite claims to the contrary, no government administration has aggressively pursued a voluntary action program. The President's plan is well conceived and deserves a chance.

The simply truth is that any cap-and-trade scheme is a hidden tax on consumption. Like a tax, it would raise the cost of production.

Moreover, a cap-and-trade on CO_2 emissions will be a regressive tax which will hurt those on low or fixed income—that is the poor and elderly—disproportionately. I will submit for the record a letter sent to me as Chairman of the Aging Committee from ''The 60 Plus Association'' with membership of 4.5 million senior citizens including 10,000 in Idaho, asking me to oppose S. 139.

A quote from a June, 2001 CBO study entitled ''An Evaluation of Cap-and-Trade Programs for Reducing U.S. Carbon Emissions'' is revealing on this subject:

> This analysis does not address the issue of taxing carbon emissions. However, the economic impacts of cap-and-trade programs would be similar to those of a carbon tax: both would raise the cost of using carbon-based fuels, lead to higher energy prices, and impose costs on users and some suppliers of energy.

Another instructive quote from that study states:

> The higher prices for energy and energy-intensive products that would result from a cap-and-trade program would reduce the real income that people received from working and investing, thus tending to discourage them from productive activity. That would compound the fact that existing taxes on capital and labor already discourage economic activity.

The only way to reduce CO_2 emissions from powerplants is to reduce the amount of coal, oil or natural gas consumed at the power plant.

Placing a cap on CO_2 emissions from powerplants means those plants simply will not be able to generate any significant amounts of new electricity. There are no control technologies like selective catalytic reduction or scrubbers for CO_2.

Capping CO_2 emissions from power plants will make the current crisis in electricity markets permanent. It will force shuttering of most of U.S. coal fired steam electric generation prematurely and will essentially mandate reliance on new natural gas fired power plants without any assurance that adequate gas supplies will be available.

Further, a report by the U.S. Energy Information Administration found that reductions of SO_2, NO_X, and CO_2 at levels consistent with the current proposal drives up electricity costs substantially. The report shows that electricity prices would rise by 21 percent by 2005 and 55 percent by 2010.

The report goes on to attribute most of the rise in prices to controlling CO_2 emissions.

The report, Mr. President, also was prepared when natural gas prices were a third of what they are today which means that future electricity prices likely would be much higher because the report assumes that most new generating capacity would be gas fired.

The last point that must be addressed is the assertion that the United States is somehow out of step with the rest of the world on this issue. Climate change is as much an economic issue as it is an environmental issue. We must ensure that our global competitiveness is not compromised. Let's not allow our nation to be duped into assisting our competitors in the global market to achieve competitive advantage under the subterfuge of environmental policy. When viewed in comparative perspective, the process by which environmental policy is developed and implemented has been far more ''conflictual and adversarial'' in the United States than in Europe or Japan. In the U.S., while fines for violations have grown larger, numerous violations of environmental laws have been reclassified as ''felonies'' and many now carry prison sentences.

Contrast this with Europe and Japan. Japan implements its policies without resorting to legal coercion or overt enforcement. Japanese MUST negotiate and compromise to ensure compliance. Europe emphasizes mutual problem-solving rather than arm's length enforcement and punishment.

Our legal system allows Third Party lawsuits. Europe and Asian countries do not. In a 2003 study on the direct costs of the U.S. Tort system, it was estimated that costs equal 2.2 percent of our nations GDP. Europe and Asian countries give no standing to Third Parties in environmental compliance and enforcement cases.

Perhaps, if we were a less litigious nation, we could accomplish more in environmental compliance, and be less fearful of international environmental treaties becoming law. However, for better or worse, when our nation commits to a particular environmental policy, we enforce that commitment with the heavy hammer of civil penalties and criminal prosecution. Europe, Japan, and other nations do not. Our global competitiveness and economic security is ''in the balance.''

Mr. President, I ask unanimous consent that a letter from a large senior citizen organization expressing their fear about high costs of energy based on S. 139 be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

THE 60 PLUS ASSOCIATION,
Arlington, VA, October 28, 2003.

Hon. LARRY E. CRAIG,
Chairman, Senate Special Committee on Aging, Dirksen Senate Office Building, Washington, DC.

DEAR SENATOR CRAIG: As Chairman of the Senate Special Committee on Aging, you are a proven fighter for seniors. Accordingly, I'd like to bring to your attention legislation that, if enacted, would be very detrimental to the elderly.

We are very much opposed to S 139, the Climate Stewardship Act, which seeks to do by statute much of what the discredited Kyoto Protocol would have done by treaty. (The Kyoto Protocol was rejected by you and your Senate colleagues in 1997 by a 95–0 vote.) S 139 would seriously adds to the costs of both electricity and gasoline for seniors and others on a fixed income.

According to a June 2003 report by the Energy Information Administration at the U.S. Department of Energy, this legislation would increase electricity rates by 46%, natural gas prices by 79%, and the cost of gasoline by as much as 40 cents a gallon.

Seniors on a fixed income are least able to afford these higher prices.

During the cold winter months, many seniors must choose between staying warm and having enough food to eat and medicine to stay healthy. And in the heat of the summer, an inability to cool a home can be a death sentence to the elderly.

The very last thing public policies should do is to add to the costs of electricity and natural gas for the elderly. Likewise, many seniors and their families must be able to afford gasoline to be able to get to their doctor's office, grocery store, and pharmacy.

Government mandates which increase the costs of electricity, natural gas, and gasoline are tantamount to a tax on those least able to pay it.

On behalf of 4.5 million seniors, including nearly 10,000 in Idaho, please do everything you can to prevent S. 139 from being passed.

Cordially,

JAMES L. MARTIN,
President.

Mr. CRAIG. Mr. President, I have come to the floor on more than one occasion over the last 5 years to discuss and debate the issue of climate change.

Many of us engaged in this issue believe it to be a serious and important issue. That I cannot deny. The Senator from Florida talked about it being of critical character. I do not dispute that. The question is, Can we do anything about it and are we the cause of it? And I am speaking ''we'' as mankind. That is the essence of the debate today.

Also, S. 139, the Climate Stewardship Act, would portray, in part, that we are the cause and, therefore, let us make some moderate adjustment changes in our regulatory structure in this country to begin to mitigate greenhouse gases.

Let me suggest that the word ''modest'' has been used, but I would guess if you read the legislation, and then you downstreamed it through the regulatory process, it might be anything less than modest.

Here is what is most important about regulating carbon dioxide. It is a gas. It is not a pollutant under the Clean Air Act. It is not a poisonous gas or a toxic substance. It does not represent a direct threat to public health. That is what scientists tell us. Yet somehow we are going to be able to regulate and shape it in a way that controls what we believe to be the cause of producing greenhouse gas.

I suggest that probably the most invasive process we are going through right here with this legislation is the regulatory process that will ultimately come.

The Senator from Arizona and I, more often than not, are critics of big government and the regulatory process. What De Tocqueville said a good number of years ago—in fact, well over a century ago—was about the great democracy of America and the despotism of fear that is produced in the regulatory process that limits freedom.

He talks about the regulatory process as being soft despotism.

I note that in 1936, there were about 2,600 pages of the Federal Register. In the year 2000, there were 74,258 pages of the Federal Register. We have become a phenomenally regulated and controlled economy and country. In so doing, de Tocqueville would note very clearly, as we all understand and as the Senator from Arizona understands as well as anyone, we begin to shape our freedoms, control our freedoms in a very interesting way. That is what this bill is all about, a massive new regulatory process to reshape certain utilizations of energy in a way that will have a significant impact on our economy. And we would be led to believe that somehow it is going to improve the environment in which we live.

That is the issue at hand. That is the one that we now need to discuss. That is, does scientific evidence support what S. 139 is all about.

I have spent a good deal of time on the science. You have to. That is probably the greatest frustration that all of us have, is trying to comprehend this massive body of science that is assembling out there and what it means and is it valid and, from it, should we begin to reshape our economy; if it is invalid or inaccurate, what would be the impact of the reshaping that S. 139 might accomplish.

Organized meetings have been held all over. I organized one with the assistance of the National Academy of Sciences in June 2001. It was a high-level conference meeting here in our Nation's Capital. Every Senator was invited to come. Three showed up. Only three showed up to listen. Senator BINGAMAN and Senator SESSIONS attended, along with Secretary O'Neill, to listen to the President and the President's Council of Economic Advisers, to listen to some of our noted scientists from all over the world. No one else came. O'Neill at that time was serving as Secretary of the Treasury and was a somewhat outspoken advocate of changing our economy for the sake of climate change. He went away from that meeting not confused but recognizing that there was a broad field of science out there that he had not yet explored and that scientists had not, in fact, come together in a way to understand.

We worked with a variety of scientists from the National Academy of Scientists. In 2000, I went up to Woods Hole Oceanographic Institute. Senator CHAFEE and Senator Bob Smith went along at that time. We listened to the best scientists out there, scientists who have studied this for decades. They cannot in any absolute way suggest that greenhouse gases are the creator of a heating trend or a warming trend that does exist and most agree does exist.

The Senator from Arizona, the authors of S. 139, would suggest that this is the definitive document, the ''Analysis of Some Key Questions,'' of climate change science by the National Research Council. This is a total of 27, 28 pages. I am not saying this document is wrong, but I am saying, to understand this document, you better read this document: ''Pathways Study,'' 550 pages. Now, it is not a hot topic, and it will put you to sleep. It is all science. From this document, they concluded this document.

And what does this document conclude? That the science today is not yet assembled that can in any definitive way argue that greenhouse gases and man's presence in the production of those greenhouse gases is creating the heating trend in our global environment at this time.

There are not many sound bites here. The press did ignore this. Those who want the politics of this issue largely ignored this document. But they must go hand in glove. I am not a critic of this document at all. I have not read all of them, not all 550 pages. But I have thumbed through a lot of it. I have read a good deal of it. Anyone who wants to be the advocate of climate change darn well better read the bible on it first before they conclude that all of the world's scientists have come together with a single statement to suggest that the global warming we are experiencing can be in any way clearly the product of the production of greenhouse gas around this globe and as a part of it.

Because we have not totally understood it yet, there is no question that we ought to try to understand it before we begin to craft a massive body of regulation to reshape the economy, all in the name of climate change. That is what the President understood. That is why the President denounced Kyoto.

The administration's strategic scientific plan for climate change research is a valuable effort to build the body of science that can truly allow those of us as policymakers a foundation from which to make the right choices. If we fail to make the right choices, if we head this massive regulatory effort in the wrong direction without question—and many have spoken to it over the last few hours—we could badly damage, if not curtail, much of the growth in our economy.

I think the effort that is underway ought to be the preferred option over regulation. Voluntary action based on clear evidence is a much preferred way to go.

Let me talk for a moment about economic impact because that ultimately is the issue. S. 139 wants to change our country, wants to change the utilization of carbon and the emission of gases. You do it through a regulatory process. Between 1990 and the year 2000, industrial GDP increased 35 percent.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. CRAIG. The reality is, our industrial growth is climbing. Its emissions have rapidly dropped. The emission today of greenhouse-like gases, as we would argue, do not come from our industrial base. Yet this is where we send our regulatory effort.

I oppose the legislation. I hope the Senate will vote against it.

The PRESIDING OFFICER. Who yields time?

Mr. LIEBERMAN. Mr. President, I yield 6 minutes to the distinguished Senator from New Jersey.

The PRESIDING OFFICER. The Senator from New Jersey is recognized.

Mr. LAUTENBERG. Mr. President, I thank Senators LIEBERMAN and MCCAIN for developing this amendment. It makes sense. Mr. President, I rise to speak in support of the Lieberman/McCain bill. This bill offers a reasonable, proven, market-based approach to addressing the problem of global warming. It establishes a greenhouse gas ''cap and trade'' system which is modeled on the most successful pollution reduction program ever—enacted the Acid Rain Program.

Since 1980, that program has reduced sulfur dioxide emissions by 40 percent—despite significant economic growth during that period. I say, it's about time.

A few years ago I traveled to Antarctica and I saw the effects of global

warming firsthand. The Antarctic Peninsula ice shelves are melting. Over 1,250 square miles of ice have broken off and melted in just the last few years. Scientists believe these massive ice shelves have stood undisturbed for 12,000 years. Now they are gone. Many of us were dismayed but not surprised by the report last month of the break-up of the Arctic's largest ice shelf.

It is stunning that some of the world's glaciers have lost as much as 70 percent of their ice. Why is all this ice melting? Because, as literally thousands of climate scientists have reported—the earth is heating up! Yes, global warming is real and America should be leading the international community in addressing it—not lagging behind. The scientific discoveries on climate change are nothing short of astonishing. Ice core samples from Greenland and the Antarctica show that atmospheric concentrations of carbon dioxide are at their highest level in the last one million years. In the Arctic, the permafrost is melting. The average thickness of the arctic ice shelf has decreased by a staggering 40 percent, just since 1950.

All that melting ice is steadily raising sea levels. Globally, the sea has risen between 4 and 8 inches. This impact is particularly damaging to flat coastlines like in Texas where the relative sea level has already risen from 8 to 10 inches. From primitive thermometer readings to the analysis of tree rings and coral reefs, the evidence is clear: this last century has been the hottest in the last 1,000 years.

The evidence of profound climactic change continues to mount. A study published last January in Nature—probably the most respected scientific journal in the world—reported some remarkable discoveries. It reported that of 1,700 habitats studied, 370 are moving northward. The habitat of the Red Fox has moved 600 miles to the north in the last 30 years. Frightening disease vectors, such as the mosquito which carries the deadly West Nile Virus, are pushing into North America. Perhaps most ominous of all, night time temperatures are rising. Medical authorities tell us that this lack of relief from elevated temperatures at nighttime is a chief reason that 500 to 700 people died in Chicago during the 1995 heat wave.

While the Federal Government sits fiddling, States are not waiting for Rome to burn. At least 27 States—more than half—have started their own programs to reduce greenhouse gas emissions. According to David Danner, the energy adviser for the State of Washington, States are moving ahead to fill the vacuum left by the Federal Government. Danner said, ''We hope to see the problem addressed at the federal level, but we're not waiting around.'' A number of those States have initiated reasonable regulatory programs that will soon begin to reduce greenhouse gas emissions. The Federal Government should be leading this effort, but isn't. At the very least, we should start catching up. Surely, none of us here doubt the United States possesses the capacity and the skill to confront global warming? I for one, do not.

Now is the time to harness America's ingenuity and skills and tackle global climate change. I have to ask: What is there about the facts of global warming that makes the administration duck for cover?

We cannot ''spin'' our way out of the impacts of global warming. But that is the strategy the opponents of this bill are pursuing. Look at this chart: Republican pollster Frank Luntz is urging his side to call it ''climate change'' not global warming, because ''climate change'' is ''less frightening.'' The implication here is that people won't demand immediate action on something that is ''less frightening'' and ''more controllable.'' How irresponsible. No matter how much word-smithing that's done, no matter how much faux science the other side uses—that will not change the true, consensus, peer-reviewed science that has accumulated for 30 years.

The ominous impacts of Global Warming affect our health, affect our safety, and effect our economy. These impacts will not simply go away because we turn a blind eye to the facts and pretend the climate is not changing. In 2002, the National Research Council reported on the science of global warming. It said:

> Greenhouse gases are accumulating in earth's atmosphere as a result of human activities. National policy decisions made now and in the longer-term will influence the extent of the damage suffered by vulnerable human populations and ecosystems later in this century.

Clearly, the decisions we make here and now will determine how much ''damage'' is inflicted on our children and our grandchildren. The National Research Council represents the brain trust of the most educated country in the world. If we cannot believe the Council, who can we believe?

Global warming poses a clear and present danger to us all. The global warming bandwagon is getting full—and the President would be smart to get on it. A partial list of those who urge market-based action now, includes: 2,500 eminent economists from MIT, Yale, Harvard, Stanford and other top universities, including eight Nobel Laureates who said, ''a market-based policy could achieve its climatic objectives at minimum cost.''

Major corporations, including the petroleum giant BP—which has already reduced its greenhouse gas emissions 10 percent below its 1990 levels—and saved $600 million in energy costs doing it.

Last night we heard from Senators who were repeating the scare propaganda that is circulating about higher fuel prices. But what is more reliable, guesses about the future or a record of the past? If BP, DuPont and other major corporations can save money by reducing their greenhouse gases—surely they rest of the country can also. Other supporters of a market-based approach include Silicon Valley investors, multi-religion interfaith groups, the world's largest re-insurance company, a bipartisan group of 155 mayors—the list goes on and on.

I urge my colleagues: let's be the leaders we were elected to be. Let's act now and vote for the Lieberman/McCain bill.

The PRESIDING OFFICER. Who yields time?

Mr. INHOFE. Mr. President, I yield 7 minutes to probably the best informed Senator who was the chairman of the Governor's clean air committee.

The PRESIDING OFFICER. The Senator from Ohio.

Mr. VOINOVICH. Mr. President, I wish to comment on some of the statements made by my distinguished colleague, Senator LIEBERMAN, during the debate last night.

Senator LIEBERMAN was correct when he said concerns about climate change and atmospheric concentrations of carbon are widespread and bipartisan. He was also right when he said that support for increasing our scientific understanding of this issue and reducing atmospheric concentration of carbon is widespread and bipartisan.

However, I note that opposition to the language offered by Senator LIEBERMAN and Senator MCCAIN is both widespread and bipartisan, including labor and management.

