L. Burton Trail Act. Through this small action, we recognize and honor a great man and his great work.

AMENDMENTS SUBMITTED AND PROPOSED

SA 809. Mr. SCHUMER submitted an amendment intended to be proposed by him to the bill H.R. 6, To ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table.

SA 810. Mr. SCHUMER submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 811. Mr. SCHUMER (for himself, Ms. CANTWELL, and Mr. LAUTENBERG) submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 812. Mr. SCHUMER submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 813. Mr. SCHUMER submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 814. Mr. BYRD submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 815. Mr. CORZINE submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 816. Mr. KOHL submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 817. Mr. HAGEL (for himself, Mr. PRYOR, Mr. ALEXANDER, Ms. LANDRIEU, Mr. CRAIG, Mrs. DOLE, Ms. MURKOWSKI, Mr. VOINOVICH, and Mr. STEVENS) proposed an amendment to the bill H.R. 6, supra.

SA 818. Mr. JEFFORDS submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 819. Mr. TALENT (for himself and Mr. JOHNSON) submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 820. Mrs. HUTCHISON (for herself, Mr. CORNYN, Mr. INHOFE, and Ms. LANDRIEU) submitted an amendment intended to be proposed by her to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 821. Mr. KYL submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 822. Mr. VOINOVICH (for himself and Mr. DEWINE) submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 823. Mr. JEFFORDS submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 824. Ms. COLLINS (for herself, Ms. CANTWELL, Ms. SNOWE, Mr. JEFFORDS, and Mr. DEWINE) submitted an amendment intended to be proposed by her to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 825. Mr. KERRY submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 826. Mr. MCCAIN (for himself and Mr. LIEBERMAN) proposed an amendment to the bill H.R. 6, supra.

SA 827. Mr. BINGAMAN (for Mr. DORGAN) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 828. Mr. BINGAMAN (for Mr. DORGAN) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 829. Mr. BINGAMAN (for Mr. JEFFORDS) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 830. Mr. BINGAMAN (for Mr. JEFFORDS) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 831. Mr. BINGAMAN (for Mr. JEFFORDS) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 832. Mr. BINGAMAN (for Mr. JEFFORDS) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 833. Mr. KOHL (for himself, Mr. DEWINE, Mr. LIEBERMAN, Mr. LEVIN, and Mr. REED) submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 834. Ms. SNOWE submitted an amendment intended to be proposed by her to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 835. Mrs. CLINTON (for herself and Mr. ALLARD) submitted an amendment intended to be proposed by her to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 836. Mr. BAUCUS submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 837. Mr. BAUCUS submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 838. Mr. MCCONNELL submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

SA 839. Mr. LAUTENBERG (for himself, Mr. REID, Mr. LIEBERMAN, and Mr. JEFFORDS) submitted an amendment intended to be proposed by him to the bill H.R. 6, supra.

SA 840. Mr. SMITH (for himself and Mrs. LINCOLN) submitted an amendment intended to be proposed by him to the bill H.R. 6, supra; which was ordered to lie on the table.

TEXT OF AMENDMENTS

SA 809. Mr. SCHUMER submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 37, between the matter following line 12 and 13, insert the following:

SEC. 109. MANHATTAN PROJECT FOR ENERGY INDEPENDENCE.

(a) FINDINGS.—Congress finds that—

(1) the welfare and security of the United States require that adequate provision be made for activities relating to the development of energy-efficient technologies; and

(2) those activities should be the responsibility of, and should be directed by, an independent establishment exercising control over activities relating to the development and promotion of energy-efficient technologies sponsored by the United States.

(b) PURPOSE.—The purpose of this section is to establish the Energy Efficiency Development Administration to develop technologies to increase energy efficiency and to reduce the demand for energy.

(c) DEFINITIONS.—In this section:

(1) ADMINISTRATION.—The term ''Administration'' means the Energy Efficiency Development Administration established by subsection (d)(1).

(2) ADMINISTRATOR.—The term ''Administrator'' means the head of the Administration appointed under subsection (d)(3)(A).

(3) ADVISORY COMMITTEE.—The term ''Advisory Committee'' means the Policy Advisory Committee established by subsection (f)(1)(A).

(4) ENERGY-EFFICIENT TECHNOLOGY ACTIVITY.—

(A) IN GENERAL.—The term ''energy-efficient technology activity'' means an activity that improves the energy efficiency of any sector of the economy, including the transportation, building design, electrical generation, appliance, and power transmission sectors.

(B) INCLUSION.—The term ''energy-efficient technology activity'' includes an activity that produces energy from a sustainable biomass, wind, small-scale hydroelectric, solar, geothermal, or other renewable source.

(d) ENERGY EFFICIENCY DEVELOPMENT ADMINISTRATION.—

(1) ESTABLISHMENT.—There is established as an independent establishment in the executive branch the Energy Efficiency Development Administration.

(2) MISSION.—The mission of the Administration shall be to reduce United States imports of oil by—

(A) 5 percent by 2008;

(B) 20 percent by 2011; and

(C) 50 percent by 2015.

(3) ADMINISTRATOR; DEPUTY ADMINISTRATOR.—

(A) ADMINISTRATOR.—

(i) APPOINTMENT.—The Administration shall be headed by an Administrator, who shall be appointed by the President, by and with the advice and consent of the Senate.

(ii) PAY.—Section 5313 of title 5, United States Code, is amended by adding at the end the following:

''Administrator, Energy Efficiency Development Administration.''.

(iii) DUTIES.—The Administrator shall—

(I) exercise all powers and perform all duties of the Administration; and

(II) have authority over all personnel and activities of the Administration.

(iv) LIMITATION ON RULEMAKING AUTHORITY.—The Administrator shall not modify any energy-efficiency standards or related standards in effect on the date of enactment of this Act that would result in the reduction of energy efficiency in any product.

(B) DEPUTY ADMINISTRATOR.—

(i) APPOINTMENT.—There shall be in the Administration a Deputy Administrator, who shall be appointed by the President, by and with the advice and consent of the Senate.

(ii) PAY.—Section 5314 of title 5, United States Code, is amended by adding at the end the following:

''Deputy Administrator, Energy Efficiency Development Administration.''.

(iii) DUTIES.—The Deputy Administrator shall—

(I) supervise the project development and engineering activities of the Administration;

(II) exercise such other powers and perform such duties as the Administrator may prescribe; and

(III) act for, and exercise the powers of, the Administrator during the absence or disability of the Administrator.

(4) TRANSFER OF FUNCTIONS.—

(A) DEFINITION OF FUNCTION.—In this paragraph, the term ''function'' means any duty, obligation, power, authority, responsibility, right, privilege, activity, or program.

(B) TRANSFER OF FUNCTIONS.—

(i) IN GENERAL.—There are transferred to the Administrator—

(I) all functions previously exercised by the Assistant Secretary of Energy for Efficiency and Renewable Energy; and

(II) any authority to promulgate regulations relating to fuel efficiency previously exercised by the Secretary of Transportation.

(ii) INCLUSIONS.—Functions transferred under clause (i) include all real and personal property, personnel funds, and records of the Office of Energy Efficiency and Renewable Energy of the Department of Energy.

(iii) DETERMINATION OF FUNCTIONS.—The Director of the Office of Management and Budget shall determine the functions that are transferred under clause (i).

(C) PRESIDENTIAL TRANSFERS.—

(i) IN GENERAL.—The President, until the date that is 4 years after the date of enactment of this Act, may transfer to the Administrator—

(I) any function of any other department or agency of the United States, or of any officer or organizational entity of any department or agency, that relates primarily to the duties of the Administrator under this section; and

(II) any records, property, personnel, and funds that are necessary to carry out that function.

(ii) REPORTS.—The President shall submit to Congress a report that describes the nature and effect of any transfer made under clause (i).

(D) ABOLISHMENT OF OFFICE.—The Office of Energy Efficiency and Renewable Energy of the Department of Energy is abolished.

(5) DUTIES.—

(A) IN GENERAL.—The Administrator shall—

(i) plan, direct, and conduct energy-efficient technology activities; and

(ii) provide for the widest appropriate dissemination of information concerning the activities of the Administration and the results of those activities.

(B) OBJECTIVES.—The energy-efficient technology activities of the United States carried out from the Administrator or carried out with financial assistance by the Administrator shall be conducted so as to contribute significantly to 1 or more of the following objectives:

(i) Expansion of knowledge about energy-efficient technologies and the use of those technologies.

(ii) Improvement of existing energy-efficient technologies or development of new energy-efficient technologies.

(iii) Identification of mechanisms to introduce energy-efficient technologies into the marketplace.

(iv) Conduct of studies of—

(I) the potential benefits gained, such as environmental protection, increasing energy independence, and reducing costs to consumers; and

(II) the problems involved in the development and use of energy-efficient technologies.

(v) The most effective use of the scientific resources of the United States, with close cooperation among all interested agencies of the United States so as to avoid duplication of effort, facilities, and equipment.

(e) POWERS.—The Administrator shall—

(1) not later than 180 days after the date of enactment of this Act, submit to Congress a personnel plan for the Administration that—

(A) specifies the initial number and qualifications of employees needed for the Administration;

(B) describes the functions and General Service classification and pay rates of the initial employees; and

(C) specifies how the Administrator will adhere to or deviate from the civil service system;

(2) appoint and fix the compensation of such officers and employees as are necessary to carry out the functions of the Administration;

(3) establish the entrance grade for scientific personnel without previous service in the Federal Government at a level up to 2 grades higher than the grade provided for such personnel in the General Schedule (within the meaning of section 5104 of title 5, United States Code) and fix the compensation of the personnel accordingly, as the Administrator considers necessary to recruit specially qualified scientific, environmental, and industry-related expertise;

(4) acquire, construct, improve, repair, operate, and maintain such laboratories, research and testing sites and facilities, and such other real and personal property or interests in real and personal property, as the Administrator determines to be necessary for the performance of the functions of the Administration;

(5) enter into and perform such contracts, leases, cooperative agreements, or other transactions as are necessary in the performance of the duties of the Administrator with any—

(A) agency or instrumentality of the United States;

(B) State, Territory, or possession;

(C) political subdivision of any State, Territory, or possession; or

(D) person, firm, association, corporation, or educational institution;

(6)(A) with the consent of Federal and other agencies, with or without reimbursement, use the services, equipment, personnel, and facilities of those agencies; and

(B) cooperate with other public and private agencies and instrumentalities in the use of services, equipment, personnel, and facilities; and

(7) establish within the Administration such offices and procedures as the Administrator considers appropriate to provide for the greatest possible coordination of the activities of the Administration with related scientific and other activities of other public and private agencies and organizations.

(f) ORGANIZATIONAL STRUCTURE.—

(1) POLICY ADVISORY COMMITTEE.—

(A) ESTABLISHMENT.—There is established in the Administration a Policy Advisory Committee.

(B) MEMBERSHIP.—

(i) COMPOSITION.—The Advisory Committee shall be composed of 12 members, of whom—

(I) 4 members shall be representatives of the energy efficiency and environmental protection community;

(II) 4 members shall be representatives of—

(aa) industries involved in the generation, transmission, or distribution of energy products; or

(bb) the transportation industry; and

(III) 4 members shall be representatives of the scientific and university research community.

(ii) APPOINTMENT.—The Speaker of the House of Representatives, the majority leader of the Senate, the minority leader of the House of Representatives, and the minority leader of the Senate shall each appoint 1 member described in subclauses (I), (II), and (III) of clause (i).

(C) DUTIES.—The Advisory Committee shall—

(i) act as a steering committee for the Administration; and

(ii) formulate a long-term strategy for—

(I) achieving the mission of the Administration under subsection (d)(2); and

(II) identifying energy-efficient technologies and initiatives that—

(aa) have the potential to increase energy efficiency over the long term; and

(bb) should be further explored by the Administration.

(D) STAFF.—The Advisory Committee may appoint not more than 24 employees to assist in carrying out the duties of the Advisory Committee, of whom—

(i) 8 shall report to the members appointed under subparagraph (B)(i)(I);

(ii) 8 shall report to the members appointed under subparagraph (B)(i)(II); and

(iii) 8 shall report to the members appointed under subparagraph (B)(i)(III).

(E) FACA.—The Federal Advisory Committee Act (5 U.S.C. App.) shall apply to the Advisory Committee.

(2) OFFICE OF ADMINISTRATION.—

(A) ESTABLISHMENT.—There is established in the Administration an Office of Administration.

(B) ASSISTANT DEPUTY ADMINISTRATOR.—The head of the Office of Administration shall be an Assistant Deputy Administrator for Administration, to be appointed by the Administrator.

(C) PUBLIC INFORMATION DIVISION.—

(i) ESTABLISHMENT.—There is established in the Office of Administration a Public Information Division.

(ii) DUTIES.—The Public Information Division shall serve as a liaison between the Administration, the public, and other entities.

(D) ENERGY EFFICIENCY ECONOMICS DIVISION.—

(i) ESTABLISHMENT.—There is established in the Office of Administration an Energy Efficiency Economics Division.

(ii) STAFF.—The Energy Efficiency Economics Division shall be composed of economists and individuals with expertise in energy markets, consumer behavior, and the economic impacts of energy policy

(iii) DUTIES.—The Energy Efficiency Economics Division shall study the effects of existing and proposed energy-efficient technologies on the economy of the United States, with an emphasis on assessing—

(I) the impacts of those technologies on consumers; and

(II) the contributions of those technologies on the economic development of the United States.

(E) INCENTIVES DIVISION.—

(i) ESTABLISHMENT.—There is established in the Office of Administration an Incentives Division.

(ii) DUTIES.—The Incentives Division shall—

(I) conduct a study of economic incentives that would assist the Administration in—

(aa) developing energy-efficient technologies; and

(bb) introducing those technologies into the marketplace; and

(II) submit to Congress a report on the results of the study conducted under subclause (I).

(F) EDUCATION DIVISION.—

(i) ESTABLISHMENT.—There is established in the Office of Administration an Education Division.

(ii) DUTIES.—The Education Division shall provide—

(I) to the public, information concerning—

(aa) how to conserve energy, including—

(AA) what type of products are energy-efficient; and

(BB) where such products may be purchased; and

(bb) the importance of conserving energy; and

(II) provide to building owners, engineers, contractors, and other businesspersons training in energy-efficient technologies.

(G) LEGISLATIVE COUNSEL DIVISION.—There is established in the Office of Administration a Legislative Counsel Division to provide legal assistance to the Administrator.

(3) OFFICE OF POLICY, RESEARCH, AND DEVELOPMENT.—

(A) ESTABLISHMENT.—There is established in the Administration an Office of Policy, Research, and Development to establish the organizational structure of the Administration relating to the project development and engineering activities of the Administration.

(B) ASSISTANT DEPUTY ADMINISTRATOR.—The head of the Office of Policy, Research, and Development shall be an Assistant Deputy Administrator for Policy, Research, and Development, to be appointed by the Administrator.

(C) POWERS.—In establishing the organizational structure under subparagraph (A), the Office of Policy, Research, and Development may—

(i) incorporate a flat organizational structure comprised of project-based teams;

(ii) focus on accelerating the development of energy-efficient technologies during the period from fundamental research to implementation;

(iii) coordinate with the private sector; and

(iv) adopt organizational models used by other Federal agencies conducting advanced research.

(4) OFFICE OF VENTURE CAPITAL.—

(A) ESTABLISHMENT.—There is established in the Administration an Office of Venture Capital.

(B) ASSISTANT DEPUTY ADMINISTRATOR.—The head of the Office of Venture Capital shall be an Assistant Deputy Administrator for Venture Capital, to be appointed by the Administrator.

(C) DUTIES.—The Office of Venture Capital shall—

(i) accept applications from companies requesting financial assistance for energy-efficient technology proposals;

(ii) accept recommendations and input from the Deputy Administrator and the Policy Advisory Committee on applications submitted under clause (i); and

(iii) from among the applications submitted under clause (i), award financial assistance to applicants to carry out the proposals that are most likely to improve energy efficiency.

(g) INITIAL TECHNOLOGY SOLICITATIONS.—

(1) IN GENERAL.—The Administrator may, based on the criteria described in paragraph (2), initiate the development of technologies for—

(A) fuel-efficient tires;

(B) construction of a hydrogen infrastructure;

(C) high-temperature superconducting cable;

(D) improved switches, resistors, capacitors, software and smart meters for electrical transmission systems;

(E) combined heat and power;

(F) micro turbines;

(G) fuel cells;

(H) energy-efficient lighting;

(I) energy efficiency training for building contractors;

(J) retrofitting or rehabilitation of existing structures to incorporate energy-efficient technologies; and

(K) efficient micro-channel heat exchangers.

(2) CRITERIA.—In determining which technologies to develop under paragraph (1), the Administrator shall consider—

(A) the current status of development of the technology;

(B) the potential for widespread use of the technology in commercial markets;

(C) the time and costs of efforts needed to bring the technology to full implementation; and

(D) the potential of the technology to contribute to the goals of the Administration.

(3) REPORT.—As soon as practicable after the date of enactment of this Act, but not later than 1 year after the date of enactment of this Act, the Administrator shall submit to Congress a report that—

(A) assesses the potential for the technologies described in paragraph (1) to contribute to the goals of the Administration; and

(B) describes the plans of the Administration to develop the technologies under paragraph (1).

(h) REPORTS.—

(1) BY THE ADMINISTRATOR.—Semiannually and at such other times as the Administrator considers appropriate, the Administrator shall submit to the President a report that describes the activities and accomplishments of the Administration.

(2) BY THE PRESIDENT.—In January of each year, the President shall submit to Congress a report that includes—

(A) a description of the activities and accomplishments of all agencies of the United States in the field of energy efficiency during the preceding calendar year;

(B) an evaluation of the activities and accomplishments of the Administrator in attaining the objectives of this section; and

(C) such recommendations for additional legislation as the Administrator or the President considers appropriate for the attainment of the objectives described in this section.

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

(1) $5,000,000,000 for fiscal year 2006;

(2) $6,000,000,000 for fiscal year 2007;

(3) $7,500,000,000 for each of fiscal years 2008 and 2009;

(4) $9,000,000,000 for each of fiscal years 2010 and 2010; and

(5) $10,000,000,000 for each of fiscal years 2011 through 2016.

SA 810. Mr. SCHUMER submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

Beginning on page 395, strike line 3 and all that follows through page 401, line 25.

SA 811. Mr. SCHUMER (for himself, Ms. CANTWELL, and Mr. LAUTENBERG) submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 120, between lines 20 and 21, insert the following:

SEC. 142. MOTOR VEHICLE TIRES SUPPORTING MAXIMUM FUEL EFFICIENCY.

(a) STANDARDS FOR TIRES MANUFACTURED FOR INTERSTATE COMMERCE.—Section 30123 of title 49, United States Code, is amended—

(1) in subsection (b), by inserting after the first sentence the following: ''The grading system shall include standards for rating the fuel efficiency of tires designed for use on passenger cars and light trucks.''; and

(2) by adding at the end the following:

''(d) NATIONAL TIRE FUEL EFFICIENCY PROGRAM.—(1) The Secretary shall develop and carry out a national tire fuel efficiency program for tires designed for use on passenger cars and light trucks.

''(2) The program shall include the following:

''(A) Policies and procedures for testing and labeling tires for fuel economy to enable tire buyers to make informed purchasing decisions about the fuel economy of tires.

''(B) Policies and procedures to promote the purchase of energy-efficient replacement tires, including purchase incentives, website listings on the Internet, printed fuel economy guide booklets, and mandatory requirements for tire retailers to provide tire buyers with fuel-efficiency information on tires.

''(C) Minimum fuel economy standards for tires, promulgated by the Secretary.

''(3) The minimum fuel economy standards for tires shall—

''(A) ensure that the average fuel economy of replacement tires is equal to or better than the average fuel economy of tires sold as original equipment;

''(B) secure the maximum technically feasible and cost-effective fuel savings;

''(C) not adversely affect tire safety;

''(D) not adversely affect the average tire life of replacement tires;

''(E) incorporate the results from—

''(i) laboratory testing; and

''(ii) to the extent appropriate and available, on-road fleet testing programs conducted by the manufacturers; and

''(F) not adversely affect efforts to manage scrap tires.

''(4) The policies, procedures, and standards developed under paragraph (2) shall apply to all types and models of tires that are covered by the uniform tire quality grading standards under section 575.104 of title 49, Code of Federal Regulations (or any successor regulation).

''(5) Not less often than every three years, the Secretary shall review the minimum fuel economy standards in effect for tires under this subsection and revise the standards as necessary to ensure compliance with requirements under paragraph (3). The Secretary may not, however, reduce the average fuel economy standards applicable to replacement tires.

''(6) Nothing in this chapter shall be construed to preempt any provision of State law relating to higher fuel economy standards applicable to replacement tires designed for use on passenger cars and light trucks.

''(7) Nothing in this chapter shall apply to—

''(A) a tire or group of tires with the same SKU, plant, and year, for which the volume of tires produced or imported is less than 15,000 annually;

''(B) a deep tread, winter-type snow tire, space-saver tire, or temporary use spare tire;

''(C) a tire with a normal rim diameter of 12 inches or less;

''(D) a motorcycle tire; or

''(E) a tire manufactured specifically for use in an off-road motorized recreational vehicle.

''(8) In this subsection, the term 'fuel economy', with respect to tires, means the extent to which the tires contribute to the fuel economy of the motor vehicles on which the tires are mounted.

(b) CONFORMING AMENDMENT.—Section 30103(b) of title 49, United States Code, is amended in paragraph (1) by striking ''When'' and inserting ''Except as provided in section 30123(d) of this title, when''.

(c) TIME FOR IMPLEMENTATION.—The Secretary of Transportation shall ensure that the national tire fuel efficiency program required under subsection (d) of section 30123 of title 49, United States Code (as added by subsection (a)(2)), is administered so as to apply the policies, procedures, and standards developed under paragraph (2) of such subsection (d) beginning not later than March 31, 2008.

SA 812. Mr. SCHUMER submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 755, after line 25, add the following:

SEC. 1329. CONSOLIDATION OF GASOLINE INDUSTRY.

(a) IN GENERAL.—The Comptroller General of the United States shall conduct a study of the consolidation of the refiners, importers, producers, and wholesalers of gasoline with the sellers of the gasoline at retail.

(b) CONTENTS.—The study conducted under subsection (a) shall include an analysis of the impact of the consolidation on—

(1) the retail price of gasoline;

(2) small business ownership;

(3) other corollary effects on the market economy of fuel distribution;

(4) local communities; and

(5) other market impacts of the consolidation.

(c) SUBMISSION TO CONGRESS.—Not later than 1 year after the date of enactment of this Act, the Comptroller General shall submit to Congress the study conducted under subsection (a).

SA 813. Mr. SCHUMER submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 296, after line 25, add the following:

SEC. 347. FINGER LAKES NATIONAL FOREST WITHDRAWAL.

All Federal land within the boundary of Finger Lakes National Forest in the State of New York is withdrawn from—

(1) all forms of entry, appropriation, or disposal under the public land laws; and

(2) disposition under all laws relating to oil and gas leasing.

SA 814. Mr. BYRD submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

At the end of title XV (as agreed to) add the following:

Subtitle G—High Gas Price Relief

PART I—RELIEF FOR RURAL COMMUTERS

SEC. 1581. EXCLUSION FOR CERTAIN FUEL COSTS OF RURAL COMMUTERS.

(a) IN GENERAL.—Section 132(f)(1) (defining qualified transportation fringe) is amended by adding at the end the following new subparagraph:

''(D) In the case of an eligible rural commuter, the cost of fuel for a highway vehicle of the taxpayer the primary purpose of which is to travel between the taxpayer's residence and place of employment.''.

(b) LIMITATION ON EXCLUSION.—Section 132(f)(2) (relating to limitation on exclusion) is amended by striking ''and'' at the end of subparagraph (A), by striking the period at the end of subparagraph (B) and inserting '', and'', and by adding at the end the following new subparagraph:

''(C) $50 per month in the case of the benefit described in subparagraph (D).''.

(c) ELIGIBLE RURAL COMMUTER.—Section 132(f)(5) (relating to definitions) is amended by adding at the end the following new subparagraph:

''(F) ELIGIBLE RURAL COMMUTER.—The term 'eligible rural commuter' means any employee—

''(i) who resides in a rural area (as defined by the Bureau of the Census),

''(ii) who works in an area which is not accessible by a transit system designed primarily to provide daily work trips within a local commuting area, and

''(iii) who is not be eligible to claim any qualified transportation fringe described in subparagraph (A) or (B) of paragraph (1).''.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to expenses incurred on and after the date of the enactment of this Act and before January 1, 2006.

PART II—ECONOMIC SUBSTANCE DOCTRINE

SEC. 1582. CLARIFICATION OF ECONOMIC SUBSTANCE DOCTRINE.

(a) IN GENERAL.—Section 7701 is amended by redesignating subsection (o) as subsection (p) and by inserting after subsection (n) the following new subsection:

''(o) CLARIFICATION OF ECONOMIC SUBSTANCE DOCTRINE; ETC.—

''(1) GENERAL RULES.—

''(A) IN GENERAL.—In any case in which a court determines that the economic substance doctrine is relevant for purposes of this title to a transaction (or series of transactions), such transaction (or series of transactions) shall have economic substance only if the requirements of this paragraph are met.

''(B) DEFINITION OF ECONOMIC SUBSTANCE.—For purposes of subparagraph (A)—

''(i) IN GENERAL.—A transaction has economic substance only if—

''(I) the transaction changes in a meaningful way (apart from Federal tax effects) the taxpayer's economic position, and

''(II) the taxpayer has a substantial nontax purpose for entering into such transaction and the transaction is a reasonable means of accomplishing such purpose.

In applying subclause (II), a purpose of achieving a financial accounting benefit shall not be taken into account in determining whether a transaction has a substantial nontax purpose if the origin of such financial accounting benefit is a reduction of income tax.

''(ii) SPECIAL RULE WHERE TAXPAYER RELIES ON PROFIT POTENTIAL.—A transaction shall not be treated as having economic substance by reason of having a potential for profit unless—

''(I) the present value of the reasonably expected pre-tax profit from the transaction is substantial in relation to the present value of the expected net tax benefits that would be allowed if the transaction were respected, and

''(II) the reasonably expected pre-tax profit from the transaction exceeds a risk-free rate of return.

''(C) TREATMENT OF FEES AND FOREIGN TAXES.—Fees and other transaction expenses and foreign taxes shall be taken into account as expenses in determining pre-tax profit under subparagraph (B)(ii).

''(2) SPECIAL RULES FOR TRANSACTIONS WITH TAX-INDIFFERENT PARTIES.—

''(A) SPECIAL RULES FOR FINANCING TRANSACTIONS.—The form of a transaction which is in substance the borrowing of money or the acquisition of financial capital directly or indirectly from a tax-indifferent party shall not be respected if the present value of the deductions to be claimed with respect to the transaction is substantially in excess of the present value of the anticipated economic returns of the person lending the money or providing the financial capital. A public offering shall be treated as a borrowing, or an acquisition of financial capital, from a tax-indifferent party if it is reasonably expected that at least 50 percent of the offering will be placed with tax-indifferent parties.

''(B) ARTIFICIAL INCOME SHIFTING AND BASIS ADJUSTMENTS.—The form of a transaction with a tax-indifferent party shall not be respected if—

''(i) it results in an allocation of income or gain to the tax-indifferent party in excess of such party's economic income or gain, or

''(ii) it results in a basis adjustment or shifting of basis on account of overstating the income or gain of the tax-indifferent party.

''(3) DEFINITIONS AND SPECIAL RULES.—For purposes of this subsection—

''(A) ECONOMIC SUBSTANCE DOCTRINE.—The term 'economic substance doctrine' means the common law doctrine under which tax benefits under subtitle A with respect to a transaction are not allowable if the transaction does not have economic substance or lacks a business purpose.

''(B) TAX-INDIFFERENT PARTY.—The term 'tax-indifferent party' means any person or entity not subject to tax imposed by subtitle A. A person shall be treated as a tax-indifferent party with respect to a transaction if the items taken into account with respect to the transaction have no substantial impact on such person's liability under subtitle A.

''(C) EXCEPTION FOR PERSONAL TRANSACTIONS OF INDIVIDUALS.—In the case of an individual, this subsection shall apply only to transactions entered into in connection with a trade or business or an activity engaged in for the production of income.

''(D) TREATMENT OF LESSORS.—In applying paragraph (1)(B)(ii) to the lessor of tangible property subject to a lease—

''(i) the expected net tax benefits with respect to the leased property shall not include the benefits of—

''(I) depreciation,

''(II) any tax credit, or

''(III) any other deduction as provided in guidance by the Secretary, and

''(ii) subclause (II) of paragraph (1)(B)(ii) shall be disregarded in determining whether any of such benefits are allowable.

''(4) OTHER COMMON LAW DOCTRINES NOT AFFECTED.—Except as specifically provided in this subsection, the provisions of this subsection shall not be construed as altering or supplanting any other rule of law, and the requirements of this subsection shall be construed as being in addition to any such other rule of law.

''(5) REGULATIONS.—The Secretary shall prescribe such regulations as may be necessary or appropriate to carry out the purposes of this subsection. Such regulations may include exemptions from the application of this subsection.''.

(b) EFFECTIVE DATE.—The amendments made by this section shall apply to transactions entered into after the date of the enactment of this Act.

SEC. 1583. PENALTY FOR UNDERSTATEMENTS ATTRIBUTABLE TO TRANSACTIONS LACKING ECONOMIC SUBSTANCE, ETC.

(a) IN GENERAL.—Subchapter A of chapter 68 is amended by inserting after section 6662A the following new section:

''SEC. 6662B. PENALTY FOR UNDERSTATEMENTS ATTRIBUTABLE TO TRANSACTIONS LACKING ECONOMIC SUBSTANCE, ETC.

''(a) IMPOSITION OF PENALTY.—If a taxpayer has an noneconomic substance transaction understatement for any taxable year, there shall be added to the tax an amount equal to 40 percent of the amount of such understatement.

''(b) REDUCTION OF PENALTY FOR DISCLOSED TRANSACTIONS.—Subsection (a) shall be applied by substituting '20 percent' for '40 percent' with respect to the portion of any noneconomic substance transaction understatement with respect to which the relevant facts affecting the tax treatment of the item are adequately disclosed in the return or a statement attached to the return.

''(c) NONECONOMIC SUBSTANCE TRANSACTION UNDERSTATEMENT.—For purposes of this section—

''(1) IN GENERAL.—The term 'noneconomic substance transaction understatement'

means any amount which would be an understatement under section 6662A(b)(1) if section 6662A were applied by taking into account items attributable to noneconomic substance transactions rather than items to which section 6662A would apply without regard to this paragraph.

''(2) NONECONOMIC SUBSTANCE TRANSACTION.—The term 'noneconomic substance transaction' means any transaction if—

''(A) there is a lack of economic substance (within the meaning of section 7701(o)(1)) for the transaction giving rise to the claimed benefit or the transaction was not respected under section 7701(o)(2), or

''(B) the transaction fails to meet the requirements of any similar rule of law.

''(d) RULES APPLICABLE TO COMPROMISE OF PENALTY.—

''(1) IN GENERAL.—If the 1st letter of proposed deficiency which allows the taxpayer an opportunity for administrative review in the Internal Revenue Service Office of Appeals has been sent with respect to a penalty to which this section applies, only the Commissioner of Internal Revenue may compromise all or any portion of such penalty.

''(2) APPLICABLE RULES.—The rules of paragraphs (2) and (3) of section 6707A(d) shall apply for purposes of paragraph (1).

''(e) COORDINATION WITH OTHER PENALTIES.—Except as otherwise provided in this part, the penalty imposed by this section shall be in addition to any other penalty imposed by this title.

''(f) CROSS REFERENCES.—

''(1) For coordination of penalty with understatements under section 6662 and other special rules, see section 6662A(e).

''(2) For reporting of penalty imposed under this section to the Securities and Exchange Commission, see section 6707A(e).''.

(b) COORDINATION WITH OTHER UNDERSTATEMENTS AND PENALTIES.—

(1) The second sentence of section 6662(d)(2)(A) is amended by inserting ''and without regard to items with respect to which a penalty is imposed by section 6662B'' before the period at the end.

(2) Subsection (e) of section 6662A is amended—

(A) in paragraph (1), by inserting ''and noneconomic substance transaction understatements'' after ''reportable transaction understatements'' both places it appears,

(B) in paragraph (2)(A), by inserting ''and a noneconomic substance transaction understatement'' after ''reportable transaction understatement'',

(C) in paragraph (2)(B), by inserting ''6662B or'' before ''6663'',

(D) in paragraph (2)(C)(i), by inserting ''or section 6662B'' before the period at the end,

(E) in paragraph (2)(C)(ii), by inserting ''and section 6662B'' after ''This section'',

(F) in paragraph (3), by inserting ''or noneconomic substance transaction understatement'' after ''reportable transaction understatement'', and

(G) by adding at the end the following new paragraph:

''(4) NONECONOMIC SUBSTANCE TRANSACTION UNDERSTATEMENT.—For purposes of this subsection, the term 'noneconomic substance transaction understatement' has the meaning given such term by section 6662B(c).''.

(3) Subsection (e) of section 6707A is amended—

(A) by striking ''or'' at the end of subparagraph (B), and

(B) by striking subparagraph (C) and inserting the following new subparagraphs:

''(C) is required to pay a penalty under section 6662B with respect to any noneconomic substance transaction, or

''(D) is required to pay a penalty under section 6662(h) with respect to any transaction and would (but for section 6662A(e)(2)(C)) have been subject to penalty under section 6662A at a rate prescribed under section 6662A(c) or under section 6662B,''.

(c) CLERICAL AMENDMENT.—The table of sections for part II of subchapter A of chapter 68 is amended by inserting after the item relating to section 6662A the following new item:

''Sec. 6662B. Penalty for understatements attributable to transactions lacking economic substance, etc.''.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to transactions entered into after the date of the enactment of this Act.

SEC. 1584. DENIAL OF DEDUCTION FOR INTEREST ON UNDERPAYMENTS ATTRIBUTABLE TO NONECONOMIC SUBSTANCE TRANSACTIONS.

(a) IN GENERAL.—Section 163(m) (relating to interest on unpaid taxes attributable to nondisclosed reportable transactions) is amended—

(1) by striking ''attributable'' and all that follows and inserting the following: ''attributable to—

''(1) the portion of any reportable transaction understatement (as defined in section 6662A(b)) with respect to which the requirement of section 6664(d)(2)(A) is not met, or

''(2) any noneconomic substance transaction understatement (as defined in section 6662B(c)).'', and

(2) by inserting ''AND NONECONOMIC SUBSTANCE TRANSACTIONS'' in the heading thereof after ''TRANSACTIONS''.

(b) EFFECTIVE DATE.—The amendments made by this section shall apply to transactions after the date of the enactment of this Act in taxable years ending after such date.

SA 815. Mr. CORZINE submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 768, after line 20, add the following:

TITLE XV—ENERGY AND CLIMATE CHANGE

SECTION 1501. SHORT TITLE

This title may be cited as the ''Energy and Climate Change Act of 2005''.

Subtitle A—National Strategy

SEC. 1511. DEFINITIONS.

In this subtitle:

(1) CLIMATE-FRIENDLY ENERGY TECHNOLOGY.—The term ''climate-friendly energy technology'' means any energy supply, transmission, or end-use technology that, over the life of the technology and compared to similar technology in commercial use—

(A) results in reduced emissions of greenhouse gases or increased sequestration of greenhouse gases; and

(B) may—

(i) substantially lower emissions of other pollutants; or

(ii) generate substantially smaller or less hazardous quantities of solid or liquid waste.