The bill is opposed by a large number of stakeholders, including the Chemistry Council, the American Farm Bureau, the American Health Care Association, the American Highway Uses Alliance, the American Iron and Steel Institute, the National Association of Corn Growers, and the National Association of Wheat Growers, and the list goes on of the organizations opposed to this legislation.

The legislation is also opposed by a large number of labor unions, including the Brotherhood of Locomotive Engineers; the International Brotherhood of Boilermakers; the Iron Ship Builders, Blacksmiths, Forgers, and Helpers; the International Brotherhood of Electrical Workers; the International Brotherhood of Teamsters; the Marine Engineers Beneficial Association; the United Food and Commercial Workers International Union; the United Mine Workers of America; the United Transportation Union; the Utility Workers Union of America; and several locals of the United Steelworkers of America.

I also note that Senator LIEBERMAN stated that over 75 percent of people in a recent poll support this language. I would argue if these people had been told of the negative effects of this legislation on heating and electrical costs and the loss of jobs, the results of that poll would have been much different.

As I discussed last night, Thomas Mullen of Catholic Charities testified last year against the Lieberman-Jeffords bill saying it would have a devastating impact in significantly higher

heating prices on the poor and elderly. I also point out that the Department of Energy has stated that high energy costs consume a disproportionately large share of the income of the poor and elderly on fixed incomes. They are left out of this debate.

I would also like to address statements by Senator MCCAIN and Senator LIEBERMAN that because they offered a substitute to their original version of S. 139, all the comments and analyses cited by opponents of this bill, including myself, are irrelevant. That statement could not be further from the truth.

I refer to a letter I recently received from many of the stakeholders against S. 139:

The undersigned commercial, industrial, small business and agricultural organizations strongly urge you to oppose S. 139, the Climate Stewardship Act, or any substitute that may be offered by its sponsors, Senators Joe Lieberman and John McCain, when this measure comes before the Senate. As they proclaimed, the vote on S. 139 (or its substitute) will be a test vote on the most appropriate response to concerns about our changing climate.

Among all the policy options available to the Congress to improve our understanding of climate systems, the arbitrary imposition of energy rationing as embodied in S. 139 is one of the worst possible options the Senate could choose for farmers, industry, the poorest of Americans, and the economy as a whole.

I ask unanimous consent that this letter be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

OCTOBER 22, 2003.

U.S. SENATE,
Washington, DC.

DEAR SENATOR: The undersigned commercial, industrial, small business and agricultural organizations strongly urge you to oppose S. 139, the Climate Stewardship Act, or any substitute that may be offered by its sponsors, Senators Joe Lieberman and John McCain, when this measure comes before the Senate. As they have proclaimed, the vote on S. 139 (or its substitute) will be a test vote on the most appropriate response to concerns about our changing climate.

Among all the policy options available to the Congress to improve our understanding of climate systems, the arbitrary imposition of energy rationing as embodied in S. 139 is one of the worst possible options the Senate could choose for farmers, industry, the poorest of Americans and the economy as a whole. The Energy Information Administration projects that electricity prices alone would increase 46 percent and the price of gasoline would rise by 40 cents per gallon if this legislation were adopted.

When S. 139 is brought up in the Senate under the July 31 unanimous consent agreement, the sponsors of S. 139 will be permitted to offer an amendment in the nature of a substitute. They have announced that, in order to increase votes for their proposal, this substitute will eliminate the bill's unrealistic second phase objective of limiting greenhouse gas emissions in 2016 to 1990 emissions levels. However, make no mistake about it; the equally unrealistic first phase of S. 139's reduction mandate of limiting 2010 emission levels to levels of 2000 will, by itself, highly destructive to jobs and prosperity.

The sponsors of S. 139 have stated that the first phase of greenhouse gas reductions in their bill would ''only require a 1½ percent reduction from today's greenhouse gas levels.'' However, the Energy Information Administration projects that emissions levels in 2010 would have to be reduced by 14 percent in order to achieve the 2000 emission levels quota set by S. 139's first deadline of 2010. Moreover, S. 139's first phase of reductions would require the economy to have to make additional cuts in fossil energy use every year following 2010, simply to stay under the 2000 emissions cap in the face of increasing demand for more energy from a growing population and economy. Thus, meeting S. 139's first emissions cap would cause increasing, major economic disruptions for farmers, businesses, industry and the poorest Americans who can least afford higher electricity and natural gas price increases in the future. The modified bill will also result in the export of countless additional manufacturing jobs; a unbearable prospect in light of the more than 2.8 million jobs the manufacturing sector has already lost since the summer of 2000.

Addressing the climate change issue does not have to come at the expense of the American economy. Voluntary emissions reduction measures and innovative ideas for market-based incentive programs are needed in the near-term, while progress continues to be made in perfecting new technologies to improve efficiency and sequester greenhouse gases. The Senate/House energy conference report on H.R. 6 is expected to contain many provisions to increase energy efficiency; provide incentives for renewable fuel use, nuclear energy and clean coal technologies; and expand energy research and development programs. The Senate does not need to resort to S. 139's command-and-control rationing program to address energy policy.

Finally, S. 139 or its substitute would force electric generators to switch from coal to natural gas in order to meet the limits of the bill. The repercussions of a Senate vote to support S. 139 or its substitute cannot be understated. Any indication that the Senate favors coal-switching to natural gas will immediately influence many investment decisions that will affect, not just the future of natural gas prices for all consumers, but the very availability of natural gas for industry in the future. A vote for S. 139 or its substitute would contribute to the current natural gas supply/demand imbalance and almost immediately exacerbate the high natural gas prices and occasional shortages that are already plaguing the economy.

On behalf of the men and women in large and small businesses in agriculture, commerce and industry who depend on reasonably priced energy for a prosperous future for this country, we urge you to oppose S. 139 and the sponsors' substitute when this legislation is concerned by the Senate.

Sincerely,

Alliance of Automobile Manufacturers.
American Boiler Manufacturers Association.
American Coke and Coal Chemicals Institute.
American Farm Bureau Federation.
American Iron and Steel Institute.
Coalition for Affordable and Reliable Energy (CARE).
Council of Industrial Boiler Owners.
Edison Electric Institute.
IPC—The Association Connecting Electronics Industries.
National Association of Manufacturers
National Corn Growers Association.
National Electrical Manufacturers Association.
National Mining Association.
National Oilseed Processors Association.
National Petrochemical & Refiners Association.
Portland Cement Association.
Small Business Survival Committee.
Society of Glass and Ceramic Decorators.
The Fertilizer Institute.
The Industrial Energy Consumers of America.
The Salt Institute.
Toy Industry Association.
U.S. Chamber of Commerce.

Mr. VOINOVICH. Mr. President, this legislation is the first step in our country toward participating in the Kyoto protocol at a time when Russia and Australia have indicated they will not ratify the treaty, and when China, India, Brazil, and South Korea are exempt because they are ''developing countries.''

Our trade deficit with China alone is $103 billion. Yet supporters of this legislation want to shut down American plants and send American jobs overseas to these ''developing countries'' that do not have the environmental safeguards that we have in America. I can hear the giant sucking sound of jobs leaving our country every time I return to Ohio.

Let me be perfectly clear, carbon caps are lethal to our economy. Carbon caps—any carbon caps—will cause a switch to burning coal with clean coal technology. That will cause fuel switching to natural gas. It will mean the end of manufacturing jobs in my State. It will send thousands of American jobs overseas and will significantly drive up natural gas and electricity prices and put millions of Americans out of work.

Too many Americans have lost their jobs because we have not harmonized our energy and environmental policy in this country. We need a truly comprehensive energy policy that protects our environment while also protecting our energy security and our economy. We do not need legislation such as S. 139 that attempts to protect the environment while completely disregarding negative impacts on our energy security and economy.

As I stated last night, I strongly oppose any legislation that will exacerbate the loss of jobs in my State and drive up the cost of energy for the least of our brethren, the poor and the elderly. I urge my colleagues to vote no on this legislation.

The PRESIDING OFFICER. Who yields time?

Mr. INHOFE. Mr. President, I thank Senator VOINOVICH for making his statement. I will be specific. The amount of jobs in his State alone, if this passes, would be 178,000.

For any other Members who want to know how their States will be affected, we have that breakdown. It is a study by Penn State University. I thank the Senator for his comments.

Mr. LIEBERMAN. Mr. President, I yield 5 minutes to the Senator from New Mexico.

The PRESIDING OFFICER. The Senator from New Mexico is recognized for 5 minutes.

Mr. BINGAMAN. I thank the Chair. Mr. President, I thank my colleague, Senator LIEBERMAN, for yielding me time.

Mr. President, I have heard three arguments against this legislation since I have been privileged to hear this debate. The first argument is there is no such thing as climate change. Climate change is a reality if we are to believe the scientists we hire or who are willing to advise us.

A clear consensus of the scientific community is there is a change going on. The global climate is warming, and that is a fact.

The second argument I have heard is, OK, even if there is such a thing as climate change, there is no real proof human activity is the cause of that climate change. Again, I point out the scientific community believes it. The scientific community says human activity over the last 150 years has been a major contributor to the problem. Most of these human activities that contribute to this problem relate to energy production and use. Carbon dioxide emissions account for 84 percent of the annual emissions of greenhouse gases in the United States and 98 percent of the carbon dioxide emissions are associated with energy production or use.

The third argument which I have heard this morning is we do not totally understand this issue and, therefore, the Congress should not be legislating. If we use that standard, we will not legislate on virtually any subject in this body. Clearly, we have to take the best information we have, make the best judgments we can, and then if we find we are in error, we can adjust our policies as we move forward.

As the ranking member of the Energy Committee, I have argued repeatedly for the last several years that part of our national energy policy and part of the energy legislation we were trying to craft should be a recognition of the importance of climate change, and we should include in a bill some provision for dealing with climate change issues. Unfortunately, I am informed the energy conference that is still in existence, although it does not meet, will not include any language related to climate change, even though the bill the Senate produced does contain some provisions in that regard.

This is an issue of global concern. It is sad that the United States is not leading this debate. We should have a leadership role, both because we have the capability to understand the science and to do the science, and the technology. We also have the capability to come up with an appropriate response. It is sad we are not doing that.

This administration has totally failed to lead with regard to this issue. The President's plan to deal with the greenhouse gases has been little more than a business-as-usual approach. The President's voluntary target of an 18 percent reduction in greenhouse gas intensity over the next decade sounds impressive until one looks at the data. The approach will allow climate-altering pollution to continue to climb as long as it increases more slowly than our economy grows.

The voluntary commitments would meet a goal that are no more aggressive than business as usual. Greenhouse gas pollution intensity in the United States has been declining because the part of our economy that is growing the fastest is the service sector, which produces fewer greenhouse gases than manufacturing for certain. President Bush's voluntary approach will not change the trend in greenhouse gas emissions over what is likely to happen anyway, and it certainly does not put us on a path to reductions in the future.

We have been trying a voluntary approach to reducing greenhouse pollution for almost a decade, and greenhouse gas emissions have actually increased 14 percent. Many of the commitments industry is making today are the same or similar to what these companies promised nearly a decade ago.

While negotiations on an international framework to address global warming continue for the next several years, our domestic industry will have to make significant investment decisions on new energy infrastructure. We have no domestic framework on greenhouse gas emissions that would guide or even inform these investment decisions. Addressing these issues up front would reduce business costs and risks. Maintaining our present course will increase the probability of future economic losses and waste in the energy sector.

This Climate Stewardship Act is a modest first step in trying to deal with this important issue. Senator LIEBERMAN and Senator MCCAIN deserve great credit for forcing this issue to be considered in the Senate today and to be voted on. They have put together an innovative framework that deserves our attention. It is unfortunate, frankly, that this bill was not able to receive the hearings in committee it deserves. The debate should be no longer about whether climate change is a reality, which is what we have been talking about on the Senate floor, but instead on how we can deal with it. Ideally, the debate we would be having on the Senate floor would be to consider amendments, to consider alternatives to this proposal, so we could come to grips with this very difficult issue. I would prefer to be offering amendments on ways in which the framework could be improved, but given the politicizing that has surrounded this scientific and environmental issue, I am left with only one option, and that is to vote for the bill and send a signal that the Senate must show leadership on climate change.

The PRESIDING OFFICER. The Senator's time has expired.

Who yields time?

Mr. INHOFE. Mr. President, I yield 2½ minutes to the Senator from New Hampshire, Mr. SUNUNU. I hope we will look very carefully at the chart he has. It is probably the most significant chart, other than the jobs chart we have.

The PRESIDING OFFICER. The Senator from New Hampshire.

Mr. SUNUNU. Mr. President, we have heard a number of speakers who I think have raised a number of important points. We have heard questions and discussions about the science of climate change. The science is important, and over time we hope to better understand the Earth's climate. I hope this is an area where we do research, where we can develop better models. It is one of the most complex areas of investigation.

We have heard about the costs, both direct costs of this legislation that will increase energy costs for everyone in America, but also indirect costs, because other countries that have been mentioned by Senator VOINOVICH, for example, such as China, India, Brazil, Russia, or Australia, do not adopt such stringent controls on emissions, and they will benefit by American jobs moving overseas.

In particular, it stands to reason in those areas of our economy that are most dependent on energy as an import, energy incentive industries like manufacturing, steel, smelting, and the like, those are the jobs that will be the first to go overseas.

I want to speak about the environmental issue because if we look closely at the environmental impact of this legislation, it actually undermines the legislation. It shows its weakness and it illustrates why it should not be adopted. If we were to agree on the increase in temperature of the last 50 or 100 years, agree there was some relationship between manmade emissions of CO2 and that increase, and assume the full impact of the Climate Change Commission, the IPCC and the Kyoto protocols, let us look at what the environmental impact might be. This is a forecast of increasing temperatures over the next 50 years, a forecast projected increase of up to 1.2 degrees Celsius, maybe 2 degrees Fahrenheit. The benefits of Kyoto are enormously small, perhaps one or two-tenths of a degree Celsius. Over 100 years, if the projected change is 4 or 5 degrees Fahrenheit, the impact of Kyoto might be four or five-tenths of one degree.

The question is: What benefit would that provide at the significant economic costs that are not likely but certain? Supporters have pointed out their legislation, but our legislation is not as dramatic as Kyoto. It is not as harsh as Kyoto, and that means the environmental benefit will be even less.

Questionable environmental benefit, enormous cost. I certainly urge my colleagues to vote no.

The PRESIDING OFFICER (Mr. GRAHAM of South Carolina). The Senator's time has expired. Who yields time?

Mr. MCCAIN. Mr. President, how much time remains on each side?

The PRESIDING OFFICER. Twenty minutes 59 seconds on the minority side; 17 minutes 11 seconds on the majority side.

Mr. MCCAIN. Who is the minority side?

The PRESIDING OFFICER. Well, I do not know. That is a good question.

Mr. MCCAIN. How much time is controlled by Senator INHOFE and how much time is controlled by Senator LIEBERMAN?

The PRESIDING OFFICER. Senator LIEBERMAN has 20 minutes 59 seconds.

Mr. LIEBERMAN. Mr. President, I yield however much of the 10 minutes Senator MCCAIN will eventually have as he wishes to consume now.

The PRESIDING OFFICER. The Senator from Arizona.

Mr. MCCAIN. Mr. President, I would like to use 8 minutes of my 10 minutes.

My favorite author is Ernest Hemingway, as he is of many millions of people throughout the world. One of his most famous short stories is entitled ''The Snows Of Kilimanjaro.'' At the beginning of the short story he says:

> Kilimanjaro is a snow covered mountain 19,710 feet high, and is said to be the highest mountain in Africa. Its western summit is called by the Masai ''Ngaje Ngaje,'' the House of God. Close to the western summit there is the dried and frozen carcass of a leopard. No one has explained what the leopard was seeking at that attitude.

As the photograph shows here, the snows of Kilimanjaro may soon exist only in literature.

There has been a lot of debate here about the scientific evidence—17,000 scientists say this, 10,000 scientists say that, my scientist says this—although clearly the National Academy of Sciences and other organizations including the World Meteorological Organization, I think, and others, should have some weight with my colleagues.

If I might quote the punch line from an old joke, ''You can believe me or your lyin' eyes.''

These are facts. These are facts that cannot be refuted by any scientist or any union or any special interest that is weighing in more heavily on this issue than any issue since we got into campaign finance reform.

That is the Arctic Sea. That is the Arctic Sea. If you look at the red line, that is the boundary of it in 1979. Look at it now. You can believe me or your lyin' eyes.

Look at Mount Kilimanjaro. That picture was taken in 1993. That picture was taken in February of the year 2000.

All of us cherish our national parks. Have a look at the Glacier National Park, which will have to have its name changed. The picture above was taken in 1932. That is a glacier ice cake. This picture is from the Glacier National Park archives. That is from 1932. Look at it 50 years later. It is not there. There will be no more glaciers in Glacier National Park, so we may have to give it a different name.

We see devastating fires across California. It is very interesting that we have this debate while devastating fires, unprecedented in nature, are sweeping across California, fueled by unusual drought conditions. I don't have to tell people what the consequences of that are.

An ice dam lake drained recently when the Ward Hunt Ice Shelf, which a century ago rimmed the coast, broke up along the coast of northeast Canada. NASA has confirmed that part of the Arctic Ocean that remains frozen year round has been shrinking at a rate of 10 percent per decade since 1980. At a conference in Iceland in August, scientists told senior government officials the Arctic is heating up fast, disclosing disturbing figures from a massive study of polar climate change.

Dr. Robert Corell, who heads the Arctic Climate Impact Assessment Team, said:

> If you want to see what will be happening in the rest of the world 25 years from now, look at what is happening in the Arctic.

Destruction of 70 percent of heat-sensitive coral reefs, in the world—70 percent of the heat-sensitive coral reefs in the world due to increases in water temperatures—places reef fisheries in jeopardy. I don't know what happens when the beginning of the food chain disappears.

There is increasing coastal damage from hurricanes. Researchers at the University of Texas, Wesleyan University, and Stanford University earlier this year reported in the journal Nature that global warming is forcing species around the world, from California starfish to alpine herbs, to move into new ranges or altered habitats that could disrupt ecosystems.

In an article in the July 3 Journal of Hydrology, ''Winters In New England Are Getting Shorter,'' according to the USGS scientists, northern New England winters have receded by 1 to 2 weeks during the past 30 years.

Paul Eckstine, Harvard Medical School:

> Concerns about climate change are often mistakenly placed into the distant future but as the rate of climate change increases, so do the biological responses and costs associated with warming and unstable weather. The influence of intensifying drought on the spread of west Nile virus in the U.S., and the impacts of rising carbon dioxide levels on allergies and asthma, demonstrate that global warming has come into our backyards.

Finally, Dr. Adare of the Climate Research Committee of the National Academy of Sciences, says:

> The planet has a fever and it is time to take action.

Mr. President, I ask my colleagues not to listen so much to the opinions of labor unions, business special interests, or even scientists. Look at what is happening around the world. Use your eyes to see what is happening. The devastation wrought by climate change so far has been remarkable.

There is a long series of happenings around the world. Key reports have been issued in the last few years by a number of bodies composed of the world's most eminent climate scientists, including the United Nations Intergovernmental Panel on Climate Change, the National Academy of Sciences, U.S. Global Change Research Program, and these experts all reached the same conclusions:

No. 1. Greenhouse gasses are increasing in the atmosphere because of human activities and they are trapping increasingly more heat.

No. 2. Increased amounts of greenhouse gases are projected to cause irreparable harm as they lead to increased global temperatures and higher sea levels.

No. 3. The gases we emit to the atmosphere today will remain for decades or longer. Every time we emit now will require greater reductions later, making it more difficult to protect the environment.

It is interesting to me that in July of the year 2003, Governor Pataki of New York announced that 9 States had formally agreed to join New York in developing a regional strategy in the Northeast to reduce greenhouse gas emissions—10 States. The States agreeing to participate are Connecticut, New Jersey, Vermont, New Hampshire, Delaware, Maine, Pennsylvania, Massachusetts, and Rhode Island. The cap-and-trade initiative recommended by Governor Pataki would include developing a market-based emissions trading system that would apply to power generators emitting carbon dioxide, and it is modeled after the highly successful acid rain program of the 1990 Clean Air Act.

This amendment is modeled on the highly successful acid rain program of the 1990 Clean Air Act. It is modest in its proportions.

The PRESIDING OFFICER. The Senator has consumed 8 minutes.

Mr. MCCAIN. I reserve the remainder of my time.

The PRESIDING OFFICER. The Senator from Oklahoma.

Mr. INHOFE. Mr. President, while I appreciate the comments made by my good friend from Arizona, I would only say some of the things there—I know he doesn't intend to say things that aren't true. I would like to quote an article that was in this morning's USA Today. James Morison, who is a scientist with the University of Washington—this is a front page article in USA Today—said the temperature increases and the shifts in winds and ocean currents occurred early in the 1990s and have since ''relaxed.'' This is a recent discovery.

> These big changes ''are not related to (global) climate change.''

This was just in this morning's paper, speaking of the Arctic Circle.

So if we have time, when I have a chance to wind up, I want to repeat some of the things I said about the flawed science on which all these things are based. Until then, I recognize the Senator from West Virginia, Mr. BYRD, for a time not to exceed 12 minutes.

The PRESIDING OFFICER. The Senator from West Virginia.

Mr. BYRD. Mr. President, I come to the floor today to discuss the very critical issue of global warming and to summarize events of recent years that have led us to this point. We are discussing the paramount energy and environmental challenge of our time; namely, the inexorable increase in greenhouse gasses in our atmosphere that will lead to changes in the global climate.

The primary contributor to global warming is the burning of fossil fuels that create carbon dioxide, and it remains in the atmosphere for over a century. These human-produced emissions are adding to a growing concentration in the global atmosphere that is expected to more than double by the end of this century. Therefore, we are bequeathing this problem and its consequences to our children, our grandchildren, and our great grandchildren.

While I am very concerned about the challenge posed by global warming, let me state at the outset that I have long been a strong critic of climate change policies that are not in the national interest of the United States. I will yield to no one on that point. I have insisted on a rational and cost-effective approach to dealing with climate change.

As the coauthor, along with Senator HAGEL, of S. Res. 98, that passed 95 to zero in 1997, during the 105th Congress, I sought at that time to express the sense of the Senate regarding the provisions of any future binding, international agreement that would be acceptable to the Senate. The Kyoto protocol, in its current form, does not comply with the requirements of S. Res. 98. That resolution was supported by many industrial trade associations and opposed by many environmental organizations.

While those on both sides of the issue have attributed many interpretations and misinterpretations to S. Res. 98, no one has misrepresented and misconstrued S. Res. 98 more so than this present administration.

S. Res. 98 was intended to provide the sense of the Senate on what should be included in any future binding international treaty. The resolution laid out the conditions under which the Senate could agree to a new binding treaty that would subsequently be considered at the Kyoto conference. S. Res. 98 directed that any such treaty must include new scheduled commitments for the developing world in addition to any such requirements for industrialized nations but requirements that would be binding and mandatory and lead to real reductions in the emissions of greenhouse gases over time. This is clearly different than the minimal, vague, and voluntary commitments that we are currently pursuing.

As I explained in 1997, a voluntary approach had already been tried and had already failed. The United Nations Framework Convention on Climate Change, also known as the Rio Convention, failed to reduce emissions largely because it was voluntary. That is why Kyoto concerned binding commitments, and S. Res. 98 was intended to guide that effort rather than kill that effort.

The administration's climate team has merely returned to the voluntary approach of Rio, despite a complete lack of evidence that this so-called plan will ever succeed. Industrial nations have never initiated significant reductions in pollution of any type on a strictly voluntary basis. This administration must finally come to terms with taking action toward globally binding commitments.

As well, developing nations, especially the largest emitters, need to be a part of any binding global climate change treaty. Another point that has been misunderstood is what S. Res. 98 would require of developing countries. An international treaty with binding commitments can and should provide for the continued growth of the world's developing nations. Unrealistically stringent emissions targets need not choke off their economic growth. The initial commitments could be relatively modest, pacing upwards depending on various factors, with a specific goal to be achieved. Today, however, the world is even further away from a credible, workable global strategy to deal on climate change than we were in 1997.

The blame for this circumstance can be laid squarely at the feet of this administration which abandoned international negotiations in which it could have kept pressure on developing nations to agree to some level of mandatory emissions reductions. Moreover, developing nations should be a prime market for clean energy technology projects. But, with little pressure on those nations to reduce or contain the growth of emissions, a huge and fruitful market for those types of technologies—technologies that are being developed in the U.S.—is likely to dry up. In other words, while this nation has been making great strides in developing technologies to use our own energy resources more efficiently and more cleanly, significant efforts to help deploy these technologies overseas have been undercut by this administration's unilateral approach to climate change.

Thus, S. Res. 98 was an effort to strengthen the hand of the administration as it undertook international negotiations. It enabled our negotiators to walk into talks and point to the ever-present Congress, looking over their shoulders, to ensure that the interests of the U.S. would be protected in any agreement that eventually came to fruition.

The Bush administration has never understood the value of S. Res 98. Rather than employing that tool to positively influence international negotiations, it used the resolution as cover to simply walk away from the table. Having abandoned a constructive role in the global negotiations on climate change, this administration has left the U.S. in a much weaker position globally.

The Bush administration must be challenged on its environmental, economic, and energy responsibilities, both domestically and internationally. The U.S. is in the best position of any nation to positively influence an international response to global climate change. Yet, we will all suffer from the consequences of global warming in the long run because we are all in the same global boat.

This administration has attempted to hide behind S. Res. 98 to defend its current do-nothing and know-nothing policies on climate change, and I strongly object to that. The difference between my view and that of this administration is simple. I believe the problem is real and demands action. The administration does not. The President also claimed early in his administration that his goal was to oppose Kyoto. If the President's representatives had stayed at the table and negotiated in good faith on a treaty to comply with S. Res. 98, then the administration could have guided the world toward a new binding treaty with mandatory requirements to reduce emissions that would correct the deficiencies of Kyoto.

The reality is quite different. Our nation has been represented at the international negotiations in name only. We would be better represented at the international negotiations by a row of empty chairs. That would at least accurately represent the vacuous nature of our current policies. For President Bush not only disavowed the Kyoto Protocol; he also turned his back on any negotiations because they concern a binding treaty that includes mandatory commitments. The rest of the world was outraged by this unilateral rejection of a decade of negotiations and of the new American isolationist approach to deal with climate change.

And what will happen in one year or five years when a new administration enters office? What will happen if Russia does decide to ratify the Kyoto Protocol, and it enters into force? Will the administration be able to go back to the table and demand changes to binding international law that will have been in force for perhaps many years? The President's industry supporters may one day wake up and realize that they live in a partially Kyoto-controlled world where there is no turning back.

One senses confusion and a lack of direction in the administration. It seems that the administration's right hand does not know what the far right hand is doing regarding its climate change policies. The White House does not know whether to believe the science or not, and they have certainly not articulated a plan of action.

Finally, I am compelled to observe that it is the height of hypocrisy for this administration or its supporters in industry to claim that they are defending the goals and provisions of S. Res.

98. They cannot make such a claim in the debate today or in any international forum. Nothing could be further from the truth. This administration can no longer hide behind the mantle of that resolution.

It is this administration that undermined the tenets of that resolution. They now support only vague, voluntary measures. That is true both domestically and internationally. The evidence suggests that the President's negotiators have even formed an alliance with the key emitters in the developing world, and together they oppose any additional discussion during the international negotiations of binding commitments for the developing world as called for under S. Res. 98. That is of course a logical result of the administration's policies, since it is impossible to apply binding commitments to China if we refuse to apply such standards to ourselves. We now have little hope of seeing an effort made to produce a treaty that will comply with S. Res. 98—at least not during the tenure of this President.

If there is no prospect for a binding international treaty, then how can we deal with the enormous challenge posed by global warming? The critics of the amendment before us argue that we should stay the course and support the President's policies. If I may ask—what are those policies? What concrete programs have been put in place? In point of fact, the administration has asked the industry trade associations to develop their own voluntary reduction programs. The proposals are vague and actually allow emissions to continue to increase. Taken together, none of these programs is expected to result in any serious decrease in emissions.

These events over the last three years have led me to conclude that we must look elsewhere for effective action on global warming. The Senate should not be put in the position in which it now stands. It should not be faced, as we are now, with the prospect of considering an energy bill devoid of provisions to address climate change. The Senate should be considering our nation's energy security from a broad view that includes a global response to climate change and the international politics of energy.

Proponents of the amendment now before us argue that it sends the clear message to the White House: If President Bush rejects the advice of this body, then he is refusing to negotiate in good faith toward a binding international treaty and is only offering hollow domestic programs. The Senate has little choice but to consider further steps, including modest mandatory approaches, that would apply to our domestic economy.

The amended version of S. 139 freezes emissions at their current levels rather than seeking a sharp reduction as has been the case in other approaches. The McCain-Lieberman bill also allows companies to offset their emissions, for example by planting trees that absorb and sequester carbon dioxide (CO_2) or by constructing more efficient power plants in the developing world than what those nations would otherwise build—and claim the difference as an earned offset or credit.

I would prefer not to be faced with a measure like this today. I note that this bill has not had committee consideration. That said, it is very much the case that several key chairmen with jurisdiction over energy or environmental policy have shown very little interest in seriously dealing with climate change. We have certainly witnessed this in the energy bill. I want to further commend Senators MCCAIN and LIEBERMAN for their diligence and hard work to find a middle ground. They have come a long way on this proposal. If the principles of their proposal were combined with those of other Members like mine, then the Senate could have a strong package to offer the American people. While I will not be able to vote for the amendment today, I want to make it very clear that I will work with the sponsors of this bill and other Republican and Democratic Senators who want to go beyond this administration's empty-headed approach.

In closing, I want to express my own growing frustration for our seeming inability to deal with the problem at hand. I have been troubled by this for a long time. I do not believe I need any more scientific evidence to show that we have seen these changes. I have seen the changes in weather patterns, and those changes that I have personally seen during my nearly 86 years lead me to believe that there is something happening. We need to do something about it. What we do may be painful in some respects, but we owe it to our children and grandchildren to have the foresight to see that something is happening and to understand that we ought to do something about it soon. If not, we may be going beyond retrieval.

So, I would say again that the two Senators are to be very much complimented. I will vote with Mr. INHOFE, for the reasons I have stated. I yield back the balance of my time.

The PRESIDING OFFICER. The Senator from Connecticut.

Mr. LIEBERMAN. Mr. President, I thank Senator BYRD for his statement. Obviously, I regret that he is not going to support the McCain-Lieberman proposal today. But I appreciate very much this fact: He recognizes that there is a problem here. I don't know how some of our distinguished colleagues can say there is not a problem. The science is there. The facts are there. We see it with our own eyes. We can disagree on what to do about the problem.

But Senator BYRD, with his characteristic directness and honesty and sense of history, has recognized that there is a problem. I look forward to working with him in the months ahead to see that we can fashion together a common ground response that will deal with the problem that he quite honestly has recognized. I thank the Senator.

Mr. BYRD. Mr. President, I thank the distinguished Senator. I thank our colleagues for the work they have done. I, again, thank Senator INHOFE.

Mr. LIEBERMAN. Mr. President, I yield 5 minutes to the Senator from Delaware who has been an active, helpful, and constructive supporter of this proposal, for which I thank him.

The PRESIDING OFFICER. The Senator from Delaware.

Mr. CARPER. Mr. President, I thank Senator LIEBERMAN and Senator MCCAIN and others who brought this legislation to the floor. I stand today as a cosponsor of the amended version of the McCain-Lieberman Climate Stewardship Act and I will vote for it today. I do so because I believe it is a sensible first step toward addressing the real problem of increasing levels of greenhouse gas emissions and global warming about which Senator BYRD and others have spoken.

Senator BYRD, Senator MCCAIN, and others have spoken about the convincing science which shows that not only greenhouse gas emissions are increasing but also that those emissions are linked to human activity and are having a negative impact on the climate in which we live.

Ten years ago I would not have stood here. Ten years ago I would not have been arguing that we should take mandatory steps toward addressing greenhouse gas emissions. But over the past decade or so as I learned more about the issue and had the opportunity to speak with people on both sides of this debate, and as Senator MCCAIN said, to see with my own eyes the changes that are occurring in this world, I have become convinced there is a real problem. It is not going away. We can do something about it. We can do something about it now. We should.

Senator LIEBERMAN and Senator MCCAIN should be commended for their work on this bill and for their willingness to make a significant modification to their original proposal. I don't know that I would have been so supportive of the original bill because of reductions that were required in that bill. Having said that, the modified version before the Senate today which seeks to turn over the balance of this decade greenhouse emissions to levels of the year 2000 has my strong support.

The fact is, if the Federal Government does not act in a meaningful way, and do so soon, the problem will get worse and the solution, when it comes, will be even more difficult and more disruptive of our economy and our way of living.

Addressing greenhouse gasses is a proper role for the Federal Government. In yesterday's New York Times, a reporter, Jennifer Lee, wrote about the increasing number of States fed up with a lack of certainty from the Federal Government with regard to climate change policy. Half the States, according to the article, have taken steps to address global warming.

On the one hand, I view the States' efforts as a positive development. However, regulating greenhouse gasses via 50 different laws is not, my friends, the best way to proceed on this issue. It is best for both the industries that will have to comply with these laws and the ecological benefits we expect from the passage that we adopt a uniform Federal standard. The Climate Stewardship Act does just that.

My own State of Delaware is proud to be the home of the DuPont Company, a global company with products touching each of us every day. DuPont is a major producer of greenhouse gasses. One might think they would be opposed to this legislation, but as it turns out they are not. They view this bill as a significant and serious contribution to the congressional debate on how to address climate change.

They think it is particularly noteworthy for three reasons, and I will mention those: No. 1, the measure includes market-based systems to achieve reductions efficiency; No. 2, it covers more than one sector of the economy; No. 3, it provides credit incentives for early action and includes flexibility mechanisms to allow companies to seek lower cost solutions that achieve the desired results.

DuPont is just one example of a company that has stepped forward and taken steps to reduce greenhouse gas emissions not because they have to but because they believe it is the right thing to do.

DuPont kept its energy use flat between 1990 and 2000, while at the same time increasing production by 35 percent. That means they found ways to become more efficient and thereby avoid increasing greenhouse gas emissions. If a company such as DuPont can find a way to meet the requirements of this bill, I suspect that just about any company can do the same.

In closing, today's vote is one of the more important votes we will take during our time in the Senate, certainly one of the more important votes of this year. In my mind, the issue it addresses is as important as the vote to authorize the President to use force in Iraq or whether we will make major changes in Medicare prescription drugs.