(2) DIRECTOR.—The term ''Director'' means the Director of Climate Change Policy appointed under section 1513(a).

(3) GREENHOUSE GAS.—The term ''greenhouse gas'' means—

(A) carbon dioxide;

(B) methane;

(C) nitrous oxide;

(D) hydrofluorocarbons;

(E) perflurorocarbons; and

(F) sulfur hexafluoride.

(4) INTERAGENCY TASK FORCE.—The term ''Interagency Task Force'' means the Interagency Task Force on Climate Change Policy established under section 1514(a).

(5) STABILIZATION OF GREENHOUSE GAS CONCENTRATIONS.—The term ''stabilization of greenhouse gas concentrations'' means the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, recognizing that such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner, as contemplated by the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992.

(6) STRATEGY.—The term ''Strategy'' means the national climate change strategy developed or updated under section 1512.

SEC. 1512. NATIONAL CLIMATE CHANGE STRATEGY.

(a) IN GENERAL.—

(1) DEVELOPMENT.—The President, acting through the Interagency Task Force and the Director and in consultation with Congress, shall develop a National Climate Change Strategy.

(2) ACTIONS.—The Strategy shall describe appropriate actions by the United States that, in conjunction with actions by other nations—

(A) will lead to the long-term stabilization of greenhouse gas concentrations;

(B) are consistent with the relevant treaty obligations of the United States; and

(C) are carried out in a manner that supports the long-term economic growth of the United States.

(3) TIMING.—The Strategy shall reflect the fact that the stabilization of greenhouse gas concentrations will take from many decades to more than a century to accomplish, but that significant actions by current and prospective major emitters of greenhouse gases must begin in the near term.

(b) ELEMENTS.—The Strategy shall be comprised of—

(1) interim greenhouse gas emission goals and specific near-term and medium-term programs and actions to meet the goals, developed on the basis of a broad range of emission scenarios (including scenarios evaluated by the Intergovernmental Panel on Climate Change) and taking into account the need for actions by other nations;

(2) expanded climate-related technology research, development, demonstration, and commercial application activities, including—

(A) a national commitment to double research and development on climate-friendly energy technologies by public and private sectors in the United States; and

(B) domestic and international demonstration and deployment programs that employ bold, breakthrough technologies (including climate-friendly energy technologies) that will make possible a profound transformation of the energy, transportation, industrial, agricultural, and building sectors of the United States;

(3) climate adaptation research that—

(A) assesses the sensitivity, adaptive capacity, and vulnerability of natural and human systems to natural climate variability, climate change, and the potential impacts of the variability and climate change; and

(B) identifies potential strategies and actions that can reduce vulnerability to natural climate variability and climate change and damage resulting from impacts of climate change; and

(4) climate science research that—

(A) continually builds on existing scientific understanding of the climate system; and

(B) focuses on resolving the remaining scientific, technical, and economic uncertainties with respect to the causes of, impacts from, and potential responses to climate change.

(c) REPORT.—Not later than 2 years after the date of enactment of this Act, the President, acting through the Interagency Task Force and the Director, shall submit to Congress a report that includes—

(1) a description of the Strategy and the goals of the Strategy, including the manner in which the Strategy addresses each of the elements outlined in subsection (b);

(2) an inventory and evaluation of Federal and non-Federal programs and activities intended to carry out the Strategy;

(3) a description of the manner in which the Strategy will serve as a framework for climate change response actions by all Federal agencies, including a description of coordination mechanisms and interagency activities;

(4) a description of the manner in which the Strategy is consistent with other energy, transportation, industrial, agricultural, forestry, environmental, economic, and other relevant policies of the United States;

(5) a description of the manner in which the Strategy—

(A) does not result in serious harm to the economy of the United States;

(B) uses market-oriented mechanisms; and

(C) minimizes any adverse short-term and long-term social, economic, national security, and environmental impacts;

(6) a description of the manner in which changes in energy supply (including a full range of energy sources and technologies) could reduce greenhouse gas emissions;

(7) a description of the manner in which changes in energy end-use (including demand-side management) could reduce greenhouse gas emissions;

(8) a description of the manner in which the Strategy will minimize potential risks associated with climate change to public health and safety, private property, public infrastructure, biological diversity, ecosystems, and domestic food supply and commodities, while not diminishing the quality of life in the United States;

(9) a description of the manner in which the Strategy was developed with participation by, and consultation among, Federal, State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other interested parties;

(10) a description of Federal activities that promote, to the maximum extent practicable, public awareness, outreach, and information-sharing to further the understanding of the full range of climate change-related issues; and

(11) recommendations for legislative or administrative changes to Federal programs or activities implemented to carry out the Strategy, in light of new knowledge of climate change and the impacts and costs or benefits of climate change, or technological capacity to improve mitigation or adaptation activities.

(d) UPDATE.—Not later than 4 years after the date of submission of the initial report on the Strategy developed pursuant to this section, and at the end of each 4-year period thereafter, the President shall submit to Congress an updated version of the Strategy, along with an updated report under subsection (c).

(e) NATIONAL ACADEMY OF SCIENCES REVIEW.—

(1) IN GENERAL.—Not later than 90 days after the date of publication of the Strategy under subsection (c) and each update under subsection (d), the Director of the National Science Foundation, on behalf of the Director and the Interagency Task Force, shall enter into appropriate arrangements with the National Academy of Sciences to conduct a review of the Strategy or update.

(2) CRITERIA.—The review by the National Academy of Sciences shall evaluate the goals and recommendations contained in the Strategy or update, taking into consideration—

(A) the adequacy of effort and the appropriateness of focus of the totality of all public, private, and public-private sector actions of the United States with respect to the Strategy;

(B) the adequacy of the budget and the effectiveness with which each participating Federal agency is carrying out the responsibilities of the Federal agency;

(C) current scientific knowledge regarding climate change and the impacts of climate change;

(D) current understanding of human social and economic responses to climate change, and responses of natural ecosystems to climate change;

(E) advancements in energy technologies that reduce, avoid, or sequester greenhouse gases or otherwise mitigate the risks of climate change;

(F) current understanding of economic costs and benefits of mitigation or adaptation activities;

(G) the existence of alternative policy options that could achieve the Strategy goals at lower economic, environmental, or social cost; and

(H) international activities and the actions taken by the United States and other nations to achieve the long-term goals of the Strategy.

(3) REPORT.—

(A) IN GENERAL.—Not later than 1 year after the date of the submission to Congress of the Strategy or update, as appropriate, the National Academy of Sciences shall prepare and submit to Congress and the President a report concerning the results of the review of the National Academy of Sciences, along with any recommendations, as appropriate.

(B) AVAILABILITY TO PUBLIC.—The report under subparagraph (A) shall be made available to the public.

(f) SAVINGS PROVISION.—Nothing in this section creates a new legal obligation for any person or other entity (except for prescribing duties in connection with the development, updating, and review of the Strategy).

(g) CONFORMING AMENDMENT.—Section 1103(b) of the Global Climate Protection Act of 1987 (15 U.S.C. 2901 note; Public Law 100–204) is amended by inserting '', the Department of Energy, and other Federal agencies as appropriate'' after ''Environmental Protection Agency''.

SEC. 1513. DIRECTOR OF CLIMATE CHANGE POLICY.

(a) APPOINTMENT.—The President shall appoint a qualified individual within the Executive Office of the President, by and with the advice and consent of the Senate, to serve as the Director of Climate Change Policy.

(b) DUTIES.—The Director shall carry out climate change policy activities and shall—

(1) coordinate the development and periodic update of the Strategy;

(2) facilitate the work of the Interagency Task Force and serve as the primary liaison between Federal agencies in developing and implementing the Strategy;

(3) coordinate the submission of Federal agency budget requests as needed to carry out interagency programs and policies necessary to meet the goals of the Strategy;

(4) advise the President concerning—

(A) necessary changes in organization, management, budgeting, and personnel allocation of Federal agencies involved in climate change activities;

(B) the extent to which existing or newly created tax, trade, or foreign policies and energy, transportation, industrial, agricultural, forestry, building, and other relevant sector programs are capable of achieving the Strategy individually or in combination; and

(C) the extent to which any proposed international treaties or components of treaties that have an influence on activities that affect greenhouse gas emissions are consistent with the Strategy;

(5) establish and maintain a process to ensure the participation of Federal, State, tribal, and local government agencies, nongovernmental organizations, academia, scientific bodies, industry, the public, and other interested parties in the formulation of climate change-related advice to be provided to the President; and

(6) promote public awareness, outreach, and information sharing to further the understanding of climate change-related issues.

(c) PERSONNEL.—

(1) IN GENERAL.—The Director may employ a professional staff of not more than 10 individuals to carry out the responsibilities and duties prescribed in this section.

(2) OTHER AGENCIES AND INSTITUTIONS.—In addition to the personnel employed under paragraph (1), the Director may obtain staff for a limited term from Federal agencies, State agencies, institutions of higher education, nonprofit institutions of a scientific or technical character, or a National Laboratory, pursuant to—

(A) section 3374 of title 5, United States Code;

(B) section 14(a)(2) of the National Science Foundation Act of 1950 (42 U.S.C. 1873(a)(2)); or

(C) section 301 of the Hydrogen Future Act of 1996 (42 U.S.C. 7238).

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Executive Office of the President for the Director to carry out the duties under this section $5,000,000 for each of fiscal years 2006 through 2015, to remain available until expended.

SEC. 1514. INTERAGENCY TASK FORCE ON CLIMATE CHANGE.

(a) IN GENERAL.—The President shall establish an Interagency Task Force on Climate Change to coordinate Federal climate change activities and programs carried out in furtherance of the Strategy.

(b) COMPOSITION.—The Interagency Task Force shall be composed of—

(1) the Director, who shall serve as Chairperson;

(2) the Secretary of State;

(3) the Secretary of Energy;

(4) the Secretary of Defense;

(5) the Secretary of Commerce;

(6) the Secretary of Transportation;

(7) the Secretary of Agriculture;

(8) the Secretary of the Interior;

(9) the Director of the National Science Foundation;

(10) the Administrator of the National Aeronautics and Space Administration;

(11) the Administrator of the Environmental Protection Agency;

(12) the Chairman of the Council of Economic Advisers;

(13) the Chairman of the Council on Environmental Quality;

(14) the Director of the Office of Science and Technology Policy;

(15) the Director of the Office of Management and Budget; and

(16) the heads of such other Federal agencies as the President considers to be appropriate.

(c) STRATEGY.—The Interagency Task Force shall serve as the primary forum through which the Federal agencies represented on the Interagency Task Force jointly advise the President on—

(1) the development and periodic update of the Strategy; and

(2) the implementation of interagency and agency programs to carry out activities in furtherance of the goals and objectives of the Strategy.

(d) WORKING GROUPS.—

(1) IN GENERAL.—The Director, in consultation with the members of the Interagency Task Force, may establish such topical working groups as may be necessary to carry out the duties of the Interagency Task Force in furtherance of the Strategy, taking into consideration the elements of the Strategy as outlined in this subtitle.

(2) COMPOSITION.—The working groups may be comprised of members of the Interagency Task Force or their designees.

(e) STAFF.—The Federal agencies represented on the Interagency Task Force may provide staff from the agencies to support information, data collection, and analyses required by the Interagency Task Force.

(f) HEARINGS.—On the request of the Director, the Interagency Task Force may hold such hearings, meet and act at such times and places, take such testimony, and receive such evidence as the Interagency Task Force considers to be appropriate.

SEC. 1515. ANNUAL REPORT.

In consultation with the Interagency Task Force and other interested parties, the Director shall prepare an annual report for submission by the President to Congress, along with the budget request under section 1105 of title 31, United States Code, that includes—

(1) a description of the Strategy and the goals of the Strategy;

(2) an inventory of Federal programs and activities intended to carry out the Strategy;

(3) an evaluation of Federal programs and activities implemented as part of the Strategy against the goals outlined in the Strategy;

(4) a description of changes to Federal programs or activities implemented to carry out the Strategy, in light of new knowledge of climate change and the impacts and costs or benefits of climate change, or technological capacity to improve mitigation or adaptation activities;

(5)(A) a description of all Federal spending on climate change for the current fiscal year and each of the 5 preceding fiscal years, categorized by Federal agency and program function (including scientific research, energy research and development, international conservation and technology transfer, regulation, education, and other activities); and

(B) a recommendation for Federal spending on climate change for the next fiscal year;

(6) an estimate of the budgetary impact for the current fiscal year and each of the 5 preceding fiscal years of any Federal tax credits, tax deductions, or other incentives claimed by taxpayers that are attributable to greenhouse gas emission reduction activities;

(7) an estimate of the quantity, in metric tons, of greenhouse gas emissions reduced, avoided, or sequestered as a result of the implementation of the Strategy; and

(8) recommendations for legislative or administrative actions or adjustments that will accelerate progress towards meeting the goals contained in the Strategy or improve the efficiency and effectiveness of Federal programs that are part of the Strategy.

SEC. 1516. INTEGRATION WITH OFFICE OF SCIENCE AND TECHNOLOGY POLICY.

(a) PRIORITY GOALS.—Section 101(b) of the National Science and Technology Policy, Organization, and Practices Act of 1976 (42 U.S.C. 6601(b)) is amended—

(1) by redesignating paragraphs (7) through (13) as paragraphs (8) through (14), respectively; and

(2) by inserting after paragraph (6) the following:

''(7) improving efforts to understand, assess, predict, mitigate, and respond to global climate change;''.

(b) FUNCTIONS OF THE DIRECTOR.—Section 204(b)(1) of the National Science and Technology Policy, Organization, and Practices Act of 1976 (42 U.S.C. 6613(b)(1)) is amended by striking '', but not limited to,'' and inserting ''global climate change,''.

(c) ADDITIONAL FUNCTIONS OF DIRECTOR.—Section 207 of the National Science and Technology Policy, Organization, and Practices Act of 1976 (42 U.S.C. 6616) is amended—

(1) by redesignating subsections (a), (b), and (c) as subsections (b), (c), and (d), respectively; and

(2) by inserting before subsection (b) (as so redesignated) the following:

''(a) ADVICE TO DIRECTOR OF CLIMATE CHANGE POLICY.—In carrying out this Act, the Director shall advise the Director of Climate Change Policy on matters concerning science and technology as the matters relate to global climate change.''.

Subtitle B—Technology Programs

SEC. 1521. OFFICE OF CLIMATE CHANGE TECHNOLOGY.

(a) IN GENERAL.—Title II of the Department of Energy Organization Act (42 U.S.C. 7131 et seq.) (as amended by section 502(a)) is amended by adding at the end the following:

''OFFICE OF CLIMATE CHANGE TECHNOLOGY

''SEC. 218. (a) There shall be established within the Department an Office of Climate Change Technology to be headed by a Director, who shall—

''(1) be appointed in the Senior Executive Service; and

''(2) report to the Secretary in such manner as the Secretary may prescribe.

''(b) The Director shall be a person who, by reason of professional background and experience, is specially qualified to coordinate climate change policy and technical activities.

''(c) The Director shall—

''(1) promote and coordinate issues, policies, and activities within the Department related to climate change and coordinate the issuance of such reports relating to climate change as may be required by law;

''(2) lead the formulation and periodic revision of a comprehensive strategy of the Department for energy research, development, demonstration, and commercial application to implement national climate change strategy, including quantitative performance and deployment goals for energy technologies that reduce, avoid, or sequester emissions of greenhouse gases;

''(3) analyze the research, development, demonstration, and commercial application activities of the Department to assess the contribution of the activities to the strategy under paragraph (2) and make recommendations to the appropriate officers of the Department;

''(4) facilitate, in cooperation with appropriate programs of the Department, the development of domestic and international cooperative research and development agreements (as that term is defined in section 12(d) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a(d))), or similar cooperative, cost-shared partnerships with non-Federal organizations to accelerate the rate of domestic and international demonstration and deployment of energy technologies that reduce, avoid, or sequester emissions of greenhouse gases;

''(5) participate in the planning activities of relevant Department programs;

''(6) participate in the development and assessment of domestic and international policies in order to determine and report on the effects of the policies on the generation, reduction, avoidance, and sequestration of greenhouse gases from activities related to the production and use of energy;

''(7) help develop national climate change strategy by—

''(A) fostering the development of tools, data, and capabilities to ensure that the United States has a robust capability for evaluating alternative climate change response scenarios and that the Office can provide long-term analytical continuity on climate change issues; and

''(B) providing technical support, on request, to the President, interagency groups, or other Federal agencies;

''(8) carry out programs to raise public awareness of climate change, the relationship of climate change to energy production and use, and means by which to mitigate human-induced climate change through changes in energy production or use;

''(9) at the direction of the Secretary or another appropriate officer of the Department, serve as the representative of the Department for interagency and multilateral policy discussions relating to global climate change, including the activities of—

''(A) the Committee on Earth and Environmental Sciences established by section 102 of the Global Change Research Act of 1990 (15 U.S.C. 2932) and any successor committee; and

''(B) other interagency committees coordinating policies or activities relating to global climate change; and

''(10) in accordance with law administered by the Secretary and other applicable Federal law and contracts (including patent and intellectual property laws) and in furtherance of the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992—

''(A) identify for, and transfer, deploy, diffuse, and apply to, parties to the Convention (including the United States) any technologies, practices, or processes that reduce, avoid, or sequester emissions of greenhouse gases if the technologies, practices, or processes have been developed with funding from the Department or any of the facilities or laboratories of the Department; and

''(B) support reasonable efforts by the parties to the Convention (including the United States) to identify and remove legal, trade, financial, and other barriers to the use and application of any technologies, practices, or processes that reduce, avoid, or sequester emissions of greenhouse gases.''.

(b) CONFORMING AMENDMENTS.—

(1) Section 1603 of the Energy Policy Act of 1992 (42 U.S.C. 13383) is repealed.

(2) The table of contents for the Energy Policy Act of 1992 (42 U.S.C. prec. 13201) is amended by striking the item relating to section 1603.

(3) The table of contents for the Department of Energy Organization Act (42 U.S.C. prec. 7101) (as amended by section 502(b)(1)(B)) is amended by adding at the end of the items relating to title II the following:

''Sec. 217. Office of Climate Change Technology.''.

SEC. 1522. CLIMATE CHANGE AND CLEAN ENERGY TECHNOLOGY PROGRAMS.

(a) IN GENERAL.—Title XVI of the Energy Policy Act of 1992 (42 U.S.C. 13381 et seq.) is amended by adding at the end the following:

"SEC. 1610. CLIMATE CHANGE TECHNOLOGY PROGRAM.

''(a) ESTABLISHMENT.—There is established within the Office of Climate Change Technology of the Department a program to support accelerated research and development projects on energy technologies that—

''(1) have significant potential to—

''(A) reduce or avoid anthropogenic emissions of greenhouse gases;

''(B) remove and sequester greenhouse gases from emission streams; or

''(C) remove and sequester greenhouse gases from the atmosphere;

''(2) are not being addressed significantly by other Department programs;

''(3) would represent a substantial advance beyond currently available technology; and

''(4) are not expected to be applied commercially before 2020.

''(b) PROGRAM PLAN.—

''(1) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Secretary shall prepare and submit to Congress a 10-year program plan to guide activities to be carried out under this section.

''(2) UPDATES.—After the initial preparation and submission of the plan, the Secretary shall biennially update and resubmit to Congress the program plan, including—

''(A) an evaluation of progress toward meeting the goals of the comprehensive strategy of the Department for energy research, development, demonstration, and commercial application to implement the National Climate Change Strategy;

''(B) an evaluation of the contributions of all energy technology programs of the Department to the National Climate Change Strategy; and

''(C) recommendations for actions by the Department and other Federal agencies to address the components of energy-related technology development that are necessary to support the National Climate Change Strategy.

''(c) PROPOSALS.—

''(1) IN GENERAL.—A proposal may be submitted by an applicant or consortium of 1 or more—

''(A) industrial entities;

''(B) institutions of higher education (as that term is defined in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a))); or

''(C) National Laboratories.

''(2) MINIMUM REQUIREMENTS.—At a minimum, each proposal shall include—

''(A) a multiyear management plan that outlines the manner in which the proposed research, development, demonstration, and deployment activities will be carried out;

''(B) quantitative technology goals and greenhouse gas emission reduction targets that can be used to measure performance against program objectives;

''(C) the total cost of the proposal for each year for which funding is requested, and a breakdown of those costs by category;

''(D) evidence that the applicant has in existence or has access to—

''(i) the technical capability to enable the applicant to make use of existing research support and facilities in carrying out the objectives of the proposal;

''(ii) a multidisciplinary research staff experienced in technologies or practices able to sequester, avoid, or capture greenhouse gas emissions;

''(iii) access to facilities and equipment to enable the conduct of laboratory-scale testing or demonstration of technologies or related processes undertaken through the program; and

''(iv) a commitment for matching funds and other resources as may be needed from non-Federal sources, including cash, equipment, services, materials, appropriate technology transfer activities, and other assets directly related to the cost of the proposal;

''(E) evidence that the proposed activities are supplemental to, and not duplicative of, existing research and development activities carried out, funded, or otherwise supported by the Department;

''(F) a description of the technology transfer mechanisms and public-private partnerships that the applicant will use to make available research results to industry and to other researchers;

''(G) a statement whether the unique capabilities of a National Laboratory warrant collaboration with that Laboratory, and the extent of any such collaboration proposed; and

''(H) evidence of the ability of the applicant to undertake and complete the proposed project.

''(d) CENTERS.—

''(1) IN GENERAL.—The Secretary may fund 1 or more centers to improve—

''(A) methods of climate monitoring and prediction;

''(B) climate modeling; or

''(C) quality and dissemination of climate data from Department or other Federal climate change programs.

''(2) LOCATION.—In reviewing proposals for centers under competitive procedures, the Secretary shall seek to locate centers in regions that face significant climate-related ecosystem challenges.

''(e) PROCUREMENT AUTHORITIES.—The Office of Climate Change Technology may use any of the authorities available to the Department—

''(1) to solicit proposals for projects under this section; and

''(2) to encourage partnerships that will increase the likelihood of success of the projects.

''(f) RELATIONSHIP TO DEPARTMENT PROGRAMS.—Each project funded under this section shall be—

''(1) initiated only after consultation by the Office of Climate Change Technology with 1 or more appropriate offices in the Department that support research and development in areas relating to the project; and

''(2) either—

''(A) managed directly by the Office of Climate Change Technology; or

''(B) managed by the appropriate office (or by a cross-functional team from several offices) in the Department that supports research and development in areas related to the project, using funds transferred by the Office of Climate Change Technology.

''(g) COST SHARING.—

''(1) IN GENERAL.—Except as provided in paragraph (2), each project under subsection (a) shall be subject only to such cost-sharing requirements as the Office of Climate Change Technology may provide.

''(2) PUBLICATION.—Each cost-sharing agreement under this subsection shall be published in the Federal Register by the Office of Climate Change Technology.

''(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $40,000,000 for fiscal year 2006 and $400,000,000 for each of fiscal years 2007 through 2016, to remain available until expended.

"SEC. 1611. CLEAN ENERGY TECHNOLOGY EXPORTS PROGRAM.

''(a) DEFINITIONS.—In this section:

''(1) CLEAN ENERGY TECHNOLOGY.—The term 'clean energy technology' means an energy supply or end-use technology that, over the life cycle of the technology and compared to a similar technology already in commercial use in any developing country or country with an economy in transition—

''(A) results in reduced emissions of greenhouse gases; and

''(B)(i) may substantially lower emissions of air pollutants; or

''(ii) may generate substantially smaller or less hazardous quantities of solid or liquid waste.

''(2) COUNTRY WITH AN ECONOMY IN TRANSITION.—The term 'country with an economy in transition' means a country listed in Annex I of the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992, with the notation that the country is 1 of the 'Countries that are undergoing the process of transition to a market economy.'.

''(3) DEVELOPING COUNTRY.—The term 'developing country' means any country not listed in Annex I of the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992.

''(4) INTERAGENCY WORKING GROUP.—The term 'interagency working group' means the Interagency Working Group on Clean Energy Technology Exports established under subsection (b).

''(b) INTERAGENCY WORKING GROUP.—

''(1) IN GENERAL.—Not later than 90 days after the date of enactment of this section, the Secretary, the Secretary of Commerce, and the Administrator of the United States Agency for International Development shall jointly establish a Interagency Working Group on Clean Energy Technology Exports.

''(2) COMPOSITION.—The interagency working group shall—

''(A) be jointly chaired by representatives appointed by the agency heads under paragraph (1); and

''(B) include representatives from—

''(i) the Department of State;

''(ii) the Department of the Treasury;

''(iii) the Environmental Protection Agency;

''(iv) the Export-Import Bank;

''(v) the Overseas Private Investment Corporation;

''(vi) the Trade and Development Agency; and

''(vii) other Federal agencies determined to be appropriate by all 3 agency heads under paragraph (1).

''(3) SUBSIDIARY WORKING GROUPS.—The interagency working group may establish such subsidiary working groups as are necessary to carry out this section.

''(4) PROGRAM.—The interagency working group shall develop a program, consistent with the subsidy codes of the World Trade Organization, to open and expand energy markets and transfer clean energy technology to those developing countries and countries with an economy in transition that are expected to experience, over the next 20 years, the most significant growth in energy production and associated greenhouse gas emissions, including through technology transfer programs under the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992, other international agreements, and relevant Federal efforts.

''(5) DUTIES.—The interagency working group shall—

''(A) analyze technology, policy, and market opportunities for international development, demonstration, and deployment of clean energy technology;

''(B) investigate issues associated with—

''(i) building capacity to deploy clean energy technology in developing countries and countries with an economy in transition, including energy sector reform;

''(ii) creation of open, transparent, and competitive markets for clean energy technologies;

''(iii) availability of trained personnel to deploy and maintain the clean energy technology; and

''(iv) demonstration and cost-buydown mechanisms to promote first adoption of the technology;

''(C) examine relevant trade, tax, international, and other policy issues to assess what policies would help open markets and improve United States clean energy technology exports in support of—

''(i) enhancing energy innovation and cooperation, including energy sector and market reform, capacity building, and financing measures;

''(ii) improving energy end-use efficiency technologies, including buildings and facilities, vehicle, industrial, and cogeneration technology initiatives; and

''(iii) promoting energy supply technologies, including fossil, nuclear, and renewable technology initiatives;

''(D) establish an advisory committee involving the private sector and other interested groups on the export and deployment of clean energy technology;

''(E) establish a single coordinated mechanism for information dissemination to the private sector and the public on clean energy technologies and clean energy technology transfer opportunities;

''(F) monitor the progress of each agency represented in the interagency working group towards meeting goals in the 5-year strategic plan submitted to Congress pursuant to the Energy and Water Development Appropriations Act, 2001 (Public Law 106–377), and the Energy and Water Development Appropriations Act, 2002 (Public Law 107–66);

''(G) make recommendations to heads of appropriate Federal agencies on ways to streamline Federal programs and policies to improve the role of each agency in the international development, demonstration, and deployment of clean energy technology;

''(H) make assessments and recommendations regarding the distinct technological, market, regional, and stakeholder challenges necessary to carry out the program; and

''(I) recommend conditions and criteria that will help ensure that United States funds promote sound energy policies in participating countries while simultaneously opening the markets of the participating countries and exporting United States clean energy technology.

''(c) FEDERAL SUPPORT FOR CLEAN ENERGY TECHNOLOGY TRANSFER.—Notwithstanding any other provision of law, each Federal agency or Government corporation carrying out an assistance program in support of the activities of United States persons in the environment or energy sector of a developing country or country with an economy in transition shall support, to the maximum extent practicable, the transfer of United States clean energy technology as part of the program.

''(d) ANNUAL REPORT.—

''(1) IN GENERAL.—Not later than 1 year after the date of enactment of this section, and on March 31 of each year thereafter, the interagency working group shall submit to Congress a report on the activities of the interagency working group during the preceding calendar year.

''(2) CONTENT.—The report shall include—

''(A) a description of the technology, policy, and market opportunities for international development, demonstration, and deployment of clean energy technology investigated by the interagency working group in that year; and

''(B) any policy recommendations to improve the expansion of clean energy markets and United States clean energy technology exports.

''(e) REPORT ON USE OF FUNDS.—Not later than January 1, 2006, and each year thereafter, the Secretary of State, in consultation with other Federal agencies, shall submit to Congress a report describing the manner in which United States funds appropriated for clean energy technology exports and other relevant Federal programs are being directed in a manner that promotes sound energy policy commitments in developing countries and countries with economies in transition, including efforts pursuant to multilateral environmental agreements.

''(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the departments, agencies, and entities of the United States described in subsection (b) such sums as are necessary to support the transfer of clean energy technology as part of assistance programs carried out by those departments, agencies, and entities in support of activities of United States persons in the energy sector of a developing country or country with an economy in transition.

''SEC. 1612. INTERNATIONAL ENERGY TECHNOLOGY DEPLOYMENT PROGRAM.

''(a) DEFINITIONS.—In this section:

''(1) DEVELOPING COUNTRY.—The term 'developing country' means any country not listed in Annex I of the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992.

''(2) INSTITUTION OF HIGHER EDUCATION.—The term 'institution of higher education' has the same meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

''(3) INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term 'international energy deployment project' means a project—

''(A) to—

''(i) construct an energy production facility outside the United States for the production of energy to be consumed outside the United States; or

''(ii) improve the efficiency of energy use outside the United States, if the energy is also generated and consumed outside the United States; and

''(B) that, when deployed, results in a greenhouse gas reduction per unit of energy produced or used (when compared to the technology that would otherwise be deployed) of—

''(i) 20 percentage points or more, in the case of a unit or energy-efficiency measure placed in service before January 1, 2010;

''(ii) 40 percentage points or more, in the case of a unit or energy-efficiency measure placed in service after December 31, 2009, and before January 1, 2020; or

''(iii) 60 percentage points or more, in the case of a unit or energy-efficiency measure placed in service after December 31, 2019, and before January 1, 2030.

''(4) QUALIFYING INTERNATIONAL ENERGY DEPLOYMENT PROJECT.—The term 'qualifying international energy deployment project' means an international energy deployment project that—

''(A) is submitted by a United States firm to the Secretary in accordance with procedures established by the Secretary by regulation;

''(B) meets the criteria of section 1608(k), and uses technology that has been successfully developed or deployed in the United States;

''(C) is selected by the Secretary without regard to the country in which the project is located, with notice of the selection being published in the Federal Register; and

''(D) complies with such other terms and conditions as the Secretary establishes by regulation.

''(5) STATE.—The term 'State' means—

''(A) a State;

''(B) the District of Columbia;

''(C) the Commonwealth of Puerto Rico; and

''(D) any other territory or possession of the United States.

''(6) UNITED STATES.—The term 'United States', when used in a geographical sense, means all of the States.

''(b) PILOT PROGRAM FOR FINANCIAL ASSISTANCE.—

''(1) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Secretary shall, by regulation, provide for a pilot program that provides financial assistance for qualifying international energy deployment projects.

''(2) FINANCIAL ASSISTANCE.—

''(A) IN GENERAL.—For each qualifying international energy deployment project selected by the Secretary to participate in the pilot program, the Secretary shall make available a loan or loan guarantee for not more than 50 percent of the total cost of the project, to be repaid at an interest rate equal to the rate for Treasury obligations then issued for periods of comparable maturity.

''(B) DEVELOPED COUNTRIES.—A loan or loan guarantee made available for a project to be carried out in a country listed in Annex I of the United Nations Framework Convention on Climate Change, done at New York on May 9, 1992, shall require at least a 50 percent contribution towards the total cost of the loan or loan guarantee by the host country.

''(C) DEVELOPING COUNTRIES.—A loan or loan guarantee made for a project to be carried out in a developing country shall require at least a 10 percent contribution toward the total cost of the loan or loan guarantee by the host country.

''(D) CAPACITY BUILDING RESEARCH.—

''(i) IN GENERAL.—A proposal made for a project to be carried out in a developing country may include a research component intended to build technological capacity within the host country.

''(ii) RESEARCH.—The research shall—

''(I) be related to the technologies being deployed; and

''(II) involve both an institution in the host country and a participant from the United States that is either an industrial entity, an institution of higher education, or a National Laboratory.

''(iii) HOST INSTITUTION CONTRIBUTION.—The host institution shall contribute at least 50 percent of funds provided for the capacity-building research.

''(c) COORDINATION WITH OTHER PROGRAMS.—A qualifying international energy deployment project funded under this section shall not be eligible as a qualifying clean coal technology under section 415 of the Clean Air Act (42 U.S.C. 7651n).

''(d) REPORT AND RECOMMENDATION.—

''(1) REPORT.—Not later than 5 years after the date of enactment of this section, the Secretary shall submit to the President a report on the results of the pilot projects conducted under this section.

''(2) RECOMMENDATION.—Not later than 60 days after receiving the report, the President shall submit to Congress a recommendation, based on the results of the pilot projects as reported by the Secretary, concerning whether the financial assistance program under this section should be continued, expanded, reduced, or eliminated.

''(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section $100,000,000 for each of fiscal years 2006 through 2015, to remain available until expended.''.

(b) DEFINITION OF NATIONAL LABORATORY.—Section 2 of the Energy Policy Act of 1992 (42 U.S.C. 13201) is amended to read as follows:

''SEC. 2. DEFINITIONS.

''In this Act:

''(1) NATIONAL LABORATORY.—The term 'National Laboratory' means any of the following laboratories owned by the Department of Energy:

''(A) Ames Laboratory.

''(B) Argonne National Laboratory.

''(C) Brookhaven National Laboratory.

''(D) Fermi National Accelerator Laboratory.

''(E) Idaho National Engineering and Environmental Laboratory.

''(F) Lawrence Berkeley National Laboratory.

''(G) Lawrence Livermore National Laboratory.

''(H) Los Alamos National Laboratory.

''(I) National Energy Technology Laboratory.

''(J) National Renewable Energy Laboratory.

''(K) Oak Ridge National Laboratory.

''(L) Pacific Northwest National Laboratory.

''(M) Princeton Plasma Physics Laboratory.

''(N) Sandia National Laboratories.

''(O) Stanford Linear Accelerator Center.

''(P) Thomas Jefferson National Accelerator Facility.

''(2) SECRETARY.—The term 'Secretary' means the Secretary of Energy.''.

(c) CONFORMING AMENDMENTS.—The table of contents for the Energy Policy Act of 1992 (42 U.S.C. prec. 13201) is amended—

(1) by striking the item relating to section 2 and inserting the following:

''Sec. 2. Definitions.'';

and

(2) by adding at the end of the items relating to title XVI the following:

''Sec. 1610. Climate change technology program.

''Sec. 1611. Clean energy technology exports program.

''Sec. 1612. International energy technology deployment program.''.

SEC. 1523. COMPREHENSIVE PLANNING AND PROGRAMMING FOR ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION.