What we decide today will have a significant impact for our future. While we will not see noticeable, positive or negative effects before next year's Presidential election, or before next year's Senate elections, within our lifetime, as sure as we are gathered here today, it will be clear that we have made the right choice or, I might add, if we have made the wrong one.

I urge my colleagues to join me in what I believe is the right choice and that is a ''yes'' vote for the Climate Stewardship Act.

Mr. HARKIN. Mr. President, I would like to take a few moments to discuss S. 139, the Climate Stewardship Act and lay out the reasons I am supporting this bill.

The chief reason I support this bill is that I believe, as do the majority of scientists, that global climate change is occurring, and is due in part to human activities. I also believe that the U.S. has a responsibility to provide international and domestic leadership on this issue, and to begin to take action. This body, the U.S. Senate, has now passed three separate Sense of Congress Resolutions, this year and last year, urging U.S. leadership and reengagement in the international process to address global warming, and meaningful U.S. domestic action to begin to reduce our emissions of greenhouse gases that cause climate change. Two of these resolutions were included in the comprehensive energy bills passed by this body this year and last. Despite these resolutions, the United States remains inactive on these issues. We are not displaying enough leadership on combating global warming, either domestically or abroad. And we are beginning to see some early warning signals about the consequences if we persist in our inaction.

The World Meteorological Organization, WMO, in July of this year issued an unprecedented alert, saying: ''Record extremes in weather and climate events continue to occur around the world. Recent scientific assessments indicate that, as the global temperatures continue to warm due to climate change, the number and intensity of extreme events might increase.'' They go on to say that: ''New record extreme events occur every year somewhere in the globe, but in recent years the number of such extremes has been increasing.'' And, ''(w)hile the trend towards warmer globally averaged surface temperatures has been uneven over the course of the last century, the trend for the period since 1976 is roughly three times that for the past 100 years as a whole.''

In the United States, the WMO cited record-breaking statistics in a particularly dangerous category of extreme weather events: nationwide, 562 tornadoes occurred in May, 2003, resulting in 41 deaths—a record for the number of tornadoes in any month, far surpassing the June, 1992 U.S. record of 399 tornadoes.

In Iowa, as in much of the midwest, we have been experiencing a drought—a drought that is hurting my states' farmers, and farmers across the midwest and west. These dramatic weather events that we are experiencing—the tornadoes, the drought, the warming—these are exactly what scientists have been predicting would occur with unmitigated global warming. These events should not come as a surprise to any of us, they have been predicted for some years now.

The bill we are debating, the Climate Stewardship Act, will take the first, modest steps to put into place a U.S. system to begin to reduce our greenhouse gas emissions, to begin to take action. It will respond to the science, and it will do it in a manner that this administration has failed to do—with meaningful policies that will not harm the U.S. economy, but will at least put us on the right path.

Now I know some Members of this body and of some organizations and industries have expressed concerns that taking action will harm the U.S. economy, and will impact energy supplies. While their concerns are legitimate, they are misplaced, because scientists, economists and analysts in this administration and in the private sector agree that this bill that we are debating will not be onerous for the overall economy or for the various industries it impacts. The Energy Information Agency in the Department of Energy and the Massachusetts Institute of Technology, in separate assessments of the bill, indicate it will have minimal impacts on fuel prices and will even lower fuel prices in the case of natural gas, for instance, by generating efficiencies and providing market signals to drive efficiency. Furthermore, the bill has specific provisions to encourage clean, renewable fuel production from the agricultural sector and other sectors, which would not only reduce our reliance on imports of oil, but would also benefit the agricultural economy and the environment by reducing greenhouse gas emissions. I support those provisions.

Some critics have said that this bill would prevent the burning of coal, and would force coal-burning utilities to switch to using only natural gas. That is simply not true. Under this bill, coal use will actually increase, and financial incentives for clean coal technologies are also provided.

According to the MIT analysis of the bill, coal use will continue to expand 12 percent over current usage levels, out to 2025, which is the time frame that MIT looked at. Additionally, coal prices per metric ton are expected to drop 4 percent by 2015, and 5 percent by 2020.

A portion of the proceeds from the auctioning or sale of allowances in the bill will go to technology deployment programs. Specifically, integrated coal gasification systems will receive significant financial incentives. Such clean coal technologies are not only beneficial to the environment, but will ensure continued usage of this valuable fuel source well into the future, in an environmentally benign manner.

The agricultural sector and rural areas will continue to bear the brunt of severe weather events that can devastate farmers and rural economies as long as our inaction continues. However, U.S. agriculture can also make important, cost-effective contributions to offset a portion of U.S. emissions of greenhouse gasses in the near- and medium-term. With the proper incentives, agriculture can provide a low-cost bridge to a less fossil-fuel and greenhouse gas intensive future, while improving the sustainability and perhaps the profitability of this vital economic sector. The Climate Stewardship Act,

provides some of these incentives. A provision in the bill that I particularly support is financial incentives, through the auctioning of permits to capped sectors, to agricultural practices to reduce greenhouse gas emissions, including clean, renewable energy sources, such as wind power.

Agriculture can play an important role in mitigating global warming, and can provide valuable benefits to society. Carbon is a commodity already being traded and sold in this country and others, and farmers can not only ''farm'' for carbon, they can reap the rewards under this bill, and help keep costs of action down.

To make sure farmers can take advantage of this opportunity, I have negotiated with Senators MCCAIN and LIEBERMAN to guarantee that a specific portion of the credits that can be sold into this cap-and-trade system in the bill will be set aside for soil carbon sequestration. Soil carbon sequestration reduces U.S. net emissions of greenhouse gasses but also improves air and water quality by reducing run-off, and improves soil moisture retention. Soil carbon sequestration occurs through improved management practices such as no-till or reduced-till farming, the use of shelterbelts, grass waterways, wetland restoration, and improved irrigation systems, to name but a few. But most importantly for the farm sector, soil carbon enhances agricultural sustainability and profitability. We know this because agricultural and soil scientists have studied this issue for years—not because of global warming, but because of the associated environmental improvements and the improved crop productivity associated with greater soil carbon. These are complementary objectives with nice overlap. As a key benefit soil carbon sequestration has the potential to offset fully 10 percent of U.S. annual carbon emissions.

To help ensure that farmers and others in the agricultural sector thoroughly understand the issue of climate change, and that they can benefit from an emerging carbon market, we have negotiated additional language to institute an education and outreach initiative within USDA. The program would provide detailed information as well as technical assistance to these individuals and groups, as well as allow for the creation or utilization of existing centers on climate change.

This is a win-win policy for agriculture, for our citizens, and of course for our environment. That is why I support this bill.

Mr. LEAHY. I rise today in support of S. 139, the Climate Stewardship Act. I am pleased that the Senate is finally going to have an open and honest discussion about climate change, greenhouse emissions, global warming and their effects on the Nation and the world. It is clear that it is time for the Senate to act and pass this important legislation.

Climate change and global warming could cause grave problems to our Nation's economy, especially the economy of the Northeast. The economy of my home State of Vermont relies heavily on the revenue brought in from the maple, forest and ski industries. Maple syrup production is a major source of revenue in Vermont and there could be a dramatic loss of maple production in Vermont and the rest of the Northeast if fuel emissions continue to go unchecked.

There are about 2,000 maple farms in my home State, and most of them are family-owned businesses. Many if not all of these farms could suffer from a decrease in maple sugar income, and eventually they could lose their farms altogether. I have heard from many maple producers from my State who say they are tapping trees earlier every year. It used to be that Vermonters were tapping their trees around Town Meeting Day, the first Tuesday in March. Now, some are forced to tap a month earlier, during the first week in February. According to a report done by U.S. Office of Science and Technology Policy, sugar maple could eventually recede from all U.S. regions but the northern tip of Maine by 2100. This is unacceptable, but it is also preventable, and that is why the Senate should pass the Climate Stewardship Act of 2003.

One maple syrup producer from Vermont has become so concerned about the negative effects of global warming that he has joined a lawsuit against the Export Import Bank and the Overseas Private Investment Corporation. The plaintiffs in this case claim that these companies have illegally provided more than $32 billion for overseas oil fields, pipelines, and coal-fired power plants over the past 10 years without assessing their impact on global warming as required by law. The plaintiffs are not seeking financial compensation, only compliance with the National Environment Policy Act, which requires all Federal agencies to assess their programs' contributions to global warming.

Vermont also relies on revenue from the ski industry. Vermonters and others from all over the country enjoy the ski resorts in Vermont. There is a strong relationship between winter skiing conditions, the number of customers, and whether a ski resort has a successful or unsuccessful ski season. Vermont resort operators have already had to make improvements to snowmaking technology to ensure there is enough snow for the entire ski season. This can cost resorts hundreds of thousands of dollars. Warmer weather also means the resorts open later. In 2001, Killington Ski Resort, the largest ski resort in Vermont recorded its latest opening date in more than 15 years.

Many ski resorts across the country are doing their part to slow global warming. Four ski resorts in Vermont: Haystack Ski Area, Killington and Pico Resorts, Mad River Glen, and Mount Snow Resort have all adopted a policy on climate change to address the problem of global warming. Mount Snow Resort has cut energy consumption in half at the Main Base Lodge and Snow Lake Lodge by replacing hundreds of conventional light bulbs with compact fluorescents. They have also installed dozens of energy-efficient snowmaking tower guns, which reduce the energy needed to pump water and compressed air. I commend the efforts of these ski lodges and I believe that we should act today and do our part to reduce global warming.

I have two grandchildren a 5-year-old grandson and a granddaughter who is not quite a year old. I want them to be able to enjoy Vermont as I have: snow-covered Green Mountains in the winter, beautiful foliage in the fall, and Vermont maple syrup on pancakes as often as they please. It is time the U.S. took action to curb our greenhouse gas emissions. We can no longer look the other way as the rest of the world moves ahead while the current administration ignores global warming.

Mr. JEFFORDS. Mr. President, I stand to applaud the efforts of Senators LIEBERMAN and MCCAIN for pushing forward with a sensible and modest plan to address the threat of global warming.

I would prefer that we were debating a bill reported by the Environment and Public Works Committee, but the chairman of the committee has made it clear that he will never act on such legislation. That is unfortunate, since the evidence presented to our committee of jurisdiction is more than sufficient to justify taking prudent actions now to reduce greenhouse gas emissions.

There are those who say that climate change is a hoax, a concoction of radical environmentalists and a liberal media. That is simply hogwash or maybe the whitehouse effect. Global warming has been documented by hundreds and hundreds of credible scientific studies, including many world class institutions such as the National Academy of Science, the American Geophysical Union, and the International Panel on Climate Change. To ignore and dismiss the threat of climate change to the economy and the environment is like insisting the earth is flat. It flies in the face of reality.

The Climate Stewardship Act uses the same type of efficient cap-and-trade system that Congress established in the 1990 Clean Air Act amendments to reduce sulfur dioxide emissions and acid rain.

My bill, S.366, the Clean Power Act, uses that system to reduce carbon dioxide pollution from power plants to 1990 levels. That carbon cap and the cap in the bill before the Senate would stimulate the development of domestic technologies, like gasification and renewables. That would allow our Nation to continue burning coal, but more efficiently, cleanly and safely and with fewer carbon emissions.

Without some kind of carbon cap to drive technology, utilities and investors will continue turning away from

coal and toward natural gas. Without clear action by Congress on this matter, utilities and investors fear the uncertain timing of the inevitable carbon controls that are coming.

I will not go into great detail about the need to act now. Our committee's hearing record is replete with peer-reviewed scientific evidence that demonstrates that need and refutes the Senator from Oklahoma's statements.

But, I would like to note that the average global temperature in September 2003 was the hottest on record, and 1998 and 2002 were the first and second hottest years on record. That should concern us all.

It is urgent that we take action soon. The Senate's decision today will affect the atmosphere and climate for the next 100 years if not longer. Experts have advised us that we and the world must radically change the use of fossil fuels in the next 10 to 15 years or the consequences could be quite severe.

The need for the Senate to move this bill is tremendous. The United States emits approximately 25 percent of the world's carbon pollution. We are responsible for approximately 40 percent of the carbon concentrations now in the atmosphere. We have a moral obligation and an economic opportunity in leading the development of technologies and systems that will reduce greenhouse gas emissions.

This legislation gives businesses and Government a great opportunity to promote solar, wind, fuel cells and other sustainable energy sources as ''the next high tech revolution'' to meet our growing energy needs. It can also stimulate rural communities by making carbon sequestration economically attractive.

Twice now, in the energy bills, the Senate has passed resolutions asking the President to enter into negotiations with all nations to obtain a binding treaty to reduce greenhouse gas emissions. We have been ignored. The administration has taken no action to accomplish such a treaty or adopted any policy that will result in real and tangible reductions.

Senators should not take this vote lightly. This is the first time that the Senate will vote to control emissions that cause global warming. Senators can lead now and contribute to sustainable development and job creation or they can hide their heads in the sand and be blamed further for the climate change that is already occurring and for the chaos that warming is likely to bring.

I urge Senators to support the Lieberman-McCain bill.

Mr. FEINGOLD. Mr. President, I will be supporting the McCain-Lieberman climate change legislation, and I want to detail the reasons for my support. At the 1992 Earth Summit in Rio de Janeiro, the United States agreed to a goal of reducing emissions to 1990 levels by the year 2000, and we became a party to the Framework Convention on Climate Change. As a Member of the Senate, I have supported this agreement. In order to meet this commitment, our Government has engaged in a wide range of voluntary programs. But, despite these efforts, U.S. greenhouse gas emissions have increased by 14 percent between 1990 and 2000. We should take additional nationwide steps to meet this goal, and I believe this legislation is an appropriate first step.

In this legislation, my colleague from Connecticut, Senator LIEBERMAN, and my colleague from Arizona, Senator MCCAIN, would implement Phase I only of their broader bill on greenhouse gases, S. 139, the Climate Stewardship Act of 2003. This legislation will return the Nation's emissions to 2000 levels by 2010. It will do so by reducing emissions in the short term while providing market-based flexibility to minimize the cost to industry.

I continue to believe that we must take action on the national level now to slow the progression of climatic change. The costs of inaction are prohibitive across the country and in my home State of Wisconsin. Wisconsin's top officials acknowledged that climate change was a concern years ago. Nat Robinson, administrator of the State government's Energy Division in the administration of Governor Thompson, stated back in September of 1997, ''There was a time when the possible human influence on the atmosphere was hotly debated by scientists and lay persons alike. That time is past.'' In response, my home State has become one of the first with a statewide plan to address global warming.

Numerous signs suggest that the climate in Wisconsin may already be changing, and that the actions that the State of Wisconsin has taken are justified. UW-Madison scientist John Magnuson led a dozen other scientists in examining actual climate data recorded by a wide variety of sources around the world over the past 550 years. These data documented a steady 150-year warming trend in global temperatures. For example, the ''ice season'' of Dane County's Lake Mendota has decreased 22 percent since the mid-1800s. Similarly, the Aldo Leopold Foundation in Baraboo concluded that spring is arriving a week earlier than it did 62 years ago based on when various plants are flowering.

The Union of Concerned Scientists released a series of studies in April 2003 on climate change in the Great Lakes Region. That report states that by 2030 Wisconsin summers will feel like southern Illinois', and by the end of the century, Wisconsin's summer climate will resemble that of current-day Arkansas, with our winters like current day Iowa. This will cause a huge change in our life in Wisconsin, in our climate and ecosystems, in our ability to grow crops, in our need for additional summertime cooling for our residents. These are huge and costly challenges, and Wisconsin can't solve them alone. The pollutants emitted to the air know no political boundaries, and the effects are global, as well as local, in scope.

Unfortunately, this administration has chosen to step away from our current commitments on climate change and has not recognized state efforts on climate change. I too shared concerns about the Kyoto protocol, and joined with the Senate in support of a 98 to 0 vote on the Byrd resolution. That resolution called upon the State Department to seek meaningful commitments during the Kyoto negotiation process to reduce climate change from developing countries such as China and India that have the potential to develop using significant amounts of fossil fuels. I supported that resolution because I wanted any additional U.S. commitments to be to an agreement that addressed all current and future sources of climate change worldwide. That vote was not a repudiation of my belief that the U.S. must meet its current commitments.

Meeting our international commitment is important, especially at a time of strong anti-American sentiment abroad and challenges to U.S. leadership. Some of that sentiment and some of those challenges are a direct response to the Bush administration's misguided policies. Even our staunchest friends are troubled by the administration's inclination for unilateral action, its inconsistent words and deeds, and its dismissive response to their legitimate concerns.

Being part of the international community means engaging constructively with like-minded nations to build strong, sustaining institutions and alliances—and bringing emerging powers into this community so future conflict becomes less likely. The Bush Administration has demonstrated an unhealthy disregard for the opinions of fellow nations—a disregard that has squandered some of the support we received after the September 11, 2001, attacks and diminished our influence around the world.

The administration's approach to global warming is one such area. Though the United States produces about a quarter of the world's greenhouse gases and will be affected badly by climate change, the Bush Administration has shown no interest in doing anything about the problem. That undermines our stature and credibility and it causes an unnecessary rift with our allies. Constituents have approached me again and again at the town hall meetings I hold all over Wisconsin every year to share their concerns when the U.S. pulled out of the Kyoto negotiations, and I believe that they make a very strong point.