Section 6 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5905) is amended—

(1) in the second sentence of subsection (a)—

(A) in paragraph (2), by striking ''and'' at the end;

(B) in paragraph (3), by striking the period at the end and inserting '', and''; and

(C) by adding at the end the following—

''(4) solutions to the effective management of greenhouse gas emissions in the long term by the development of technologies and practices designed to—

''(A) reduce or avoid anthropogenic emissions of greenhouse gases;

''(B) remove and sequester greenhouse gases from emission streams; and

''(C) remove and sequester greenhouse gases from the atmosphere.''; and

(2) in subsection (b)—

(A) in the first sentence of paragraph (2), by striking ''subsection (a)(1) through (3)'' and inserting ''paragraphs (1) through (4) of subsection (a)''; and

(B) in the second sentence of paragraph (3)—

(i) in subparagraph (R), by striking ''and'' at the end;

(ii) in subparagraph (S), by striking the period at the end and inserting ''; and''; and

(iii) by adding at the end the following:

''(T) to pursue a long-term climate technology strategy designed to demonstrate a variety of technologies by which stabilization of greenhouse gases might be best achieved, including accelerated research, development, demonstration, and deployment of—

''(i) renewable energy systems;

''(ii) advanced fossil energy technology;

''(iii) advanced nuclear power plant design;

''(iv) fuel cell technology for residential, industrial, and transportation applications;

''(v) carbon capture and sequestration practices and technologies, including agricultural and forestry practices that store and sequester carbon;

''(vi) efficient electrical generation, transmission, and distribution technologies; and

''(vii) efficient end-use energy technologies.''.

Subtitle C—Greenhouse Gas Emissions Database

SEC. 1531. DEFINITIONS.

In this subtitle:

(1) ADMINISTERING INSTITUTION.—The term ''administering institution'' means the institution selected under section 1532(c) to operate and administer the database.

(2) CARBON DIOXIDE EQUIVALENT.—The term ''carbon dioxide equivalent'' means, with respect to each greenhouse gas, the quantity of the greenhouse gas that makes the same contribution to global warming as 1 metric ton of carbon dioxide.

(3) DATABASE.—The term ''database'' means the national greenhouse gas emissions database established under section 1532(b).

(4) DESIGNATED AGENCIES.—The term ''designated agencies'' means—

(A) the Department of Energy;

(B) the Department of Commerce; and

(C) the Environmental Protection Agency.

(5) DIRECT GREENHOUSE GAS EMISSIONS.—The term ''direct greenhouse gas emissions'' means greenhouse gas emissions directly emitted from a facility that is owned or controlled by the reporting entity, including emissions from—

(A) production of electricity, heat, or steam, or other activities involving combustion in stationary equipment;

(B) physical or chemical processing of materials;

(C) equipment leaks, venting from equipment or facilities, or other types of fugitive emissions (such as emissions from piles, pits, and cooling towers); and

(D) combustion of fuels in transportation vehicles or equipment.

(6) ENTITY.—The term ''entity'' means—

(A) a person; or

(B) an agency or instrumentality of the Federal Government or State or local government.

(7) FACILITY.—The term ''facility'' means a building, structure, or installation located on any 1 or more contiguous or adjacent properties of an entity in the United States.

(8) FARMING OPERATION.—The term ''farming operation'' has the meaning given the term in section 101(21) of title 11, United States Code.

(9) GREENHOUSE GAS.—The term ''greenhouse gas'' means—

(A) carbon dioxide;

(B) methane;

(C) nitrous oxide;

(D) hydrofluorocarbons;

(E) perfluorocarbons; and

(F) sulfur hexafluoride.

(10) INDIRECT GREENHOUSE GAS EMISSIONS.—The term ''indirect greenhouse gas emissions'' means emissions that—

(A) are a consequence of activities of a reporting entity; but

(B) occur from a source controlled by another entity.

(11) LEAD AGENCY.—The term ''lead agency'' means the lead agency selected under section 1532(a).

(12) REPORTING ENTITY.—The term ''reporting entity'' means an entity that submits a report under subsection (a) or (h) of section 1533.

(13) SEQUESTRATION.—The term ''sequestration'' means the long-term separation, isolation, or removal of greenhouse gases from the atmosphere, including through a biological or geologic method such as reforestation or an underground reservoir.

(14) STATE.—The term 'State' means—

(A) a State;

(B) the District of Columbia;

(C) the Commonwealth of Puerto Rico; and

(D) any other territory or possession of the United States.

(15) UNITED STATES.—The term ''United States'', when used in a geographical sense, means all of the States.

SEC. 1532. NATIONAL GREENHOUSE GAS EMISSIONS DATABASE.

(a) DESIGNATION OF LEAD AGENCY.—The President shall select a lead agency from among the designated agencies for the purpose of implementing this subtitle.

(b) ESTABLISHMENT.—The head of the lead agency, in consultation with the other designated agencies, States, the private sector, and nongovernmental organizations concerned with establishing standards for reporting of greenhouse gas emissions, shall establish a national greenhouse gas emissions database to collect emissions information reported under section 1533 and emission reduction information reported under section 1534.

(c) ADMINISTRATION.—

(1) IN GENERAL.—The head of the lead agency shall enter into a contract with a nonprofit institution to—

(A) design and operate the database;

(B) establish an advisory body with broad representation from industry, agriculture, environmental groups, and State and local governments to guide the development and management of the database;

(C) provide coordination and technical assistance for the development of proposed protocols and methods to be published by the Secretary under section 1535(a); and

(D) certify organizations independent of reporting entities to verify the data submitted by reporting entities, and audit the plans and performance of certifying organizations.

(2) SELECTION.—

(A) IN GENERAL.—The head of the lead agency shall award an initial 5-year contract to the institution under paragraph (1), subject to the procurement regulations of the lead agency.

(B) CONSIDERATIONS.—In determining which institution to award a contract under subparagraph (A), the head of the lead agency shall consider—

(i) the technical expertise of each institution; and

(ii) the ability of each institution to work with a broad and diverse group of interested parties.

(C) RENEWABILITY.—A contract under this paragraph may be renewed for additional terms, based on the satisfactory performance of the institution as determined by the head of the lead agency.

(d) AVAILABILITY OF DATA TO THE PUBLIC.—The head of the lead agency shall ensure that the administering institution publishes all information in the national greenhouse gas emissions database (including in electronic format on the Internet), except with respect to facility-level emission data in any case in which publishing the information would disclose—

(1) information vital to national security; or

(2) confidential business information that—

(A) cannot be derived from information that is otherwise publicly available; and

(B) would cause competitive harm if published.

(e) RELATIONSHIP TO OTHER GREENHOUSE GAS DATABASES OR REPORTING REQUIREMENTS.—To the maximum extent practicable, the head of the lead agency shall ensure coordination between the national greenhouse gas emissions database and existing and developing Federal and State greenhouse gas databases and registries.

(f) NO EFFECT ON OTHER REQUIREMENTS.—Nothing in this subtitle affects any existing requirements for reporting of greenhouse gas emission data or other data relevant to calculating greenhouse gas emissions.

(g) REPORT TO CONGRESS.—If reporting is required under section 1533(b)(2), the head of the lead agency shall, not later than 180 days after the date on which the reporting is required, submit to Congress a report that describes the need for harmonization of legal requirements within the United States relating to greenhouse gas reporting.

SEC. 1533. GREENHOUSE GAS EMISSIONS REPORTING.

(a) VOLUNTARY REPORTING.—

(1) IN GENERAL.—After the establishment of the greenhouse gas emissions database under section 1532 and publication of protocols under section 1535, an entity may voluntarily submit to the administering institution, for inclusion in the database, a report of greenhouse gas emissions in the United States of the entity with respect to the preceding calendar year.

(2) DATE OF SUBMISSION.—Each report under paragraph (1) shall be submitted not later than the July 1 that follows the end of the calendar year described in the report.

(b) REVIEW OF PARTICIPATION.—

(1) IN GENERAL.—On the date that is 4 years after the date of enactment of this Act, the Director of Climate Change Policy shall determine, after notice and public comment, whether the emissions reported to the greenhouse gas database for the most recent calendar year for which data are available represent less than 60 percent of the national aggregate greenhouse gas emissions from non-agricultural, anthropogenic sources for that year.

(2) INCREASED APPLICABILITY OF REQUIREMENTS.—If the Director determines pursuant to paragraph (1) that emissions reported to the greenhouse gas database for the most recent year for which data are available represent less than 60-percent quantity described in paragraph (1) for that year, each entity that exceeds the threshold for reporting under subsection (c) shall submit to the administering institution, not later than July 1 of each year thereafter, for inclusion in the database, a report of greenhouse gas emissions in the United States of the entity with respect to the preceding calendar year in accordance with this section.

(3) RESOLUTION OF DISAPPROVAL.—The determination of the Director of Climate Change Policy under paragraph (1) shall be considered to be a major rule (as defined in section 804(2) of title 5, United States Code) subject to the congressional disapproval procedure under section 802 of title 5, United States Code.

(c) THRESHOLD FOR REPORTING.—

(1) IN GENERAL.—An entity shall submit a report under subsection (b)(2) for greenhouse gas emissions if, in the relevant calendar year, 1 of the following exceeds 10,000 metric tons of carbon dioxide equivalent:

(A) The direct greenhouse gas emissions of any facility of the entity located in the United States.

(B) The indirect greenhouse gas emissions of any facility of the entity located in the United States that are associated with generation of purchased or imported electricity, heat, or steam by the entity (excluding electricity purchased for resale).

(C) After publication of the relevant protocols under section 1535(a), the total calculated greenhouse gas emissions imputed under paragraph (3) to an entity reporting under that paragraph.

(2) AGRICULTURAL EXEMPTION.—Greenhouse gas emissions from a farming operation, feedlot, or forest owned or leased by an entity shall not be considered in determining whether the entity exceeds the threshold under paragraph (1).

(3) THRESHOLD ADJUSTMENT.—

(A) INCREASE.—The head of the lead agency, by rule, may increase the 10,000 metric ton reporting threshold under paragraph (1) to a higher threshold if the head of the lead agency determines that the reports under this section at the higher threshold will include at least 80 percent of greenhouse gas emissions in the United States.

(B) DECREASE.—The head of the lead agency may not decrease the reporting threshold under paragraph (1) to a value lower than 10,000 metric tons of carbon dioxide equivalent.

(d) CONTENT OF REPORTS.—Each greenhouse gas report under this section shall—

(1) express greenhouse gas emissions in metric tons of each greenhouse gas and in metric tons of the carbon dioxide equivalent of each greenhouse gas;

(2) report (except de minimis emissions)—

(A) direct greenhouse gas emissions; and

(B) indirect greenhouse gas emissions associated with the generation of electricity, heat, or steam that is purchased or imported by a reporting entity, for use in its facility (but not including electricity purchased for resale), from a source owned or controlled by another entity;

(3) provide the information under paragraph (2)—

(A) on an entity-wide basis; and

(B) subject to paragraph (4), on a facility-wide basis for each facility owned or controlled by the entity;

(4) report emissions from a facility with shared ownership or control based on the control of the facility, consistent with the treatment of the facility by the entities for financial reporting purposes under generally accepted accounting principles of the United States;

(5) contain any adjustments to greenhouse gas emission reports from prior years to take into account—

(A) errors that significantly affect the quantity of greenhouse gases in the prior greenhouse gas emissions report;

(B) changes in protocols or methods for calculating greenhouse gas emissions under section 1535(a);

(C) the need to maintain data comparability from year to year in the event of significant structural changes in the organization of the reporting entity; or

(D) any transfer of a facility from the control of 1 entity to another;

(6) include a statement describing the reasons for—

(A) any adjustment under paragraph (5); and

(B) any significant change between the greenhouse gas emissions report for the preceding year and the greenhouse gas emissions reported for the current year;

(7) include an appropriate certification, signed by a senior official with management responsibility for the 1 or more persons completing the report, regarding the accuracy and completeness of the report; and

(8) be reported electronically to the administering institution in such form and to such extent as may be required by the institution or the head of the lead agency.

(e) DE MINIMIS EMISSIONS.—The head of the lead agency, by rule, shall specify the level of greenhouse gas emissions from a source within a facility that shall be considered de minimis for purpose of subsection (d)(2).

(f) VERIFICATION OF REPORT REQUIRED.—Before including the information from a greenhouse gas emission report in the database, the administering institution shall—

(1) verify the completeness and accuracy of the emission report using information provided under section 1535(b)(1); or

(2) require the verification of the completeness and accuracy of the emissions report by a certified person under section 1535(b)(2).

(g) PROHIBITION ON CERTAIN ADJUSTMENTS TO PRIOR-YEAR EMISSION DATA.—An entity may not adjust a greenhouse gas emission report from a prior year under subsection (d)(5) in order to account for changes by the entity that are the result of normal business growth or decline, including—

(1) increases or decreases in production output;

(2) plant openings or closures; or

(3) changes in the mix of products manufactured or sold by the entity.

(h) VOLUNTARY REPORTING OF EARLIER EMISSIONS.—

(1) IN GENERAL.—An entity that submits a report under this section may submit to the administering institution, for inclusion in the national greenhouse gas emissions database, a greenhouse gas emission report for the entity with respect to 1 or more calendar years prior to 2006, if the report meets the requirements of subsections (c) and (d) and section 1534.

(2) TRANSITION ASSISTANCE TO ENTITIES IN EXISTING PROGRAM.—The head of the lead agency may provide financial assistance to an entity that submitted a report on greenhouse gas emissions under section 1605(b) of the Energy Policy Act of 1992 (42 U.S.C. 13385(b)), for calendar years prior to 2006, for purpose of improving the report so that the report meets the requirements of subsections (c) and (d) and section 1534.

(i) CONTINUITY OF VOLUNTARY REPORTING.—An entity that reports emissions under subsection (a) or (b) that fails to submit a report in any year after submission of the first report of the entity shall be prohibited from including emissions or reductions reported under this subtitle in the calculation of the baseline of the entity in future years.

(j) VOLUNTARY REPORTING OF OTHER INDIRECT EMISSIONS.—An entity that submits a greenhouse gas emission report under this section may voluntarily include in the report, as separate estimates prepared in accordance with the protocols published under section 1535, other indirect greenhouse gas emissions.

(k) CONTINUITY OF INFORMATION ON FACILITIES IN DATABASE.—If ownership or control of a facility for which emissions were included in a report under subsection (b)(2) is transferred to another entity, any entity subsequently having ownership or control of the facility shall submit a greenhouse gas emissions report regarding the transferred facility, even if the entity does not otherwise exceed the threshold for reporting under subsection (c).

SEC. 1534. GREENHOUSE GAS EMISSION REDUCTIONS AND SEQUESTRATION REPORTING.

(a) IN GENERAL.—After the establishment of the greenhouse gas emission database under section 1532 and publication of protocols under section 1535, an entity may voluntarily submit to the administering institution, for inclusion in the database, a report of greenhouse gas emission reductions or sequestration resulting from projects carried out by the entity during the preceding year for—

(1) reduction of direct greenhouse gas emissions; or

(2) sequestration of a greenhouse gas.

(b) DATE OF SUBMISSION.—Each report shall be submitted by the July 1 that follows the end of the calendar year described in the report.

(c) PROJECT TYPES.—Projects referred to in subsection (a) may include projects relating to—

(1) fuel switching;

(2) energy efficiency improvements;

(3) use of renewable energy;

(4) use of combined heat and power systems;

(5) management of cropland, grassland, or grazing land;

(6) a forestry activity that increases forest carbon stocks or reduces forest carbon emissions;

(7) methane recovery;

(8) reduction of natural gas venting or flaring; or

(9) carbon capture and sequestration.

(d) VERIFICATION OF REPORT REQUIRED.—Before including the information from a report under subsection (a) in the database, the administering institution shall—

(1) verify the completeness and accuracy of the report using information provided under section 1535(b)(1); or

(2) require the verification of the completeness and accuracy of the report by a certified person under section 1535(b)(2).

(e) REQUIRED ACCOMPANYING INFORMATION.—An entity that submits a report under subsection (a) shall include sufficient information to verify under section 1535(b) that the report represents—

(1) in the case of a report of direct greenhouse gas emission reductions—

(A) actual reductions in direct greenhouse gas emissions of the entity—

(i) relative to historic emissions levels of the entity; and

(ii) after accounting for any increases in direct or indirect greenhouse gas emissions of the entity; or

(B) in the case of a reported reduction that exceeds the entity-wide net reduction of direct greenhouse gas emissions, adjusted so as not to exceed the net reduction; and

(2) in the case of a report of greenhouse gas sequestration, actual increases in net sequestration, taking into consideration the total systems use of materials and energy in carrying out the sequestration.

(f) PROJECTS PRIOR TO PUBLICATION PROTOCOLS.—

(1) IN GENERAL.—Subject to paragraph (2), not later than July 1 of the calendar year following publication of protocols under section 1535, an entity may submit to the administering institution, for inclusion in the database, a report of greenhouse gas emission reductions or sequestration resulting from projects, carried out by the entity during the period beginning January 1, 1990, and ending on the date of publication of the protocols for—

(A) reduction of direct greenhouse gas emissions; or

(B) sequestration of a greenhouse gas.

(2) CONDITIONS FOR ENTRY.—The information from a report under this subsection shall be entered into the database only if the report meets the requirements of subsections (c) and (d).

(g) IDENTIFICATION AND TRACKING OF GREENHOUSE GAS REDUCTION PROJECTS.—For each verified project entered in the database under this section, the administering institution shall provide to the entity reporting the project a unique identifier to allow for—

(1) the registration of emission reductions associated with the project, in a quantity not to exceed the entity-wide net emission reductions of the entity reporting the project during the same period;

(2) the transfer of those reductions through voluntary private or other transactions; and

(3) tracking of transfers under paragraph (2).

SEC. 1535. DATA QUALITY AND VERIFICATION.

(a) PROTOCOLS AND METHODS.—

(1) IN GENERAL.—The head of the lead agency, after taking into account the recommendations of the administering institution, shall, by rule, establish protocols and methods to ensure completeness, consistency, transparency, and accuracy of data on greenhouse gas emissions and emissions reductions submitted to the database that include—

(A) accounting and reporting standards for greenhouse gas emissions and greenhouse gas emission reductions;

(B) standardized methods for calculating greenhouse gas emissions in specific industries from other readily available and reliable information, such as energy consumption, materials consumption, production data, or other relevant activity data;

(C) standardized methods of estimating greenhouse gas emissions (along with information on the accuracy of the estimations), for cases in which the head of the lead agency determines that methods under subparagraph (B) are not feasible;

(D) methods to avoid double-counting of greenhouse gas emissions, or greenhouse gas emission reductions, within a single major category of emissions, such as direct greenhouse gas emissions;

(E) protocols to prevent an entity from avoiding the reporting requirements of this subtitle by reorganization into multiple entities or by outsourcing operations or activities that emit greenhouse gases;

(F) protocols for verification of data on greenhouse gas emissions, and greenhouse gas emission reductions, by reporting entities and verification organizations independent of reporting entities; and

(G) protocols necessary for the database to maintain valid and reliable information on baselines of entities so that, in the event of any future action by Congress to require entities, individually or collectively, to reduce greenhouse gas emissions, Congress will be able—

(i) to take into account that information; and

(ii) to avoid enacting legislation that penalizes entities for achieving and reporting reductions.

(2) BEST PRACTICES.—The protocols and methods developed under paragraph (1) shall conform, to the maximum extent practicable, to the best practices that have the greatest support of experts in the field.

(3) OUTREACH PROGRAM.—The administering institution shall conduct an outreach program to provide information to all reporting entities and the public on the protocols and methods developed under this subsection.

(b) VERIFICATION.—

(1) INFORMATION BY REPORTING ENTITIES.—Each reporting entity shall—

(A) provide information sufficient for the administering institution to verify, in accordance with the protocols and methods developed under subsection (a), that the greenhouse gas emissions, or greenhouse gas emission reductions, of the reporting entity have been completely and accurately reported; and

(B) ensure the submission or retention of data sources, information on internal control activities, information on assumptions used in reporting emissions, uncertainty analyses, and other relevant data to facilitate the verification of reports submitted to the database.

(2) INDEPENDENT THIRD-PARTY VERIFICATION.—A reporting entity may—

(A) obtain verification of the completeness and accuracy of the greenhouse gas emissions report, or greenhouse gas emissions reduction report, of the reporting entity from a person independent of the reporting entity that has been certified according to the standards issued under paragraph (3); and

(B) present the results of the verification under subparagraph (A) to the administering institution in lieu of verification by the administering institution under paragraph (1).

(3) CERTIFICATION OF INDEPENDENT VERIFICATION ORGANIZATIONS.—

(A) IN GENERAL.—The head of the lead agency shall, by rule, establish certification and audit standards to be applied by the administering institution in certifying persons who verify greenhouse gas emission reports, or greenhouse gas emission reductions reports, under paragraph (2).

(B) CONFLICTS OF INTEREST.—The standards established under subparagraph (A) shall prohibit conflicts of interest on the part of certified persons.

SEC. 1536. ANNUAL SUMMARY REPORT.

Not later than January 1, 2006, and annually thereafter, the head of the lead agency shall publish an annual summary report on the database that includes—

(1) a report on the quantity of the total greenhouse gas emissions and emission reductions included in the database, and the fraction of total greenhouse gas emissions in the United States reported to the database, relative to the year covered by the report (if applicable);

(2) analyses, by entity and sector of the economy of the United States, of the emissions and emission reductions in paragraph (1), including a comparison to total greenhouse gas emissions in the United States by all sectors of the economy;

(3) information on the operations of the database, including the development of protocols and methods during the year covered by the report; and

(4) a summary of the views of the advisory board under section 1532(c)(1)(B) on the operations and effectiveness of the database during the year covered by the report.

SEC. 1537. ENFORCEMENT.

The head of the lead agency may bring a civil action in United States district court against an entity that fails to comply with a requirement of this subtitle, or a rule promulgated under this subtitle, to impose a civil penalty of not more than $25,000 for each day that the failure to comply continues.

Subtitle D—Research Programs

CHAPTER 1—DEPARTMENT OF ENERGY PROGRAMS

SEC. 1541. DEFINITION OF SECRETARY.

In this chapter, the term ''Secretary'' means the Secretary of Energy, acting through the Office of Science of the Department of Energy.

SEC. 1542. DEPARTMENT OF ENERGY GLOBAL CHANGE SCIENCE RESEARCH.

(a) IN GENERAL.—The Secretary shall conduct a comprehensive research program—

(1) to increase understanding of the global climate system; and

(2) to investigate and analyze the effects of energy production and use on that system.

(b) PROGRAM ELEMENTS.—The program under this chapter shall include—

(1) research and modeling activities on the radiation balance from the surface of the Earth to the upper limit of the atmosphere, including the effects of aerosols and clouds;

(2) research and modeling activities—

(A) to investigate and understand the global carbon cycle, including the role of the terrestrial biosphere as a source or sink for carbon dioxide; and

(B) to develop, test, and improve carbon-cycle models;

(3)(A) research activities to understand the scales of response of complex ecosystems to environmental changes, including identification of the underlying causal mechanisms and pathways of environmental changes and the ways in which those mechanisms and pathways are linked; and

(B) research and modeling activities on the response of terrestrial ecosystems to changes in climate, atmospheric composition, and land use;

(4) research and modeling activities to develop integrated assessments of the economic, social, and environmental implications of climate change and policies relating to climate change, with emphasis on—

(A) improving the resolution of models for integrated assessments on a regional basis;

(B) developing next-generation models and testing those models as pilots on selected regional areas (including States and territories of the United States in the Pacific, on the Gulf of Mexico, or in agricultural or forested areas of the continental United States);

(C) developing and improving models for technology innovation and diffusion; and

(D) developing and improving models of the economic costs and benefits of climate change and policies relating to climate change; and

(5) development of high-end computational resources, information technologies, and data assimilation methods—

(A) to carry out the program under this chapter;

(B) to make more effective use of large and distributed data sets and observational data streams; and

(C) to increase the availability and utility of climate change and energy simulations to researchers and policy makers.

(c) EDUCATION AND INFORMATION DISSEMINATION.—

(1) IN GENERAL.—The Secretary, in collaboration with similar programs in other Federal agencies, shall include education and training of undergraduate and graduate students as an integral part of the programs under this chapter.

(2) ANALYSIS CENTER.—The Secretary shall support a Carbon Dioxide Information and Analysis Center—

(A) to serve as a resource for researchers and others interested in global climate change; and

(B) to accommodate data and information requests relating to the greenhouse effect and global climate change.

SEC. 1543. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—There are authorized to be appropriated to the Secretary to carry out this chapter, to remain available until expended—

(1) $150,000,000 for fiscal year 2006;
(2) $175,000,000 for fiscal year 2007;
(3) $200,000,000 for fiscal year 2008;
(4) $230,000,000 for fiscal year 2009; and
(5) $266,000,000 for fiscal year 2010.

(b) LIMITATION ON FUNDS.—Funds authorized to be appropriated under this section shall not be used for the development, demonstration, or deployment of technology to reduce, avoid, or sequester greenhouse gas emissions.

CHAPTER 2—DEPARTMENT OF COMMERCE PROGRAMS

SEC. 1551. DEFINITION OF SECRETARY.

In this chapter, the term ''Secretary'' means the Secretary of Commerce.

SEC. 1552. ABRUPT CLIMATE CHANGE RESEARCH PROGRAM.

(a) DEFINITION OF ABRUPT CLIMATE CHANGE.—In this section, the term ''abrupt climate change'' means a change in the climate that occurs so rapidly or unexpectedly that human or natural systems have difficulty adapting to the climate as changed.

(b) ESTABLISHMENT OF PROGRAM.—The Secretary shall establish in the Office of Oceanic and Atmospheric Research of the National Oceanic and Atmospheric Administration, and shall carry out, a program of scientific research on abrupt climate change.

(c) PURPOSES OF PROGRAM.—The purposes of the program are—

(1) to develop a global array of terrestrial and oceanographic indicators of paleoclimate in order to sufficiently identify and describe past instances of abrupt climate change;

(2) to improve understanding of thresholds and nonlinearities in geophysical systems related to the mechanisms of abrupt climate change;

(3) to incorporate the mechanisms into advanced geophysical models of climate change; and

(4) to test the output of the models against an improved global array of records of past abrupt climate changes.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section, to remain available until expended—

(1) $20,000,000 for fiscal year 2006;
(2) $22,000,000 for fiscal year 2007;
(3) $24,000,000 for fiscal year 2008;
(4) $26,000,000 for fiscal year 2009; and
(5) $28,000,000 for fiscal year 2010.

SEC. 1553. REGIONAL CLIMATE ASSESSMENT AND ADAPTATION.

(a) IN GENERAL.—The Secretary shall establish in the Department of Commerce a National Climate Vulnerability and Adaptation Program for regional impacts related to increasing concentrations of greenhouse gases in the atmosphere and climate variability.

(b) COORDINATION.—In designing the program described in subsection (a), the Secretary shall consult with appropriate Federal, State, tribal, and local government entities.

(c) REGIONAL VULNERABILITY ASSESSMENTS.—The program shall—

(1) evaluate, based on information developed under this subtitle, under the National Climate Program Act (15 U.S.C. 2901 et seq.), and by the global climate modeling community, regional vulnerability to phenomena associated with climate change and climate variability, including—

(A) increases in severe weather events;

(B) sea level rise and shifts in the hydrological cycle;

(C) natural hazards, including tsunami, drought, flood, and fire; and

(D) alteration of ecological communities at the ecosystem or watershed level; and

(2) build upon information developed in the scientific assessments prepared under the Global Change Research Act of 1990 (15 U.S.C. 2921 et seq.).

(d) PREPAREDNESS RECOMMENDATIONS.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report that identifies and recommends implementation and funding strategies for short- and long-term actions that may be taken at the national, regional, State, and local level—

(1) to minimize threats to human life and property;

(2) to improve resilience to hazards;

(3) to minimize economic impacts; and

(4) to reduce threats to critical biological and ecological processes.

(e) INFORMATION AND TECHNOLOGY.—The Secretary shall—

(1) make available appropriate information, technologies, and products that will assist national, regional, State, and local efforts to reduce loss of life and property from increased concentrations of greenhouse gases and climate variability; and

(2) coordinate dissemination of such technologies and products.

(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section $4,500,000 for each of fiscal years 2006 through 2010.

SEC. 1554. COASTAL VULNERABILITY AND ADAPTATION.

(a) DEFINITIONS.—Any term used in this section that is defined in section 304 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453) has the meaning given the term in that section.

(b) REGIONAL ASSESSMENTS.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Secretary, in consultation with appropriate Federal, State, tribal, and local governmental entities, shall conduct regional assessments of the vulnerability of coastal areas to hazards associated with climate change, climate variability, sea level rise, and fluctuation of Great Lakes water levels.

(2) DEVELOPMENT.—The Secretary may consult with the governments of Canada and Mexico as appropriate in developing regional assessments.

(3) PREPARATION.—In preparing the regional assessments, the Secretary shall—

(A) collect and compile current information on climate change, sea level rise, natural hazards, and coastal erosion and mapping; and

(B) specifically address impacts on Arctic regions and the Central, Western, and South Pacific regions.

(4) EVALUATION.—The regional assessments shall include an evaluation of—

(A) social impacts associated with threats to and potential losses of housing, communities, and infrastructure;

(B) physical impacts, including coastal erosion, flooding and loss of estuarine habitat, saltwater intrusion of aquifers and saltwater encroachment, and species migration; and

(C) economic impact on regional, State, and local economies, including the impact on abundance or distribution of economically important living marine resources.

(c) COASTAL ADAPTATION PLAN.—

(1) IN GENERAL.—Not later than 3 years after the date of enactment of this Act, the Secretary shall submit to Congress a national coastal adaptation plan, composed of individual regional adaptation plans that recommend targets and strategies to address coastal impacts associated with climate change, sea level rise, or climate variability.

(2) DEVELOPMENT.—The national coastal adaptation plan shall be developed with the participation of other Federal, State, tribal, and local government agencies that will be critical in the implementation of the plan at the State, tribal, and local levels.

(3) REGIONAL PLANS.—The regional plans covered by the national coastal adaptation plan shall—

(A) be based on the information contained in the regional assessments; and

(B) identify special needs associated with Arctic areas and the Central, Western, and South Pacific regions.

(4) RECOMMENDATIONS.—The national coastal adaptation plan shall recommend both short- and long-term adaptation strategies, including recommendations regarding—

(A) Federal flood insurance program modifications;

(B) areas that have been identified as high risk through mapping and assessment;

(C) mitigation incentives, including rolling easements, strategic retreat, Federal or State acquisition in fee simple or other interest in land, construction standards, and zoning;

(D) land and property owner education;

(E) economic planning for small communities dependent upon affected coastal resources, including fisheries; and

(F) funding requirements and mechanisms.

(d) TECHNICAL PLANNING ASSISTANCE.—

(1) IN GENERAL.—The Secretary, acting through the National Ocean Service, shall establish a coordinated program to provide technical planning assistance and products to coastal State and local governments as the coastal States and local governments develop and implement adaptation or mitigation strategies and plans.

(2) STATE AND LOCAL PLANS.—Products, information, tools and technical expertise generated from the development of the regional assessments and the regional adaptation plans shall be made available to coastal State and local governments to develop State and local plans.

(e) COASTAL ADAPTATION GRANTS.—

(1) IN GENERAL.—Subject to paragraph (2), the Secretary shall provide grants of financial assistance to coastal States with Federally approved coastal zone management programs to develop and begin implementing coastal adaptation programs.

(2) ELIGIBILITY.—To be eligible to receive a grant under paragraph (1), a coastal State shall provide a Federal-to-State match—

(A) in the first fiscal year of the program, of 4 to 1;

(B) in the second fiscal year of the program, of 2.3 to 1;

(C) in the third fiscal year of the program, of 2 to 1; and

(D) in each subsequent fiscal year, of 1 to 1.

(3) FORMULA.—Distribution of funds under this subsection to coastal States shall be based on the formula established under section 306(c) of the Coastal Zone Management Act of 1972 (16 U.S.C. 1455(c)), adjusted in consultation with the States as necessary to provide assistance to particularly vulnerable coastlines.

(f) COASTAL RESPONSE PILOT PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a 4-year pilot program to provide financial assistance to coastal communities that—

(A) are most adversely affected by the impact of climate change or climate variability; and

(B) are located in States with Federal-approved coastal zone management programs.

(2) ELIGIBLE PROJECTS.—A project is eligible for financial assistance under the pilot program if the project—

(A) will restore or strengthen coastal resources, facilities, or infrastructure that have been damaged by the impact of climate change or climate variability, as determined by the Secretary;

(B) meets the requirements of the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.) and is consistent with the coastal zone management plan of the State in which the project will be carried out; and

(C) will not cost more than $100,000 for each project.

(3) FUNDING SHARE.—

(A) IN GENERAL.—The Federal funding share of any project under this subsection may not exceed 75 percent of the total cost of the project.

(B) ADMINISTRATION.—In carrying out this paragraph—

(i) the Secretary may take into account in-kind contributions and other non-cash support of any project to determine the Federal funding share for that project; and

(ii) the Secretary may waive the requirements of this paragraph for a project in a community if—

(I) the Secretary determines that the project is important; and

(II) the economy and available resources of the community in which the project is to be conducted are insufficient to meet the non-Federal share of the cost of the project.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary—

(1) to carry out subsections (b) through (d), $5,000,000 for each of fiscal years 2006 through 2010;

(2) for coastal adaptation grants under subsection (e), $5,000,000 for each of fiscal years 2006 through 2010; and

(3) to carry out the pilot program established under subsection (f), $3,000,000 for each of fiscal years 2006 through 2010.

SEC. 1555. FORECASTING PROJECTS.

(a) IN GENERAL.—The Administrator of the National Aeronautics and Space Administration and the Administrator of the National Oceanic and Atmospheric Administration shall establish, through the Coastal Services Center of the National Oceanic and Atmospheric Administration, a program of grants for competitively awarded 3-year pilot projects to explore the integrated use of sources of remote sensing and other geospatial information to address State, local, regional, and tribal agency needs to forecast a plan for adaptation to coastal zone and land use changes that may result as a consequence of global climate change or climate variability.

(b) PREFERRED PROJECTS.—In awarding grants under this section, the Center shall give preference to projects that—

(1) focus on areas that are most sensitive to the consequences of global climate change or climate variability;

(2) make use of existing public or commercial data sets;

(3) integrate multiple sources of geospatial information (including geographic information system data, satellite-provided positioning data, and remotely sensed data) in innovative ways;

(4) offer diverse, innovative approaches that may serve as models for establishing a future coordinated framework for planning strategies for adaptation to coastal zone and land use changes related to global climate change or climate variability;

(5) include funds or in-kind contributions from non-Federal sources;

(6) involve the participation of commercial entities that process raw or lightly processed data, often merging that data with other geospatial information, to create data products that have significant value added to the original data; and

(7) considered together, demonstrate as diverse a set of public sector applications as practicable.

(c) OPPORTUNITIES.—In carrying out this section, the Center shall seek opportunities to assist—

(1) in the development of commercial applications potentially available from the remote sensing industry; and

(2) State, local, regional, and tribal agencies in applying remote sensing and other geospatial information technologies for management and adaptation to coastal and land use consequences of global climate change or climate variability.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrators described in subsection (a) to carry out this section—

(1) $15,000,000 for fiscal year 2006;

(2) $17,500,000 for fiscal year 2007;

(3) $20,000,000 for fiscal year 2008;

(4) $22,500,000 for fiscal year 2009; and

(5) $25,000,000 for fiscal year 2010.

SEC. 1556. INTERNATIONAL PACIFIC RESEARCH AND COOPERATION.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—The Secretary, in cooperation with the Administrator of the National Aeronautics and Space Administration, shall conduct international research in the Pacific region that will increase understanding of the nature and predictability of climate variability in the Asia-Pacific sector, including regional aspects of global environmental change.

(2) COOPERATION.—Research activities under this section shall be conducted in cooperation with other nations of the Pacific region.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section for fiscal year 2006, to remain available until expended—

(1) $2,000,000 to the National Oceanic and Atmospheric Administration, including $500,000 for the Pacific El Nino-Southern Oscillation Applications Center; and

(2) $1,500,000 to the National Aeronautics and Space Administration.