The most powerful Nation in the world must speak with a clear and consistent voice and lead all nations to face major global challenges together. The U.S. Government has paid dearly for pulling out of the Kyoto protocol and rejecting the Comprehensive Nuclear Test Ban Treaty. Although each

of these agreements was imperfect, each became more so when the United States moved to the sidelines. Helping to shape credible international institutions is not a sign of weakness; it is a sign of confidence in U.S. strength and ideals. By disengaging, this administration has marginalized U.S. policies, interests, and values.

For these reasons, I support the McCain-Lieberman legislation. The U.S. should proceed to implement the Framework Convention on Climate Change, and we need legislation to do just that.

Mr. KOHL. Mr. President, today the Senate took an important step toward expanding the debate on global warming. Greenhouse gasses and global warming are a real threat to our environment and our way of life. The National Academy of Sciences has verified the scientific evidence backing global warming. And the private sector is facing the real world impact of global warming as they contemplate the insurance costs of rising sea levels and more destructive storms. A decade ago, debate ranged within and without the ivory towers of academia over the hazy science backing claims of global warming. Today, the fog has lifted and we can see the impact that burning fossil fuels has had on the climate.

The changes to our environment are real. Our job now is to decide what to do about it. The approach set out by this version of the McCain-Lieberman bill is a reasonable first step. It is not perfect, and if we would have been able to take up and debate amendments there are several, significant changes I would have supported.

My biggest concern is that this bill would have us move toward reducing emissions without requiring the rest of the world to join us. While we have a responsibility to reduce our own emissions, we need to work with the international community. China, for example, is approaching the United States as a producer of green house gasses and must be a part of any practical effort to reverse global warming. If our unilateral efforts convince China they have no need to act, than our approach could do more harm than good. I vote for this bill today as a message to the administration that it is time to redouble efforts to spark a world effort to address global warning. I do not vote to commit the United States as the sole participant in that effort.

I strongly support including environmental standards as part of our trade agreements. Clean air and water issues should be discussed with our international trade partners during trade negotiations. Letting our competitors avoid environmental issues that impact everyone around the world is shortsighted. It hurts our environment and our business community.

The bill before us has other problems that could be addressed with a longer debate time and the opportunity to offer amendments. The Senate should carefully scrutinize the legislation's timetable and should consider giving industry more flexibility in earning credits. But while these issues need to be addressed, every journey starts with a single step, and this vote is that first step. We have begun seriously to struggle with climate change. And ultimately, inevitably, we need to make some tough decisions about climate change. We must reduce greenhouse gasses to protect our environment and our way of life for generations to come. A yes vote today sets us on the path to confront this issue head on.

Ms. CANTWELL. Mr. President, I rise today in strong support of the Climate Stewardship Act. I hope the Senate will seize the historic opportunity before it today and vote to begin seriously dealing with this worldwide threat.

Unfortunately, I am afraid Congress is not very good at passing laws that will only benefit future generations, especially when there might be a cost—no matter how small—for our constituents today. But I hope that this vote will be different and that my colleagues will join me in passing this sensible legislation to prevent a costly, and potentially catastrophic, rise in global temperatures.

As Senators JOHN MCCAIN, JOE LIEBERMAN, and others have already articulated, the scientific conclusion that greenhouse gas emissions are contributing to an accelerated rate of climate warming is beyond debate. Thousands of climate scientists convened under the United Nations and our own National Academy of Sciences have stated definitively that human activities—primarily the burning of fossil fuels—have contributed and will continue to contribute to rising atmospheric temperatures. I am not an atmospheric scientist, and I don't believe any of my colleagues are, so I hope everyone here will defer to their expertise on this matter.

Climate change is an existing and scientifically supported phenomenon which human beings have a responsibility to mitigate. And since the U.S. has the highest per capita greenhouse gas emissions in the world and one of the highest emissions rates per dollar of gross domestic product, we have a particular duty to lead the world on this critical issue.

Even the Bush administration, whose sincerity in dealing with this issue is suspect, acknowledges the reality that human activities cause climate change. Last year, in its United States Climate Report for 2002, the administration outlined a vast array of consequences climate change would inflict across our country. I would like to highlight some of the ''likely'' effects mentioned in that report that would have a particularly harsh impact on my home State of Washington.

The resulting changes in the amount and timing of runoff are very likely to have significant implications in some basins for water management, flood protection, power production, water quality, and the availability of water resources for irrigations, hydro power, communities, industry, and the sustainability of natural habitats and species.

Reduced snow-pack is very likely to alter the timing and amount of water supplies, potentially exacerbating water shortages, particularly through the western United States.

The projected increase in the current rate of sea level rise is very likely to exacerbate the nationwide loss of existing coastal wetlands.

Habitats of alpine and sub-alpine spruce-fir in the contiguous United States are likely to be reduced and, possibly in the long-term, eliminated as their mountain habitats warm.

Rising temperatures are likely to force out some cold-water fish species (such as salmon and trout) that are already near the threshold of their viable habitat . . . .

These conditions would also increase stresses on sea grasses, fish, shellfish, and other organisms living in lakes, streams, and oceans.

The non-profit group Environmental Defense compiled research that shows that the winter snow pack in the Cascades could decline by 50 percent within 50 years. A reduction even a fraction of that size would have a devastating impact on runoff that is vital for hydropower, agriculture, salmon habitat, and drinking water supplies. And I am sure many of my Western colleagues would be similarly alarmed by potential reductions in their scarce water resources.

Just the damages from decreased runoff would cost my State billions of dollars annually, dwarfing even the most pessimistic costs that some opponents contend may result from this bill. But besides the costs this legislation can help avoid, I think it is critical that we consider the tremendous benefits this bill would initiate.

Today, we know that the tired mantra that ''protecting the environment costs jobs'' is no longer true. In fact, the market-based mechanisms used in this bill would unleash unprecedented productivity and efficiency gains in our energy sector, as well as catalyze countless new environmental technology industries. That translates into many new high paying engineering and manufacturing jobs and tremendous new export opportunities.

A recent report by the U.S. Department of Energy, which included contributions from Washington State's Pacific Northwest National Laboratory, forecast significant job growth for jobs in a range of emerging ''green'' industries, such as wind power, biomass energy production, and other energy efficiency specialties.

I am proud that my State hosts one of the largest wind farms in the United States. I visited our Stateline project and saw first hand one of the many solutions that the market will find to meet the goals of this legislation.

These conclusions were confirmed by a 2001 study carried out in collaboration with public and private partners in the Pacific Northwest that found that the global market for clean energy technologies is expected to reach $180 billion a year—about twice the size

of the passenger and cargo aircraft industries—within the next two decades. Already, in Washington, Oregon, and British Columbia this sector is a $1.4 billion per year industry.

Despite the potential of these new markets, some of my colleagues have argued that the costs of addressing this problem are too high, because they believe this bill might raise energy costs. While that is highly disputable, I am curious if opponents of this measure also support lifting controls on other pollutants? I'm sure we could make coal-generated electricity even cheaper if we did not require pollution scrubbers. We could allow millions of tons of sulfur dioxide, mercury, and other toxins to flood our nation's air in the name of cheap energy. But of course we wouldn't do that because we know that true costs of such a policy—whether it be the health of our children, the effects of acid rain, or even the visibility at our national parks—would far outweigh any short-term financial gains we may achieve by removing emission controls.

The same principle is true of climate change. We may save some money now by ignoring this problem, but entire industries like timber and fishing—key sectors of my State's economy—would be dramatically impacted by climate change. There is no way to deny that greenhouse gases, including carbon dioxide, are pollutants and need to be monitored and controlled as such.

As I have listened to this historic debate, I have been frustrated by the dueling charts and reports which have been used to support one position or another. While I, along with many of our Nation's Governors and world leaders, believe that the scientific evidence is indisputable, there may be another important way to view this issue: as an insurance policy.

I am confident that even the most vocal opponents of this bill would be reluctant to say that there is absolutely no chance that the vast majority of climate scientists are right about this issue and that greenhouse gas emissions are causing global warming. Perhaps the climate skeptics would change their position if they realized that this legislation is really an insurance policy for our children, one that guarantees they will be able to enjoy the same natural world that benefits us today.

I believe that is how the American people instinctively understand this issue. This is borne out by a recent nationwide survey that showed that three-quarters of Americans support the McCain-Lieberman climate change bill and two-thirds agree that we can control greenhouse gases without harming our economy.

We are a problem-solving nation. When we are faced with a grave threat, we roll up our sleeves, put our heads together, and fix our problems; we don't push them off on our children and future generations. Like the threat of terrorism, climate change is too alarming and disturbing a problem to ignore.

The risks of ignoring this problem heavily outweigh the benefits of preserving the status quo. Allowing rapid changes in the temperature of the earth's surface and shifts in worldwide weather patterns that result from global warming would be devastating to the economies of my state, this nation, and the world. Let's make sure this problem gets the serious action it deserves. I urge my colleagues to support this critical bill.

Mr. BUNNING. Mr. President, I rise in opposition to this legislation, S. 139.

We have disputes over the scientific evidence on global climate change. And we can debate that science all day and never agree.

I believe the science we have seen does not support the need to engage in questionable policies to control so-called ''global warming''.

We need more evidence that the climate is actually affected by emissions, especially carbon emissions, before we act too quickly.

Let's make sure we really look before we leap.

Instead of arguing over scientific data, we should examine the impact S. 139 could have on American jobs and the economy.

This bill limits emissions of greenhouse gases to 2000 levels by 2010. This includes regulation of carbon dioxide emissions.

I am proud to be from a coal state. Generations of Kentuckians from Pike County to Crittenden County have worked in the coal fields and mines.

Coal plays an important role in our economy. More than half of our nation's electricity is generated from low-cost domestic coal.

We have over 275 billion tons of recoverable coal reserves. This is about 30 percent of the world's coal supply.

That's enough to supply us with energy for more than 250 years.

But this bill places caps on carbon. This has a negative affect on energy production because it affects the amount of coal we can use.

This will mean loss of jobs, particularly for workers in Kentucky and other coal states.

It also increases energy prices. Just as our economy is starting to turn around. We just don't need this.

I hope the energy bill encourages renewable fuels as well as clean coal so that we are not relying so much on foreign oil.

S. 139 goes in the other direction of the energy bill. It drives the use of natural gas instead of coal.

Placing caps on carbon means coal production will be 100 million tons lower in 2010 than what we expect to produce in 2003.

That is 25 percent below our expected 2003 level of coal production.

I have heard from coal operators in Kentucky who are on the verge of closing their doors because of natural gas prices.

But S. 139 causes an even worse situation. According to one analysis, it increases natural gas prices by 79 percent.

By forcing reliance on natural gas and a reduction in coal production, this bill results in a loss of 460,000 jobs through 2025 and electricity bills will increase 46 percent.

We already have a natural gas shortage. And for a decade coal was on the downturn because of governmental policies.

These policies have caused our demand for natural gas to exceed the supply.

High gas prices cause Americans to experience difficulties. With the winter coming, prices are expected to go up and put a noose on the American pocketbook.

We must focus on increasing production and using a variety of energy sources. Failing to do this puts our energy independence and national security at stake.

We are turning the corner on the economy and job growth. The last quarter grew by 7.2 percent. We do not need to be losing jobs or causing more companies to shut down business because of increased energy prices caused by the government.

The climate issue is being addressed in other ways that are more conducive to job creation and economic growth.

We are becoming more energy efficient. Energy efficiency has improved 20 percent since 1990. This means that emissions have declined.

In fact, we are expected to reduce emissions by 14 percent by 2012 without any new emission regulations.

Our automobiles are more efficient and running at a higher fuel efficiency than they did just a few a years go.

However, S. 139 ignores the strides we have made and could bring us back to 1970s gas rationing.

As a consequence of this rationing, the cost of gasoline is expected to increase 27 percent.

This increases fuel costs, and further slows our recovery, and takes money out of the pockets of Americans.

I don't see why we should vote to increase energy costs and unemployment. Voting for this bill does that.

It may make us feel better to support this bill because of its environmental symbolism.

But I will choose substance over symbolism any day.

American jobs are of substance. Getting a green star by your name on an environmental group's web site is symbolic.

And while that may make one feel good, watching Americans lose jobs from this kind of legislation won't.

I urge my colleagues to defeat this bill.

Mr. CONRAD. Mr. President, I would like to discuss the Climate Stewardship Act, which the Senate will vote on later today. Although I recognize the challenge of global climate change, I must oppose this legislation because of the drastic negative effect it would have on our national economy.

Our economy depends on affordable, reliable, and abundant sources of energy. Whether that means natural gas, petroleum, or coal, we have a responsibility to ensure that our businesses, manufacturers, and households have access to energy sources at reasonable costs. We depend on energy in almost everything we do in our lives, from turning on the light in the morning, to driving our cars to work, to cooking our dinner at the end of the day. We need access to these sources of energy, and we need access in a way that doesn't force us to choose between paying our power bill, buying gas at the pump, or buying essentials like groceries and medicine. During my time in the Senate, I have remained committed to keeping energy costs affordable for all North Dakotans and all Americans.

The bill before us would threaten the affordability of these sources of energy. It will require companies that produce and use natural gas, petroleum, and coal to acquire credits for each ton of greenhouse gas emissions for which they are responsible. These credits will have a value of anywhere from $8 to $13 for each ton of emissions. Our emissions levels are in the many millions of tons per year. This means dramatic cost increases ranging in the many millions of dollars for the energy industry, costs that will inevitably be passed on to the consumer.

According to a recent MIT study—the same study, by the way, that the sponsors of this bill cite in making their arguments—national demand for coal would increase much more slowly under the legislation. Petroleum and natural gas demand will also increase at slower rates. This is because the costs of these fuels will dramatically increase under the bill. It will mean higher gas prices, higher electricity bills, and higher home heating costs.

I am particularly concerned about the effects of these cost increases on our international competitiveness. The Kyoto Treaty has not yet taken effect, and it now appears that Russia may be backing away from ratification. In the absence of the Kyoto treaty, other nations across the globe will not be subject to strict greenhouse gas emissions controls. Moreover, even if the Kyoto Treaty does enter into force, there has been bipartisan agreement that the Kyoto treaty contains unbalanced provisions that would require disproportionate carbon dioxide reductions in this country while other countries would have to make much less significant changes.

If we were to adopt the bill before us at this time, we would risk putting U.S. manufacturing—which relies on affordable energy—at a significant competitive disadvantage with the rest of the world. Already, we are losing jobs to manufacturers in Mexico and China. If our energy costs were to increase because of this bill, our job loss to foreign countries would accelerate. With record Federal deficits and debt, our economy is already in trouble; now is not the time to be making our economic problems worse.

Let me be clear that I am fully aware of and fully acknowledge the reality of global climate change. We need only to look to the droughts in my part of the country over the last few years to see the very real effects of global climate change. Human activity since the industrial revolution is warming the planet, melting the polar ice caps, and causing severe weather events across the globe. These developments have very serious implications for this country, and for the world.

I do not dispute this ecological situation and I do not dispute the need to do something about it. Let me also state that I very much appreciate the efforts of Senator LIEBERMAN and Senator MCCAIN to try to address this issue. They have done so in a way that genuinely attempts to address a variety of constituent issues. However, I still do not think the legislation we are considering today is the right approach at the right time.

We need to continue working for a solution that carefully balances this need for action with the concerns about the impact on our economy and our competitiveness, and I hope to be a part of finding innovative and creative solutions to global climate change. We need to carefully consider impacts on States with energy dependent economies, such as North Dakota. We need to carefully consider the impact on different types of energy and make sure we do not put some forms of energy at an unfair disadvantage. For example, to have my support any legislation on this topic must address the unique circumstances of lignite coal, which is the primary source of electricity in North Dakota. And we need to carefully weigh the impacts that any plan will have on energy consumers. This will require an enormous amount of careful work, and I look forward to being part of the effort to address this very real problem.

These are enormously complex issues that will require very careful study and an opportunity for extensive public review and comment. Because of the circumstances under which we are considering this legislation, we have not had that opportunity for extensive review. Without that careful study and review to ensure that we understand in detail the impacts on energy production in my State, on our national economy, and on our international competitiveness, I cannot vote for this legislation. For that reason, I must vote against the bill today.

Mr. DORGAN. My colleagues, Senator MCCAIN and Senator LIEBERMAN, have brought to the Senate floor a serious proposal dealing with an important issue. The issue of climate change and global warming demands our attention. We live in this fragile spaceship called Earth, and we have but one environment to sustain us. We ignore the health of our environment at our peril.

So the question is not whether but rather how we address these questions that are being raised about our environment, about climate change and global warming.

The proposal we are voting on today is one that I think requires some additional work and some additional thought.

We now live in a global economy and these issues must be addressed globally.

We cannot create emissions caps and targets that we enforce unilaterally in a manner that encourages American companies to move overseas and avoid these restrictions. If we do that, we will end up doing little or nothing to protect our environment while harming our economy.

In this global economy, where companies can move from one country to another with ease, it seems to me the only way to achieve the goals of reducing emissions of greenhouse gases is to engage with all other countries in a global strategy for these reductions. Otherwise, these global companies will simply move their plants and their jobs to areas where they are not impeded by emission caps and other restrictions.

When a global agreement is negotiated, it cannot be an agreement that allows some countries to avoid emission caps while others embrace them. For example, if we through an international agreement will embrace emission caps for our country but allow the Chinese or the Indian governments to avoid them, we will simply be developing a strategy for companies to move out of the United States and move their plants and jobs to countries where they will not face such restrictions.

That approach would represent the worst of all worlds. There would be no environmental benefit but we in the U.S. would suffer a heavy economic penalty from plant flight and job loss.

I do not think the McCain-Lieberman proposal is the right way to address these issues, but my vote in opposition should not be seen as a denial that these are serious issues that do need to be addressed.

This amendment and today's debate and vote will be a constructive start of a healthy debate about what we do to provide leadership on these issues. While I think this proposal today falls short, I intend to be a constructive part of future proposals that can and will offer leadership in the right direction.

Mr. LEVIN. Mr. President, I cannot support the Climate Stewardship Act of 2003 since its effect, if enacted, will be the loss of more manufacturing jobs to countries which have few, if any, environmental standards. That won't help the environment, and it will hurt our economy. Climate change is not something we can tackle by shifting industries and their emissions to other countries, or by shifting manufacturing jobs to China or other countries which have no limits on emissions of greenhouse gases. The bill before us reflects a unilateral approach to a problem which can only be solved globally.

Let me give one example of how this bill would promote job loss in the U.S. with no benefit to the global environment. In the past decade, a large number of companies have moved their manufacturing plants overseas. Take, for example, a U.S. manufacturing company that had seven plants in the U.S. in the 1990s. Today it has only five left, because two moved to countries with cheaper labor. Assume that those five remaining domestic plants each emit 20,000 metric tons of carbon dioxide for a total of 100,000 metric tons. Under this legislation, reasonable estimates are that the company's cap could be placed at around 90,000 metric tons of carbon dioxide credits. The company, already under heavy competition because of cheap labor costs overseas, faces a choice: pay to reduce emissions at its five plants by 10 percent, or move another one of its plants overseas, say to China. If the company moves one of its five plants abroad, it has 10,000 credits remaining to play with which it can use to actually increase emissions at its four remaining plants, or it can sell them. So this bill adds to existing incentives, such as lower labor costs and no safety standards, to move manufacturing plants overseas, and the result is that we lose jobs and the environment gains nothing. In other words, when this bill's mandates are imposed on sectors of the economy that can pick up and move overseas, it adds another incentive to do just that.

The United States must take a leadership role in addressing climate change, but that leadership must move us in the right direction. It is not sound leadership to give additional incentives to U.S. businesses to move their facilities, and the jobs that go with them, to other countries that don't have the costly environmental standards which this bill would impose on U.S. businesses. It is not sound leadership to simply shift industrial emissions from American soil to countries which have no emissions standards. And it is certainly not sound leadership to act unilaterally in a way that puts U.S. manufacturers at a competitive disadvantage when there is no built-in incentive for other countries to follow. In fact, the opposite is true: the unilateral approach in this bill provides an economic incentive for countries who are picking up our manufacturing jobs not to follow our lead.

Effective and sound leadership would be to tell competing countries that we are going to adopt high environmental standards if they will join us, or, in the alternative, leadership is getting countries to agree (1) to the adoption of tough environmental standards, and (2) to refuse to purchase products from countries which won't adopt those environmental standards. Sound leadership, in other words, is working to create an international agreement where all countries take steps to reduce global warming, so that there is no incentive to move jobs and emissions from a country with high environmental standards to one with low environmental standards.

Climate change cannot be addressed unilaterally. It must be addressed multilaterally. It doesn't help the global environment to push down greenhouse gas emissions in one country only to have them pop up in others. We need a Kyoto-type treaty which binds all countries. Otherwise, there is a perverse incentive to move more and more jobs to countries with lower environmental standards. That does nothing to reduce greenhouse gas emissions and does damage to U.S. jobs.

To achieve a global agreement will require our putting maximum pressure on all countries to join it, so that the emissions of greenhouse gases can be reduced, not just shifted. Shifting manufacturing jobs and the production of greenhouses gases from here to other countries is not a solution to climate change. It would just be another economic blow to America at a time when our economy is already losing jobs at an historic and alarming rate.

We have already lost enough American jobs to countries with cheap labor, no safety standards and no environmental standards. To add more incentives for companies to move overseas to countries with no limits on greenhouse gas emissions, as this bill would promote, is not sound policy. Global climate change is just that: global and it needs to be dealt with globally, not unilaterally.

Mr. ENZI. Mr. President, anyone who has picked up a copy of this legislation and read it has to be forgiven if he or she was soon reminded of the words of Yogi Berra, ''It's deja vu all over again.''

After all, it is not as if this topic is unfamiliar to us. When the debate first began on the Kyoto talks, the U.S. Senate made a clear and direct statement of principle on the subject. We drew a line that was not to be crossed by the president and his negotiators in their effort to reach an international climate change agreement. By a vote of 95 to 0 the Senate passed Senate Resolution 98, also known as the Byrd-Hagel resolution, that sent a clear message to the world that the Senate would not support any climate change agreement that did not include all nations equally. We also said we would not support an agreement that would cause serious harm to our economy.

We crafted our message to the administration to counter the concerns that had been raised that a global climate change policy could be imposed on the United States that would ''result in serious harm to the United States economy, including significant job loss, trade disadvantages, and increased energy and consumer costs.'' The Senate was also concerned that efforts to reduce global emissions would be imposed only on developed nations, where the best emissions controls and most advances in emissions reductions already exist, and not on underdeveloped nations where emissions would continue without any effective controls.

What has changed since then?

Nothing.

We still need the benefits of a strong economy. We still need to protect American jobs. And we still need to avoid trade deficits and ensure consumers are not forced to choose between paying their energy bills and buying food.

We still need to protect American jobs, and global climate change is still a global issue.

Unfortunately, this reality contradicts the language of the proposal we are debating today just as surely as it contradicts the message we sent the administration with the Byrd-Hagel language.

The proposal before us, which is clearly an energy tax, would force the United States to unilaterally disarm its economy and force American jobs overseas without providing any environmental benefit. An energy tax, like the one proposed by Senators LIEBERMAN and MCCAIN would, in fact, be an environmental nightmare. Any loss of jobs in the United States would shift production to other parts of the world where there are no controls over the manufacturing process.

The best way to help the environment around the world is to ensure we have a strong economy here at home.

If we, as a Senate, really want to stand for improving global conditions then we should stand behind the principles of Byrd-Hagel and insist our global climate change policy does not harm America's workers. If we want to improve global conditions we must insist that all nations responsible for emitting greenhouse gasses participate and reduce their own emissions.

Just in case anyone is not clear about what is going on and what this legislation really does, I want to take a moment and explain how it would slow down our economy and force jobs out of the country.

To begin with, the bill establishes a requirement for registering all industrial emissions, and it requires the officials in charge to make assumptions about the level of total emissions that are due to transportation.

We can only assume that these assumptions are made for one of two reasons.

We want to know the transportation emissions level so we can blame the rest on industry, or, we want to know the transportation emissions level so we can start to apply limits and regulate family cars. I have had the opportunity to visit California and noticed a remarkable thing about this State that has done so much on its own to regulate and control private vehicles. While the rest of the highway was packed with cars, the HOV lanes were wide open and very poorly utilized. And yet this bill does nothing to account for private vehicles which is a major source of greenhouse gas emissions. I wonder, if this bill was so serious about

improving the environment, why would it leave out such a major source of emissions?

Don't be fooled. If this program is passed then that will be the next step. Why would we put in place such an ineffective control if we didn't intend to take it to the next step and regulate private transportation? We don't want to, they do.

This proposal would hold industry responsible for all other, nonindustrial or transportation emissions, emissions including human beings, who breathe out CO_2 on a regular basis, animals, plants, volcanoes, forest fires, and private homes that burn natural gas, fuel, coal or wood. Keep in mind that one natural cataclysmic event, such as a volcanic eruption or a catastrophic wildfire eclipses anything, by way of emissions, that all of mankind can produce together on an annual basis.

We also have a situation where our trees that once could have served as sponges to soak up greenhouse gasses, are now older and absorb less CO_2. In fact, because of the age of many of our forests they are now CO_2 emitters.

The bill also completely neglects the most common and prevalent greenhouse gas of all. Of all the gasses found in our atmosphere, this particular gas is the most insidious. It contributes to more fluctuations in temperature than any other gas. It has the greatest impact on local and global climate, and it too is emitted by industry and by numerous natural sources and yet it is not included anywhere in this bill.

What is this gas? It is water vapor, of course. Why, if we are really serious about using this legislation to control temperatures and climate, don't we include water? Because this effort is not about environmental protection. It is about imposing an energy tax and controlling the economy.

The next thing the bill does is impose a cap or limit on otherwise unregulated emissions by industry. Once again, this cap does not take into account the emissions generated by other sources. The result is that we would force industry to assume all responsibility and pay for all emissions, regardless of where they come from. Whether the emissions came from individuals or nature, we would still hold industry responsible. There is a new discovery that was recently made in Wyoming that illustrates the lunacy of holding man responsible for something that nature releases on its own in an abundance that man never has.

I will read from an AP article that ran in a Wyoming newspaper on October 27 of this year. ''Scientists measuring mercury levels made a startling discovery at the base of Roaring Mountain [in Yellowstone National Park]: possibly the highest levels of mercury ever recorded at an undisturbed natural area.'' According to their measurements, the scientists found that Yellowstone is a potentially big source of our nation's mercury. ''It is conceivable . . . that Yellowstone could emit as much mercury as all the coal-fired power plants in Wyoming. . . . 'That's not a real estimate but something based on just a few measurements,' [one of the scientists said] 'It could be even bigger than that, we just don't know.' ''

It would be intellectually dishonest, for us to assume that, given all of the uncertainty in these issues, that industry will sit back and quietly assume the cost and burden of emissions reductions without either passing them on to consumers or finding a way to excuse itself from the limits altogether. The cost of the tax will either be paid by consumers who can barely afford their own energy costs today, or we will force jobs offshore and into areas where there are no limits on energy consumption and pollution.

There should be no doubt in anyone's mind that this bill is all about economics, particularly because that's what the entire global warming debate is about. Kyoto was an economic conference disguised as an environmental conference.

EU Commissioner for the Environment Margot Wallstrom once said, ''This is not a simple environmental issue where you can say it is an issue where the scientists are not unanimous. This is about international relations, this is about economy, about trying to create a level playing field for big businesses throughout the world. You have to understand what is at stake and that is why it is serious.''

I had the opportunity to attend the meetings at Kyoto, and while I was there I met with the Chinese and discussed the role that they thought they should play in meeting the demands of global climate change. They, and all other developing nations have no obligation to participate in any climate change agreement. They don't even agree to voluntary participation at a future unspecified date. You can't be more open ended than that. Incidentally, they intend to be a developing nation forever, even after 2010 when they will be the world's biggest polluter.

Should we just sell out to the Chinese?

If we were to adjust global emissions and measure them on a per gross domestic product basis, or in other words, measure the efficiencies and end product gained for each energy unit consumed, the United States would come out, once again, as the most efficient and most productive nation on earth. Europe, on the other hand, come out on the other end of the spectrum.

Why?

There are a number of factors that contribute to this imbalance but the biggest reason has to do with the efficiency of the American worker. We produce more goods using less energy than any other nation in the history of the world. We are already milking our industrial output to a point where any additional efficiencies will result in dramatic increases in costs. We have already made the easy adjustments and reduced those emissions that are easiest and cheapest to reduce. The rest of the world is still catching up to us on those respects and it would be easy and cheap for Europe then to reach some of its targets and reduce emissions. All they have to do is use some of the technology we have already invented.

For the United States, however, to make the incremental gains it needs to make to comply with the limits that this bill would impose would require us to either assume costs that would be exponentially greater than those assumed by an other nation, or to push those gains off onto another sector, more specifically the transportation sector, and require us to impose costs on consumers and taxpayers that they clearly cannot afford.

It is a matter of economies of scale and Europe knows it.

The United States is much physically larger than any other nation that we compete against economically. Europe, as a whole, is much smaller, much more densely populated and uses much more efficient transportation. In the United States, we use our trains primarily to carry manufactured goods, as well as clean burning, low sulfur Wyoming coal, while Europe's trains, on the other hand, are used almost exclusively to carry people. It is much more practical for us to fly from Washington, DC to Los Angeles, CA and arrive in a matter of hours instead of wasting days on a train. But airplanes burn fuel in great amounts and with much less efficiency than other forms of transportation. The logical and most cost efficient controls then are not to limit emissions on industry but to convert those controls into limitations on transportation.

I was at the first Kyoto conference, and incidentally, the US was the only country that thought that conference was an environmental conference. Everyone else saw it as an economic conference.

You can understand why I am greatly disturbed when I see a cap proposal like the one put forward in this bill, especially when it includes calculations on transportation emissions. There is no reason to pass a bill like this, to create the kinds of agencies and offices that the bill creates and not expect it to lead to the next step where its controls over industry emissions-i.e., an energy tax, are converted into controls over transportation in other words a transportation tax.

Our Nation's massive transportation needs will never go away. Nor will Europe ever get bigger. As a result of size, then, the energy, or rather transportation, taxes required by this bill will put the United States at a tremendous economic disadvantage with regard to its competitors.

Fortunately, we are not the only ones to recognize this imbalance. Russia recently joined the United States in rejecting a proposal that would limit its emissions and put a similar damper

on its economy. In making a basic cost/benefit analysis, President Putin's chief economic advisor, Andrei Illarinov declared, ''If we are to double GDP within the next ten years, this will require an average economic growth rate of 7.2 percent. No country in the world can double its GDP with a lower increase in carbon dioxide omissions or with no increase at all.''

The great baseball philosopher, Yogi Berra, was right. It is deja vu all over again. These are issues we have considered before and we already have a clear statement of policy in place in the Byrd-Hagel resolution that says, in responding to global climate change concerns, we cannot agree to any proposal that would result in serious harm to the United States economy. It already says we must work to avoid significant job loss, trade disadvantages, and increased energy and consumer costs. It also makes it clear that this is a global issue, one we can't tackle alone. If we, as a Senate, really want to stand for improving global conditions then we should stand behind the principles of Byrd-Hagel and insist our global climate change policy does not harm America's workers and that all nations responsible for emitting greenhouse gasses participate in emissions reductions.

This proposal would clearly cause serious harm to our Nation's economy, cost us American jobs, and result in a tax on our nation's energy and transportation systems. These taxes would put our nation at a serious disadvantage with our competitors and do nothing to improve our environment.

Mr. ALLEN. Mr. President, fellow colleagues, please do not overreact by the claim that the climate is changing. The climate has always changed naturally. Thanks in large part to scientific research carried out in the United States, we know much more about our climate than we did a mere quarter-century ago. More than anything else, we now know that climate never has been, and never will be, constant.

When our civilization arose with the flowering of agriculture, some 5,000 years ago, climate scientists tell us the earth was a few degrees warmer than it is today. At one time, what is now the dry desert southwest was a much wetter tropical environment. Climate scientists also tell us that 300 years ago it was a few degrees colder, Europe suffered through the Plagues, ice skaters graced the Thames River in London. Mr. President, 150 years ago, when that ''Little Ice Age'' ended, America embarked upon its manifest destiny.

In the last 100 years, the Earth has warmed an additional degree, American crop yields quintupled, life span doubled, wealth became democratized beyond the wildest dreams of even the most optimistic. In that 100 years, our free economy was powered largely by fuels extracted from the earth. Some of these produce carbon dioxide, which scientists have known, since 1872, can slightly warm the surface of the earth.

At the same time, our competitive economy forced increased efficiency. The family car now uses half as much fuel as it once did. Hybrid automobiles achieve as much as seventy miles to the gallon. All in all, we produce a dollar's worth of goods and services with 40 percent less energy than we did a mere 30 years ago.

This remarkable change, where the freest society on Earth became the most capable large economy, did not happen because of massive taxation in misguided attempts to direct the lives of free people. No, it happened because people were free—free to buy the most proficient technology, and, above all, free to invest in corporations who understand what people want. And one of those desires is abundant energy, used efficiently. As has been said, over and over, the future belongs to the efficient.

And what of the warming of the planet? In the blazing summer of 1988, in this Senate Chamber, NASA first raised the spectre of global warming caused by carbon dioxide. The alarm was sounded, even as others argued that the gloom-and-doom forecasts were overwrought and could lead to disastrous policies.

Fifteen years later, thanks in large part to research fostered by this body's committees on science, we know that the calm scientific heads were right.

NASA scientist James Hansen, who first sounded the alarm, now agrees with those who were once his critics. Writing in the Proceedings of the National Academy of Sciences, he recently stated that we know how much the planet will warm in the next 50 years to a very small margin of error. That amount is precisely the small warming that the calmer heads had forecast some 15 years earlier.

This same scientist has recently stated that some may have exaggerated the threat of global warming for political science purposes. Just last month, he wrote in the online journal ''Natural Science'': ''Emphasis on extreme scenarios may have been appropriate at one time, when the public and policymakers were relatively unaware of the global warming issue.'' Moreover, according to a report issued by the Global Climate Coalition, mandatory emissions goals could result in a loss of gross domestic product equal to $300 billion in 2010 alone, assuming that 2010 emissions are held at 1990 levels.

How many American jobs would be lost as a result? How many companies will have to close their doors? I would like to read to you, part of a letter from the Secretary of Commerce, Don Evans, Secretary of Labor, Elaine Chao, and Acting Administrator of the Environmental Protection Agency, Marianne Horinko:

> According to an analysis conducted by the independent Energy Information Administration, S. 139 would cause an estimated average loss of 460,000 American jobs through 2025.

It goes on to say,

> Instead of improving our economic security through economic growth and job creation, the job losses resulting from S. 139 would place an unacceptable burden on American workers and the American people.