SEC. 1557. NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY PROGRAMS.

(a) ESTABLISHMENT, FUNCTIONS, AND ACTIVITIES.—Section 2(c) of the National Institute of Standards and Technology Act (15 U.S.C. 272(c)) is amended—

(1) in paragraph (21), by striking ''and'' at the end;

(2) by redesignating paragraph (22) as paragraph (23); and

(3) by inserting after paragraph (21) the following:

''(22) perform research to develop enhanced measurements, calibrations, standards, and measurement technologies which will enable the reduced production in the United States of greenhouse gases associated with global warming, including carbon dioxide, methane, nitrous oxide, ozone, perfluorocarbons, hydrofluorocarbons, and sulfur hexafluoride; and''.

(b) PROGRAMS RELATED TO CLIMATE CHANGE.—The National Institute of Standards and Technology Act (15 U.S.C. 271 et seq.) is amended—

(1) by redesignating section 32 as section 33; and

(2) by inserting after section 31 the following:

''SEC. 32. PROGRAMS RELATED TO CLIMATE CHANGE.

''(a) IN GENERAL.—The Director shall establish a program to perform and support research on measurements, calibrations, data, models, and reference material standards with the goal of providing scientific and technical knowledge and generally recognized measurements, procedures, analytical tools, software, measurement technologies, and measurement standards applicable to the understanding, monitoring, and control of greenhouse gases.

''(b) PROGRAM EXECUTION AND COORDINATION.—

''(1) IN GENERAL.—The Director may conduct the program under this section through—

''(A) the National Measurement Laboratories or other appropriate elements of the Institute; or

''(B) grants, contracts, and cooperative agreements with appropriate entities.

''(2) VOLUNTARY LABORATORY ACCREDITATION PROGRAM.—The Director may establish a voluntary laboratory accreditation program (including specific calibration and test standards, methods, and protocols) to meet the need for accreditation in the measurement of greenhouse gases.

''(3) CONSULTATION.—The Director shall carry out the program under this section in consultation with appropriate Federal agencies, including the Environmental Protection Agency, the Department of Energy, the

National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, and the National Science Foundation.''.

CHAPTER 3—INTERAGENCY PROGRAMS

SEC. 1561. GLOBAL CHANGE RESEARCH.

(a) FINDINGS.—Section 101(a) of the Global Change Research Act of 1990 (15 U.S.C. 2931(a)) is amended by adding at the end the following:

''(7) The present rate of advance in research and development, and the application of those advances, is inadequate and new developments must be incorporated rapidly into services for the benefit of the public.

''(8) The United States lacks adequate infrastructure and research to meet national climate monitoring and prediction needs.''.

(b) UPDATING AUTHORIZATION FOR COMMITTEE STRUCTURE.—

(1) DEFINITIONS.—Section 2 of the Global Change Research Act of 1990 (15 U.S.C. 2921) is amended—

(A) in paragraph (1), by inserting before the semicolon the following: ''or a successor committee''; and

(B) in paragraph (2), by inserting before the semicolon the following: ''or a successor body''.

(2) COMMITTEE ON EARTH AND ENVIRONMENTAL SCIENCES.—Section 102 of the Global Change Research Act of 1990 (15 U.S.C. 2932) is amended—

(A) in subsection (b), by striking the last sentence and inserting ''The representatives shall be the Deputy Secretary or the designee of the Deputy Secretary (or, in the case of an agency other than a department, the deputy head of that agency or the designees of the deputy).'';

(B) by redesignating subsections (d) and (e) as subsections (e) and (f), respectively;

(C) by inserting after subsection (c) the following:

''(d) SUBCOMMITTEES AND WORKING GROUPS.—

''(1) IN GENERAL.—There shall be a Subcommittee on Global Change Research, which shall carry out such functions of the Committee as are assigned by the Committee.

''(2) OTHER SUBCOMMITTEES AND WORKING GROUPS.—The Committee may establish such additional subcommittees and working groups as the Committee considers appropriate.''; and

(D) in subsection (f) (as redesignated by subparagraph (B)), by striking paragraph (6) and inserting the following:

''(6) routinely consult with actual and potential users of the results of the Program to assess information needs and ensure that the results are useful in developing international, national, regional, and local policy responses to global change; and''.

(c) NATIONAL GLOBAL CHANGE RESEARCH PLAN.—Section 104 of the Global Change Research Act of 1990 (15 U.S.C. 2934) is amended—

(1) in the last sentence of subsection (a), by inserting before the period '', including not later than 180 days after the date of enactment of the Energy and Climate Change Act of 2005'';

(2) in subsection (b)—

(A) in paragraph (1)—

(i) by inserting ''short-term and long-term'' before ''goals''; and

(ii) by striking ''usable information on which to base policy decisions relating to'' and inserting ''information relevant and readily usable by Federal, State, tribal, and local decision makers and other end-users, for the formulation of effective decisions and strategies for measuring, predicting, preventing, mitigating, and adapting to'';

(B) in paragraph (6)(D), by striking ''and'' at the end;

(C) by redesignating paragraph (7) as paragraph (9); and

(D) by inserting after subsection (6) the following:

''(7) evaluate and explain the accuracy of provided predictions in a manner that will enhance use of the predictions by Federal, State, tribal, and local decision makers and other end-users of the information; and

''(8) identify the categories of decision makers and describe how the program (including modeling capabilities) will develop decision support capabilities for the decision makers described in paragraph (7); and'';

(3) in subsection (c), by adding at the end the following:

''(6) Research necessary to monitor and predict societal and ecosystem impacts, to design adaptation and mitigation strategies, and to understand the costs and benefits of climate change and related response options.

''(7) Methods for integrating information to provide predictive and other tools for planning and decisionmaking by governments, communities, and the private sector.''; and

(4) in subsection (d)—

(A) in paragraph (2), by striking ''and'' at the end; and

(B) by striking paragraph (3) and inserting the following:

''(3) conduct routine assessments of the information needs of Federal, State, tribal, and local policy makers and other end-users;

''(4) combine and interpret data from various sources to produce information readily usable by local, tribal, State, and Federal policymakers and other end-users attempting to formulate effective decisions and strategies for preventing, mitigating, and adapting to the effects of global change;

''(5) develop methods for improving modeling and predictive capabilities and assessment methods to guide national, regional, and local planning and decisionmaking on land use, hazards related to water (including flooding, storm surges, and sea-level rise), and related issues; and

''(6) establish a common assessment and modeling framework that may be used in both research and operations to predict and assess the vulnerability of natural and managed ecosystems and human society in the context of other environmental and social changes.''.

(d) RESEARCH GRANTS.—Section 105 of the Global Change Research Act of 1990 (15 U.S.C. 2935) is amended—

(1) by redesignating subsection (c) as subsection (d); and

(2) by inserting after subsection (b) the following:

''(c) RESEARCH GRANTS.—

''(1) LIST OF PRIORITY RESEARCH AREAS.—The Committee shall develop a list of priority areas for research and development on climate change that are not being addressed by Federal agencies.

''(2) TRANSMISSION OF LIST.—The Director of the Office of Science and Technology Policy shall transmit the list to the National Science Foundation.

''(3) FUNDING.—

''(A) BUDGET REQUEST.—The National Science Foundation shall include funding for research in the priority areas on the list developed under paragraph (1) as part of the annual budget request for integrative activities of the National Science Foundation.

''(B) AUTHORIZATION.—For fiscal year 2006 and each subsequent fiscal year, to carry out research in the priority areas, there is authorized to be appropriated to the National Science Foundation not less than $17,000,000, to be managed through the Science and Technology Policy Institute.''.

(e) SCIENTIFIC ASSESSMENT.—Section 106 of the Global Change Research Act of 1990 (15 U.S.C. 2936) is amended—

(1) in paragraph (2), by striking ''and'' at the end;

(2) in paragraph (3)—

(A) by striking ''human-inducted'' and inserting ''human-induced''; and

(B) by striking the period at the end and inserting ''; and''; and

(3) by adding at the end the following:

''(4) evaluates the information being developed under this title, considering in particular the usefulness of the information to national, State, tribal, and local decision makers and other interested persons, including those in the private sector, after providing a meaningful opportunity for considering the views of those persons on the effectiveness of the Program and the usefulness of the information.''.

(f) NATIONAL CLIMATE SERVICE PLAN.—Title I of the Global Change Research Act of 1990 (15 U.S.C. 2931 et seq.) is amended by adding at the end the following:

''SEC. 109. NATIONAL CLIMATE SERVICE PLAN.

''Not later than 1 year after the date of enactment of the Energy and Climate Change Act of 2005, the Secretary of Commerce, after review by the Interagency Task Force on Climate Change established under section 103 of that Act, shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science of the House of Representatives a plan of action for a National Climate Service that contains recommendations and funding estimates for—

''(1) a national center for operational climate monitoring and predicting with the functional capacity to monitor and adjust observing systems as necessary to reduce bias;

''(2) the design, deployment, and operation of an adequate national climate observing system that builds upon existing environmental monitoring systems and closes gaps in coverage by existing systems;

''(3) the establishment of a national coordinated modeling strategy, including a national climate modeling center to provide a dedicated capability for climate modeling and a regular schedule of projections on a long-term and short-term time schedule and at a range of spatial scales;

''(4) improvements in modeling and assessment capabilities needed to integrate information to predict regional and local climate changes and impacts;

''(5) in coordination with the private sector, improving the capacity to assess the impacts of predicted and projected climate changes and variations;

''(6) a program for long term stewardship, quality control, development of relevant climate products, and efficient access to all relevant climate data, products, and critical model simulations; and

''(7) mechanisms to coordinate among Federal agencies, State, tribal, and local government entities and the academic community to ensure timely and full sharing and dissemination of climate information and services, both in the United States and internationally.''.

Subtitle E—Forests and Agriculture

SEC. 1571. DEFINITIONS.

In this subtitle:

(1) ADVISORY PANEL.—The term ''Advisory Panel'' means the Soil and Forestry Carbon Sequestration Panel established under subsection 1574(a).

(2) ELIGIBLE FOREST CARBON ACTIVITY.—The term ''eligible forest carbon activity'' means a forest management action that—

(A) helps restore forest land that has been underproducing or understocked for more than 5 years;

(B) maintains natural forest under a permanent conservation easement;

(C) provides for protection of a forest from nonforest use;

(D) allows a variety of sustainable management alternatives;

(E) maintains or improves a watershed or fish and wildlife habitat; or

(F) demonstrates permanence of carbon sequestration and promotes and sustains native species.

(3) FOREST CARBON RESERVOIR.—The term ''forest carbon reservoir'' means carbon that is stored in aboveground or underground soil and other forms of biomass that are associated with a forest ecosystem.

(4) FOREST CARBON SEQUESTRATION PROGRAM.—The term ''forest carbon sequestration program'' means the program established under subsection 1572(a).

(5) FOREST LAND.—

(A) IN GENERAL.—The term ''forest land'' means a parcel of land that is, or has been, at least 10 percent stocked by forest trees of any size.

(B) INCLUSIONS.—The term ''forest land'' includes—

(i) land on which forest cover may be naturally or artificially regenerated; and

(ii) a transition zone between a forested area and nonforested area that is capable of sustaining forest cover.

(6) FOREST MANAGEMENT ACTION.—

(A) IN GENERAL.—The term ''forest management action'' means an action that—

(i) applies forestry principles to the regeneration, management, use, or conservation of forests to meet specific goals and objectives;

(ii) demonstrates permanence of carbon sequestration and promotes and sustains native species; and

(iii) maintains the ecological sustainability and productivity of the forests or protects natural forests under a permanent conservation easement.

(B) INCLUSIONS.—The term ''forest management action'' includes management and use of forest land for the benefit of aesthetics, fish, recreation, urban values, water, wilderness, wildlife, wood products, or other forest values.

(7) REFORESTATION.—

(A) IN GENERAL.—The term ''reforestation'' means the reestablishment of forest cover naturally or artificially.

(B) INCLUSIONS.—The term ''reforestation'' includes planned replanting, reseeding, and natural regeneration.

(8) SECRETARY.—The term ''Secretary'' means the Secretary of Agriculture.

(9) SOIL CARBON SEQUESTRATION PROGRAM.—The term ''soil carbon sequestration program'' means the program established under section 1573(a)(1).

(10) STATE.—

(A) IN GENERAL.—The term ''State'' means—

(i) a State; and

(ii) the District of Columbia.

(B) INCLUSION.—The term ''State'' includes a political subdivision of a State.

(11) WILLING OWNER.—The term ''willing owner'' means a State or local government, Indian tribe, private entity, or other person or non-Federal organization that owns forest land and is willing to participate in the forest carbon sequestration program.

SEC. 1572. FOREST CARBON SEQUESTRATION PROGRAM.

(a) IN GENERAL.—The Secretary, acting through the Chief of the Forest Service and in collaboration with State foresters, State resource management agencies, and interested nongovernmental organizations, shall establish a forest carbon sequestration program under which the Secretary, directly or through agreements with 1 or more States, may enter into cooperative agreements with willing owners to carry out forest management actions or eligible forest carbon activities on not more than a total of 5,000 acres of forest land holdings to create or maintain a forest carbon reservoir.

(b) ASSISTANCE TO STATES.—

(1) IN GENERAL.—The Secretary shall provide assistance to States to enter into cooperative agreements with willing owners to carry out eligible forest carbon activities on forest land.

(2) REPORTING.—As a condition of receiving assistance under paragraph (1), a State shall annually submit to the Secretary a report disclosing the estimated quantity of carbon stored through the cooperative agreement.

(c) BONNEVILLE POWER ADMINISTRATION.—Each of the States of Idaho, Oregon, Montana, and Washington may apply for funding from the Bonneville Power Administration to fund a cooperative agreement that—

(1) meets the fish and wildlife objectives and priorities of the Bonneville Power Administration under the Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C. 839 et seq.); and

(2) meets the objectives of this section.

SEC. 1573. SOIL CARBON SEQUESTRATION PROGRAM.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—The Secretary, acting through the Chief of the Natural Resources Conservation Service and in cooperation with the Consortium for Agricultural Soils Mitigation of Greenhouse Gases, shall carry out at least 4 pilot programs to—

(A) develop, demonstrate, and verify the best management practices for enhanced soil carbon sequestration on agricultural land; and

(B) evaluate and establish standardized monitoring and verification methods and protocols.

(2) CRITERIA.—The Secretary shall select a pilot program based on—

(A) the merit of the proposed program; and

(B) the diversity of soil types, climate zones, crop types, cropping patterns, and sequestration practices available at the site of the proposed program.

(b) REQUIREMENTS.—A pilot program carried out under this section shall—

(1) involve agricultural producers in—

(A) the development and verification of best management practices for carbon sequestration; and

(B) the development and evaluation of carbon monitoring and verification methods and protocols on agricultural land;

(2) involve research and testing of the best management practices and monitoring and verification methods and protocols in various soil types and climate zones;

(3) analyze the effects of the adoption of the best management practices on—

(A) greenhouse gas emissions, water quality, and other aspects of the environment at the watershed level; and

(B) the full range of greenhouse gases; and

(4) use the results of the research conducted under the program to—

(A) develop best management practices for use by agricultural producers;

(B) provide a comparison of the costs and net greenhouse effects of the best management practices;

(C) encourage agricultural producers to adopt the best management practices; and

(D) develop best management practices on a regional basis for use in watersheds and States not participating in the pilot programs.

SEC. 1574. SOIL AND FORESTRY CARBON SEQUESTRATION PANEL.

(a) ESTABLISHMENT.—The Secretary, acting through the Chief of the Forest Service and the Chief of the Natural Resources Conservation Service, shall establish a soil and forestry carbon sequestration panel to—

(1) advise the Secretary in the development and updating of guidelines for accurate voluntary reporting of greenhouse gas sequestration from forest management actions and agricultural best management practices;

(2) evaluate the potential effectiveness (including cost effectiveness) of the guidelines in verifying carbon inputs and outputs and assessing impacts on other greenhouse gases from various forest management strategies and agricultural best management practices;

(3) estimate the effect of proposed implementation of the guidelines on—

(A) carbon sequestration and storage; and

(B) the net emissions of other greenhouse gases;

(4) provide estimates on the rates of carbon sequestration and net nitrous oxide and methane impacts for forests and various plants, agricultural commodities, and agricultural practices to assist the Secretary in determining the acceptability of the cooperative agreement offers made by willing owners;

(5) propose to the Secretary the standardized methods for—

(A) measuring carbon sequestered in soils and in forests; and

(B) estimating the impacts of the forest carbon sequestration program and the soil carbon sequestration program on other greenhouse gases; and

(6) assist the Secretary in reporting to Congress on the results of the forest carbon sequestration program and the soil carbon sequestration program.

(b) MEMBERSHIP.—The Advisory Panel shall be composed of the following members with interest and expertise in soil carbon sequestration and forestry management, appointed by the Secretary:

(1) 1 member representing national professional forestry organizations.

(2) 1 member representing national agriculture organizations.

(3) 2 members representing environmental or conservation organizations.

(4) 1 member representing Indian tribes.

(5) 3 members representing the academic scientific community.

(6) 2 members representing State forestry organizations.

(7) 2 members representing State agricultural organizations.

(8) 1 member representing the Environmental Protection Agency.

(9) 1 member representing the Department of Agriculture.

(c) TERMS.—

(1) IN GENERAL.—Except as provided in paragraph (2), a member of the Advisory Panel shall be appointed for a term of 3 years.

(2) INITIAL TERMS.—Of the members first appointed to the Advisory Panel—

(A) 1 member appointed under each of paragraphs (2), (4), (6), and (8) of subsection (b), as determined by the Secretary, shall serve an initial term of 1 year; and

(B) 1 member appointed under each of paragraphs (1), (3), (5), (7), and (9) of subsection (b), as determined by the Secretary, shall serve an initial term of 2 years.

(3) VACANCIES.—

(A) IN GENERAL.—A vacancy on the Advisory Panel shall be filled in the manner in which the original appointment was made.

(B) PARTIAL TERM.—A member appointed to fill a vacancy occurring before the expiration of a term shall be appointed only for the remainder of the term.

(C) SUCCESSIVE TERMS.—An individual may not be appointed to serve on the Advisory Panel for more than 2 full consecutive terms.

(d) EXISTING COMMITTEES.—The Secretary may use an existing Federal advisory committee to perform the tasks of the Advisory Panel if—

(1) representation on the advisory committee, the terms and background of members of the advisory committee, and the responsibilities of the advisory committee reflect those of the Advisory Panel; and

(2) those responsibilities are a priority for the advisory committee.

SEC. 1575. STANDARDIZATION OF CARBON SEQUESTRATION MEASUREMENT PROTOCOLS.

(a) ACCURATE MONITORING, MEASUREMENT, AND REPORTING.—

(1) IN GENERAL.—The Secretary, in collaboration with the States, shall—

(A) develop standardized measurement protocols for—

(i) carbon sequestered in soils and trees; and

(ii) impacts on other greenhouse gases;

(B)(i) develop standardized forms to monitor sequestration improvements made as a result of the forest carbon sequestration program and the soil carbon sequestration program; and

(ii) distribute the forms to participants in the forest carbon sequestration program and the soil carbon sequestration program; and

(C) at least once every 5 years, submit to the appropriate committees of Congress a report on the forest carbon sequestration program and the soil carbon sequestration program.

(2) CONTENTS OF REPORT.—A report under paragraph (1)(C) shall describe—

(A) carbon sequestration improvements made as a result of the forest carbon sequestration program and the soil carbon sequestration program;

(B) carbon sequestration practices on land owned by participants in the forest carbon sequestration program and the soil carbon sequestration program; and

(C) the degree of compliance with any cooperative agreements, contracts, or other arrangements entered into under this section.

(b) EDUCATIONAL OUTREACH.—The Secretary, acting through the Administrator of the Cooperative State Research, Education, and Extension Service, and in consultation with the Consortium for Agricultural Soils Mitigation of Greenhouse Gases, shall conduct an educational outreach program to collect and disseminate to owners and operators of agricultural and forest land research-based information on agriculture and forest management practices that will increase the sequestration of carbon, without threat to the social and economic well-being of communities.

(c) PERIODIC REVIEW.—At least once every 2 years, the Secretary shall—

(1) convene the Advisory Panel to evaluate the latest scientific and observational information on reporting, monitoring, and verification of carbon storage from forest management and soil sequestration actions; and

(2) issue, as necessary, revised recommendations for reporting, monitoring, and verifying carbon storage from forest management actions and agricultural best management practices.

SA 816. Mr. KOHL submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

At the appropriate place, insert the following:

SEC. REACTOR DEMONSTRATION PROGRAM

(1) Not later than 120 days after the date of enactment, and notwithstanding Section 302(a)(5) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(a)(5)), the Secretary is authorized to take title to the spent nuclear fuel withdrawn from the demonstration reactor remaining from the Cooperative Power Reactor Demonstration Program (Pub. L. No. 87–315, Sec. 109, 75 Stat. 679), the Dairyland Power Cooperative La Crosse Boiling Water Reactor. Immediately upon the Secretary's taking title to the Dairyland Power Cooperative La Crosse Boiling Water Reactor spent nuclear fuel, the Secretary shall assume all responsibility and liability for the interim storage and permanent disposal thereof and is authorized to compensate Dairyland Power Cooperative for any costs related to operating and maintaining facilities necessary for such storage, from the date of taking title until the Secretary removes the spent nuclear fuel from the Dairyland Power Cooperative La Crosse Boiling Water Reactor site. The Secretary's obligation to take title or compensate the holder of the Dairyland Power Cooperative La Crosse Boiling Water Reactor spent nuclear fuel under this section shall include all of such fuel, regardless of the delivery commitment schedule for such fuel under the Secretary's contract with the Dairyland Power Cooperative as the contract holder under Section 302(a) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(a)) or the acceptance schedule for such fuel under section 106 of this Act.

(2) As a condition to the Secretary's taking of title to the Dairyland Power Cooperative La Crosse Boiling Water Reactor spent nuclear fuel, the contract holder for such fuel shall enter into a settlement agreement containing a waiver of claims against the United States as provided in this section.

(3) Nothing in this section shall limit the Secretary's existing authority to enter into settlement agreements or address shutdown reactors and any associated public health and safety or environmental concerns that may arise.

SA 817. Mr. HAGEL (for himself, Mr. PRYOR, Mr. ALEXANDER, Ms. LANDRIEU, Mr. CRAIG, Mrs. DOLE, Ms. MURKOWSKI, Mr. VOINOVICH, and Mr. STEVENS) proposed an amendment to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

At the end of the bill, add the following:

TITLE XV—CLIMATE CHANGE

Subtitle A—National Climate Change Technology Deployment

SEC. 1501. GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGY STRATEGIES.

Title XVI of the Energy Policy Act of 1992 (42 U.S.C. 13381 et seq.) is amended by adding at the end the following:

"SEC. 1610. GREENHOUSE GAS INTENSITY REDUCING STRATEGIES.

''(a) DEFINITIONS.—In this section:

''(1) CARBON SEQUESTRATION.—The term 'carbon sequestration' means the capture of carbon dioxide through terrestrial, geological, biological, or other means, which prevents the release of carbon dioxide into the atmosphere.

''(2) COMMITTEE.—The term 'Committee' means the Interagency Coordinating Committee on Climate Change Technology established under subsection (c)(1).

''(3) DEVELOPING COUNTRY.—The term 'developing country' has the meaning given the term in section 1608(m).

''(4) GREENHOUSE GAS.—The term 'greenhouse gas' means—

''(A) carbon dioxide;

''(B) methane;

''(C) nitrous oxide;

''(D) hydrofluorocarbons;

''(E) perfluorocarbons; and

''(F) sulfur hexafluoride.

''(5) GREENHOUSE GAS INTENSITY.—The term 'greenhouse gas intensity' means the ratio of greenhouse gas emissions to economic output.

''(6) NATIONAL LABORATORY.—The term 'National Laboratory' means a laboratory owned by the Department of Energy.

''(7) WORKING GROUP.—The term 'Working Group' means the Climate Change Technology Working Group established under subsection (f)(1).

''(b) OFFICE OF SCIENCE AND TECHNOLOGY POLICY STRATEGY.—

''(1) IN GENERAL.—Not later than 18 months after the date of enactment of this section, the Director of the Office of Science and Technology Policy shall, based on applicable Federal climate reports, submit to the Secretary and the President a national strategy to promote the deployment and commercialization of greenhouse gas intensity reducing technologies and practices developed through research and development programs conducted by the National Laboratories, other Federal research facilities, universities, and the private sector.

''(2) AVAILABILITY OF STRATEGY; UPDATES.—The President shall—

''(A) on submission of the strategy to the President under paragraph (1), make the strategy available to the public; and

''(B) update the strategy as the President determines to be necessary.

''(c) INTERAGENCY COORDINATING COMMITTEE ON CLIMATE CHANGE TECHNOLOGY.—

''(1) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the Secretary shall establish an Interagency Coordinating Committee on Climate Change Technology to—

''(A) integrate current Federal climate reports; and

''(B) coordinate Federal climate change activities and programs carried out in furtherance of the strategy developed under subsection (b)(1).

''(2) MEMBERSHIP.—The Committee shall be composed of at least 6 members, including—

''(A) the Secretary;

''(B) the Secretary of Commerce;

''(C) the Chairman of the Council on Environmental Quality;

''(D) the Secretary of Agriculture;

''(E) the Administrator of the Environmental Protection Agency; and

''(F) the Secretary of Transportation.

''(3) STAFF.—The Secretary shall provide such personnel as are necessary to enable the Committee to perform the duties of the Committee.

''(d) CLIMATE CHANGE SCIENCE PROGRAM AND CLIMATE CHANGE TECHNOLOGY PROGRAM.—

''(1) CLIMATE CHANGE SCIENCE PROGRAM.—Not later than 180 days after the date on which the strategy is submitted under subsection (b)(1), the Secretary of Commerce, in cooperation with the Committee, shall permanently establish within the Department of Commerce the Climate Change Science Program to assist the Committee in the interagency coordination of climate change science research and related activities, including—

''(A) assessments of the state of knowledge on climate change; and

''(B) carrying out supporting studies, planning, and analyses of the science of climate change.

''(2) CLIMATE CHANGE TECHNOLOGY PROGRAM.—Not later than 180 days after the date on which the strategy is submitted under

subsection (b)(1), the Secretary, in cooperation with the Committee, shall permanently establish within the Department of Energy, the Climate Change Technology Program to assist the Committee in the interagency coordination of climate change technology research, development, demonstration, and deployment to reduce greenhouse gas intensity.

''(e) TECHNOLOGY INVENTORY.—

''(1) IN GENERAL.—The Secretary shall conduct an inventory and evaluation of greenhouse gas intensity reducing technologies that have been developed, or are under development, by the National Laboratories, other Federal research facilities, universities, and the private sector to determine which technologies are suitable for commercialization and deployment.

''(2) REPORT.—Not later than 180 days after the completion of the inventory under paragraph (1), the Secretary shall submit to the Secretary of Commerce and Congress a report that includes the results of the completed inventory and any recommendations of the Secretary.

''(3) USE.—The Secretary, in consultation with the Secretary of Commerce, shall use the results of the inventory as guidance in the commercialization and deployment of greenhouse gas intensity reducing technologies.

''(4) UPDATED INVENTORY.—The Secretary shall—

''(A) periodically update the inventory under paragraph (1); and

''(B) make the updated inventory available to the public.

''(f) CLIMATE CHANGE TECHNOLOGY WORKING GROUP.—

''(1) IN GENERAL.—The Secretary, in consultation with the Committee, shall establish within the Department of Energy a Climate Change Technology Working Group to identify statutory, regulatory, economic, and other barriers to the commercialization and deployment of greenhouse gas intensity reducing technologies and practices in the United States.

''(2) COMPOSITION.—The Working Group shall be composed of the following members, to be appointed by the Secretary, in consultation with the Committee:

''(A) 1 representative shall be appointed from each National Laboratory.

''(B) 3 members shall be representatives of energy-producing trade organizations.

''(C) 3 members shall represent energy-intensive trade organizations.

''(D) 3 members shall represent groups that represent end-use energy and other consumers.

''(E) 3 members shall be employees of the Federal Government who are experts in energy technology, intellectual property, and tax.

''(F) 3 members shall be representatives of universities with expertise in energy technology development that are recommended by the National Academy of Engineering.

''(3) REPORT.—Not later than 1 year after the date of enactment of this section and annually thereafter, the Working Group shall submit to the Committee a report that describes—

''(A) the findings of the Working Group; and

''(B) any recommendations of the Working Group for the removal or reduction of barriers to commercialization, deployment, and increasing the use of greenhouse gas intensity reducing technologies and practices.

''(4) COMPENSATION OF MEMBERS.—

''(A) NON-FEDERAL EMPLOYEES.—A member of the Working Group who is not an officer or employee of the Federal Government shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the performance of the duties of the Working Group.

''(B) FEDERAL EMPLOYEES.—A member of the Working Group who is an officer or employee of the Federal Government shall serve without compensation in addition to the compensation received for the services of the member as an officer or employee of the Federal Government.

''(C) TRAVEL EXPENSES.—A member of the Working Group shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for an employee of an agency under subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place of business of the member in the performance of the duties of the Commission.

''(g) GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGY DEPLOYMENT.—

''(1) IN GENERAL.—Based on the strategy developed under subsection (b)(1), the technology inventory conducted under subsection (e)(1), and the greenhouse gas intensity reducing technology study report submitted under subsection (e)(2), the Committee shall develop a program for implementation by the Climate Credit Board established under section 1611(b)(2)(A) that would provide for the removal of domestic barriers to the commercialization and deployment of greenhouse gas intensity reducing technologies and practices.

''(2) REQUIREMENTS.—In developing the program under paragraph (1), the Committee shall consider in the aggregate—

''(A) the cost-effectiveness of the technology;

''(B) fiscal and regulatory barriers;

''(C) statutory and other barriers; and

''(D) intellectual property issues.

''(3) REPORT.—Not later than 18 months after the date of enactment of this section, the Committee shall submit to the President and Congress a report that—

''(A) identifies, based on the report submitted under subsection (f)(3), any barriers to, and commercial risks associated with, the deployment of greenhouse gas intensity reducing technologies; and

''(B) includes a plan for carrying out eligible projects with Federal financial assistance under section 1611.

''(h) PROCEDURES FOR CALCULATING, MONITORING, AND ANALYZING GREENHOUSE GAS INTENSITY.—

''(1) IN GENERAL.—The Committee, in collaboration with the Administrator of the Energy Information Administration and the National Institute of Standards and Technology, shall develop and propose standards and best practices for calculating, monitoring, and analyzing greenhouse gas intensity.

''(2) CONTENT.—The standards and best practices shall address measurement of greenhouse gas intensity by industry sector.

''(3) PUBLICATION.—To provide the public with an opportunity to comment on the standards and best practices proposed under paragraph (1), the standards and best practices shall be published in the Federal Register.

''(4) APPLICABLE LAW.—To ensure that high quality information is produced, the standards and best practices developed under paragraph (1) shall conform to the guidelines established under section 515 of the Treasury and General Government Appropriations Act, 2001 (commonly known as the 'Data Quality Act') (44 U.S.C. 3516 note; 114 Stat. 2763A–1543), as enacted into law by section 1(a)(3) of Public Law 106–554.

''(i) DEMONSTRATION PROJECTS.—

''(1) IN GENERAL.—The Secretary shall, subject to availability of appropriations, conduct and participate in demonstration projects recommended for approval by the Committee, including demonstration projects relating to—

''(A) coal gasification and coal liquefaction;

''(B) carbon sequestration;

''(C) cogeneration technology initiatives;

''(D) advanced nuclear power projects;

''(E) lower emission transportation;

''(F) renewable energy; and

''(G) transmission upgrades.

''(2) CRITERIA.—The Committee shall recommend a demonstration project under paragraph (1) if the proposed demonstration project would—

''(A) increase the reduction of the greenhouse gas intensity to levels below that which would be achieved by technologies being used in the United States as of the date of enactment of this section;

''(B) maximize the potential return on Federal investment;

''(C) demonstrate distinct roles in public-private partnerships;

''(D) produce a large-scale reduction of greenhouse gas intensity if commercialization occurred; and

''(E) support a diversified portfolio to mitigate the uncertainty associated with a single technology.

''(j) COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS.—In carrying out greenhouse gas intensity reduction research and technology deployment, the Secretary may enter into cooperative research and development agreements under section 12 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a).

''(k) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.''.

SEC. 1502. CLIMATE INFRASTRUCTURE CREDIT.

Title XVI of the Energy Policy Act of 1992 (42 (U.S.C. 13381 et seq.) (as amended by section 1501) is amended by adding at the end the following:

''SEC. 1611. CLIMATE INFRASTRUCTURE CREDIT.

''(a) DEFINITIONS.—In this section:

''(1) ADVANCED CLIMATE TECHNOLOGY OR SYSTEM.—The term 'advanced climate technology or system' means a climate technology or system that is not in general usage as of the date of enactment of this section.

''(2) BOARD.—The term 'Board' means the Climate Credit Board established under subsection (b)(2)(A).

''(3) DIRECT LOAN.—The term 'direct loan' has the meaning given the term in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

''(4) ELIGIBLE PROJECT.—The term 'eligible project' means a demonstration project that is recommended for approval under section 1610(i)(1).

''(5) ELIGIBLE PROJECT COST.—The term 'eligible project cost' means any amount incurred for an eligible project that is paid by, or on behalf of, an obligor, including the costs of—

''(A) construction activities, including—

''(i) the acquisition of capital equipment; and

''(ii) construction management;

''(B) acquiring land (including any improvements to the land) relating to the eligible project; and

''(C) financing the eligible project, including—

''(i) providing capitalized interest necessary to meet market requirements;

''(ii) capital issuance expenses; and

''(iii) other carrying costs during construction.

''(6) FEDERAL FINANCIAL ASSISTANCE.—The term 'Federal financial assistance' means any credit-based financial assistance, including a direct loan, loan guarantee, a line of credit (which serves as standby default coverage or standby interest coverage), production incentive payment under subsection (g)(1)(B), or other credit-based financial assistance mechanism for an eligible project that is—

''(A) authorized to be made available by the Secretary for an eligible project under this section; and

''(B) provided in accordance with the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.).

''(7) INVESTMENT-GRADE RATING.—The term 'investment-grade rating' means a rating category of BBB minus, Baa3, or higher assigned by a rating agency for eligible project obligations offered into the capital markets.

''(8) LENDER.—The term 'lender' means any non-Federal qualified institutional buyer (as defined in section 230.144A(a) of title 17, Code of Federal Regulations (or any successor regulation), known as Rule 144A(a) of the Securities and Exchange Commission and issued under the Securities Act of 1933 (15 U.S.C. 77a et seq.)), including—

''(A) a qualified retirement plan (as defined in section 4974(c) of the Internal Revenue Code of 1986) that is a qualified institutional buyer; and

''(B) a governmental plan (as defined in section 414(d) of the Internal Revenue Code of 1986) that is a qualified institutional buyer.

''(9) LOAN GUARANTEE.—The term 'loan guarantee' means any guarantee or other pledge by the Secretary to pay all or part of the principal of and interest on a loan or other debt obligation that is issued by an obligor and funded by a lender.

''(10) OBLIGOR.—The term 'obligor' means a person or entity (including a corporation, partnership, joint venture, trust, or governmental entity, agency, or instrumentality) that is primarily liable for payment of the principal of, or interest on, a Federal credit instrument.

''(11) PROJECT OBLIGATION.—The term 'project obligation' means any note, bond, debenture, or other debt obligation issued by an obligor in connection with the financing of an eligible project, other than a Federal credit instrument.

''(12) RATING AGENCY.—The term 'rating agency' means a bond rating agency identified by the Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization.

''(13) REGULATORY FAILURE.—The term 'regulatory failure' means a situation in which the Secretary determines that, because of a breakdown in a regulatory process or an indefinite delay caused by a judicial challenge to the regulatory consideration of a specific eligible project, the Federal or State regulatory or licensing process governing the siting, construction, or commissioning of an eligible project does not produce a definitive determination that the eligible project may go forward or stop within a predetermined and prescribed time period.

''(14) SECURED LOAN.—The term 'secured loan' means a loan or other secured debt obligation issued by an obligor and funded by the Secretary in connection with the financing of an eligible project.

''(15) STANDBY DEFAULT COVERAGE.—The term 'standby default coverage' means a pledge by the Secretary to pay all or part of the debt obligation issued by an obligor and funded by a lender, plus all or part of obligor equity, if an eligible project fails to receive an operating license in a period of time established by the Secretary because of a regulatory failure or other specific issue identified by the Secretary.

''(16) STANDBY INTEREST COVERAGE.—The term 'standby interest coverage' means a pledge by the Secretary to provide to an obligor, at a future date and on the occurrence of 1 or more events, a direct loan, the proceeds of which shall be used by the obligor to maintain the current status of the obligor on interest payments due on 1 or more loans or other project obligations issued by an obligor and funded by a lender for an eligible project.

''(17) SUBSIDY AMOUNT.—The term 'subsidy amount' means the amount of budget authority sufficient to cover the estimated long-term cost to the Federal Government of a Federal credit instrument issued by the Secretary to an eligible project, calculated on a net present value basis, excluding administrative costs and any incidental effects on governmental receipts or outlays in accordance with the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.).

''(18) SUBSTANTIAL COMPLETION.—The term 'substantial completion' means that an eligible project has been determined by the Board to be in, or capable of, commercial operation.

''(b) DUTIES OF THE SECRETARY.—

''(1) IN GENERAL.—The Secretary shall make available to eligible project developers and eligible project owners, in accordance with this section, such financial assistance as is necessary to supplement private sector financing for eligible projects.

''(2) CLIMATE CREDIT BOARD.—

''(A) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the Secretary shall establish within the Department of Energy a Climate Credit Board composed of—

''(i) the Under Secretary of Energy, who shall serve as Chairperson;

''(ii) the Chief Financial Officer of the Department of Energy;

''(iii) the Assistant Secretary of Energy for Policy and International Affairs;

''(iv) the Assistant Secretary of Energy for Energy Efficiency and Renewable Energy; and

''(v) such other individuals as the Secretary determines to have the experience and expertise (including expertise in corporate and project finance and the energy sector) necessary to carry out the duties of the Board.

''(B) DUTIES.—The Board shall—

''(i) implement the program developed under section 1610(g)(1) in accordance with paragraph (3);

''(ii) issue regulations and criteria in accordance with paragraph (4);

''(iii) conduct negotiations with individuals and entities interested in obtaining assistance under this section;

''(iv) recommend to the Secretary potential recipients and amounts of grants of assistance under this section; and

''(v) establish metrics to indicate the progress of the greenhouse gas intensity reducing technology deployment program and individual projects carried out under the program toward meeting the criteria established by section 1610(i)(2).

''(3) GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGY DEPLOYMENT PROGRAM.—Not later than 1 year after the date of enactment of this section, the Board, with the approval of the Secretary, shall implement the greenhouse gas intensity reducing technology deployment program developed under section 1610(g)(1).

''(4) REGULATIONS AND CRITERIA.—

''(A) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Board, in coordination with the Secretary and after an opportunity for public comment, shall issue such regulations and criteria as are necessary to implement this section.

''(B) REQUIREMENTS.—The regulations and criteria shall provide for, at a minimum—

''(i) a competitive process and the general terms and conditions for the provision of assistance under this section;

''(ii) the procedures by which eligible project owners and eligible project developers may request financial assistance under this section; and

''(iii) the collection of any other information necessary for the Secretary to carry out this section, including a process for negotiating the terms and conditions of assistance provided under this section.

''(C) ELIGIBILITY AND CRITERIA.—The determination of eligibility of, and criteria for selecting, eligible projects to receive assistance under this section shall be carried out in accordance with subsection (c) and the regulations issued under subparagraph (A).

''(D) CONDITIONS FOR PROVISION OF ASSISTANCE.—The Board shall not provide assistance under this section unless the Board determines, in accordance with the regulations issued under subparagraph (A), that the terms, conditions, maturity, security, schedule, and amounts of repayments of the assistance are reasonable and appropriate to protect the financial interests of the United States.

''(5) CONFIDENTIALITY.—In accordance with section 552 of title 5, United States Code, and any related regulations applicable to the Department of Energy, the Board shall protect the confidentiality of any information provided by an applicant for assistance under this section that the applicant certifies to be commercially sensitive or that is protected intellectual property.

''(c) DETERMINATION OF ELIGIBILITY; PROJECT SELECTION.—

''(1) ELIGIBILITY.—To be eligible to receive assistance under this section, an eligible project shall, as determined by the Board—

''(A) be supported by an application that contains all information required to be included by, and is submitted to and approved by the Board in accordance with, the regulations and criteria issued by the Board under subsection (b)(4);

''(B) be nationally or regionally significant by—

''(i) reducing greenhouse gas intensity;

''(ii) contributing to energy security; and

''(iii) contributing to energy and technology diversity in the energy economy of the United States;

''(C) contain an advanced climate technology or system that could—

''(i) significantly improve the efficiency, security, reliability, and environmental performance of the energy economy of the United States; and

''(ii) reduce greenhouse gas emissions;

''(D) have revenue sources dedicated to repayment of credit support-based project financing, such as revenue—

''(i) from the sale of sequestered carbon;

''(ii) from the sale of energy, electricity, or other products from eligible projects that employ advanced climate technologies and systems;

''(iii) from the sale of electricity or generating capacity, in the case of electricity infrastructure; or

''(iv) associated with energy efficiency gains, in the case of other energy projects;

''(E) include a project proposal and agreement for project financing repayment that demonstrates to the satisfaction of the Board that the dedicated revenue sources described in subparagraph (D) will be adequate to repay project financing provided under this section; and

''(F) reduce greenhouse gas intensity on a national, regional, or company basis.

''(2) LIMITATIONS.—Except as otherwise provided in this section—

''(A) the total cost of an eligible project provided Federal financial assistance under this section shall be at least $40,000,000;

''(B) the Federal share of an eligible project provided Federal financial assistance under this section shall be not more than 25 percent of eligible project costs;

''(C) not more than $200,000,000 in Federal financial assistance shall be provided to any individual eligible project; and

''(D) an eligible project shall not be eligible for financial assistance from any other Federal grant program during any period that Federal financial assistance (other than a Federal loan or loan guarantee) is provided to the eligible project under this section.

''(3) SELECTION AMONG ELIGIBLE PROJECTS.—

''(A) ESTABLISHMENT OF SELECTION CRITERIA.—The Board, in consultation with the Secretary and [the Interagency Coordinating Committee on Climate Change Technology established under section 1610(c)(1)], shall, in accordance with the regulations issued under subsection (b)(4)(A), establish criteria for selecting which eligible projects will receive assistance under this section.

''(B) REQUIREMENTS.—The selection criteria shall include a determination by the Board of the extent to which—

''(i) the eligible project reduces greenhouse gas intensity beyond reductions achieved by technology available as of October 15, 1992;

''(ii) financing for the eligible project has appropriate security features, such as a rate covenant, to ensure repayment;

''(iii) assistance under this section for the eligible project would foster innovative public-private partnerships and attract private debt or equity investment;

''(iv) assistance under this section for an eligible project would enable the eligible project to proceed at an earlier date than would otherwise be practicable; and

''(v) the eligible project uses new technologies that enhance the efficiency, reduce greenhouse gas intensity, improve the reliability, or improve the safety, of the eligible project.

''(C) FINANCIAL INFORMATION.—An application for assistance for an eligible project under this section shall include such information as the Secretary determines to be necessary concerning—

''(i) the amount of budget authority required to fund the Federal credit instrument requested for the eligible project;

''(ii) the estimated construction costs of the proposed eligible project;

''(iii) estimates of construction and operating costs of the eligible project;

''(iv) projected revenues from the eligible project; and

''(v) any other financial aspects of the eligible project, including assurances, that the Board determines to be appropriate.

''(D) PRELIMINARY RATING OPINION LETTER.—The Board shall require each applicant seeking assistance for an eligible project under this section to provide a preliminary rating opinion letter from at least 1 credit rating agency indicating that the senior obligations of the eligible project have the potential to achieve an investment-grade rating.

''(E) RISK ASSESSMENT.—Before entering into any agreement to provide assistance for an eligible project under this section, the Board, in consultation with the Secretary, the Director of the Office of Management and Budget, and each credit rating agency providing a preliminary rating opinion letter under subparagraph (D), shall determine and maintain an appropriate capital reserve subsidy amount for each line of credit established for the eligible project, taking into account the information contained in the preliminary rating opinion letter.

''(F) INVESTMENT-GRADE RATING REQUIREMENT.—

''(i) IN GENERAL.—The funding of any assistance under this section shall be contingent on the senior obligations of the eligible project receiving an investment-grade rating from at least 1 credit rating agency.

''(ii) CONSIDERATIONS.—In determining whether an investment-grade rating is appropriate under clause (i), the credit rating agency shall take into account the availability of Federal financial assistance under this section.

''(4) MAXIMUM AVAILABLE CLIMATE CREDIT SUPPORT.—Notwithstanding any assistance limitation under any other provision of this section, the Secretary shall not provide energy credit support to any eligible project in the form of a secured loan or loan guarantee under subsection (f), production incentive payments under subsection (g), or other credit-based financial assistance under subsection (h), the combined total of which exceeds 25 percent of eligible project costs, excluding the value of standby default coverage under subsection (d) and standby interest coverage under subsection (e), as determined by the Secretary.

''(d) STANDBY DEFAULT COVERAGE.—

''(1) AGREEMENTS; USE OF PROCEEDS.—

''(A) AGREEMENTS.—

''(i) IN GENERAL.—Subject to subparagraph (B), the Board, in consultation with the Secretary, may enter into agreements to provide standby default coverage for advanced climate technologies or systems of an eligible project.

''(ii) RECIPIENTS.—Coverage under clause (i) may be provided to 1 or more obligors and debt holders to be triggered at future dates on the occurrence of certain events for any eligible project selected under subsection (c).

''(B) USE OF PROCEEDS.—The proceeds of standby default coverage made available under this subsection shall be available to reimburse all or part of the debt obligation for an eligible project issued by an obligor and funded by a lender, plus all or part of obligor equity, in the event that, because of a regulatory failure or other event specified by the Secretary pursuant to this section, an eligible advanced climate technology or system for an eligible project fails to receive an operating license in a period of time specified by the Board in accordance with this subsection.

''(2) TERMS AND LIMITATIONS.—

''(A) IN GENERAL.—Standby default coverage under this subsection with respect to an eligible project shall be on such terms and conditions and contain such covenants, representations, warranties, and requirements (including requirements for audits) as the Board determines to be appropriate.

''(B) MAXIMUM AMOUNTS.—The total amount of standby default coverage provided for an eligible project shall not exceed 25 percent of the reasonably anticipated eligible project costs, including debt and equity.

''(C) EXERCISE.—Any exercise on the standby default coverage shall be made only if a facility involved with the eligible project fails, because of regulatory failure or other specific issues specified by the Secretary, to receive an operating license by such deadline as the Secretary shall establish.

''(D) COST OF COVERAGE.—The cost of standby default coverage shall be assumed by the Secretary subject to the risk assessment calculation required under subsection (c)(4)(E) and the availability of funds for that purpose.

''(E) FEES.—In carrying out this section, the Secretary may—

''(i) establish fees at a level sufficient to cover all or a portion of the administrative costs incurred by the Federal Government in providing standby default coverage under this subsection; and

''(ii) require that the fees be paid upon application for a standby default coverage agreement under this subsection.

''(F) PERIOD OF AVAILABILITY.—In the event that regulatory approval to operate a facility is suspended as a result of regulatory failure or other circumstances specified by the Secretary, standby default coverage shall be available beginning on the date of substantial completion and ending not later than 5 years after the date on which operation of the facility is scheduled to commence.

''(G) RIGHTS OF THIRD-PARTY CREDITORS.—

''(i) AGAINST FEDERAL GOVERNMENT.—A third-party creditor of an obligor shall not have any right against the Federal Government with respect to any amounts other than those specified in clause (ii).

''(ii) ASSIGNMENT.—An obligor may assign all or part of the standby default coverage for an eligible project to 1 or more lenders or to a trustee on behalf of the lenders.

''(H) RESULT OF EXERCISE OF STANDBY DEFAULT COVERAGE.—If standby default coverage is exercised by the obligor of an eligible project—

''(i) the Federal Government shall become the sole owner of the eligible project, with all rights and appurtenances to the eligible project; and

''(ii) in accordance with applicable provisions of law, the Board shall dispose of the assets of the eligible project on terms that are most favorable to the Federal Government, which may include continuing to licensing and commercial operation or resale of the eligible project, in whole or in part, if that is the best course of action in the judgment of the Board.

''(I) ESTIMATE OF ASSETS AT TIME OF TERMINATION.—If standby default coverage is exercised and an eligible project is terminated, the Board, in making a determination of whether to dispose of the assets of the eligible project or continue the eligible project to licensing and commercial operation, shall obtain a fair and impartial estimate of the eligible project assets at the time of termination.

''(J) RELATIONSHIP TO OTHER CREDIT INSTRUMENTS.—An eligible project that receives standby default coverage under this subsection may receive a secured loan or loan guarantee under subsection (f), production incentive payments under subsection (g), or assistance through a credit-based financial assistance mechanism under subsection (h).

''(K) OTHER CONDITIONS AND REQUIREMENTS.—The Secretary may impose such other conditions and requirements in connection with any insurance provided under this subsection (including requirements for audits) as the Secretary determines to be appropriate.

''(e) STANDBY INTEREST COVERAGE.—

''(1) IN GENERAL.—

''(A) AGREEMENTS.—Subject to subparagraph (B), the Board, in consultation with the Secretary, may enter into agreements to make standby interest coverage available to 1 or more obligors in the form of loans for advanced climate or energy technologies or systems to be made by the Board at future dates on the occurrence of certain events for any eligible project selected under subsection (c)(4).

''(B) USE OF PROCEEDS.—Subject to subsection (c)(3), the proceeds of standby interest coverage made available under this subsection shall be available to pay the debt service on project obligations issued to finance eligible project costs of an eligible

project if a delay in commercial operations occurs due to a regulatory failure or other condition determined by the Secretary.

''(2) TERMS AND LIMITATIONS.—

''(A) IN GENERAL.—Standby interest coverage under this subsection with respect to an eligible project shall be made on such terms and conditions (including a requirement for an audit) as the Secretary determines appropriate.

''(B) MAXIMUM AMOUNTS.—

''(i) TOTAL AMOUNT.—The total amount of standby interest coverage for an eligible project under this subsection shall not exceed 25 percent of the reasonably anticipated eligible project costs of the eligible project.

''(ii) 1-YEAR DRAWS.—The amount drawn in any 1 year for an eligible project under this subsection shall not exceed 25 percent of the total amount of the standby interest coverage for the eligible project.

''(C) PERIOD OF AVAILABILITY.—The standby interest coverage for an eligible project shall be available during the period—

''(i) beginning on a date following substantial completion of the eligible project that regulatory approval to operate a facility under the eligible project is suspended as a result of regulatory failure or other condition determined by the Secretary; and

''(ii) ending on a date that is not later than 5 years after the eligible project is scheduled to commence commercial operations.

''(D) COST OF COVERAGE.—Subject to subsection (c)(4)(E), the cost of standby interest coverage for an eligible project under this subsection shall be borne by the Secretary.

''(E) DRAWS.—Any draw on the standby interest coverage for an eligible project shall—

''(i) represent a loan;

''(ii) be made only if there is a delay in commercial operations after the substantial completion of the eligible project; and

''(iii) be subject to the overall credit support limitations established under subsection (c)(5).

''(F) INTEREST RATE.—

''(i) IN GENERAL.—Subject to clause (ii), the interest rate on a loan resulting from a draw on standby interest coverage under this subsection shall be established by the Secretary.

''(ii) MINIMUM RATE.—The interest rate on a loan resulting from a draw on standby interest coverage under this subsection shall not be less than the current average market yield on outstanding marketable obligations of the United States with a maturity of 10 years, as of the date on which the standby interest coverage is obligated.

''(G) SECURITY.—The standby interest coverage for an eligible project—

''(i) shall be payable, in whole or in part, from dedicated revenue sources generated by the eligible project;

''(ii) shall require security for the project obligations; and

''(iii) may have a lien on revenues described in clause (i), subject to any lien securing project obligations.

''(H) RIGHTS OF THIRD-PARTY CREDITORS.—

''(i) AGAINST FEDERAL GOVERNMENT.—A third-party creditor of the obligor shall not have any right against the Federal Government with respect to any draw on standby interest coverage under this subsection.

''(ii) ASSIGNMENT.—An obligor may assign the standby interest coverage to 1 or more lenders or to a trustee on behalf of the lenders.

''(I) SUBORDINATION.—A secured loan for an eligible project made under this subsection shall be subordinate to senior private debt issued by a lender for the eligible project.

''(J) NONRECOURSE STATUS.—A secured loan for an eligible project under this subsection shall be nonrecourse to the obligor in the event of bankruptcy, insolvency, or liquidation of the eligible project.

''(K) FEES.—The Board may impose fees at a level sufficient to cover all or part of the costs to the Federal Government of providing standby interest coverage for an eligible project under this subsection.

''(3) REPAYMENT.—

''(A) TERMS AND CONDITIONS.—The Secretary shall establish a repayment schedule and terms and conditions for each loan for an eligible project under this subsection based on the projected cash flow from revenues for the eligible project.

''(B) REPAYMENT SCHEDULE.—Scheduled repayments of principal or interest on a loan under this subsection shall—

''(i) commence not later than 5 years after the end of the period of availability specified in paragraph (2)(C); and

''(ii) be completed, with interest, not later than 10 years after the end of the period of availability.

''(C) SOURCES OF REPAYMENT FUNDS.—The sources of funds for scheduled loan repayments under this subsection shall include—

''(i) the sale of electricity or generating capacity;

''(ii) the sale or transmission of energy;

''(iii) revenues associated with energy efficiency gains; or

''(iv) other dedicated revenue sources, such as carbon use.

''(D) PREPAYMENT.—

''(i) USE OF EXCESS REVENUES.—At the discretion of the obligor, any excess revenues that remain after satisfying scheduled debt service requirements on the project obligations and secured loan, and all deposit requirements under the terms of any trust agreement, bond resolution, or similar agreement securing project obligations, may be applied annually to prepay the secured loan without penalty.

''(ii) USE OF PROCEEDS OF REFINANCING.—The secured loan may be prepaid at any time without penalty from the proceeds of refinancing from non-Federal funding sources.

''(f) SECURED LOANS AND LOAN GUARANTEES.—

''(1) IN GENERAL.—

''(A) AGREEMENTS.—Subject to subparagraph (B), the Board, in consultation with the Secretary, may enter into agreements with 1 or more obligors to make secured loans for eligible projects involving advanced climate technologies or systems.

''(B) USE OF PROCEEDS.—Subject to paragraph (2), the proceeds of a secured loan for an eligible project made available under this subsection shall be available, in conjunction with the equity of the obligor and senior debt financing for the eligible project, to pay for eligible project costs.

''(2) TERMS AND LIMITATIONS.—

''(A) IN GENERAL.—A secured loan under this subsection with respect to an eligible project shall be made on such terms and conditions (including requirements for an audit) as the Board, in consultation with the Secretary, determines appropriate.

''(B) MAXIMUM AMOUNT.—Subject to subsection (c)(5), the total amount of the secured loan for an eligible project under this subsection shall not exceed 25 percent of the reasonably anticipated eligible project costs of the eligible project.

''(C) PERIOD OF AVAILABILITY.—The Board may enter into a contract with the owner or operator of an eligible project to provide a secured loan during the period—

''(i) beginning on the date that the financial structure of the eligible project is established; and

''(ii) ending on the date of the start of construction of the eligible project.

''(D) COST OF COVERAGE.—Subject to subsection (c)(4)(E), the cost of a secured loan for an eligible project under this subsection shall be borne by the Secretary.

''(E) INTEREST RATE.—

''(i) IN GENERAL.—Subject to clause (ii), the interest rate on a secured loan under this subsection shall be established by the Secretary.

''(ii) MINIMUM RATE.—The interest rate on a loan resulting from a secured loan under this subsection shall not be less than the current average market yield on outstanding marketable obligations of the United States of comparable maturity, as of the date of the execution of the loan agreement.

''(F) SECURITY.—The secured loan—

''(i) shall be payable, in whole or in part, from dedicated revenue sources generated by the eligible project;

''(ii) shall include a rate covenant, coverage requirement, or similar security feature supporting the project obligations; and

''(iii) may have a lien on revenues described in clause (i), subject to any lien securing project obligations.

''(G) RIGHTS OF THIRD-PARTY CREDITORS.—

''(i) AGAINST FEDERAL GOVERNMENT.—A third-party creditor of the obligor shall not have any right against the Federal Government with respect to any payments due to the Federal Government under this subsection.

''(ii) ASSIGNMENT.—An obligor may assign the secured loan to 1 or more lenders or to a trustee on behalf of the lenders.

''(H) SUBORDINATION.—A secured loan for an eligible project made under this subsection shall be subordinate to senior private debt issued by a lender for the eligible project.

''(I) NONRECOURSE STATUS.—A secured loan for an eligible project under this subsection shall be non-recourse to the obligor in the event of bankruptcy, insolvency, or liquidation of the eligible project.

''(J) FEES.—The Board may establish fees at a level sufficient to cover all or a portion of the costs to the Federal Government of making secured loans for an eligible project under this subsection.

''(3) REPAYMENT.—

''(A) SCHEDULE AND TERMS.—The Board shall establish a repayment schedule and terms and conditions for each secured loan for an eligible project under this subsection based on the projected cash flow from revenues for the eligible project.

''(B) REPAYMENT SCHEDULE.—Scheduled repayments on a secured loan for an eligible project under this subsection shall—

''(i) commence not later than 5 years after the scheduled start of commercial operations of the eligible project; and

''(ii) be completed, with interest, not later than 35 years after the scheduled date of the start of commercial operations of the eligible project.

''(C) SOURCES OF REPAYMENT FUNDS.—The sources of funds for scheduled loan repayments under this subsection shall include—

''(i) the sale of carbon or carbon compounds;

''(ii) the sale of electricity or generating capacity;

''(iii) the sale of sequestration services;

''(iv) the sale or transmission of energy;

''(v) revenues associated with energy efficiency gains; or

''(vi) other dedicated revenue sources.

''(D) DEFERRED PAYMENTS.—

''(i) AUTHORIZATION.—If, at any time during the 10-year period beginning on the date of the scheduled start of commercial operation of an eligible project, the eligible project is unable to generate sufficient revenues to pay the scheduled loan repayments of principal or interest on the secured loan, the Secretary may, subject to clause (iii), allow the obligor to add unpaid principal or interest to the outstanding balance of the secured loan.

''(ii) INTEREST.—Any payment deferred under clause (i) shall—

''(I) continue to accrue interest in accordance with paragraph (2)(E) until fully repaid; and

''(II) be scheduled to be amortized over the number of years remaining in the term of the loan in accordance with subparagraph (B).

''(iii) CRITERIA.—

''(I) IN GENERAL.—Any payment deferral under clause (i) shall be contingent on the eligible project meeting criteria established by the Secretary.

''(II) REPAYMENT STANDARDS.—The criteria established under subclause (I) shall include standards for reasonable assurance of repayment.

''(E) PREPAYMENT.—

''(i) USE OF EXCESS REVENUES.—At the discretion of the obligor, any excess revenues that remain after satisfying scheduled debt service requirements on the project obligations and secured loan, and all deposit requirements under the terms of any trust agreement, bond resolution, or similar agreement securing project obligations, may be applied annually to prepay the secured loan without penalty.

''(ii) USE OF PROCEEDS OF REFINANCING.—The secured loan may be prepaid at any time without penalty from the proceeds of refinancing from non-Federal funding sources.

''(4) SALE OF SECURED LOANS.—

''(A) IN GENERAL.—Subject to subparagraph (B), as soon as practicable after substantial completion of an eligible project and after notifying the obligor, the Board may sell to another entity or reoffer into the capital markets a secured loan for the eligible project if the Board determines that the sale or reoffering can be made on favorable terms.

''(B) CONSENT OF OBLIGOR.—In making a sale or reoffering under subparagraph (A), the Board may not change the original terms and conditions of the secured loan without the written consent of the obligor.

''(5) LOAN GUARANTEES.—

''(A) IN GENERAL.—The Board may provide a loan guarantee to a lender, in lieu of making a secured loan, under this subsection if the Board determines that the budgetary cost of the loan guarantee is substantially the same as that of a secured loan.

''(B) TERMS.—

''(i) IN GENERAL.—Except as provided in clause (ii), the terms of a guaranteed loan shall be consistent with the terms for a secured loan under this subsection.

''(ii) INTEREST RATE; PREPAYMENT.—The interest rate on the guaranteed loan and any prepayment features shall be established by negotiations between the obligor and the lender, with the consent of the Board.

''(g) PRODUCTION INCENTIVE PAYMENTS.—

''(1) SECURED LOAN.—

''(A) IN GENERAL.—The Secretary may enter into an agreement with 1 or more obligors to make a secured loan for an eligible project selected under subsection (c)(4) that employs 1 or more advanced climate technologies or systems.

''(B) PRODUCTION INCENTIVE PAYMENTS.—

''(i) IN GENERAL.—Amounts loaned to an obligor under subparagraph (A) shall be made available in the form of a series of production incentive payments provided by the Board to the obligor during a period of not more than 10 years, as determined by the Board, beginning after the date on which commercial project operations start at the eligible project.

''(ii) AMOUNT.—Production incentive payments under clause (i) shall be for an amount equal to 25 percent of the value of—

''(I) the energy produced or transmitted by the eligible project during the applicable year; or

''(II) any gains in energy efficiency achieved by the eligible project during the applicable year.

''(2) TERMS AND LIMITATIONS.—

''(A) IN GENERAL.—A secured loan under this subsection shall be subject to such terms and conditions, including any covenant, representation, warranty, and requirement (including a requirement for an audit) that the Secretary determines to be appropriate.

''(B) AGREEMENT COSTS.—Subject to subsection (c)(4), the cost of carrying out an agreement entered into under paragraph (1)(A) shall be paid by the Secretary.

''(C) INTEREST RATE.—

''(i) IN GENERAL.—Subject to clause (ii), the interest rate on a secured loan under this subsection shall be established by the Secretary.

''(ii) MINIMUM RATE.—The interest rate on a secured loan under this subsection shall not be less than the current average market yield on outstanding marketable obligations of the United States of comparable maturity, as of the date on which the agreement under paragraph (1)(A) is executed.

''(D) SECURITY.—The secured loan—

''(i) shall be payable, in whole or in part, from dedicated revenue sources generated by the eligible project;

''(ii) shall include a rate covenant, coverage requirement, or similar security feature supporting the eligible project obligations; and

''(iii) may have a lien on revenues described in clause (i), subject to any lien securing eligible project obligations.

''(E) RIGHTS OF THIRD-PARTY CREDITORS.—

''(i) AGAINST FEDERAL GOVERNMENT.—A third-party creditor of the obligor shall not have any right against the Federal Government with respect to any payments due to the Federal Government under the agreement entered into under paragraph (1)(A).

''(ii) ASSIGNMENT.—An obligor may assign production incentive payments to 1 or more lenders or to a trustee on behalf of the lenders.

''(F) SUBORDINATION.—A secured loan under this subsection shall be subordinate to senior private debt issued by a lender for the eligible project.

''(G) NONRECOURSE STATUS.—A secured loan under this subsection shall be nonrecourse to the obligor in the event of bankruptcy, insolvency, or liquidation of the eligible project.

''(H) FEES.—The Secretary may impose fees at a level sufficient to cover all or part of the costs to the Federal Government of providing production incentive payments under this subsection.

''(3) REPAYMENT.—

''(A) SCHEDULE, TERMS, AND CONDITIONS.—The Secretary shall establish a repayment schedule and terms and conditions for each secured loan under this subsection based on the projected cash flow from revenues of the eligible project.

''(B) REPAYMENT SCHEDULE.—Scheduled repayments of principal or interest on a secured loan under this subsection shall—

''(i) commence not later than 5 years after the date on which the last production incentive payment is made by the Board under paragraph (1)(B); and

''(ii) be completed, with interest, not later than 10 years after the date on which the last production incentive payment is made.

''(C) SOURCES OF REPAYMENT FUNDS.—The sources of funds for scheduled loan repayments under this subsection include—

''(i) the sale of electricity or generating capacity,

''(ii) the sale or transmission of energy;

''(iii) revenues associated with energy efficiency gains; or

''(iv) other dedicated revenue sources.

''(D) DEFERRED PAYMENTS.—

''(i) AUTHORIZATION.—If, at any time during the 10-year period beginning on the date on which commercial operations of the eligible project start, the eligible project is unable to generate sufficient revenues to pay the scheduled loan repayments of principal or interest on a secured loan under this subsection, the Secretary may, subject to criteria established by the Secretary (including standards for reasonable assurances of repayment), allow the obligor to add unpaid principal and interest to the outstanding balance of the secured loan.

''(ii) INTEREST.—Any payment deferred under clause (i) shall—

''(I) continue to accrue interest in accordance with paragraph (2)(C) until fully repaid; and

''(II) be scheduled to be amortized over the number of years remaining in the term of the loan in accordance with subparagraph (B).

''(E) PREPAYMENT.—

''(i) USE OF EXCESS REVENUES.—At the discretion of the obligor, any excess revenues that remain after satisfying scheduled debt service requirements on the eligible project obligations and the secured loan, and all deposit requirements under the terms of any trust agreement, bond resolution, or similar agreement securing eligible project obligations, may be applied annually to prepay loans pursuant to an agreement entered into under paragraph (1)(A) without penalty.

''(ii) USE OF PROCEEDS OF REFINANCING.—The secured loan may be prepaid at any time without penalty from the proceeds of refinancing from non-Federal funding sources.

''(4) SALE OF SECURED LOANS.—

''(A) IN GENERAL.—Subject to subparagraph (B), as soon as practicable after the date on which the last production incentive payment is made to the obligor under paragraph (1)(B) and after notifying the obligor, the Secretary may sell to another entity or reoffer into the capital markets a secured loan for the eligible project if the Secretary determines that the sale or reoffering can be made on favorable terms.

''(B) CONSENT REQUIRED.—In making a sale or reoffering under subparagraph (A), the Board may not change the original terms and conditions of the secured loan without the written consent of the obligor.

''(h) OTHER CREDIT-BASED FINANCIAL ASSISTANCE MECHANISMS FOR ELIGIBLE PROJECTS.—

''(1) IN GENERAL.—

''(A) AGREEMENTS.—The Board may enter into an agreement with 1 or more obligors to make a secured loan to the obligors for eligible projects selected under subsection (c) that employ advanced technologies or systems, the proceeds of which shall be used to—

''(i) finance eligible project costs; or

''(ii) enhance eligible project revenues.

''(B) CREDIT-BASED FINANCIAL ASSISTANCE.—Amounts made available as a secured loan under subparagraph (A) shall be provided by the Board to the obligor in the form of credit-based financial assistance mechanisms that are not otherwise specifically provided for in subsections (d) through (g), as determined to be appropriate by the Secretary.

''(2) TERMS AND LIMITATIONS.—

''(A) IN GENERAL.—A secured loan under this subsection shall be subject to such terms and conditions (including any covenants, representations, warranties, and requirements (including a requirement for an audit)) as the Secretary determines to be appropriate.

''(B) MAXIMUM AMOUNT.—Subject to subsection (c)(5), the total amount of the secured loan under this subsection shall not exceed 50 percent of the reasonably anticipated eligible project costs.

''(C) PERIOD OF AVAILABILITY.—The Board may enter into a contract with the obligor to provide credit-based financial assistance to an eligible project during the period—

''(i) beginning on the date that the financial structure of the eligible project is established; and

''(ii) ending on the date of the start of construction of the eligible project.

''(D) AGREEMENT COSTS.—Subject to subsection (c)(4)(E), the cost of carrying out an agreement entered into under paragraph (1)(A) shall be paid by the Board.

''(E) INTEREST RATE.—

''(i) IN GENERAL.—Subject to clause (ii), the interest rate on a secured loan under this subsection shall be established by the Board.

''(ii) MINIMUM RATE.—The interest rate on a secured loan under this subsection shall not be less than the current average market yield on outstanding marketable obligations of the United States of comparable maturity, as of the date of the execution of the secured loan agreement.

''(F) SECURITY.—The secured loan—

''(i) shall be payable, in whole or in part, from dedicated revenue sources generated by the eligible project;

''(ii) shall include a rate covenant, coverage requirement, or similar security feature supporting the eligible project obligations; and

''(iii) may have a lien on revenues described in clause (i), subject to any lien securing eligible project obligations.

''(G) RIGHTS OF THIRD-PARTY CREDITORS.—

''(i) AGAINST FEDERAL GOVERNMENT.—A third-party creditor of the obligor shall not have any right against the Federal Government with respect to any payments due to the Federal Government under this subsection.

''(ii) ASSIGNMENT.—An obligor may assign payments made pursuant to an agreement to provide credit-based financial assistance under this subsection to 1 or more lenders or to a trustee on behalf of the lenders.

''(H) SUBORDINATION.—A secured loan under this subsection shall be subordinate to senior private debt issued by a lender for the eligible project.

''(I) NONRECOURSE STATUS.—A secured loan under this subsection shall be nonrecourse to the obligor in the event of bankruptcy, insolvency, or liquidation of the eligible project.

''(J) FEES.—The Board may establish fees at a level sufficient to cover all or part of the costs to the Federal Government of providing credit-based financial assistance under this subsection.

''(3) REPAYMENT.—

''(A) SCHEDULE AND TERMS AND CONDITIONS.—The Board shall establish a repayment schedule and terms and conditions for each secured loan under this subsection based on the projected cash flow from eligible project revenues.

''(B) REPAYMENT SCHEDULE.—Scheduled loan repayments of principal or interest on a secured loan under this subsection shall—

''(i) commence not later than 5 years after the date of substantial completion of the eligible project; and

''(ii) be completed, with interest, not later than 35 years after the date of substantial completion of the eligible project.

''(C) SOURCES OF REPAYMENT FUNDS.—The sources of funds for scheduled loan repayments under this subsection shall include—

''(i) the sale of electricity or generating capacity;

''(ii) the sale or transmission of energy;

''(iii) revenues associated with energy efficiency gains; or

''(iv) other dedicated revenue sources, such as carbon sequestration.

''(D) DEFERRED PAYMENTS.—

''(i) AUTHORIZATION.—If, at any time during the 10-year period beginning on the date of the start of commercial operations of the eligible project, the eligible project is unable to generate sufficient revenues to pay the scheduled loan repayments of principal or interest on a secured loan under this subsection, the Secretary may, subject to criteria established by the Secretary (including standards for reasonable assurances of repayment), allow the obligor to add unpaid principal and interest to the outstanding balance of the secured loan.