Mr. President, I ask unanimous consent that the entire text of this letter be printed in the RECORD immediately following my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See exhibit 1.)

Mr. ALLEN. It is not right for any scientist or any other person to exaggerate for political effect. But even as much has been made of the vociferous debates before the Senate about past climate change, little has been said about the remarkable scientific agreement about the future.

Scientists all agree that human affect on any climate change would warm the coldest air of winter much more than the heat of the summer. When Russia's Prime Minister Putin rejected the Kyoto Protocol last week, he noted that, more than anything else, humans have made Siberia more habitable, according to Dr. Pat Michaels, State Climatologist at The University of Virginia.

The most recent consensus of scientists is that the rate of any warming over a long period of time is very small. And, the slight warming trend is much lower than the alarmist projections of the United Nations, or those who may have touted ''extreme scenarios,'' or those who strive to profit politically from climate change scare tactics.

Then, one may ask, what is to be done? After all, we cannot go on adding carbon dioxide to the atmosphere forever. We won't. If history is any guide, our technology will continue to evolve toward increased efficiency, new materials and new propulsion methods in the next 100 years.

In 1800, we were a Nation and world moved by animals and wind on water. In the next 100 years, the locomotive transformed our economy and our Nation. In 1900, the automobile had just been invented. In the next 100 years, transportation and energy fueled the great democratization of wealth and the spread of culture.

In 1900, 7,000 people died in the Galveston Hurricane. Mr. President, 100 years later a similar storm hit Texas and killed no one, thanks to advances in meteorology and satellite technology. Could anyone have imagined this in 1900, as we buried the dead from the largest natural disaster in American history? Hardly. But this is how a free, creative world develops if the governments allow ingenuity to thrive to improve our lives.

What will be the technology of the future? No one can say for certain. But we all can spur its development by encouraging the marketplace in the vast, diverse fields of nanotechnology or aeronautics, for prime examples.

And that is the state of our climate. Climate will continue to change. That cannot be stopped. But so will technology change, unless the Government

chooses to hinder new investment in better materials, fuels and systems. Fortunately, now sound science, rather than political science, shows warming is a much slower process than was once feared.

My bottom line is that I cannot countenance the loss of tens of thousands of American jobs based upon the scientific factual evidence surrounding this measure.

EXHIBIT 1

OCTOBER 28, 2003.

Hon. BILL FRIST,
U.S. Senate,
Washington, DC.

DEAR SENATOR FRIST: We are writing to state our serious concerns about S. 139, ''The Climate Stewardship Act of 2003,'' and to strongly urge that you vote against this bill to avoid the significant job losses and economic harm that it would inflict on our economy, without necessarily achieving any reduction in global greenhouse gas emissions.

According to an analysis conducted by the independent Energy Information Administration (EIA), S. 139 would cause an estimated average loss of 460,000 American jobs through 2025, with estimated job losses reaching 600,000 by 2012. Instead of improving our economic security through economic growth and job creation, the job losses resulting from S. 139 would place an unacceptable burden on American workers and the American people. EIA's analysis further reveals the higher energy costs the legislation would impose on American energy consumers: once fully implemented, S. 139 would require a 40 cent per gallon increase in gasoline prices and cause nearly a 50% increase in natural gas and electricity bills.

As a result of these higher energy costs, EIA projects a net loss of $507 billion (1996 dollars) in Gross Domestic Product over the next two decades. These higher energy costs and reduced economic growth would likely lead American businesses to move overseas, taking jobs with them. As a result, S. 139 may actually lead to an increase in global greenhouse gas emissions as companies formerly in the U.S. move their operations (and emissions) overseas to countries that do not require similar emissions reductions. To compensate for the economic dislocation that S. 139 would cause, the legislation establishes a ''Climate Change Credit Corporation'' for ''transition assistance to dislocated workers and communities.'' However, we believe that the Senate should instead reject this legislation and avoid inflicting the harm that would create the need for such ''transition assistance'' in the first place.

President Bush has committed the U.S. to an ambitious and comprehensive strategy to address the issue of global climate change. It is based on the recognition that only a growing American economy can make possible the sustained investments in energy and carbon sequestration technologies needed to reduce the projected long-term growth in global greenhouse gas emissions. Because of its negative impacts on jobs and economic growth, we call upon the Senate to reject S. 139 as a misguided means of achieving our international environmental goals.

DONALD L. EVANS,
Secretary of Commerce.
ELAINE L. CHAO,
Secretary of Labor.
MARIANNE HORINKO,
Acting Administrator of the Environmental Protection Agency.

Mr. INHOFE. Mr. President, to draw to conclusion this debate, let me repeat a couple of things we did last night. I will briefly address the science issue. I know there are people out there thinking the science is settled. The science is not settled. Last night I went into detail and I will repeat a couple of significant points.

First, Frederick Seitz, the past president of the National Academy of Sciences, compiled the Oregon petition which had 17,800 independently verified signatures—most of those holding degrees of Ph.D. They came to this conclusion: There is no convincing scientific evidence that the human release of carbon dioxide, methane or other greenhouse gasses is causing or will in the foreseeable future cause catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate.

Again, the Heidelberg Appeal, over 4,000 scientists, 70 of whom are Nobel Prize winners, signed this Heidelberg Appeal that says there is no compelling evidence that is existing today to justify controls of anthropogenic—man made—greenhouse gas emissions.

Dr. Richard Lindzen, MIT scientist and member of the National Academy of Sciences, said—and I don't think anyone would question his credentials—said there is a definite disconnect between Kyoto and science. Should a catastrophic scenario prove correct, Kyoto would not prevent it.

Lastly, the Harvard-Smithsonian study, the most exhaustive study out there, 240 peer-reviewed papers published by thousands of researchers over the last four decades, says the science is flawed. It is important people realize that is the situation.

Probably the most significant item we should have been talking about all the time instead of this science—since it is a fact now, I think people understand there are scientists on both sides of this issue—is what is the effect.

Last night we had a chance to talk about the National Black Chamber of Commerce and the Hispanic Chamber of Commerce, how it would disproportionately hurt them in losing jobs. A study that no one has challenged concluded that Kyoto would cost 511,000 jobs of Hispanic workers and 864,000 jobs held by Black workers. Is this something we all understand?

My chart is revealing if Members need statistics for their own State. The State of Illinois is losing 159,000 jobs; the State of Indiana loses 194,000. This is a study done by Penn State University.

The other significant point is that we are voting on an amendment. This amendment is somewhat pared down. Everyone realizes that this amendment, as has been stated many times by the distinguished Senator from Connecticut as well as the Senator from Arizona, is just a first step. So everyone has to look at this. This is the Kyoto Treaty. It needs to be looked at in that respect.

I reserve the remainder of my time.

Mr. LIEBERMAN. Mr. President, I yield to Senator MCCAIN the remaining 2 minutes.

Mr. MCCAIN. I thank my friend. Since I will not speak again, I thank the Senator from Oklahoma for engaging in a spirited and, I hope, informative debate. I thank, of course, my friend from Connecticut, Senator LIEBERMAN.

Briefly, as to this petition that keeps being referred to—the petition was led by Frederick Seitz, former president of the National Academy of Sciences—an article in the New York Times on April 22, 1998, entitled ''Science Academy Disputes Attack On Global Warms,'' states:

> The National Academy of Sciences has disassociated itself from a statement and petition circulated by one of its former presidents which disagrees with the scientific conclusions underlying international efforts to control greenhouse gas emissions.

By the way, Virginia Spice of the Spice Girls, BJ Hunnicutt of ''Mash,'' and Perry Mason were among the signatories to that. They are all respected in their individual fields.

I do not believe that 10 States in the Northeast would agree to a proposal that this is exactly modeled on, if there was going to be some devastating effect on the economies of 10 Northeastern States.

Let's get real. This is a very minimal proposal, one that is a first step. I agree with the Senator from Oklahoma because it does not begin to comprehensively address the problem, but we have to start somewhere. We have to start somewhere. We have to begin to address this issue.

This debate is important. I assure my colleagues, we will be back because those pictures that I showed are going to get worse and worse until we begin to address this issue.

I thank my colleagues and yield the remainder of my time.

The PRESIDING OFFICER. Who yields time?

Mr. INHOFE. Mr. President, I inquire as to how much time is remaining on both sides.

The PRESIDING OFFICER. Two minutes thirty seconds for the Senator from Oklahoma. The Senator from Connecticut has 3 minutes 45 seconds.

Mr. INHOFE. All right. I say to the Senator from Connecticut, if it is your wish, I will be very glad to defer to you to conclude debate on this matter.

Mr. LIEBERMAN. No thank you.

The PRESIDING OFFICER. The Senator from Oklahoma.

Mr. INHOFE. Mr. President, let me get back to something the Senator from Arizona said. He is not on the floor now. He mentioned some of the signatures were not verified. They keep using this same argument, which has been refuted over and over again. The Perry Mason he refers to happens to be a Ph.D. chemist. It is documented. Again, we are talking about some 17,000 scientists there. There are 4,000 scientists on the Heidelberg Petition.

Of course, Richard Lindzen, I don't think anyone is going to question his credibility. These studies—particularly the Harvard-Smithsonian study—is a very significant one.

I think the debate has been good. I do not question it when the Senator from Arizona—who I respect immensely—says we will be back. I am hoping it will be necessary to come back because I am hoping we will defeat this amendment. But it is very significant.

Lastly, let me mention I do not know how so many of these groups could be wrong. We have almost every union in the country—the International Brotherhood of Electrical Workers, the International Brotherhood of Teamsters, the United Mine Workers, the United Steel Workers. We have all these jobs shown up here, some 3.6 million jobs, that would be lost. This analysis was done by a credible organization, Penn State University.

I cannot imagine that any Member of this Senate would come up here and look at this chart and not realize that here we are—we have been going through a recession that began in March of 2000, and we are now pulling out of this recession. The jobs are looking good right now. For something such as this to pass would push us right back in a devastating position.

So when you look at what we are talking about today, we are talking about something that would pass in America and that would not have anything to do with Mexico, anything to do with China, anything to do with India. I can assure you, right now people from those countries are sitting back with their fingers crossed, hoping this passes, because this would be the biggest jobs bill for Mexico and India and the other developing nations that we could pass.

I say to Senator LIEBERMAN, thank you very much for the spirited debate, as I also thank the Senator from Arizona.

Mr. President, I reserve the remainder of my time, if there is any.

The PRESIDING OFFICER. You have 1 second.

Mr. INHOFE. I reserve that.

Mr. LIEBERMAN. Mr. President, I thank the Senator from Oklahoma as well. It has been a spirited debate. It has been an important and historic debate, but it is the first, I would guess, of many on this critical subject.

I must say, it has been a disappointing debate in one regard for me; that is, we are still disagreeing about whether global warming is a problem. The fact is, the overwhelming evidence, upheld by scientists around the world and in America—the National Academy of Sciences, et cetera—says that the planet is warming, and it is happening because of human activity.

You cannot look at this picture, a satellite picture—seeing the reduction of the white part from where it was; and the red lines show what it was in 1979, 24 years ago—and not say it is real.

Senator AKAKA from Hawaii told us last night that the sea level is rising around Hawaii. Senator SNOWE of Maine told us that the sugar maples are dying because it is getting warmer. I myself reported on a story from Inupiat Indians in Alaska saying they had seen robins for the first time in their village because it is getting warmer.

This is real. I wish we could agree on the reality and then argue about what we should do about it. As I hear the science—so-called—cited on the other side, I want to predict, respectfully, that we are going to look back at those scientific testaments and put them in the same category as the scientific studies that were introduced by the tobacco industry years ago, saying that tobacco did not harm health or cause cancer, or the studies that were introduced by the chemical industry that said chlorofluorocarbons did not put a hole in the ozone layer, all of which we know now were just plain bunk. I am afraid that is the way we are going to look back at this evidence offered in this debate.

Secondly, a lot of the argument about the impact of our proposal on costs and cost of living and jobs is not related to our proposal. It is about the Kyoto protocol. It is about earlier legislation. It is not about the McCain-Lieberman amendment before the Senate for a vote.

The one study on our amendment, the MIT independent study, says, in fact, costs will go down in the energy field, that the average cost per household will be $20 a year—well worth what we are going to get in return for a safer, better life for our children and grandchildren. They say there is no job loss that can be expected. In fact, a lot of major entrepreneurs and investors—and I put a letter in the RECORD to Senator SNOWE from 60 leading entrepreneurs from Silicon Valley, who say our amendment will create hundreds of thousands of jobs. I ask unanimous consent that letter be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

SILVER LAKE PARTNERS,
Menlo Park, CA, October 17, 2004.

Senator OLYMPIA SNOWE,
Washington, DC.

DEAR SENATOR SNOWE; I am pleased to enclose a letter from 60 Silicon Valley business leaders concerned about the growing threat of global warming. This group comprises CEOs and successful entrepreneurs, distinguished engineers, scientists, and investors. Together, we manage companies with total revenues of $70 billion and over 300,000 employees around the world. Our firms have an aggregate market value of over $160 billion. The venture capitalists and private equity investors among us, primarily focused on commercializing new technology, manage over $44 billion in risk capital.

Operating at the core of our modern economy, we recognize the role science and industry play in keeping our country vital. While we are Democrats, Republicans and Independents with often contrasting political views, we share a deep concern about the specter of global warming and potentially devastating effects of climate change. We urge you to take appropriate measures to address this critically important issue.

Thank you for your consideration.

Kind regards,

DAVID ROUX,
Managing Director.

OPEN LETTER FROM BUSINESS LEADERS,
October 17, 2003.

Senator OLYMPIA SNOWE,
Washington, DC.

DEAR SENATOR SNOWE: We are business leaders and scientists alarmed by the reality of global warming.

Schooled in science and innovation, we recognize that the risks and complexities of climate change are significant, but strongly believe that drive and ingenuity can manage those risks and solve those complexities. While any response that is sufficient to avert dangerous climate change will be long term, the nature of the problem requires action now. The required response—global and domestic—must be equitable and support economic growth based on free market principles.

As entrepreneurs who co-exist with government policies, we know that truly effective policies set clear goals and leave businesses free to decide how to meet those goals at lowest cost. We trust any policies you propose have serious environmental goals and encourage the prudent use of market forces to achieve them.

Policies employing strict goals and flexible means unleash the power of competition and spur innovation to protect the environment. A healthy economy and a healthy environment go hand in hand. American business has the ingenuity to solve the problem of global warming while continuing to prosper. Indeed, businesses that find ways to lead in solving this problem will prosper even more.

While there is still debate about the levels of greenhouse gas reductions necessary to stabilize the climate and protect the United States economy, several things are clear:

Reductions must begin immediately;

Voluntary efforts alone won't do the job; and

Any mandatory restrictions must employ market incentives.

We congratulate you for recognizing these needs and for your efforts to see that the Senate addresses them.

Sincerely,

BUSINESS LEADERS TAKING ACTION ON CLIMATE CHANGE.

Mr. LIEBERMAN. Mr. President, this is a call to responsibility. It is a call to leadership.

I remember last year, as we were coming close to the vote on the Iraq resolution, I met with a group of officials from the administration and Congress—members of both parties—with the Minister of Defense from an allied government. Somebody from the administration said: How can we get the Europeans to support us more on the potential of a war against Saddam?

The European Minister said: Get the administration to do something about global warming.

This inaction, lack of leadership, debunking by the administration of the problem, failure to accept responsibility is part of the reason we are so deeply divided from some of our closest allies.

Senator MCCAIN and I and our cosponsors on both sides of the aisle have

put ourselves on a course. History calls us to action. We will not leave this course until the day—may it come sooner than later—when we adopt this amendment or something very much like it.

I thank the Chair. I thank my colleagues and yield the floor.

The PRESIDING OFFICER. All time has expired.

Mr. INHOFE. I believe, Mr. President, I have 1 second remaining.

The PRESIDING OFFICER. Yes.

Mr. INHOFE. Mr. President, in my last second, I ask unanimous consent that the list of labor unions, agricultural organizations, and other organizations opposing S. 139 be printed in the RECORD.

There being no objection, the materials was ordered to be printed in the RECORD, as follows:

WHAT DO ALL THESE GROUPS AGREE ON?
LIEBERMAN-MCCAIN IS BAD FOR AMERICA

The 60 Plus Association, Aluminum Association, American Association of Port Authorities, American Bakers Association, American Boiler Manufacturers Association, American Chemistry Council, American Health Care Association, American Highway Users Alliance, American Iron and Steel Institute, American Public Power Association, American Road and Transportation Builders Association, American Sheep Industry Association, American Short Line and Regional Railroad Association, American Trucking Association, American Waterways Operators, Americans for Tax Reform, Association of Equipment Manufacturers, Brotherhood of Locomotive Engineers, Brotherhood of Railroad Signalman, Center for Energy and Economic Development, Council of Industrial Boiler Owners, Edison Electric Institute, Federation of American Hospitals, Frontiers of Freedom, General Mills, Goodman Manufacturing Corporation, Institute of Makers of Explosives, Intermodal Association of North America, International Brotherhood of Boilermakers, International Brotherhood of Electrical Workers, International Dairy Foods Association, Motor Freight Carriers Association, National Association of Manufacturers, National Association of Wheat Growers, National Cattleman's Beef Association, National Food Processors Association, National Grange, National Mining Association, National Restaurant Association, National Retail Federation, National Rural Electric Cooperative Association, National Waterways Conference, Inc., Portland Cement Association, Railway Supply Institute, The Salt Institute, The Seniors Coalition, Small Business Survival Committee, Snack Food Association, US Chamber of Commerce, United Mine Workers of America, United Seniors Association, United Transportation Union.