''(ii) INTEREST.—Any payment deferred under clause (i) shall—

''(I) continue to accrue interest in accordance with paragraph (2)(E) until fully repaid; and

''(II) be scheduled to be amortized over the number of years remaining in the term of the loan in accordance with subparagraph (B).

''(E) PREPAYMENT.—

''(i) USE OF EXCESS REVENUES.—At the discretion of the obligor, any excess revenues that remain after satisfying scheduled debt service requirements on the eligible project obligations and secured loan, and all deposit requirements under the terms of any trust agreement, bond resolution, or similar agreement securing eligible project obligations, may be applied annually to prepay a secured loan under this subsection without penalty.

''(ii) USE OF PROCEEDS OF REFINANCING.—A secured loan under this subsection may be prepaid at any time without penalty from the proceeds of refinancing from non-Federal funding sources.

''(4) SALE OF SECURED LOANS.—

''(A) IN GENERAL.—Subject to subparagraph (B), as soon as practicable after the start of commercial operations of an eligible project and after notifying the obligor, the Board may sell to another entity or reoffer into the capital markets a secured loan for the eligible project under this subsection if the Secretary determines that the sale or reoffering can be made on favorable terms.

''(B) CONSENT OF OBLIGOR.—In making a sale or reoffering under subparagraph (A), the Board may not change the original terms and conditions of the secured loan without the written consent of the obligor.

''(i) FEDERAL, STATE, AND LOCAL REGULATORY REQUIREMENTS.—The provision of Federal financial assistance to an eligible project under this section shall not—

''(1) relieve any recipient of the assistance of any obligation to obtain any required Federal, State, or local regulatory requirement, permit, or approval with respect to the eligible project;

''(2) limit the right of any unit of Federal, State, or local government to approve or regulate any rate of return on private equity invested in the eligible project; or

''(3) otherwise supersede any Federal, State, or local law (including any regulation) applicable to the construction or operation of the eligible project.

''(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 2006 through 2010, to remain available until expended.''.

Subtitle B—Climate Change Technology Deployment in Developing Countries

SEC. 1511. CLIMATE CHANGE TECHNOLOGY DEPLOYMENT IN DEVELOPING COUNTRIES.

The Global Environmental Protection Assistance Act of 1989 (Public Law 101–240; 103 Stat. 2521) is amending by adding at the end the following:

''PART C—TECHNOLOGY DEPLOYMENT IN DEVELOPING COUNTRIES

''SEC. 731. DEFINITIONS.

''In this part:

''(1) CARBON SEQUESTRATION.—The term 'carbon sequestration' means the capture of carbon dioxide through terrestrial, geological, biological, or other means, which prevents the release of carbon dioxide into the atmosphere.

''(2) GREENHOUSE GAS.—The term 'greenhouse gas' means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

''(3) GREENHOUSE GAS INTENSITY.—The term 'greenhouse gas intensity' means the ratio of greenhouse gas emissions to economic output.

''SEC. 732. REDUCTION OF GREENHOUSE GAS INTENSITY.

''(a) LEAD AGENCY.—

''(1) IN GENERAL.—The Department of State shall act as the lead agency for integrating into United States foreign policy the goal of reducing greenhouse gas intensity in developing countries.

''(2) REPORTS.—

''(A) INITIAL REPORT.—Not later than 180 days after the date of enactment of this part, the Secretary of State shall submit to the appropriate authorizing and appropriating committees of Congress an initial report, based on the most recent information available to the Secretary from reliable public sources, that identifies the 25 developing countries that are the greenhouse gas emitters, including for each country—

''(i) an estimate of the quantity and types of energy used;

''(ii) an estimate of the greenhouse gas intensity of the energy, manufacturing, agricultural, and transportation sectors;

''(iii) a description the progress of any significant projects undertaken to reduce greenhouse gas intensity;

''(iv) a description of the potential for undertaking projects to reduce greenhouse gas intensity;

''(v) a description of any obstacles to the reduction of greenhouse gas intensity; and

''(vi) a description of the best practices learned by the Agency for International Development from conducting previous pilot and demonstration projects to reduce greenhouse gas intensity.

''(B) UPDATE.—Not later than 18 months after the date on which the initial report is submitted under subparagraph (A), the Secretary shall submit to the appropriate authorizing and appropriating committees of Congress, based on the best information available to the Secretary, an update of the information provided in the initial report.

''(C) USE.—

''(i) INITIAL REPORT.—The Secretary of State shall use the initial report submitted under subparagraph (A) to establish baselines for the developing countries identified in the report with respect to the information provided under clauses (i) and (ii) of that subparagraph.

''(ii) ANNUAL REPORTS.—The Secretary of State shall use the annual reports prepared under subparagraph (B) and any other information available to the Secretary to track the progress of the developing countries with respect to reducing greenhouse gas intensity.

''(b) PROJECTS.—The Secretary of State, in coordination with Administrator of the United States Agency for International Development, shall (directly or through agreements with the World Bank, the International Monetary Fund, the Overseas Private Investment Corporation, and other development institutions) provide assistance

to developing countries specifically for projects to reduce greenhouse gas intensity, including projects to—

''(1) leverage, through bilateral agreements, funds for reduction of greenhouse gas intensity;

''(2) increase private investment in projects and activities to reduce greenhouse gas intensity; and

''(3) expedite the deployment of technology to reduce greenhouse gas intensity.

''(c) FOCUS.—In providing assistance under subsection (b), the Secretary of State shall focus on—

''(1) promoting the rule of law, property rights, contract protection, and economic freedom; and

''(2) increasing capacity, infrastructure, and training.

''(d) PRIORITY.—In providing assistance under subsection (b), the Secretary of State shall give priority to projects in the 25 developing countries identified in the report submitted under subsection (a)(2)(A).

''SEC. 733. TECHNOLOGY INVENTORY FOR DEVELOPING COUNTRIES.

''(a) IN GENERAL.—The Secretary of State, in coordination with the Secretary of Energy and the Secretary of Commerce, shall conduct an inventory of greenhouse gas intensity reducing technologies that are developed, or under development in the United States, to identify technologies that are suitable for transfer to, deployment in, and commercialization in the developing countries identified in the report submitted under section 732(a)(2)(A).

''(b) REPORT.—Not later than 180 days after the completion of the inventory under subsection (a), the Secretary of State and the Secretary of Energy shall jointly submit to Congress a report that—

''(1) includes the results of the completed inventory;

''(2) identifies obstacles to the transfer, deployment, and commercialization of the inventoried technologies;

''(3) includes results from previous Federal reports related to the inventoried technologies; and

''(4) includes an analysis of market forces related to the inventoried technologies.

''SEC. 734. TRADE-RELATED BARRIERS TO EXPORT OF GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGIES.

''(a) IN GENERAL.—Not later than 1 year after the date of enactment of this part, the United States Trade Representative shall (as appropriate and consistent with applicable bilateral, regional, and mutual trade agreements)—

''(1) identify trade-relations barriers maintained by foreign countries to the export of greenhouse gas intensity reducing technologies and practices from the United States to the developing countries identified in the report submitted under section 732(a)(2)(A); and

''(2) negotiate with foreign countries for the removal of those barriers.

''(b) ANNUAL REPORT.—Not later than 1 year after the date on which a report is submitted under subsection (a)(1) and annually thereafter, the United States Trade Representative shall submit to Congress a report that describes any progress made with respect to removing the barriers identified by the United States Trade Representative under subsection (a)(1).

''SEC. 735. GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGY EXPORT INITIATIVE.

''(a) IN GENERAL.—There is established an interagency working group to carry out a Greenhouse Gas Intensity Reducing Technology Export Initiative to—

''(1) promote the export of greenhouse gas intensity reducing technologies and practices from the United States;

''(2) identify developing countries that should be designated as priority countries for the purpose of exporting greenhouse gas intensity reducing technologies and practices, based on the report submitted under section 732(a)(2)(A);

''(3) identify potential barriers to adoption of exported greenhouse gas intensity reducing technologies and practices based on the reports submitted under section 734; and

''(4) identify previous efforts to export energy technologies to learn best practices.

''(b) COMPOSITION.—The working group shall be composed of—

''(1) the Secretary of State, who shall act as the head of the working group;

''(2) the Administrator of the United States Agency for International Development;

''(3) the United States Trade Representative;

''(4) a designee of the Secretary of Energy; and

''(5) a designee of the Secretary of Commerce.

''(c) PERFORMANCE REVIEWS AND REPORTS.—Not later than 180 days after the date of enactment of this part and each year thereafter, the interagency working group shall—

''(1) conduct a performance review of actions taken and results achieved by the Federal Government (including each of the agencies represented on the interagency working group) to promote the export of greenhouse gas intensity reducing technologies and practices from the United States; and

''(2) submit to the appropriate authorizing and appropriating committees of Congress a report that describes the results of the performance reviews and evaluates progress in promoting the export of greenhouse gas intensity reducing technologies and practices from the United States, including any recommendations for increasing the export of the technologies and practices.

''SEC. 736. TECHNOLOGY DEMONSTRATION PROJECTS.

''(a) IN GENERAL.—The Secretary of State, in coordination with the Secretary of Energy and the Administrator of the United States Agency for International Development, shall promote the adoption of technologies and practices that reduce greenhouse gas intensity in developing countries in accordance with this section.

''(b) DEMONSTRATION PROJECTS.—

''(1) IN GENERAL.—The Secretaries and the Administrator shall plan, coordinate, and carry out, or provide assistance for the planning, coordination, or carrying out of, demonstration projects under this section in at least 10 eligible countries, as determined by the Secretaries and the Administrator.

''(2) ELIGIBILITY.—A country shall be eligible for assistance under this subsection if the Secretaries and the Administrator determine that the country has demonstrated a commitment to—

''(A) just governance, including—

''(i) promoting the rule of law;

''(ii) respecting human and civil rights;

''(iii) protecting private property rights; and

''(iv) combating corruption; and

''(B) economic freedom, including economic policies that—

''(i) encourage citizens and firms to participate in global trade and international capital markets;

''(ii) promote private sector growth and the sustainable management of natural resources; and

''(iii) strengthen market forces in the economy.

''(3) SELECTION.—In determining which eligible countries to provide assistance to under paragraph (1), the Secretaries and the Administrator shall consider—

''(A) the opportunity to reduce greenhouse gas intensity in the eligible country; and

''(B) the opportunity to generate economic growth in the eligible country.

''(4) TYPES OF PROJECTS.—Demonstration projects under this section may include—

''(A) coal gasification, coal liquefaction, and clean coal projects;

''(B) carbon sequestration projects;

''(C) cogeneration technology initiatives;

''(D) renewable projects; and

''(E) lower emission transportation.

''SEC. 737. FELLOWSHIP AND EXCHANGE PROGRAMS.

''The Secretary of State, in coordination with the Secretary of Energy, the Secretary of Commerce, and the Administrator of the Environmental Protection Agency, shall carry out fellowship and exchange programs under which officials from developing countries visit the United States to acquire expertise and knowledge of best practices to reduce greenhouse gas intensity in their countries.

''SEC. 738. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated such sums as are necessary to carry out this part (other than section 736).

''SEC. 739. EFFECTIVE DATE.

''Except as otherwise provided in this part, this part takes effect on October 1, 2005.''.

SA 818. Mr. JEFFORDS submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 15, strike lines 3 through 20.

On page 719, strike lines 11 through 20 and insert the following:

as part of the process of updating the Master Plan Study for the Capitol complex, shall—

(A) carry out a study to evaluate the energy infrastructure of the Capitol complex to determine how to augment the infrastructure to become more energy efficient—

(i) by using unconventional and renewable energy resources;

(ii) by—

(I) incorporating new technologies to implement effective green building solutions;

(II) adopting computer-based building management systems; and

(III) recommending strategies based on end-user behavioral changes to implement low-cost environmental gains; and

(iii) in a manner that would enable the Capitol complex to have reliable utility service in the event of power fluctuations, shortages, or outages;

(B) carry out a study to explore the feasibility of installing energy and water conservation measures on the rooftop of the Dirksen Senate Office Building, including the area directly above the food service facilities in the center of the building, including the installation of—

(i) a vegetative covering area, using native species to the maximum extent practicable, to—

(I) insulate and increase the energy efficiency of the building;

(II) reduce precipitation runoff and conserve water for landscaping or other uses;

(III) increase, and provide more efficient use of, available outdoor space through management of the rooftop of the center of the building as a park or garden area for occupants of the building; and

(IV) improve the aesthetics of the building; and

(ii) onsite renewable energy and other state-of-the-art technologies to—

(I) improve the energy efficiency and energy security of the building or the Capitol complex by providing additional or backup sources of power in the event of a power shortage or other emergency;

(II) reduce the use of resources by the building; or

(III) enhance worker productivity; and

(C) not later than 180 days after the date of enactment of this Act, submit to Congress a report describing the findings and recommendations of the study under subparagraph (B).

SA 819. Mr. TALENT (for himself and Mr. JOHNSON) submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 420, strike lines 5 through 16 and insert the following:

SEC. 702. FUEL USE CREDITS.

(a) IN GENERAL.—Section 312 of the Energy Policy Act of 1992 (42 U.S.C. 13220) is amended to read as follows:

''SEC. 312. FUEL USE CREDITS.

''(a) DEFINITIONS.—In this section:

''(1) BIODIESEL.—The term 'biodiesel' means a diesel fuel substitute produced from nonpetroleum renewable resources that meets the registration requirements for fuels and fuel additives established by the Environmental Protection Agency under section 211 of the Clean Air Act (42 U.S.C. 7545).

''(2) QUALIFYING VOLUME.—The term 'qualifying volume' means—

''(A) in the case of biodiesel, when used as a component of fuel containing at least 20 percent biodiesel by volume—

''(i) 450 gallons; or

''(ii) if the Secretary determines by rule that the average annual alternative fuel use in light duty vehicles by fleets and covered persons exceeds 450 gallons or gallon equivalents, the amount of the average annual alternative fuel use; and

''(B) in the case of an alternative fuel, the amount of the fuel determined by the Secretary to have an equivalent energy content to the amount of biodiesel defined as a qualifying volume under subparagraph (A).

''(b) ALLOCATION.—

''(1) IN GENERAL.—The Secretary shall allocate 1 credit under this section to a fleet or covered person for each qualifying volume of alternative fuel or biodiesel purchased for use in a vehicle operated by the fleet.

''(2) LIMITATION.—The Secretary may not allocate a credit under this section for the purchase of an alternative fuel or biodiesel that is required by Federal or State law.

''(3) DOCUMENTATION.—A fleet or covered person seeking a credit under paragraph (1) shall provide written documentation to the Secretary supporting the allocation of the credit to the fleet or covered person.

''(c) USE.—At the request of a fleet or covered person allocated a credit under subsection (b), the Secretary shall, for the year in which the purchase of a qualifying volume is made, consider the purchase to be the acquisition of 1 alternative fueled vehicle that the fleet or covered person is required to acquire under this title, title IV, or title V.

''(d) TREATMENT.—A credit provided to a fleet or covered person under this section shall be considered to be a credit under section 508.

''(e) ISSUANCE OF RULE.—Not later than 180 days after the date of enactment of the Energy Policy Act of 2005, the Secretary shall issue a rule establishing procedures for the implementation of this section.''.

(b) TABLE OF CONTENTS AMENDMENT.—The table of contents of the Energy Policy Act of 1992 is amended by striking the item relating to section 312 and inserting the following:

''Sec. 312. Fuel use credits.''.

SA 820. Mrs. HUTCHISON (for herself, Mr. CORNYN, Mr. INHOFE, and Ms. LANDRIEU) submitted an amendment intended to be proposed by her to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

At the appropriate place insert the following:

SEC. ___. AMORTIZATION OF DELAY RENTAL PAYMENTS.

(a) IN GENERAL.—Section 167 (relating to depreciation) is amended by redesignating subsection (h) as subsection (i) and by inserting after subsection (g) the following new subsection:

''(h) AMORTIZATION OF DELAY RENTAL PAYMENTS FOR DOMESTIC OIL AND GAS WELLS.—

''(1) IN GENERAL.—Any delay rental payment paid or incurred in connection with the development of oil or gas wells within the United States (as defined in section 638) shall be allowed as a deduction ratably over the 24-month period beginning on the date that such payment was paid or incurred.

''(2) HALF-YEAR CONVENTION.—For purposes of paragraph (1), any payment paid or incurred during the taxable year shall be treated as paid or incurred on the mid-point of such taxable year.

''(3) EXCLUSIVE METHOD.—Except as provided in this subsection, no depreciation or amortization deduction shall be allowed with respect to such payments.

''(4) TREATMENT UPON ABANDONMENT.—If any property to which a delay rental payment relates is retired or abandoned during the 24-month period described in paragraph (1), no deduction shall be allowed on account of such retirement or abandonment and the amortization deduction under this subsection shall continue with respect to such payment.

''(5) DELAY RENTAL PAYMENTS.—For purposes of this subsection, the term 'delay rental payment' means an amount paid for the privilege of deferring development of an oil or gas well under an oil or gas lease.''.

(b) EFFECTIVE DATE.—The amendments made by this section shall apply to amounts paid or incurred in taxable years beginning after the date of the enactment of this Act.

SEC. ___. AMORTIZATION OF GEOLOGICAL AND GEOPHYSICAL EXPENDITURES.

(a) IN GENERAL.—Section 167 (relating to depreciation), as amended by this Act, is amended by redesignating subsection (i) as subsection (j) and by inserting after subsection (h) the following new subsection:

''(i) AMORTIZATION OF GEOLOGICAL AND GEOPHYSICAL EXPENDITURES.—

''(1) IN GENERAL.—Any geological and geophysical expenses paid or incurred in connection with the exploration for, or development of, oil or gas within the United States (as defined in section 638) shall be allowed as a deduction ratably over the 24-month period beginning on the date that such expense was paid or incurred.

''(2) SPECIAL RULES.—For purposes of this subsection, rules similar to the rules of paragraphs (2), (3), and (4) of subsection (h) shall apply.''.

(b) CONFORMING AMENDMENT.—Section 263A(c)(3) is amended by inserting ''167(h), 167(i),'' after ''under section''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to amounts paid or incurred in taxable years beginning after the date of the enactment of this Act.

SA 821. Mr. KYL submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

At the appropriate place add the following:

SEC. ___. INCREASE IN EXCLUSION EQUIVALENT OF UNIFIED CREDIT AGAINST ESTATE TAX; REDUCTION IN ESTATE TAX RATE TO CAPITAL GAINS RATE.

(a) INCREASE IN EXCLUSION EQUIVALENT OF UNIFIED CREDIT.—Subsection (c) of section 2010 of the Internal Revenue Code of 1986 (relating to unified credit against estate tax) is amended to read as follows:

''(c) APPLICABLE CREDIT AMOUNT.—

''(1) IN GENERAL.—For purposes of this section, the applicable credit amount is the amount of the tentative tax which would be determined under section 2001(c) if the amount with respect to which such tentative tax is to be computed were the applicable exclusion amount. For purposes of the preceding sentence, the applicable exclusion amount is $10,000,000.

''(2) INFLATION ADJUSTMENT.—In the case of any decedent dying in a calendar year after 2010, the dollar amount in paragraph (1) shall be increased by an amount equal to—

''(A) such dollar amount, multiplied by

''(B) the cost-of-living adjustment determined under section 1(f)(3) for such calendar year by substituting 'calendar year 2009' for 'calendar year 1992' in subparagraph (B) thereof.

If any amount as adjusted under the preceding sentence is not a multiple of $10,000, such amount shall be rounded to the nearest multiple of $10,000.''.

(b) ESTATE TAX FLAT RATE EQUAL TO CAPITAL GAINS RATE.—Subsection (c) of section 2001 of the Internal Revenue Code of 1986 (relating to imposition and rate of tax) is amended to read as follows:

''(c) RATE OF TENTATIVE TAX.—In the case of estates of decedents dying, and gifts made, in any calendar year after 2009, the rate of the tentative tax is the rate specified in section 1(h)(1)(C) for such year.''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to estates of decedents dying, and gifts made, after December 31, 2009.

(d) MODIFICATIONS TO ESTATE TAX.—

(1) IN GENERAL.—Subtitles A and E of title V of the Economic Growth and Tax Relief Reconciliation Act of 2001, and the amendments made by such subtitles, are hereby repealed; and the Internal Revenue Code of 1986 shall be applied as if such subtitles, and amendments, had never been enacted.

(2) SUNSET NOT TO APPLY.—

(A) Subsection (a) of section 901 of the Economic Growth and Tax Relief Reconciliation Act of 2001 is amended by striking ''this Act'' and all that follows and inserting ''this Act (other than title V) shall not apply to taxable, plan, or limitation years beginning after December 31, 2010.''.

(B) Subsection (b) of such section 901 is amended by striking '', estates, gifts, and transfers''.

(3) CONFORMING AMENDMENT.—Subsection (e) of section 511 of the Economic Growth and Tax Relief Reconciliation Act of 2001, and the amendment made by such subsection, are hereby repealed; and the Internal Revenue Code of 1986 shall be applied as if such subsection and amendment had never been enacted.

SA 822. Mr. VOINOVICH (for himself and Mr. DEWINE) submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our

future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 120, between lines 20 and 21, insert the following:

SEC. 14___. FUEL EFFICIENT ENGINE TECHNOLOGY FOR AIRCRAFT.

(a) IN GENERAL.—The Secretary and the Administrator of the National Aeronautics and Space Administration shall enter into a cooperative agreement to carry out a multi-year engine development program to advance technologies to enable more fuel efficient, turbine-based propulsion and power systems for aeronautical and industrial applications.

(b) PERFORMANCE OBJECTIVE.—The fuel efficiency performance objective for the program shall be to achieve a fuel efficiency improvement of more than 10 percent by exploring—

(1) advanced concepts, alternate propulsion, and power configurations, including hybrid fuel cell powered systems; and

(2) the use of alternate fuel in conventional or nonconventional turbine-based systems.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section $60,000,000 for each of fiscal years 2006 through 2010.

SA 823. Mr. JEFFORDS submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 15, strike lines 3 through 20.

On page 719, strike lines 11 through 20 and insert the following:

as part of the process of updating the Master Plan Study for the Capitol complex, shall—

(A) carry out a study to evaluate the energy infrastructure of the Capitol complex to determine how to augment the infrastructure to become more energy efficient—

(i) by using unconventional and renewable energy resources; and

(ii) in a manner that would enable the Capitol complex to have reliable utility service in the event of power fluctuations, shortages, or outages;

(B) carry out a study to explore the feasibility of installing energy and water conservation measures on the rooftop of the Dirksen Senate Office Building, including the area directly above the food service facilities in the center of the building, including the installation of—

(i) a vegetative covering area, using native species to the maximum extent practicable, to—

(I) insulate and increase the energy efficiency of the building;

(II) reduce precipitation runoff and conserve water for landscaping or other uses;

(III) increase, and provide more efficient use of, available outdoor space through management of the rooftop of the center of the building as a park or garden area for occupants of the building; and

(IV) improve the aesthetics of the building; and

(ii) onsite renewable energy and other state-of-the-art technologies to—

(I) improve the energy efficiency and energy security of the building or the Capitol complex by providing additional or backup sources of power in the event of a power shortage or other emergency;

(II) reduce the use of resources by the building; or

(III) enhance worker productivity; and

(C) not later than 180 days after the date of enactment of this Act, submit to Congress a report describing the findings and recommendations of the study under subparagraph (B).

SA 824. Ms. COLLINS (for herself, Ms. CANTWELL, Ms. SNOWE, Mr. JEFFORDS, and Mr. DEWINE) submitted an amendment intended to be proposed by her to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 556, between lines 9 and 10, insert the following new section:

SEC. 972. ABRUPT CLIMATE CHANGE RESEARCH PROGRAM.

(a) ESTABLISHMENT OF PROGRAM.—The Secretary of Commerce shall establish within the Office of Oceanic and Atmospheric Research of the National Oceanic and Atmospheric Administration, and shall carry out, a program of scientific research on abrupt climate change.

(b) PURPOSES OF PROGRAM.—The purposes of the program are as follows:

(1) To develop a global array of terrestrial and oceanographic indicators of paleoclimate in order to sufficiently identify and describe past instances of abrupt climate change.

(2) To improve understanding of thresholds and nonlinearities in geophysical systems related to the mechanisms of abrupt climate change.

(3) To incorporate such mechanisms into advanced geophysical models of climate change.

(4) To test the output of such models against an improved global array of records of past abrupt climate changes.

(c) ABRUPT CLIMATE CHANGE DEFINED.—In this section, the term ''abrupt climate change'' means a change in the climate that occurs so rapidly or unexpectedly that human or natural systems have difficulty adapting to the climate as changed.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Department of Commerce for each of fiscal years 2006 through 2008, to remain available until expended, $10,000,000 to carry out the research program required under this section.

SA 825. Mr. KERRY submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 208, after line 24, insert the following:

SEC. 303. SMALL BUSINESS AND AGRICULTURAL PRODUCER ENERGY EMERGENCY DISASTER LOAN PROGRAM.

(a) SMALL BUSINESS PRODUCER ENERGY EMERGENCY DISASTER LOAN PROGRAM.—

(1) DISASTER LOAN AUTHORITY.—Section 7(b) of the Small Business Act (15 U.S.C. 636(b)) is amended by inserting after paragraph (3) the following:

''(4)(A) In this paragraph—

''(i) the term 'base price index' means the moving average of the closing unit price on the New York Mercantile Exchange for heating oil, natural gas, gasoline, or propane for the 10 days, in each of the most recent 2 preceding years, which correspond to the trading days described in clause (ii);

''(ii) the term 'current price index' means the moving average of the closing unit price on the New York Mercantile Exchange, for the 10 most recent trading days, for contracts to purchase heating oil, natural gas, gasoline, or propane during the subsequent calendar month, commonly known as the 'front month'; and

''(iii) the term 'significant increase' means—

''(I) with respect to the price of heating oil, natural gas, gasoline, or propane, any time the current price index exceeds the base price index by not less than 40 percent; and

''(II) with respect to the price of kerosene, any increase which the Administrator, in consultation with the Secretary of Energy, determines to be significant.

''(B) The Administration may make such loans, either directly or in cooperation with banks or other lending institutions through agreements to participate on an immediate or deferred basis, to assist a small business concern that has suffered or that is likely to suffer substantial economic injury on or after January 1, 2005, as the result of a significant increase in the price of heating oil, natural gas, gasoline, propane, or kerosene occurring on or after January 1, 2005.

''(C) Any loan or guarantee extended pursuant to this paragraph shall be made at the same interest rate as economic injury loans under paragraph (2).

''(D) No loan may be made under this paragraph, either directly or in cooperation with banks or other lending institutions through agreements to participate on an immediate or deferred basis, if the total amount outstanding and committed to the borrower under this subsection would exceed $1,500,000, unless such borrower constitutes a major source of employment in its surrounding area, as determined by the Administration, in which case the Administration, in its discretion, may waive the $1,500,000 limitation.

''(E) For purposes of assistance under this paragraph—

''(i) a declaration of a disaster area based on conditions specified in this paragraph shall be required, and shall be made by the President or the Administrator; or

''(ii) if no declaration has been made pursuant to clause (i), the Governor of a State in which a significant increase in the price of heating oil, natural gas, gasoline, propane, or kerosene has occurred may certify to the Administration that small business concerns have suffered economic injury as a result of such increase and are in need of financial assistance which is not otherwise available on reasonable terms in that State, and upon receipt of such certification, the Administration may make such loans as would have been available under this paragraph if a disaster declaration had been issued.

''(F) Notwithstanding any other provision of law, loans made under this paragraph may be used by a small business concern described in subparagraph (B) to convert from the use of heating oil, natural gas, gasoline, propane, or kerosene to a renewable or alternative energy source, including agriculture and urban waste, geothermal energy, cogeneration, solar energy, wind energy, or fuel cells.''.

(2) CONFORMING AMENDMENTS.—Section 3(k) of the Small Business Act (15 U.S.C. 632(k)) is amended—

(A) by inserting '', significant increase in the price of heating oil, natural gas, gasoline, propane, or kerosene'' after ''civil disorders''; and

(B) by inserting ''other'' before ''economic''.

(b) AGRICULTURAL PRODUCER EMERGENCY LOANS.—

(1) IN GENERAL.—Section 321(a) of the Consolidated Farm and Rural Development Act (7 U.S.C. 1961(a)) is amended—

(A) in the first sentence—

(i) by striking ''operations have'' and inserting ''operations (i) have''; and

(ii) by inserting before '': *Provided,*'' the following: '', or (ii)(I) are owned or operated by such an applicant that is also a small business concern (as defined in section 3 of

the Small Business Act (15 U.S.C. 632)), and (II) have suffered or are likely to suffer substantial economic injury on or after January 1, 2005, as the result of a significant increase in energy costs or input costs from energy sources occurring on or after January 1, 2005, in connection with an energy emergency declared by the President or the Secretary'';

(B) in the third sentence, by inserting before the period at the end the following: ''or by an energy emergency declared by the President or the Secretary''; and

(C) in the fourth sentence—

(i) by inserting ''or energy emergency'' after ''natural disaster'' each place that term appears; and

(ii) by inserting ''or declaration'' after ''emergency designation''.

(2) FUNDING.—Funds available on the date of enactment of this Act for emergency loans under subtitle C of the Consolidated Farm and Rural Development Act (7 U.S.C. 1961 et seq.) shall be available to carry out the amendments made by subparagraph (A) to meet the needs resulting from natural disasters.

(c) GUIDELINES AND RULEMAKING.—

(1) GUIDELINES.—Not later than 30 days after the date of enactment of this Act, the Administrator of the Small Business Administration and the Secretary of Agriculture shall each issue guidelines to carry out this section and the amendments made by this section, which guidelines shall become effective on the date of their issuance.

(2) RULEMAKING.—Not later than 30 days after the date of enactment of this Act, the Administrator of the Small Business Administration, after consultation with the Secretary of Energy, shall promulgate regulations specifying the method for determining a significant increase in the price of kerosene under section 7(b)(4)(A)(iii)(II) of the Small Business Act (15 U.S.C. 636(b)(4)(A)(iii)(II)), as added by this section.

(d) REPORTS.—

(1) SMALL BUSINESS ADMINISTRATION.—Not later than 12 months after the date on which the Administrator of the Small Business Administration issues guidelines under subsection (c)(1), and annually thereafter, the Administrator shall submit to the Committee on Small Business and Entrepreneurship of the Senate and the Committee on Small Business of the House of Representatives, a report on the effectiveness of the assistance made available under section 7(b)(4) of the Small Business Act, as added by this section, including—

(A) the number of small business concerns that applied for a loan under such section 7(b)(4) and the number of those that received such loans;

(B) the dollar value of those loans;

(C) the States in which the small business concerns that received such loans are located;

(D) the type of energy that caused the significant increase in the cost for the participating small business concerns; and

(E) recommendations for ways to improve the assistance provided under such section 7(b)(4), if any.

(2) DEPARTMENT OF AGRICULTURE.—Not later than 12 months after the date on which the Secretary of Agriculture issues guidelines under subsection (c)(1), and annually thereafter, the Secretary shall submit to the Committee on Small Business and Entrepreneurship and the Committee on Agriculture, Nutrition, and Forestry of the Senate and to the Committee on Small Business and the Committee on Agriculture of the House of Representatives, a report that—

(A) describes the effectiveness of the assistance made available under section 321(a) of the Consolidated Farm and Rural Development Act (7 U.S.C. 1961(a)), as amended by this section; and

(B) contains recommendations for ways to improve the assistance provided under such section 321(a).

(e) EFFECTIVE DATE.—

(1) SMALL BUSINESS.—The amendments made by subsection (a) shall apply during the 4-year period beginning on the earlier of the date on which guidelines are published by the Administrator of the Small Business Administration under subsection (c)(1) or 30 days after the date of enactment of this Act, with respect to assistance under section 7(b)(4) of the Small Business Act, as added by this section.

(2) AGRICULTURE.—The amendments made by subsection (b) shall apply during the 4-year period beginning on the earlier of the date on which guidelines are published by the Secretary of Agriculture under subsection (c)(1) or 30 days after the date of enactment of this Act, with respect to assistance under section 321(a) of the Consolidated Farm and Rural Development Act (7 U.S.C. 1961(a)), as amended by this section.

SA 826. Mr. McCAIN (for himself and Mr. LIEBERMAN) proposed an amendment to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

At the end of the bill, add the following:

DIVISION —CLIMATE STEWARDSHIP AND INNOVATION

SEC. ———01. SHORT TITLE.

This division may be cited as the ''Climate Stewardship and Innovation Act of 2005''.

SEC. ———02. TABLE OF CONTENTS.

The table of contents for this division is as follows:

SEC. ———03. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) BASELINE.—The term ''baseline'' means the historic greenhouse gas emission levels of an entity, as adjusted upward by the Administrator to reflect actual reductions that are verified in accordance with—

(A) regulations promulgated under section —0201(c)(1); and

(B) relevant standards and methods developed under this title.

(3) CARBON DIOXIDE EQUIVALENTS.—The term ''carbon dioxide equivalents'' means, for each greenhouse gas, the amount of each such greenhouse gas that makes the same contribution to global warming as one metric ton of carbon dioxide, as determined by the Administrator.

(4) COVERED SECTORS.—The term ''covered sectors'' means the electricity, transportation, industry, and commercial sectors, as such terms are used in the Inventory.

(5) COVERED ENTITY.—The term ''covered entity'' means an entity (including a branch, department, agency, or instrumentality of Federal, State, or local government) that—

(A) owns or controls a source of greenhouse gas emissions in the electric power, industrial, or commercial sectors of the United States economy (as defined in the Inventory), refines or imports petroleum products for use in transportation, or produces or imports hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride; and

(B) emits, from any single facility owned by the entity, over 10,000 metric tons of greenhouse gas per year, measured in units of carbon dioxide equivalents, or produces or imports—

(i) petroleum products that, when combusted, will emit,

(ii) hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride that, when used, will emit, or

(iii) other greenhouse gases that, when used, will emit,

over 10,000 metric tons of greenhouse gas per year, measured in units of carbon dioxide equivalents.

(6) DATABASE.—The term ''database'' means the national greenhouse gas database established under section —0201.

(7) DIRECT EMISSIONS.—The term ''direct emissions'' means greenhouse gas emissions by an entity from a facility that is owned or controlled by that entity.

(8) FACILITY.—The term ''facility'' means a building, structure, or installation located on any 1 or more contiguous or adjacent properties of an entity in the United States.

(9) GREENHOUSE GAS.—The term ''greenhouse gas'' means—

(A) carbon dioxide;

(B) methane;

(C) nitrous oxide;

(D) hydrofluorocarbons;

(E) perfluorocarbons; and

(F) sulfur hexafluoride.

(10) INDIRECT EMISSIONS.—The term ''indirect emissions'' means greenhouse gas emissions that are—

(A) a result of the activities of an entity; but

(B) emitted from a facility owned or controlled by another entity.

(11) INVENTORY.—The term ''Inventory'' means the Inventory of U.S. Greenhouse Gas Emissions and Sinks, prepared in compliance with the United Nations Framework Convention on Climate Change Decision 3/CP.5).

(12) LEAKAGE.—The term ''leakage'' means—

(A) an increase in greenhouse gas emissions by one facility or entity caused by a reduction in greenhouse gas emissions by another facility or entity; or

(B) a decrease in sequestration that is caused by an increase in sequestration at another location.

(13) PERMANENCE.—The term ''permanence'' means the extent to which greenhouse gases that are sequestered will not later be returned to the atmosphere.

(14) REGISTRY.—The term ''registry'' means the registry of greenhouse gas emission reductions established under section —0201(b)(2).

(15) SECRETARY.—The term ''Secretary'' means the Secretary of Commerce.

(16) SEQUESTRATION.—

(A) IN GENERAL.—The term ''sequestration'' means the capture, long-term separation, isolation, or removal of greenhouse gases from the atmosphere.

(B) INCLUSIONS.—The term ''sequestration'' includes—

(i) agricultural and conservation practices;

(ii) reforestation;

(iii) forest preservation; and

(iv) any other appropriate method of capture, long-term separation, isolation, or removal of greenhouse gases from the atmosphere, as determined by the Administrator.

(C) EXCLUSIONS.—The term ''sequestration'' does not include—

(i) any conversion of, or negative impact on, a native ecosystem; or

(ii) any introduction of non-native species.

(17) SOURCE CATEGORY.—The term ''source category'' means a process or activity that leads to direct emissions of greenhouse gases, as listed in the Inventory.

(18) STATIONARY SOURCE.—The term ''stationary source'' means generally any source of greenhouse gases except those emissions resulting directly from an engine for transportation purposes.

TITLE I—FEDERAL CLIMATE CHANGE RESEARCH AND RELATED ACTIVITIES

SEC. 101. NATIONAL SCIENCE FOUNDATION FELLOWSHIPS.

The Director of the National Science Foundation shall establish a fellowship program for students pursuing graduate studies in global climate change, including capability in observation, analysis, modeling, paleoclimatology, consequences, and adaptation.

SEC. 102. REPORT ON UNITED STATES IMPACT OF KYOTO PROTOCOL.

Within 6 months after the date of enactment of this Act, the Secretary shall execute a contract with the National Academy of Science for a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science on the effects that the entry into force of the Kyoto Protocol without United States participation will have on—

(1) United States industry and its ability to compete globally;

(2) international cooperation on scientific research and development; and

(3) United States participation in international environmental climate change mitigation efforts and technology deployment.

SEC. 103. RESEARCH GRANTS.

Section 105 of the Global Change Research Act of 1990 (15 U.S.C. 2935) is amended—

(1) by redesignating subsection (c) as subsection (d); and

(2) by inserting after subsection (b) the following:

''(c) RESEARCH GRANTS.—

''(1) COMMITTEE TO DEVELOP LIST OF PRIORITY RESEARCH AREAS.—The Committee shall develop a list of priority areas for research and development on climate change that are not being addressed by Federal agencies.

''(2) DIRECTOR OF OSTP TO TRANSMIT LIST TO NSF.—The Director of the Office of Science and Technology Policy shall transmit the list to the National Science Foundation.

''(3) FUNDING THROUGH NSF.—

''(A) BUDGET REQUEST.—The National Science Foundation shall include, as part of the annual request for appropriations for the Science and Technology Policy Institute, a request for appropriations to fund research in the priority areas on the list developed under paragraph (1).

''(B) AUTHORIZATION.—For fiscal year 2005 and each fiscal year thereafter, there are authorized to be appropriated to the National Science Foundation not less than $25,000,000, to be made available through the Science and Technology Policy Institute, for research in those priority areas.''.

SEC. 104. ABRUPT CLIMATE CHANGE RESEARCH.

(a) IN GENERAL.—The Secretary, through the National Oceanic and Atmospheric Administration, shall carry out a program of scientific research on potential abrupt climate change designed—

(1) to develop a global array of terrestrial and oceanographic indicators of paleoclimate in order sufficiently to identify and describe past instances of abrupt climate change;

(2) to improve understanding of thresholds and nonlinearities in geophysical systems related to the mechanisms of abrupt climate change;

(3) to incorporate these mechanisms into advanced geophysical models of climate change; and

(4) to test the output of these models against an improved global array of records of past abrupt climate changes.

(b) ABRUPT CLIMATE CHANGE DEFINED.—In this section, the term ''abrupt climate change'' means a change in climate that occurs so rapidly or unexpectedly that human or natural systems may have difficulty adapting to it.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for fiscal year 2005 $60,000,000 to carry out this section, such sum to remain available until expended.

SEC. 105. IMPACT ON LOW-INCOME POPULATIONS RESEARCH.

(a) IN GENERAL.—The Secretary shall conduct research on the impact of climate change on low-income populations everywhere in the world. The research shall—

(1) include an assessment of the adverse impact of climate change on developing countries and on low-income populations in the United States;

(2) identify appropriate climate change adaptation measures and programs for developing countries and low-income populations and assess the impact of those measures and programs on low-income populations;

(3) identify appropriate climate change mitigation strategies and programs for developing countries and low-income populations and assess the impact of those strategies and programs on developing countries and on low-income populations in the United States; and

(4) include an estimate of the costs of developing and implementing those climate change adaptation and mitigation programs.

(b) REPORT.—Within 1 year after the date of enactment of this Act, the Secretary shall transmit a report on the research conducted under subsection (a) to the Senate Committee on Commerce, Science, and Transportation, the Senate Committee on Environment and Public Works, the House of Representatives Committee on Science, and the House of Representatives Committee on Energy and Commerce.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary $2,000,000 to carry out the research required by subsection (a).

SEC. 106. NIST GREENHOUSE GAS FUNCTIONS.

Section 2(c) of the National Institute of Standards and Technology Act (15 U.S.C. 272(c)) is amended—

(1) by striking ''and'' after the semicolon in paragraph (21);

(2) by redesignating paragraph (22) as paragraph (23); and

(3) by inserting after paragraph (21) the following:

''(22) perform research to develop enhanced measurements, calibrations, standards, and technologies which will facilitate activities that reduce emissions of greenhouse gases or increase sequestration of greenhouse gases, including carbon dioxide, methane, nitrous oxide, ozone, perfluorocarbons, hydrofluorocarbons, and sulfur hexafluoride; and''.

SEC. 107. DEVELOPMENT OF NEW MEASUREMENT TECHNOLOGIES.

To facilitate implementation of section —0204, the Secretary shall initiate a program to develop, with technical assistance from appropriate Federal agencies, innovative standards and measurement technologies to calculate greenhouse gas emissions or reductions for which no accurate or reliable measurement technology exists. The program shall include—

(1) technologies (including remote sensing technologies) to measure carbon changes and other greenhouse gas emissions and reductions from agriculture, forestry, and other land use practices; and

(2) technologies to calculate non-carbon dioxide greenhouse gas emissions from transportation.

SEC. 108. ENHANCED ENVIRONMENTAL MEASUREMENTS AND STANDARDS.

The National Institute of Standards and Technology Act (15 U.S.C. 271 et seq.) is amended—

(1) by redesignating sections 17 through 32 as sections 18 through 33, respectively; and

(2) by inserting after section 16 the following:

''SEC. 17. CLIMATE CHANGE STANDARDS AND PROCESSES.

''(a) IN GENERAL.—The Director shall establish within the Institute a program to perform and support research on global climate change standards and processes, with the goal of providing scientific and technical knowledge applicable to the reduction of greenhouse gases (as defined in section ———03(8) of the Climate Stewardship and Innovation Act of 2005) and of facilitating implementation of section —0204 of that Act.

''(b) RESEARCH PROGRAM.—

''(1) IN GENERAL.—The Director is authorized to conduct, directly or through contracts or grants, a global climate change standards and processes research program.

''(2) RESEARCH PROJECTS.—The specific contents and priorities of the research program shall be determined in consultation with appropriate Federal agencies, including the Environmental Protection Agency, the National Oceanic and Atmospheric Administration, and the National Aeronautics and Space Administration. The program generally shall include basic and applied research—

''(A) to develop and provide the enhanced measurements, calibrations, data, models, and reference material standards which will enable the monitoring of greenhouse gases;

''(B) to assist in establishing a baseline reference point for future trading in greenhouse gases and the measurement of progress in emissions reduction;

''(C) that will be exchanged internationally as scientific or technical information which has the stated purpose of developing mutually recognized measurements, standards, and procedures for reducing greenhouse gases; and

''(D) to assist in developing improved industrial processes designed to reduce or eliminate greenhouse gases.

''(c) NATIONAL MEASUREMENT LABORATORIES.—

''(1) IN GENERAL.—In carrying out this section, the Director shall utilize the collective skills of the National Measurement Laboratories of the National Institute of Standards and Technology to improve the accuracy of measurements that will permit better understanding and control of these industrial chemical processes and result in the reduction or elimination of greenhouse gases.

''(2) MATERIAL, PROCESS, AND BUILDING RESEARCH.—The National Measurement Laboratories shall conduct research under this subsection that includes—

''(A) developing material and manufacturing processes which are designed for energy efficiency and reduced greenhouse gas emissions into the environment;

''(B) developing chemical processes to be used by industry that, compared to similar processes in commercial use, result in reduced emissions of greenhouse gases or increased sequestration of greenhouse gases; and

''(C) enhancing building performance with a focus in developing standards or tools which will help incorporate low- or no-emission technologies into building designs.

''(3) STANDARDS AND TOOLS.—The National Measurement Laboratories shall develop standards and tools under this subsection that include software to assist designers in selecting alternate building materials, performance data on materials, artificial intelligence-aided design procedures for building subsystems and 'smart buildings', and improved test methods and rating procedures for evaluating the energy performance of residential and commercial appliances and products.

''(d) NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM.—The Director shall utilize the National Voluntary Laboratory Accreditation Program under this section to establish a program to include specific calibration or test standards and related methods and protocols assembled to satisfy the unique needs for accreditation in measuring the production of greenhouse gases. In carrying out this subsection the Director may cooperate with other departments and agencies of the Federal Government, State and local governments, and private organizations.''.

SEC. 109. TECHNOLOGY DEVELOPMENT AND DIFFUSION.

The Director of the National Institute of Standards and Technology, through the Manufacturing Extension Partnership Program, may develop a program to promote the use, by the more than 380,000 small manufacturers, of technologies and techniques that result in reduced emissions of greenhouse gases or increased sequestration of greenhouse gases.

SEC. 110. AGRICULTURAL OUTREACH PROGRAM.

(a) IN GENERAL.—The Secretary of Agriculture, acting through the Global Change Program Office and in consultation with the heads of other appropriate departments and agencies, shall establish the Climate Change Education and Outreach Initiative Program to educate, and reach out to, agricultural organizations and individual farmers on global climate change.

(b) PROGRAM COMPONENTS.—The program—

(1) shall be designed to ensure that agricultural organizations and individual farmers receive detailed information about—

(A) the potential impact of climate change on their operations and well-being;

(B) market-driven economic opportunities that may come from storing carbon in soils and vegetation, including emerging private sector markets for carbon storage; and

(C) techniques for measuring, monitoring, verifying, and inventorying such carbon capture efforts;

(2) may incorporate existing efforts in any area of activity referenced in paragraph (1) or in related areas of activity;

(3) shall provide—

(A) outreach materials to interested parties;

(B) workshops; and

(C) technical assistance; and

(4) may include the creation and development of regional centers on climate change or coordination with existing centers (including such centers within NRCS and the Cooperative State Research Education and Extension Service).

TITLE II—NATIONAL GREENHOUSE GAS DATABASE

SEC. 201. NATIONAL GREENHOUSE GAS DATABASE AND REGISTRY ESTABLISHED.

(a) ESTABLISHMENT.—As soon as practicable after the date of enactment of this Act, the Administrator, in coordination with the Secretary, the Secretary of Energy, the Secretary of Agriculture, and private sector and nongovernmental organizations, shall establish, operate, and maintain a database, to be known as the ''National Greenhouse Gas Database'', to collect, verify, and analyze information on greenhouse gas emissions by entities.

(b) NATIONAL GREENHOUSE GAS DATABASE COMPONENTS.—The database shall consist of—

(1) an inventory of greenhouse gas emissions; and

(2) a registry of greenhouse gas emission reductions and increases in greenhouse gas sequestrations.

(c) COMPREHENSIVE SYSTEM.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Administrator shall promulgate regulations to implement a comprehensive system for greenhouse gas emissions reporting, inventorying, and reductions registration.

(2) REQUIREMENTS.—The Administrator shall ensure, to the maximum extent practicable, that—

(A) the comprehensive system described in paragraph (1) is designed to—

(i) maximize completeness, transparency, and accuracy of information reported; and

(ii) minimize costs incurred by entities in measuring and reporting greenhouse gas emissions; and

(B) the regulations promulgated under paragraph (1) establish procedures and protocols necessary—

(i) to prevent the double-counting of greenhouse gas emissions or emission reductions reported by more than 1 reporting entity;

(ii) to provide for corrections to errors in data submitted to the database;

(iii) to provide for adjustment to data by reporting entities that have had a significant organizational change (including mergers, acquisitions, and divestiture), in order to maintain comparability among data in the database over time;

(iv) to provide for adjustments to reflect new technologies or methods for measuring or calculating greenhouse gas emissions;

(v) to account for changes in registration of ownership of emission reductions resulting from a voluntary private transaction between reporting entities; and

(vi) to clarify the responsibility for reporting in the case of any facility owned or controlled by more than 1 entity.

(3) SERIAL NUMBERS.—Through regulations promulgated under paragraph (1), the Administrator shall develop and implement a system that provides—

(A) for the verification of submitted emissions reductions registered under section —0204;

(B) for the provision of unique serial numbers to identify the registered emission reductions made by an entity relative to the baseline of the entity;

(C) for the tracking of the registered reductions associated with the serial numbers; and

(D) for such action as may be necessary to prevent counterfeiting of the registered reductions.

SEC. 202. INVENTORY OF GREENHOUSE GAS EMISSIONS FOR COVERED ENTITIES.

(a) IN GENERAL.—Not later than July 1st of each calendar year after 2008, each covered entity shall submit to the Administrator a report that states, for the preceding calendar year, the entity-wide greenhouse gas emissions (as reported at the facility level), including—

(1) the total quantity of direct greenhouse gas emissions from stationary sources, expressed in units of carbon dioxide equivalents, except those reported under paragraph (3);

(2) the amount of petroleum products sold or imported by the entity and the amount of greenhouse gases, expressed in units of carbon dioxide equivalents, that would be emitted when these products are used for transportation in the United States, as determined by the Administrator under section —0301(b);

(3) the amount of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride, expressed in units of carbon dioxide equivalents, that are sold or imported by the entity and will ultimately be emitted in the United States, as determined by the Administrator under section —0301(d); and

(4) such other categories of emissions as the Administrator determines in the regulations promulgated under section —0201(c)(1) may be practicable and useful for the purposes of this division, such as—

(A) indirect emissions from imported electricity, heat, and steam;

(B) process and fugitive emissions; and

(C) production or importation of greenhouse gases.

(b) COLLECTION AND ANALYSIS OF DATA.—The Administrator shall collect and analyze information reported under subsection (a) for use under title III.

SEC. 203. GREENHOUSE GAS REDUCTION REPORTING.

(a) IN GENERAL.—Subject to the requirements described in subsection (b)—

(1) a covered entity may register greenhouse gas emission reductions achieved after 1990 and before 2010 under this section; and

(2) an entity that is not a covered entity may register greenhouse gas emission reductions achieved at any time since 1990 under this section.

(b) REQUIREMENTS.—

(1) IN GENERAL.—The requirements referred to in subsection (a) are that an entity (other than an entity described in paragraph (2)) shall—

(A) establish a baseline; and

(B) submit the report described in subsection (c)(1).

(2) REQUIREMENTS APPLICABLE TO ENTITIES ENTERING INTO CERTAIN AGREEMENTS.—An entity that enters into an agreement with a participant in the registry for the purpose of a carbon sequestration project shall not be required to comply with the requirements specified in paragraph (1) unless that entity is required to comply with the requirements by reason of an activity other than the agreement.

(c) REPORTS.—

(1) REQUIRED REPORT.—Not later than July 1st of the each calendar year beginning more than 2 years after the date of enactment of this Act, but subject to paragraph (3), an entity described in subsection (a) shall submit to the Administrator a report that states, for the preceding calendar year, the entity-wide greenhouse gas emissions (as reported at the facility level), including—

(A) the total quantity of direct greenhouse gas emissions from stationary sources, expressed in units of carbon dioxide equivalents;

(B) the amount of petroleum products sold or imported by the entity and the amount of greenhouse gases, expressed in units of carbon dioxide equivalents, that would be emitted when these products are used for transportation in the United States, as determined by the Administrator under section —0301(b);

(C) the amount of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride, expressed in units of carbon dioxide equivalents, that are sold or imported by the entity and will ultimately be emitted in the United States, as determined by the Administrator under section —0301(d); and

(D) such other categories of emissions as the Administrator determines in the regulations promulgated under section —0201(c)(1) may be practicable and useful for the purposes of this division, such as—

(i) indirect emissions from imported electricity, heat, and steam;

(ii) process and fugitive emissions; and

(iii) production or importation of greenhouse gases.

(2) VOLUNTARY REPORTING.—An entity described in subsection (a) may (along with establishing a baseline and reporting emissions under this section)—

(A) submit a report described in paragraph (1) before the date specified in that paragraph for the purposes of achieving and commoditizing greenhouse gas reductions through use of the registry and for other purposes; and

(B) submit to the Administrator, for inclusion in the registry, information that has been verified in accordance with regulations promulgated under section —0201(c)(1) and that relates to—

(i) any activity that resulted in the net reduction of the greenhouse gas emissions of the entity or a net increase in sequestration by the entity that were carried out during or after 1990 and before the establishment of the database, verified in accordance with regulations promulgated under section —0201(c)(1), and submitted to the Administrator before the date that is 4 years after the date of enactment of this Act; and

(ii) with respect to the calendar year preceding the calendar year in which the information is submitted, any project or activity that resulted in the net reduction of the greenhouse gas emissions of the entity or a net increase in net sequestration by the entity.

(3) PROVISION OF VERIFICATION INFORMATION BY REPORTING ENTITIES.—Each entity that submits a report under this subsection shall provide information sufficient for the Administrator to verify, in accordance with measurement and verification methods and standards developed under section —0204, that the greenhouse gas report of the reporting entity—

(A) has been accurately reported; and

(B) in the case of each voluntary report under paragraph (2), represents—

(i) actual reductions in direct greenhouse gas emissions—

(I) relative to historic emission levels of the entity; and

(II) after accounting for any increases in indirect emissions described in paragraph (1)(C)(i); or

(ii) actual increases in net sequestration.

(4) FAILURE TO SUBMIT REPORT.—An entity that participates or has participated in the registry and that fails to submit a report required under this subsection shall be prohibited from using, or allowing another entity to use, its registered emissions reductions or increases in sequestration to satisfy the requirements of section —0301.

(5) INDEPENDENT THIRD-PARTY VERIFICATION.—To meet the requirements of this section and section —0203, an entity that is required to submit a report under this section may—

(A) obtain independent third-party verification; and

(B) present the results of the third-party verification to the Administrator.

(6) AVAILABILITY OF DATA.—

(A) IN GENERAL.—The Administrator shall ensure that information in the database is—

(i) published; and

(ii) accessible to the public, including in electronic format on the Internet.

(B) EXCEPTION.—Subparagraph (A) shall not apply in any case in which the Administrator determines that publishing or otherwise making available information described in that subparagraph poses a risk to national security or discloses confidential business information that can not be derived from information that is otherwise publicly available and that would cause competitive harm if published.

(7) DATA INFRASTRUCTURE.—The Administrator shall ensure, to the maximum extent practicable, that the database uses, and is integrated with, Federal, State, and regional greenhouse gas data collection and reporting systems in effect as of the date of enactment of this Act.

(8) ADDITIONAL ISSUES TO BE CONSIDERED.—In promulgating the regulations under section —0201(c)(1) and implementing the database, the Administrator shall take into consideration a broad range of issues involved in establishing an effective database, including—

(A) the data and information systems and measures necessary to identify, track, and verify greenhouse gas emissions in a manner that will encourage private sector trading and exchanges;

(B) the greenhouse gas reduction and sequestration measurement and estimation methods and standards applied in other countries, as applicable or relevant;

(C) the extent to which available fossil fuels, greenhouse gas emissions, and greenhouse gas production and importation data are adequate to implement the database; and

(D) the differences in, and potential uniqueness of, the facilities, operations, and business and other relevant practices of persons and entities in the private and public sectors that may be expected to participate in the database.

(d) ANNUAL REPORT.—The Administrator shall publish an annual report that—

(1) describes the total greenhouse gas emissions and emission reductions reported to the database during the year covered by the report;

(2) provides entity-by-entity and sector-by-sector analyses of the emissions and emission reductions reported;

(3) describes the atmospheric concentrations of greenhouse gases;

(4) provides a comparison of current and past atmospheric concentrations of greenhouse gases; and

(5) describes the activity during the year covered by the period in the trading of greenhouse gas emission allowances.

SEC. 204. MEASUREMENT AND VERIFICATION.

(a) STANDARDS.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary shall establish by rule, in coordination with the Administrator, the Secretary of Energy, and the Secretary of Agriculture, comprehensive measurement and verification methods and standards to ensure a consistent and technically accurate record of greenhouse gas emissions, emission reductions, sequestration, and atmospheric concentrations for use in the registry.

(2) REQUIREMENTS.—The methods and standards established under paragraph (1) shall include—

(A) a requirement that a covered entity use a continuous emissions monitoring system, or another system of measuring or estimating emissions that is determined by the Secretary to provide information with precision, reliability, accessibility, and timeliness similar to that provided by a continuous emissions monitoring system where technologically feasible;

(B) establishment of standardized measurement and verification practices for reports made by all entities participating in the registry, taking into account—

(i) protocols and standards in use by entities requiring or desiring to participate in the registry as of the date of development of the methods and standards under paragraph (1);

(ii) boundary issues, such as leakage;

(iii) avoidance of double counting of greenhouse gas emissions and emission reductions;

(iv) protocols to prevent a covered entity from avoiding the requirements of this division by reorganization into multiple entities that are under common control; and

(v) such other factors as the Secretary, in consultation with the Administrator, determines to be appropriate;

(C) establishment of methods of—

(i) estimating greenhouse gas emissions, for those cases in which the Secretary determines that methods of monitoring, measuring or estimating such emissions with precision, reliability, accessibility, and timeliness similar to that provided by a continuous emissions monitoring system are not technologically feasible at present; and

(ii) reporting the accuracy of such estimations;

(D) establishment of measurement and verification standards applicable to actions taken to reduce, avoid, or sequester greenhouse gas emissions;

(E) in coordination with the Secretary of Agriculture, standards to measure the results of the use of carbon sequestration and carbon recapture technologies, including—

(i) soil carbon sequestration practices; and

(ii) forest preservation and reforestation activities that adequately address the issues of permanence, leakage, and verification;

(E) establishment of such other measurement and verification standards as the Secretary, in consultation with the Secretary of Agriculture, the Administrator, and the Secretary of Energy, determines to be appropriate;

(F) establishment of standards for obtaining the Secretary's approval of the suitability of geological storage sites that include evaluation of both the geology of the site and the entity's capacity to manage the site; and

(G) establishment of other features that, as determined by the Secretary, will allow entities to adequately establish a fair and reliable measurement and reporting system.

(b) REVIEW AND REVISION.—The Secretary shall periodically review, and revise as necessary, the methods and standards developed under subsection (a).

(c) PUBLIC PARTICIPATION.—The Secretary shall—

(1) make available to the public for comment, in draft form and for a period of at least 90 days, the methods and standards developed under subsection (a); and

(2) after the 90-day period referred to in paragraph (1), in coordination with the Secretary of Energy, the Secretary of Agriculture, and the Administrator, adopt the methods and standards developed under subsection (a) for use in implementing the database.

(d) EXPERTS AND CONSULTANTS.—

(1) IN GENERAL.—The Secretary may obtain the services of experts and consultants in the private and nonprofit sectors in accordance with section 3109 of title 5, United States Code, in the areas of greenhouse gas measurement, certification, and emission trading.

(2) AVAILABLE ARRANGEMENTS.—In obtaining any service described in paragraph (1), the Secretary may use any available grant, contract, cooperative agreement, or other arrangement authorized by law.

TITLE III—MARKET-DRIVEN GREENHOUSE GAS REDUCTIONS

SUBTITLE A—EMISSION REDUCTION REQUIREMENTS; USE OF TRADEABLE ALLOWANCES

SEC. 301. COVERED ENTITIES MUST SUBMIT ALLOWANCES FOR EMISSIONS.

(a) IN GENERAL.—

(1) SUBMISSION OF ALLOWANCES.—Except as provided in paragraph (2), beginning with calendar year 2010—

(A) each covered entity in the electric generation, industrial, and commercial sectors shall submit to the Administrator one tradeable allowance for every metric ton of greenhouse gases, measured in units of carbon dioxide equivalents, that it emits from stationary sources, except those described in subparagraph (B);

(B) each producer or importer of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride that is a covered entity shall submit to the Administrator one tradeable allowance for every metric ton of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride, measured in units of carbon dioxide equivalents; that it produces or imports and that will ultimately be emitted in the United States, as determined by the Administrator under subsection (d) and

(C) each petroleum refiner or importer that is a covered entity shall submit one tradeable allowance for every unit of petroleum product it sells that will produce one metric ton of greenhouse gases, measured in units of carbon dioxide equivalents, as determined by the Administrator under subsection (b), when used for transportation.

(2) TENNESSEE VALLEY AUTHORITY.—Paragraph (1) shall apply to the Tennessee Valley Authority beginning with calendar year 2016.

(b) DETERMINATION OF TRANSPORTATION SECTOR AMOUNT.—For the transportation sector, the Administrator shall determine the amount of greenhouse gases, measured in units of carbon dioxide equivalents, that will be emitted when petroleum products are used for transportation.

(c) EXCEPTION FOR CERTAIN DEPOSITED EMISSIONS.—Notwithstanding subsection (a), a covered entity is not required to submit a tradeable allowance for any amount of greenhouse gas that would otherwise have been emitted from a facility under the ownership or control of that entity if—

(1) the emission is deposited in a geological storage facility approved by the Administrator under section —0204(a)(2)(F); and

(2) the entity agrees to submit tradeable allowances for any portion of the deposited emission that is subsequently emitted from that facility.

(d) DETERMINATION OF HYDROFLUROCARBON, PERFLUOROCARBON, AND SULFUR HEXAFLUORIDE AMOUNT.—The Administrator shall determine the amounts of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride, measured in units of carbon dioxide equivalents, that will be deemed to be emitted for purposes of this division.

SEC. 302. COMPLIANCE.

(a) IN GENERAL.—

(1) SOURCE OF TRADEABLE ALLOWANCES USED.—A covered entity may use a tradeable allowance to meet the requirements of this section without regard to whether the tradeable allowance was allocated to it under subtitle B or acquired from another entity or the Climate Change Credit Corporation established under section —0351.

(2) VERIFICATION BY ADMINISTRATOR.—At various times during each year, the Administrator shall determine whether each covered entity has met the requirements of this section. In making that determination, the Administrator shall—

(A) take into account the tradeable allowances submitted by the covered entity to the Administrator; and

(B) retire the serial number assigned to each such tradeable allowance.

(b) ALTERNATIVE MEANS OF COMPLIANCE.—For the years 2010 and after, a covered entity may satisfy up to 15 percent of its total allowance submission requirement under this section by—

(1) submitting tradeable allowances from another nation's market in greenhouse gas emissions if—

(A) the Secretary determines that the other nation's system for trading in greenhouse gas emissions is complete, accurate, and transparent and reviews that determination at least once every 5 years;

(B) the other nation has adopted enforceable limits on its greenhouse gas emissions which the tradeable allowances were issued to implement; and

(C) the covered entity certifies that the tradeable allowance has been retired unused in the other nation's market;

(2) submitting a registered net increase in sequestration, as registered in the database, adjusted, if necessary, to comply with the accounting standards and methods established under section —0372;

(3) submitting a greenhouse gas emissions reduction (other than a registered net increase in sequestration) that was registered in the database by a person that is not a covered entity; or

(4) submitting credits obtained from the Administrator under section —0303.

(c) DEDICATED PROGRAM FOR SEQUESTRATION IN AGRICULTURAL SOILS.—If a covered entity chooses to satisfy 15 percent of its total allowance submission requirements under the provisions of subsection (b), it shall satisfy at least 01.5 percent of its total allowance submission requirement by submitting registered net increases in sequestration in agricultural soils, as registered in the database, adjusted, if necessary, to comply with the accounting standards and methods established under section —0371.

SEC. 303. BORROWING AGAINST FUTURE REDUCTIONS.

(a) IN GENERAL.—The Administrator shall establish a program under which a covered entity may—

(1) receive a credit in the current calendar year for anticipated reductions in emissions in a future calendar year; and

(2) use the credit in lieu of a tradeable allowance to meet the requirements of this division for the current calendar year, subject to the limitation imposed by section —0302(b).

(b) DETERMINATION OF TRADEABLE ALLOWANCE CREDITS.—The Administrator may make credits available under subsection (a) only for anticipated reductions in emissions that—

(1) are attributable to the realization of capital investments in equipment, the construction, reconstruction, or acquisition of facilities, or the deployment of new technologies—

(A) for which the covered entity has executed a binding contract and secured, or applied for, all necessary permits and operating or implementation authority;

(B) that will not become operational within the current calendar year; and

(C) that will become operational and begin to reduce emissions from the covered entity within 5 years after the year in which the credit is used; and

(2) will be realized within 5 years after the year in which the credit is used.

(c) CARRYING COST.—If a covered entity uses a credit under this section to meet the requirements of this division for a calendar year (referred to as the use year), the tradeable allowance requirement for the year from which the credit was taken (referred to as the source year) shall be increased by an amount equal to—

(1) 10 percent for each credit borrowed from the source year; multiplied by

(2) the number of years beginning after the use year and before the source year.

(d) MAXIMUM BORROWING PERIOD.—A credit from a year beginning more than 5 years after the current year may not be used to meet the requirements of this division for the current year.

(e) FAILURE TO ACHIEVE REDUCTIONS GENERATING CREDIT.—If a covered entity that uses a credit under this section fails to achieve the anticipated reduction for which the credit was granted for the year from which the credit was taken, then—

(1) the covered entity's requirements under this Act for that year shall be increased by the amount of the credit, plus the amount determined under subsection (c);

(2) any tradeable allowances submitted by the covered entity for that year shall be counted first against the increase in those requirements; and

(3) the covered entity may not use credits under this section to meet the increased requirements.

SEC. 304. OTHER USES OF TRADEABLE ALLOWANCES.

(a) IN GENERAL.—Tradeable allowances may be sold, exchanged, purchased, retired, or used as provided in this section.

(b) INTERSECTOR TRADING.—Covered entities may purchase or otherwise acquire tradeable allowances from other covered sectors to satisfy the requirements of section —0301.

(c) CLIMATE CHANGE CREDIT CORPORATION.—The Climate Change Credit Corporation established under section —0351 may sell tradeable allowances allocated to it under section —0332(a)(2) to any covered entity or to any investor, broker, or dealer in such tradeable allowances. The Climate Change Credit Corporation shall use all proceeds from such sales in accordance with the provisions of section —0352.

(d) BANKING OF TRADEABLE ALLOWANCES.—Notwithstanding the requirements of section —0301, a covered entity that has more than a sufficient amount of tradeable allowances to satisfy the requirements of section —0301, may refrain from submitting a tradeable allowance to satisfy the requirements in order to sell, exchange, or use the tradeable allowance in the future.

SEC. 305. EXEMPTION OF SOURCE CATEGORIES.

(a) IN GENERAL.—The Administrator may grant an exemption from the requirements of this division to a source category if the Administrator determines, after public notice and comment, that it is not feasible to measure or estimate emissions from that source category, until such time as measurement or estimation becomes feasible.

(b) REDUCTION OF LIMITATIONS.—If the Administrator exempts a source category under subsection (a), the Administrator shall also reduce the total tradeable allowances under section —0331(a)(1) by the amount of greenhouse gas emissions that the exempted source category emitted in calendar year 2000, as identified in the 2000 Inventory.

(c) LIMITATION ON EXEMPTION.—The Administrator may not grant an exemption under subsection (a) to carbon dioxide produced from fossil fuel.

SUBTITLE B—ESTABLISHMENT AND ALLOCATION OF TRADEABLE ALLOWANCES

SEC. 331. ESTABLISHMENT OF TRADEABLE ALLOWANCES.

(a) IN GENERAL.—The Administrator shall promulgate regulations to establish tradeable allowances, denominated in units of carbon dioxide equivalents, for calendar years beginning after 2009, equal to—

(1) 5896 million metric tons, measured in units of carbon dioxide equivalents, reduced by

(2) the amount of emissions of greenhouse gases in calendar year 2000 from non-covered entities.

(b) SERIAL NUMBERS.—The Administrator shall assign a unique serial number to each tradeable allowance established under subsection (a), and shall take such action as may be necessary to prevent counterfeiting of tradeable allowances.

(c) NATURE OF TRADEABLE ALLOWANCES.—A tradeable allowance is not a property right, and nothing in this title or any other provision of law limits the authority of the United States to terminate or limit a tradeable allowance.

(d) NON-COVERED ENTITY.—

(1) IN GENERAL.—In this section the term ''non-covered entity'' means an entity that—

(A) owns or controls a source of greenhouse gas emissions in the electric power, industrial, or commercial sectors of the United States economy (as defined in the Inventory), refines or imports petroleum products for use in transportation, or produces or imports hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride; and

(B) is not a covered entity.

(2) EXCEPTION.—Notwithstanding paragraph (1), an entity that is a covered entity for any calendar year beginning after 2009 shall not be considered to be a non-covered entity for purposes of subsection (a) only because it emitted, or its products would have emitted, 10,000 metric tons or less of greenhouse gas, measured in units of carbon dioxide equivalents, in the year 2000.

SEC. 332. DETERMINATION OF TRADEABLE ALLOWANCE ALLOCATIONS.

(a) IN GENERAL.—The Secretary shall determine—

(1) the amount of tradeable allowances to be allocated to each covered sector of that sector's allotments; and

(2) the amount of tradeable allowances to be allocated to the Climate Change Credit Corporation established under section —0351.

(b) ALLOCATION FACTORS.—In making the determination required by subsection (a), the Secretary shall consider—

(1) the distributive effect of the allocations on household income and net worth of individuals;

(2) the impact of the allocations on corporate income, taxes, and asset value;

(3) the impact of the allocations on income levels of consumers and on their energy consumption;

(4) the effects of the allocations in terms of economic efficiency;

(5) the ability of covered entities to pass through compliance costs to their customers;

(6) the degree to which the amount of allocations to the covered sectors should decrease over time; and

(7) the need to maintain the international competitiveness of United States manufacturing and avoid the additional loss of United States manufacturing jobs.

(c) ALLOCATION RECOMMENDATIONS AND IMPLEMENTATION.—Before allocating or providing tradeable allowances under subsection (a) and within 24 months after the date of enactment of this Act, the Secretary shall submit the determinations under subsection (a) to the Senate Committee on Commerce, Science, and Transportation, the Senate Committee on Environment and Public Works, the House of Representatives Committee on Science, and the House of Representatives Committee on Energy and Commerce. The Secretary's determinations under paragraph (1), including the allocations and provision of tradeable allowances pursuant to that determination, are deemed to be a major rule (as defined in section 804(2) of title 5, United States Code), and subject to the provisions of chapter 8 of that title.

SEC. 333. ALLOCATION OF TRADEABLE ALLOWANCES.