Mr. INHOFE. Mr. President, thank you very much.

The PRESIDING OFFICER. The Senator from Nevada.

Mr. REID. Mr. President, I have not spoken to the two managers, but I feel confident it would be OK with them. This is not in the form of a unanimous consent request.

Following the vote, Senator BOXER wishes to speak for 10 minutes. Following that, Senator BINGAMAN is ready to offer his amendment. He will take a limited period of time. Following that, Senator LEAHY has an amendment. He has asked for 30 minutes.

So that is just general information we are going to try to move on as quickly as possible on the Healthy Forests matter.

The PRESIDING OFFICER. The question is on agreeing to the Lieberman-McCain amendment.

Mr. LIEBERMAN. Mr. President, I ask for the yeas and nays.

The PRESIDING OFFICER. Is there a sufficient second?

There appears to be a sufficient second. The clerk will call the roll.

The assistant legislative clerk called the roll.

Mr. REID. I announce that the Senator from North Carolina (Mr. EDWARDS) is necessarily absent.

I also announce that the Senator from Nebraska (Mr. NELSON) is attending a family funeral.

I further announce that, if present and voting, the Senator from Nebraska (Mr. NELSON) would vote ''nay.''

The PRESIDING OFFICER (Mr. BUNNING). Are there any other Senators in the Chamber desiring to vote?

The result was announced—yeas 43, nays 55, as follows:

[Rollcall Vote No. 420 Leg.]

YEAS—43

Akaka	Feingold	Lugar
Bayh	Feinstein	McCain
Biden	Graham (FL)	Mikulski
Bingaman	Gregg	Murray
Boxer	Harkin	Nelson (FL)
Cantwell	Hollings	Reed
Carper	Inouye	Reid
Chafee	Jeffords	Rockefeller
Clinton	Johnson	Sarbanes
Collins	Kennedy	Schumer
Corzine	Kerry	Snowe
Daschle	Kohl	Stabenow
Dayton	Lautenberg	Wyden
Dodd	Leahy	
Durbin	Lieberman	

NAYS—55

Alexander	DeWine	McConnell
Allard	Dole	Miller
Allen	Domenici	Murkowski
Baucus	Dorgan	Nickles
Bennett	Ensign	Pryor
Bond	Enzi	Roberts
Breaux	Fitzgerald	Santorum
Brownback	Frist	Sessions
Bunning	Graham (SC)	Shelby
Burns	Grassley	Smith
Byrd	Hagel	Specter
Campbell	Hatch	Stevens
Chambliss	Hutchison	Sununu
Cochran	Inhofe	Talent
Coleman	Kyl	Thomas
Conrad	Landrieu	Voinovich
Cornyn	Levin	Warner
Craig	Lincoln	
Crapo	Lott	

NOT VOTING—2

Edwards	Nelson (NE)

The amendment (No. 2028) was rejected.

Mr. INHOFE. Mr. President, I move to reconsider the vote.

Mr. REID. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

The PRESIDING OFFICER. The Senator from Oklahoma.

Mr. INHOFE. Mr. President, I have a unanimous consent request. We have just voted on the amendment. I ask unanimous consent that the underlying bill be referred back to the Committee on Environment and Public Works.

The PRESIDING OFFICER. Is there objection? Without objection, it is so ordered.

Mr. SPECTER. Mr. President, after extensive consideration of the views of many constituents who have contacted me on this very important bill, I decided to vote against it because of the open questions on the impact on climate and the consequences for the national and State economies, which are very fragile at the moment.

It is always a difficult matter to balance environmental protection and the need for economic development and jobs. I believe that global warming is a matter of great international importance and the 43 votes in favor of this bill puts the administration and others on notice that there is considerable sentiment for stronger action to address this problem.

I have voted for environmental protection for renewable energy and conservation measures, and I have initiated legislation to limit the amount of oil which will be consumed at various intervals in the future.

As a Pennsylvania Senator, I have a particular interest in the continued use of coal, our Nation's most abundant energy supply, especially in the context of the billions of tons of bituminous coal in the western part of Pennsylvania and anthracite coal in the eastern part of Pennsylvania. This bill would have a serious impact on our steel industry, our chemical industry, and manufacturing.

In this context, it is very difficult to adopt a limit by the year 2010 since we cannot predict at this time what the situation will be with our national and State economies.

In addition, it is very difficult to limit industry in the United States when we do not have a plan for the rest of the world in curbing green house gas emissions. That would have a harmful effect on the competitiveness of the United States. An international plan is necessary. Unilateral action by the United States would not solve the problem. I have, with other Senators, urged the President to work through international means to address global climate change. I support his efforts and those of the individual companies to curb voluntarily domestic emissions, but it is likely that stronger action will have to be taken in the future on a multilateral basis.

These questions remain: What would the reductions under this legislation do to climate change? What are the anticipated costs? Who would pay the costs? What are particularly vulnerable industries that could not, for instance, pass on any increased energy costs? What is the expected impact on fuel supply and demand, particularly with regard to fuel-switching and natural gas prices? What will happen to economic growth and overall competitiveness in a global economy if only U.S. emissions are reduced?

While I was unable to support this particular bill, I believe it will give impetus to action to deal with global warming. I look forward to working with my colleagues in the Senate on this important issue in the hopes of finding common ground and a sensible balance between the goals of environmental protection and economic development. I encourage supporters and opponents of this bill to consider the concerns of each other and work in earnest to bridge the many differences in support of the common good.

Mrs. LINCOLN. Mr. President, although I am extremely concerned about global warming, I voted in opposition to Senator MCCAIN and Senator LIEBERMAN's Climate Stewardship Act. My chief concern was that this bill would raise gas and electric prices at a time when Arkansas' economy is struggling to recover and many residents from my state are finding it difficult to make ends meet.

I firmly believe that we have a responsibility to seek a solution to global warming. But at this time, when our economy is struggling and our federal deficit is at record levels, I can not support a measure which in all likelihood will result in higher energy prices for consumers in Arkansas and a loss of jobs in my state. If the United States stands alone on this issue, I fear other countries will be able to take businesses away from our country with the lure of weaker environmental regulations. A comprehensive global solution must be developed that includes all nations. I do believe we must continue to work toward initiatives to reduce our dependence on foreign oil and encourage cleaner sources of energy, such as the numerous biodiesel measures I have fought to include in the Energy bill.

I would like to take this opportunity to voice my opposition to the Bush administration's view on this subject. The indifferent and callous approach taken to global climate change sent a message to the world that this issue is not a priority. President Bush has stated that compelling evidence of global warming does not exist. I disagree. It is time for the administration to change its policy. It is only through cooperation with the global community that we can see these warming trends reversed. I applaud the efforts of Senators MCCAIN and LIEBERMAN in bringing this bill before the Senate when few committee chairmen showed interest in it. While I was not able to support them today for the reasons I have stated, I am eager to work with them in the future to find a solution to this important issue.

Mr. BAUCUS. Mr. President, I would like to take this opportunity to explain why I had to oppose the McCain-Lieberman Climate Stewardship Act.

First, let me say that my vote does not reflect a change my belief that global climate change is a serious problem, perhaps one of the most serious long-term environmental and public health problems facing the world over the next century. I am deeply disappointed that this administration has decided not to actively engage the world on this issue and has in fact disengaged itself from the world on global climate change. I echo the concerns of the distinguished Senator from West Virginia, Senator BYRD, that the administration's approach is short-sighted, and that it is no longer constructive to argue that human-caused emissions are not contributing to the warming of the earth. The science is just too strong to believe otherwise.

The administration's approach is frustrating because engaging the world particularly the developing world—is the only way we will ever get a handle on rising greenhouse gas emissions. Small reductions in emissions made by the U.S. will be meaningless if those reductions are made unilaterally. We must have assurances that the world is moving hand in hand with us—and is making similar sacrifices—before we handicap our own economy.

This will take time, but solving the problem of global warming is a lifetime endeavor by any estimate, for our generation, and the next. Part of this effort will include massive investments in new energy technologies, in renewables, in alternative energy, in hybrid cars and fuel cells, and in making our economy and the world's economy more energy efficient. It will likely, if and when the United States takes the leadership roll on this issue that it should, involve mandatory greenhouse gas reductions by all nations.

I would like to compliment Senators MCCAIN and LIEBERMAN for working so hard on this proposal, and for attempting to find a balanced solution. If we had more time, and more attention from the administration, I am confident that we could work together on a common sense bill that would achieve meaningful reductions in U.S. greenhouse gas emissions without threatening the U.S. economy or our global competitiveness. Such a bill would hopefully complement a meaningful and real global consensus on how to address human-caused climate change.

I voted against McCain-Lieberman today because I don't think the country is ready to take the steps outlined in their bill and because I was concerned about the impacts on my state, particularly agriculture, from increased natural gas prices. But I agree that we must move forward aggressively to put the United States and the world on track to significantly reduce global greenhouse gas emissions. It will only get harder the longer we continue to ignore the problem.

Mrs. BOXER. Mr. President, I want to thank my colleagues, Senators MCCAIN and LIEBERMAN, for all their hard work on S. 139, the Climate Stewardship Act, and express my full support for this legislation. Unfortunately, this bill did not pass the Senate. This bipartisan legislation would have been a meaningful step in the right direction toward reducing our Nation's greenhouse gas emissions and would have helped address the problem of global warming.

There is no question that climate change is one of the most serious environmental challenges facing this nation and the world. We know that climate change is real. The overwhelming weight of scientific opinion supports the idea that climate change is occurring, that it is human-induced, that it will have significant and harmful consequences, and that we need to do something about it.

California has a great deal to lose if we do not take steps to halt and reverse climate change. My State enjoys tremendous ecological diversity ranging from our cool and wet redwood forests of the North Coast, to the hot Mojave and Colorado deserts in the southeast, to the vast fertile agricultural stretches in the Central Valley. Climate change is a very real threat to those natural ecosystems.

Scientific predictions indicate that human-induced global warming may produce a 3- to 10-degree rise in temperature over the next 97 years. That may not initially sound dramatic. But it would be enough to change the timing and amount of precipitation in my State. This could, for instance, lead to decreased summer stream flows, which would intensify the already significant controversy over the allocation of water for urban, agricultural and environmental needs.

Scientists also predict that by the year 2050, California will face higher average temperatures every month of the year in every part of the State. The average temperature in June in the Sierra Nevada Mountains, for instance, could increase by 11 degrees Fahrenheit. The snowpack in the Sierra, which is a vital source of water in the State, is expected to drop by 13 feet and to have melted entirely nearly 2 months earlier than it does now. This means that the precious water on which we now rely for agriculture, drinking water, and other purposes.

In light of the threat global warming poses to my State, the Nation, and the world, I believe we must take steps to reduce our greenhouse gas emissions.

The Climate Stewardship Act would have required companies in the energy, transportation and manufacturing sectors to reduce their greenhouse gas emissions to 2000 levels by 2010. The bill would have provided tax incentives for the development of energy-efficient technology. The Climate Stewardship Act would have also encouraged the use of environmentally-friendly manufacturing technology.

This bill would have provided a reasonable approach to help us achieve the goal of reducing greenhouse gases and addressing global warming. I am extremely disappointed that the Senate did not pass this legislation.

The PRESIDING OFFICER. The Senator from Nevada.

Mr. REID. Mr. President, what is the regular order?

HEALTHY FORESTS RESTORATION ACT OF 2003

The PRESIDING OFFICER. The regular order is under the previous order the Senate will resume consideration of H.R. 1904, which the clerk will report.

The legislative clerk read as follows:

A bill (H.R. 1904) to improve the capacity of the Secretary of Agriculture and the Secretary of the Interior to plan and conduct hazardous fuel reduction projects on National Forest System lands and Bureau of Land Management lands aimed at protecting communities, watersheds, and certain other at-risk lands from catastrophic wildfire, to enhance efforts to protect watersheds and address threats to forest and rangeland health, including catastrophic wildfire, across the landscape, and for other purposes.

The PRESIDING OFFICER. The Senator from Nevada.

Mr. REID. We need the manager of the bill on the floor for the majority. Senator BINGAMAN is ready to offer an amendment. He was here all day yesterday.

What we would like to do is have Senator BINGAMAN offer his amendment—I have not spoken to the two leaders—have that set aside temporarily and then move to the Leahy amendment. They will both be relatively short in time, and then we can arrange an appropriate time for voting on these.

I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. FRIST. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. FRIST. Mr. President, I ask unanimous consent that I may speak for 5 minutes as in morning business.

The PRESIDING OFFICER. Without objection, it is so ordered.

GOOD ECONOMIC NEWS

Mr. FRIST. Mr. President, as we prepare over the next several minutes to shift gears back to a very important piece of legislation, I just want to take this opportunity to comment on another issue and that is the issue of the economy. There is very good news, news that was released today, and that is that the economy grew by 7.2 percent in this last quarter—in July, August, and September. This to me is really a spectacular piece of news, especially as we know the people are following this economy very closely, especially to see what the response is to the President's tax relief package several months ago.

Mr. President, 7.2 percent is spectacular in so many ways. In fact, it has been nearly 19 years—I guess the last date was in 1984—that the economy last saw such growth. This news is not totally unexpected. For the last several days I have come to the Senate Chamber to suggest that this is the sort of figure we could expect, in large part because of the policies we enacted earlier this year, specifically the tax reductions which we knew would result in such growth. Indeed, we are now seeing that hard data of growth—7.2 percent in the last quarter.

This positive news was also reflected and added to by this morning's numbers which showed that personal consumption has increased at 6.6 percent as well. It is interesting that consumption makes up about 70 percent of our economic growth. That is, 70 percent of all of this economic growth is accounted for by consumption. If we looked at just that impact of consumption alone, we would have seen growth in our economy of 4.6 percent.

Equally if not more important for the longer term, another measure, business investment, grew by 11.1 percent. To me, this suggests we will continue to see growth well into the future as they rebuild, as they reinvest, as they retool their factories and prepare for the future.

Government spending, another component of growth which accounted for much of the growth earlier this year, was not the most important factor accounting for today's news. Indeed, Government spending only increased about 1.4 percent. I say that because a lot of people say we are just spending so much these days in terms of Government; that is why the economy is growing. But as the figures show, most of that growth is in this dramatic increase in consumption, an increase of 6.6 percent according to today's news.

Maybe lost in the big news this morning is what really matters in this growth—the jobs issue. The Department of Labor reported this morning that the initial claims for unemployment declined by 5,000 last week, affirming this downward trend in unemployment. So this morning we have good news released. The numbers released today indeed indicate a ramp up to recovery. I do expect the growth in the quarters ahead will settle down to a more realistic and sustainable level.

The point is, we are making progress. We are making real progress. The policies we put into place are beginning to take hold.

We clearly have a lot more work to do. We must do more to create jobs and bring economic recovery to all of our citizens. Thus, we really can't rest on these reports today. But at the same time, in this body we must continue to work toward reducing the cost of doing business in this country.

I immediately turn to issues we are talking about, both on the floor and off—health care, energy, class action, litigation costs. We need to remove barriers to investment and economic growth so employers can create jobs.

Our work here in the Congress must go forward with renewed dedication. Today we do see firsthand the effects of the President's economic policies. Such results should encourage all of us to work even harder to bring economic recovery to the doorstep of every American.

Mr. REID. Mr. President, I, too, am pleased at the good news that the GDP has gone up. But for the 3 million people who have lost jobs, J-O-B is more important than G-D-P. This last month, another 46,000 jobs have been lost in this country; during this administration, more than 3 million jobs. This is the only President since Herbert Hoover who has had a net loss in jobs. I think this is very unfortunate. I hope the GDP continues to grow and in the process create jobs.

Mr. President, the distinguished chairman of the committee that has jurisdiction of the bill now before the Senate and I spoke with the majority leader and minority leader a few minutes ago. It is the wish of the distinguished chairman of this committee, the manager of this bill, that when an amendment is offered—unless there is some exception—we are going to debate that and vote on it, dispose of it one way or the other.

As we spoke to the majority leader, the distinguished Senator from Mississippi and I—everyone should be—we were both in tune with the majority leader. Today's votes are going to take 20 minutes. After 20 minutes, the majority leader said he is going to ask that the clerk announce the vote. There are going to be people who miss votes, but that is their problem. All staffs who are listening to me, everyone should understand, if the majority leader follows through on what he said—and I am confident he will—a few people will miss votes. But I think fewer will miss them the second time and fewer the third time.

If we are going to finish this most important bill, we cannot have votes going 40 minutes, and that is what they were going yesterday. It is unfair to the managers of the bill, unfair to the Senate, unfair to the country.

I hope that following the vote of Senator BINGAMAN, we will stick to 20-minute votes, no matter who isn't here for the vote.

The PRESIDING OFFICER. The Senator from Mississippi.

Mr. COCHRAN. Mr. President, let me compliment the distinguished acting leader. He correctly states the content of the conversation that we had which included the majority leader. The custom, in recent history anyway, has been to accumulate amendments and then have the votes stacked to occur at a certain time. That is well and good, if you know how many amendments you have. We don't have a finite list of amendments. That is one thing we need. If Senators would let us know which amendments they intend to offer, we can probably manage this bill more efficiently and save time for everybody.

We want to finish the bill tonight. That is my intention. I think that is