(a) IN GENERAL.—Beginning with calendar year 2010 and after taking into account any initial allocations under section —0335, the Administrator shall—

(1) allocate to each covered sector that sector's allotments determined by the Administrator under section —0332 (adjusted for any such initial allocations and the allocation to the Climate Change Credit Corporation established under section —0351); and

(2) allocate to the Climate Change Credit Corporation established under section —0351 the tradeable allowances allocable to that Corporation.

(b) INTRASECTORIAL ALLOTMENTS.—The Administrator shall, by regulation, establish a process for the allocation of tradeable allowances under this section, without cost to covered entities, that will—

(1) encourage investments that increase the efficiency of the processes that produce greenhouse gas emissions;

(2) minimize the costs to the government of allocating the tradeable allowances;

(3) not penalize a covered entity for emissions reductions made before 2010 and registered with the database; and

(4) provide sufficient allocation for new entrants into the sector.

(c) POINT SOURCE ALLOCATION.—The Administrator shall allocate the tradeable allowances for the electricity generation, industrial, and commercial sectors to the entities owning or controlling the point sources of greenhouse gas emissions within that sector.

(d) HYDROFLUOROCARBONS, PERFLUOROCARBONS, AND SULFUR HEXAFLUORIDE.—The Administrator shall allocate the tradeable allowances for producers or importers of hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride to such producers or importers.

(e) SPECIAL RULE FOR ALLOCATION WITHIN THE TRANSPORTATION SECTOR.—The Administrator shall allocate the tradeable allowances for the transportation sector to petroleum refiners or importers that produce or import petroleum products that will be used as fuel for transportation.

(f) ALLOCATIONS TO RURAL ELECTRIC COOPERATIVES.—For each electric generating unit that is owned or operated by a rural electric cooperative, the Administrator shall allocate each year, at no cost, allowances in an amount equal to the greenhouse gas emissions of each such unit in 2000, plus an amount equal to the average emissions growth expected for all such units. The allocations shall be offset from the allowances allocated to the Climate Change Credit Corporation.

(g) EARLY AUCTION FOR TECHNOLOGY DEPLOYMENT AND DISSEMINATION.—

(1) IN GENERAL.—Within 1 year after the date of enactment of this Act, the Administrator, in consultation with the Secretary of Energy and the Secretary of Commerce, shall allocate tradeable allowances by the Climate Change Credit Corporation for auction before 2010. The Climate Change Credit Corporation shall use the proceeds of the

auction, together with any funds received as reimbursements under subtitle C of title IV of this division, to support the programs established by that subtitle until the secretary of Energy and the Corporation jointly determine that the purposes of those programs have been accomplished. The Corporation shall also use the proceeds of the auction to support the programs established by subtitle D of title IV of this division until 2010.

(2) DETERMINATION OF ALLOCATION.—In determining the amount of tradeable allowances to be allocated to the Climate Change Credit Corporation under this subsection, the Administrator shall consider—

(A) the expected market value of tradeable allowances for auction;

(B) the annual funding required for the programs established by subtitle C of title IV;

(C) the repayment provisions of those programs; and

(D) the allocation factors in section —0332(b).

(3) LIMITATION.—In allocating tradeable allowances under paragraph (1) the Administrator shall take into account the purposes of section —0331 and the impact, if any, the allocation under paragraph (1) may have on achieving those purposes.

(h) ALLOCATION TO COVERED ENTITIES IN STATES ADOPTING MANDATORY GREENHOUSE GAS EMISSIONS REDUCTION PROGRAMS.—For a covered entity operating in any State that has adopted a legally binding and enforceable program to achieve and maintain reductions that are consistent with, or more stringent than, reductions mandated by this Act, and which requirements are effective prior to 2010, the Administrator shall consider such binding state actions in making the final determination of allocation to such covered entities.

SEC. 334. ENSURING TARGET ADEQUACY.

(a) IN GENERAL.—Beginning 2 years after the date of enactment of this Act, the Under Secretary of Commerce for Oceans and Atmosphere shall review the allowances established by section —0331 no less frequently than biennially—

(1) to re-evaluate the levels established by that subsection, after taking into account the best available science and the most currently available data, and

(2) to re-evaluate the environmental and public health impacts of specific concentration levels of greenhouse gases,

to determine whether the allowances established by subsection (a) continue to be consistent with the objective of the United Nations' Framework Convention on Climate Change of stabilizing levels of greenhouse gas emissions at a level that will prevent dangerous anthropogenic interference with the climate system.

(b) REVIEW OF 2010 LEVELS.—The Under Secretary shall specifically review in 2008 the level established under section —0331(a)(1), and transmit a report on his reviews, together with any recommendations, including legislative recommendations, for modification of the levels, to the Senate Committee on Commerce, Science, and Transportation, the Senate Committee on Environment and Public Works, the House of Representatives Committee on Science, and the House of Representatives Committee on Energy and Commerce.

SEC. 335. INITIAL ALLOCATIONS FOR EARLY PARTICIPATION AND ACCELERATED PARTICIPATION.

(a) Before making any allocations under section —0333, the Administrator shall allocate—

(1) to any covered entity an amount of tradeable allowances equivalent to the amount of greenhouse gas emissions reductions registered by that covered entity in the national greenhouse gas database if—

(A) the covered entity has requested to use the registered reduction in the year of allocation;

(B) the reduction was registered prior to 2010; and

(C) the Administrator retires the unique serial number assigned to the reduction under section —0201(c)(3); and

(2) to any covered entity that has entered into an accelerated participation agreement under section —0336, such tradeable allowances as the Administrator has determined to be appropriate under that section.

(b) Any covered entity that is subject to a State mandatory greenhouse gas emissions reduction program that meets the requirements of subsection (h) of section —0333 shall be eligible for the allocation of allowances under this section and section —0336 if the requirements of the State mandatory greenhouse gas emission reduction program are consistent with, or more stringent than, the emission targets established by this Act.

SEC. 336. BONUS FOR ACCELERATED PARTICIPATION.

(a) IN GENERAL.—If a covered entity executes an agreement with the Administrator under which it agrees to reduce its level of greenhouse gas emissions to a level no greater than the level of its greenhouse gas emissions for calendar year 1990 by the year 2010, then, for the 6-year period beginning with calendar year 2010, the Administrator shall—

(1) provide additional tradeable allowances to that entity when allocating allowances under section —0334 in order to recognize the additional emissions reductions that will be required of the covered entity;

(2) allow that entity to satisfy 20 percent of its requirements under section —0301 by—

(A) submitting tradeable allowances from another nation's market in greenhouse gas emissions under the conditions described in section —0312(b)(1);

(B) submitting a registered net increase in sequestration, as registered in the National Greenhouse Gas Database established under section —0201, and as adjusted by the appropriate sequestration discount rate established under section —0371; or

(C) submitting a greenhouse gas emission reduction (other than a registered net increase in sequestration) that was registered in the National Greenhouse Gas Database by a person that is not a covered entity.

(b) TERMINATION.—An entity that executes an agreement described in subsection (a) may terminate the agreement at any time.

(c) FAILURE TO MEET COMMITMENT.—If an entity that executes an agreement described in subsection (a) fails to achieve the level of emissions to which it committed by calendar year 2010—

(1) its requirements under section —0301 shall be increased by the amount of any tradeable allowances provided to it under subsection (a)(1); and

(2) any tradeable allowances submitted thereafter shall be counted first against the increase in those requirements.

SUBTITLE C—CLIMATE CHANGE CREDIT CORPORATION

SEC. 351. ESTABLISHMENT.

(a) IN GENERAL.—The Climate Change Credit Corporation is established as a nonprofit corporation without stock. The Corporation shall not be considered to be an agency or establishment of the United States Government.

(b) APPLICABLE LAWS.—The Corporation shall be subject to the provisions of this title and, to the extent consistent with this title, to the District of Columbia Business Corporation Act.

(c) BOARD OF DIRECTORS.—The Corporation shall have a board of directors of 5 individuals who are citizens of the United States, of whom 1 shall be elected annually by the board to serve as chairman. No more than 3 members of the board serving at any time may be affiliated with the same political party. The members of the board shall be appointed by the President of the United States, by and with the advice and consent of the Senate and shall serve for terms of 5 years.

SEC. 352. PURPOSES AND FUNCTIONS.

(a) TRADING.—The Corporation—

(1) shall receive and manage tradeable allowances allocated to it under section —0333(a)(2); and

(2) shall buy and sell tradeable allowances, whether allocated to it under that section or obtained by purchase, trade, or donation from other entities; but

(3) may not retire tradeable allowances unused.

(b) USE OF TRADEABLE ALLOWANCES AND PROCEEDS.—

(1) IN GENERAL.—The Corporation shall use the tradeable allowances, and proceeds derived from its trading activities in tradeable allowances, to reduce costs borne by consumers as a result of the greenhouse gas reduction requirements of this division. The reductions—

(A) may be obtained by buy-down, subsidy, negotiation of discounts, consumer rebates, or otherwise;

(B) shall be, as nearly as possible, equitably distributed across all regions of the United States; and

(C) may include arrangements for preferential treatment to consumers who can least afford any such increased costs.

(2) TRANSITION ASSISTANCE TO DISLOCATED WORKERS AND COMMUNITIES.—The Corporation shall allocate a percentage of the proceeds derived from its trading activities in tradeable allowances to provide transition assistance to dislocated workers and communities. Transition assistance may take the form of—

(A) grants to employers, employer associations, and representatives of employees—

(i) to provide training, adjustment assistance, and employment services to dislocated workers; and

(ii) to make income-maintenance and needs-related payments to dislocated workers; and

(B) grants to State and local governments to assist communities in attracting new employers or providing essential local government services.

(3) PHASE-OUT OF TRANSITION ASSISTANCE.—The percentage allocated by the Corporation under paragraph (2)—

(A) shall be 20 percent for 2010;

(B) shall be reduced by 2 percentage points each year thereafter; and

(C) may not be reduced below zero.

(4) ADAPTATION AND MITIGATION ASSISTANCE FOR LOW-INCOME PERSONS AND COMMUNITIES.—The Corporation shall allocate at least 10 percent of the proceeds derived from its trading activities to funding climate change adaptation and mitigation programs to assist low-income populations identified in the report submitted under section —0105(b) as having particular needs in addressing the impact of climate change.

(5) ADAPTATION ASSISTANCE FOR FISH AND WILDLIFE HABITAT.—The Corporation shall fund efforts to strengthen and restore habitat that improves the ability of fish and wildlife to adapt successfully to climate change. The Corporation shall deposit the proceeds from no less than 10 percent of the total allowances allocated to it in the wildlife restoration fund subaccount known as the Wildlife Conservation and Restoration Account established under section 3 of the

Pittman-Robertson Wildlife Restoration Act (16 U.S.C. 669b). Amounts deposited in the subaccount under this paragraph shall be available without further appropriation for obligation and expenditure under that Act.

(6) TECHNOLOGY DEPLOYMENT PROGRAMS.—The Corporation shall establish and carry out a program, through direct grants, revolving loan programs, or other financial measures, to provide support for the deployment of technology to assist in compliance with this Act by distributing the proceeds from no less than 50 percent of the total allowances allocated in support of the program established under section —0491.

(c) APPROPRIATIONS.—Notwithstanding any other provision of this Act, no funds may be obligated or expended by the Corporation except as provided by appropriations Acts.

SUBTITLE D—SEQUESTRATION ACCOUNTING; PENALTIES

SEC. 371. SEQUESTRATION ACCOUNTING.

(a) SEQUESTRATION ACCOUNTING.—If a covered entity uses a registered net increase in sequestration to satisfy the requirements of section —0301 for any year, that covered entity shall submit information to the Administrator every 5 years thereafter sufficient to allow the Administrator to determine, using the methods and standards created under section —0204, whether that net increase in sequestration still exists. Unless the Administrator determines that the net increase in sequestration continues to exist, the covered entity shall offset any loss of sequestration by submitting additional tradeable allowances of equivalent amount in the calender year following that determination.

(b) REGULATIONS REQUIRED.—The Secretary, acting through the Under Secretary of Commerce for Science and Technology, in coordination with the Secretary of Agriculture, the Secretary of Energy, and the Administrator, shall issue regulations establishing the sequestration accounting rules for all classes of sequestration projects.

(c) CRITERIA FOR REGULATIONS.—In issuing regulations under this section, the Secretary shall use the following criteria:

(1) If the range of possible amounts of net increase in sequestration for a particular class of sequestration project is not more than 10 percent of the median of that range, the amount of sequestration awarded shall be equal to the median value of that range.

(2) If the range of possible amounts of net increase in sequestration for a particular class of sequestration project is more than 10 percent of the median of that range, the amount of sequestration awarded shall be equal to the fifth percentile of that range.

(3) The regulations shall include procedures for accounting for potential leakage from sequestration projects and for ensuring that any registered increase in sequestration is in addition that which would have occurred if this Act had not been enacted.

(d) UPDATES.—The Secretary shall update the sequestration accounting rules for every class of sequestration project at least once every 5 years.

SEC. 372. PENALTIES.

Any covered entity that fails to meet the requirements of section —0301 for a year shall be liable for a civil penalty, payable to the Administrator, equal to thrice the market value (determined as of the last day of the year at issue) of the tradeable allowances that would be necessary for that covered entity to meet those requirements on the date of the emission that resulted in the violation.

TITLE IV—INNOVATION AND COMPETITIVENESS

SEC. 401. FINDINGS.

The Congress finds the following:

(1) Innovation, the process that ultimately provides new and improved products, manufacturing processes, and services, is the basis for technological progress. This technological advancement is a key element of sustained economic growth.

(2) The innovation economy is fundamentally different from the industrial or even the information economy. It requires a new vision and new approaches.

(3) Changing innovation processes and the evolution of the relative contribution made by the private and public sectors have emphasized the need for strong industry-science linkages.

(4) Patent regimes play an increasingly complex role in encouraging innovation, disseminating scientific and technical knowledge, and enhancing market entry and firm creation.

(5) Increasing participation and maintaining quality standards in tertiary education in science and technology are imperative to meet growing demand for workers with scientific and technological knowledge and skills.

(6) Research, innovation, and human capital are our principal strengths. By sustaining United States investments in research and finding collaborative arrangements to leverage existing resources and funds in a scarce budget environment, we ensure that America remains at the forefront of scientific and technological capability.

(7) Technology transfer of publicly funded research is a critical mechanism for optimizing the return on taxpayer investment, particularly where other benefits are not measurable at all or are very long-term.

(8) Identifying metrics to quantify program effectiveness is of increasing importance because the entire innovation process is continuing to evolve in an arena of increasing global competition. Metrics need to take into account a wide range of steps in a highly complex process, as well as the ultimate product or service, but should not constrain the continued evolution or development of new technology transfer approaches.

(9) The United States lacks a national innovation strategy and agenda, including an aggressive public policy strategy that energizes the environment for national innovation, and no Federal agency is responsible for developing national innovation policy.

SUBTITLE A—INNOVATION INFRASTRUCTURE

SEC. 421. THE INNOVATION ADMINISTRATION.

(a) IN GENERAL.—Section 5 of the Stevenson-Wydler Technology Innovation Act of 1990 (15 U.S.C. 3704) is amended—

(1) by striking ''a Technology'' in subsection (a) and inserting ''an Innovation'';

(2) by striking ''The Technology'' in subsection (a) and inserting ''The Innovation'';

(3) by striking ''of Technology'' in subsection (a)(3) and inserting ''of Innovation'';

(4) by striking ''Technology'' each place it appears in subsection (b) and in subsection (c)(1) and inserting ''Innovation'';

(5) by inserting ''(1) IN GENERAL.—'' before ''The Secretary'' in subsection (c) and redesignating paragraphs (1) through (15) as subparagraphs (A) through (O); and

(6) by adding at the end of subsection (c) the following:

''(2) SPECIFIC INNOVATION-RELATED DUTIES.—

''(A) IN GENERAL.—The Secretary, through the Under Secretary, shall—

''(i) provide advice to the President with respect to the policies and conduct of the Innovation Administration, including ways to improve research and development concerning climate change innovation and the methods of collecting and disseminating findings of such research;

''(ii) provide advice to the President and the Congress on the development of climate change innovation research programs;

''(iii) develop and monitor metrics to be used by the Federal government in managing the innovation process;

''(iv) develop and establish government wide climate change innovation policy and strategic plans, consistent with the strategic plans of the United States Climate Change Science Program and the United States Climate Technology Challenge Program, including an implementation plan, developed in consultation with the Secretary of Energy and the Climate Change Credit Corporation, for the Climate Technology Challenge Program under section —0491, addressing technology priorities, total funding, opportunities for Federal procurement, and other issues;

''(v) review and evaluate on a continuing basis—

''(I) technologies available for transfer and deployment to the commercial sector;

''(II) all statutes and regulations pertaining to Federal programs which assist in the transfer and deployment of technologies, both domestically and internationally; and

''(III) new and emerging innovation policy issues affecting the deployment of new technologies, including identification of barriers to commercialization and recommendations for removal of those barriers;

''(vi) assess the extent to which such policies, programs, practices, and procedures facilitate or impede the promotion of the policies set forth in subsection (b);

''(vii) gather information about the implementation, effectiveness, and impact of the deployed climate change related technologies based on metrics developed under clause (iii);

''(viii) make recommendations to the President and the Congress and other officials of Federal agencies or other Federal entities, regarding ways to better promote the policies developed under paragraph (1)(B);

''(ix) provide advice, recommendations, legislative proposals to the Congress on a continuing basis, and any additional information the Agency or the Congress deems appropriate;

''(x) make recommendations to the President, the Congress, and Federal agencies or entities regarding policy on Federal purchasing behavior that would provide incentives to industry to bring new products to market faster;

''(xi) conduct economic analysis in support of climate change technology development and deployment;

''(xii) work with academia to develop education programs to support the multi-disciplinary nature of innovation;

''(xiii) establish partnerships with industry to determine the needs for the future workforce to support deployed technologies;

''(xiv) assist in the search for partners to establish public-private partnerships, and in searching for capital funds from the investment community for new businesses in the climate change technology sector; and

''(xv) identify opportunities to promote cooperation on research, development, and commercialization with other countries and make recommendations, based on the opportunities so identified to the Secretary of State.

''(B) ANNUAL REPORT.—

''(i) IN GENERAL.—The Administrator shall prepare and submit to the President and the appropriate committees of the Congress a report entitled 'Climate Change Innovation: A Progress Report' within 6 months after the date of enactment of the Climate Stewardship and Innovation Act of 2005 and annually thereafter.

''(ii) CONTENTS.—The report shall assess the status of the Nation in achieving the purposes set forth in subsection (b), with particular focus on the new and emerging issues impacting the deployment of new climate change technologies. The report shall present, as appropriate, available data on research, education, workforce, financing, and market opportunities. The report shall include recommendations for policy change.

''(iii) CONSULTATION REQUIRED.—In determining the findings, conclusions, and recommendations of the report, the Agency shall seek input from industry, academia, and other interested parties.''.

(b) REFERENCES.—Any reference to the Technology Administration in any other Federal law, Executive order, rule, regulation, or delegation of authority, or any document or pertaining to the Technology Administration or an officer or employee of the Technology Administration, is deemed to refer to the Innovation Administration or an officer or employee of the Innovation Administration, as appropriate.

SEC. 422. TECHNOLOGY TRANSFER OPPORTUNITIES.

(a) IN GENERAL.—The Secretary of Commerce shall conduct a study of technology transfer barriers, best practices, and outcomes of technology transfer activities at Federal laboratories related to the licensing and commercialization of energy efficient technologies, and other technologies that, compared to similar technology in commercial use, result in reduced emissions of greenhouse gases, increased ability to adapt to climate change impacts, or increased sequestration of greenhouse gases. The Secretary shall submit a report setting forth the findings and conclusions of the study to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science within 6 months after the date of enactment of this Act. The Secretary shall work with the existing interagency working group to address identified barriers to technology transfer.

(b) BUSINESS OPPORTUNITIES STUDY.—The Secretary of Commerce shall perform an analysis of business opportunities, both domestically and internationally, available for climate change technologies. The Secretary shall transmit the Secretary's findings and recommendations from the first such analysis to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science within 6 months after the date of enactment of this Act, and shall transmit a revised report of such findings and recommendations to those Committees annually thereafter.

(c) AGENCY REPORT TO INCLUDE INFORMATION ON TECHNOLOGY TRANSFER INCOME AND ROYALTIES.—Paragraph (2)(B) of section 11(f) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710(f)) is amended—

(1) by striking ''and'' after the semicolon in clause (vi);

(2) by redesignating clause (vii) as clause (ix); and

(3) by inserting after clause (vi) the following:

''(vii) the number of fully-executed licenses which received royalty income in the preceding fiscal year for climate-change or energy-efficient technology;

''(viii) the total earned royalty income for climate-change or energy-efficient technology; and''.

(d) INCREASED INCENTIVES FOR DEVELOPMENT OF CLIMATE-CHANGE OR ENERGY-EFFICIENT TECHNOLOGY.—Section 14(a) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710c(a)) is amended—

(1) by striking ''15 percent,'' in paragraph (1)(A) and inserting ''15 percent (25 percent for climate change-related technologies),''; and

(2) by inserting ''($250,000 for climate change-related technologies)'' after ''$150,000'' each place it appears in paragraph (3).

SEC. 423. GOVERNMENT-SPONSORED TECHNOLOGY INVESTMENT PROGRAM.

(a) PURPOSE.—It is the purpose of this section to provide financial support for the development, through private enterprise, of technology that has potential application to climate change adaptation and mitigation.

(b) FINANCIAL SUPPORT.—The Secretary of Commerce may establish a nonprofit government sponsored enterprise for the purpose of providing investment in private sector technologies that show promise for climate change adaptation and mitigation applications.

(c) TERMS; CONDITIONS; TRANSPARENCY.—The Secretary shall report within 30 days after the end of each calendar quarter to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science on its operations during that preceding calendar quarter.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Commerce for the use of the enterprise established under subsection (b) such sums as may be necessary to carry out the purpose of this section.

SEC. 424. FEDERAL TECHNOLOGY INNOVATION PERSONNEL INCENTIVES.

The Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.) is amended by adding at the end the following:

''SEC. 24. FEDERAL TECHNOLOGY INNOVATION PERSONNEL INCENTIVES.

''(a) IN GENERAL.—The head of a Federal laboratory may authorize the participation by any employee of the laboratory in an activity described in subsection (b) in order to achieve the purposes of this division.

''(b) AUTHORIZED ACTIVITIES.—

''(1) COMMERCIAL DEVELOPMENT PARTICIPATION ARRANGEMENTS.—

''(A) IN GENERAL.—The head of a Federal laboratory may, under the authority provided by section 12(b)(5) of this Act, authorize an employee to participate, as an officer or employee, in the creation of an enterprise established to commercially exploit research work realized in carrying out that employee's responsibilities as an employee of that laboratory for a period of up to 24 months. The authority may be renewed for an additional 12-month period.

''(B) LIMITATIONS.—In addition to the requirements set forth in section 12, an employee may not be authorized under subparagraph (A) to participate in such an enterprise if—

''(i) it would be prejudicial to the normal functioning of the laboratory;

''(ii) by its nature, terms and conditions, or the manner in which the authority would be exercised, participation by that employ would reflect adversely on the functions exercised by that employee as an employee of the laboratory, or risk compromising or calling in question the independence or neutrality of the laboratory; or

''(iii) the interests of the enterprise are of such a nature as to be prejudicial to the mission or integrity of the laboratory or employee.

''(C) RELATIONSHIP TO LABORATORY EMPLOYMENT.—

''(i) REPRESENTATION.—The employee may not represent the employee's official position or the laboratory while participating in the creation of the enterprise.

''(ii) FEDERAL EMPLOYMENT STATUS.—Beginning with the effective date of the authorization under subsection (a), an employee shall be placed in a temporary status without duties or pay and shall cease all duties in connection with the laboratory.

''(iii) RETURN TO SERVICE.—At the end of the authorization period, the employee may be restored to his former position in the laboratory upon termination of any employment or professional relationship with the enterprise.

''(2) SERVICE IN PRIVATE SECTOR ADVISORY CAPACITY.—

''(A) IN GENERAL.—The head of a Federal laboratory may, under the authority provided by section 12(b)(5) of this Act, authorize an employee to serve, as a member of the board of directors of, as a member of an advisory committee to, or in any similar capacity with a corporation, partnership, joint venture, or other business enterprise for a period of not more than 5 years in order to provide advice and counsel on ways to improve the diffusion and use of an invention or other intellectual property of a Federal laboratory.

''(B) QUALIFYING INVESTMENT.—Under the authorization, an employee authorized to serve on the board of directors of a corporation may purchase and hold the number of qualifying shares of stock needed to serve as a member of that board.

''(C) PARTICIPATION IN CERTAIN PROCEEDINGS.—An employee authorized under subparagraph (A) may not participate in any grant evaluation, contract negotiation, or other proceeding in which the corporation, partnership, joint venture, or other business enterprise has an interest during the authorization period.''.

SEC. 425. INTERDISCIPLINARY RESEARCH AND COMMERCIALIZATION.

(a) IN GENERAL.—The Director of the National Science Foundation shall develop and implement a plan to increase and establish priorities for funding for multidisciplinary and interdisciplinary research at universities in support of the adaptation to and mitigation of climate change. The plan shall—

(1) address the cross-fertilization and fusion of research within and across the biological and physical sciences, the spectrum of engineering disciplines, and entirely new fields of scientific exploration; and

(2) include the area of emerging service sciences.

(b) REPORT TO CONGRESS.—The Director shall transmit a copy of the plan to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science within 6 months after the date of enactment of this Act.

(c) SERVICE SCIENCE DEFINED.—In this section, the term ''service science'' means the melding together of the fields of computer science, operations research, industrial engineering, mathematics, management science, decision sciences, social sciences, and legal sciences in a manner that may transform entire enterprises and drive innovation at the intersection of business and technology expertise.

SEC. 426. CLIMATE INNOVATION PARTNERSHIPS.

(a) IN GENERAL.—The Secretary of Commerce, in consultation with the Director of the National Science Foundation, shall create a program of public-private partnerships that—

(1) focus on supporting climate change related regional innovation;

(2) bridge the gap between the long-term research and commercialization;

(3) focus on deployment of technologies needed by a particular region in adapting or mitigating the impacts of climate change; and

(4) support activities that are selected from proposals submitted in merit-based competitions.

(b) INSTITUTIONAL DIVERSITY.—In creating the program, the Secretary and the Administrator shall—

(1) encourage institutional diversity; and

(2) provide that universities, research centers, national laboratories, and other nonprofit organizations are allowed to partner with private industry in submitting applications.

(c) GRANTS.—The Secretary may make grants under the program to the partnerships, but the Federal share of funding for any project may not exceed 50 percent of the total investment in any fiscal year.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this section.

SEC. 427. NATIONAL MEDAL OF CLIMATE STEWARDSHIP INNOVATION.

(a) IN GENERAL.—There is established a National Medal of Climate Stewardship Innovation, which shall be of such design and materials, and bear such inscription, as the President may prescribe. The President shall award the medal on the basis of recommendations submitted by the National Science Foundation and the Secretary of Commerce to individuals who, in the judgment of the President, are deserving of special recognition by reason of their outstanding contributions to knowledge in the field of climate change innovation.

(b) CRITERIA.—The medal shall be awarded in accordance with the following criteria:

(1) ANNUAL LIMIT.—No more than 20 individuals may be awarded the medal in any calendar year.

(2) CITIZENSHIP.—No individual may be awarded the medal unless, at the time the award is made, the individual is—

(A) a citizen or other national of the United States; or

(B) an alien lawfully admitted to the United States for permanent residence who—

(i) has filed a petition for naturalization in the manner prescribed by section 334 of the Immigration and Nationality Act (8 U.S.C. 1445); and

(ii) is not permanently ineligible to become a citizen of the United States.

(3) POSTHUMOUS AWARD.—

(A) IN GENERAL.—Notwithstanding paragraph (2), the medal may be awarded posthumously to an individual who, at the time of death, met the conditions set forth in paragraph (2).

(B) 5-YEAR LIMITATION.—Notwithstanding subparagraph (A), the medal may not be awarded posthumously to an individual after the fifth anniversary of that individual's death.

(c) INSCRIPTION AND CERTIFICATE.—Each medal shall be suitably inscribed. Each individual awarded the medal shall also receive a citation descriptive of the award.

(d) PRESENTATION.—The presentation of the medal shall be made by the President with such ceremonies as the President deems proper, including attendance by appropriate Members of Congress.

SEC. 428. MATH AND SCIENCE TEACHERS' ENHANCEMENT PROGRAM.

(a) IN GENERAL.—The Director of the National Science Foundation shall establish within the Foundation a climate change science and technology enhancement program for teachers.

(b) PURPOSE.—The purpose of the program is to provide for professional development of mathematics and science teachers at elementary, middle, and secondary schools (as defined by the Director), including improving the education and skills of those teachers with respect to—

(1) teaching strategies;

(2) subject-area expertise; and

(3) the understanding of climate change science and technology and the environmental, economic, and social impacts of climate change on commerce.

(c) PROGRAM AREAS.—In carrying out the program under this section, the Director shall focus on the areas of—

(1) scientific measurements;

(2) tests and standards development;

(3) industrial competitiveness and quality;

(4) manufacturing;

(5) technology transfer; and

(6) any other area of expertise that the Director determines to be appropriate.

(d) APPLICATION PROCEDURE.—The Director shall prescribe procedures and selection criteria for participants in the program.

(e) AWARDS.—The Director shall issue awards under the program to participants. In issuing the awards, the Director shall ensure that the maximum number of participants practicable participate in the program. In order to ensure a maximum level of participation of participants, the program under this section shall be conducted on an annual basis during the summer months, when a majority of elementary, middle, and secondary schools are not in classes.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director for carrying out this section—

(1) $2,500,000 for fiscal year 2006; and

(2) $2,500,000 for fiscal year 2007.

SEC. 429. PATENT STUDY.

(a) IN GENERAL.—The Director of the Patent and Trademark Office, in consultation with representatives of interested parties in the private sector, shall conduct a study to determine the extent to which changes to the United States patent system are necessary to increase the flow of climate change-related technologies. The study shall address—

(1) the balance between the protection of the inventor and the disclosure of information;

(2) the role of patents in innovation within the covered sectors;

(3) the extent to which patents facilitate increased investments in climate change research and development;

(4) the international deployment of United States developed climate change related technologies on the United States patent system;

(5) ways to leverage databases as innovation tools;

(6) best practices for collaborative standard setting; and

(7) any other issues the Director deems appropriate.

(b) REPORT.—Within 6 months after the date of enactment of this Act, the Director shall transmit a report setting forth the findings and conclusions of the study to the Congress.

SEC. 430. LESSONS-LEARNED PROGRAM.

(a) IN GENERAL.—Within 180 days after the date of enactment of this Act, the Secretary of Energy shall establish a national lessons-learned and best practices program to ensure that lessons learned and best practices concerning energy efficiency and greenhouse gas emission reductions are available to the public. The program shall contain consumer awareness initiatives including product labeling and campaigns to raise public awareness. The Secretary shall determine the process and frequency by which the information is provided.

(b) PROGRAM CONTENT.—The program—

(1) may include experiences realized outside of the Federal government;

(2) shall include criteria by which entries in the program are determined;

(3) shall use a standardized, user-friendly format for data reports; and

(4) may include any other matters the Secretary deems appropriate.

SUBTITLE B—SPECIFIC PROGRAM INITIATIVES

SEC. 451. TRANSPORTATION.

(a) IN GENERAL.—The Secretary of Energy, the Administrator of the Environmental Protection Agency, and the Secretary of Transportation shall establish jointly a competitive, merit-based research program to fund proposals that—

(1) develop technologies that aid in reducing fuel use or reduce greenhouse gas emissions associated with any fuel;

(2) further develop existing or new technologies to create renewable fuels created from less carbon or energy-intensive practices than current renewable fuel production; or

(3) remove existing barriers for deployment of existing fuels that dramatically reduce greenhouse gas emissions;

(4) support low-carbon transportation fuels, including renewable hydrogen, advanced cellulosic ethanol, and biomass-based diesel substitutes, and the technical hurdles to market entry;

(5) support short-term and long-term technology improvements for United States cars and light trucks that reduce greenhouse gas emissions, including advanced, high-power hybrid vehicle batteries, advanced gasoline engine designs, fuel cells, hydrogen storage, power electronics, and lightweight materials;

(6) support advanced heavy-duty truck technologies to reduce greenhouse gas emissions from the existing and new fleets, including aerodynamics, weight reduction, improved tires, anti-idling technology, high-efficiency engines, and hybrid systems; or

(7) expand research into the climatological impacts of air travel and support advanced technologies to reduce greenhouse gas emissions from aircraft including advanced turbines, aerodynamics, and logistics technology that reduces delays, increases load factors and cuts in-air emissions.

(b) REAL-WORLD TEST PROCEDURES.—The Administrator of the Environmental Protection Agency, in consultation with the Secretary of Transportation, shall—

(1) conduct research and establish a Federal test procedure for certifying fuel economy of heavy duty vehicles; and

(2) update Federal test procedures for certifying fuel economy of automobiles and light duty trucks so the results better reflect real-world operating conditions.

(c) INCORPORATION INTO PROGRAM.—The Secretaries shall ensure that the program established under subsection (a) is incorporated into the United States Climate Technology Challenge Program.

(d) MARKETING STUDY.—The Secretary of Transportation, in coordination with the Secretary of Commerce, shall conduct a study on how the government can accelerate the market for low-carbon vehicles. The results of the study shall be submitted to the Congress within 6 months after the date of enactment of this Act.

SEC. 452. AGRICULTURAL SEQUESTRATION.

(a) IN GENERAL.—The Director of the Office of Science and Technology Policy shall establish an interagency panel of representatives from the United States Forest Service, Agriculture Research Service, Agricultural Experiment Stations and Extension Service, Economic Research Service Natural Resource Conservation Service, Environmental Protection Agency, the U.S. Geological Survey, and the National Institute of Standards and Technology to establish standards for measurement (and re-measurement) of sequestered carbon, including lab procedures,

field sampling methods, and accuracy of sampling statistics.

(b) DUTIES.—The interagency panel shall—

(1) develop discounted default values for the amount of greenhouse gas emission reductions due to carbon sequestration or emissions reductions from improved practices and technologies;

(2) develop technologies for low-cost laboratory and field measurement;

(3) develop procedures to improve the accuracy of equations used to estimate greenhouse gas emissions reductions produced by adoption of improved land management technologies and practices;

(4) develop local and regional databases on carbon sequestration in soils and biomass, greenhouse gas emissions, and adopted land management technologies and practices;

(5) develop computation methods for additionality discounts for prospective greenhouse gas offsets;

(6) develop entitywide reporting requirements to evaluate project-level leakage;

(7) develop commodity-specific greenhouse gas offset discount factors for market-level leakage, and update those factors periodically;

(8) develop guidelines and standards for greenhouse gas offset and reduction project monitoring and verification and uniform qualifications for third party verifiers, including specification of conflict of interest conditions;

(9) increase landowner accessibility to technologies and practices by—

(A) improving and expanding availability and adoption of best management practices for soils, crop residues, and forests to achieve additional carbon sequestration that meets standards as bona fide greenhouse gas offsets;

(B) improving and expanding availability and adoption of best management practices for soils, crop residues, and forests to achieve reductions in emissions of carbon dioxide, methane, and nitrous oxides that meet standards as bona fide greenhouse gas emissions reductions; and

(C) establishing incentives for land managers to help finance investments in facilities that produce bona fide greenhouse gas offsets or reductions through carbon sequestration or direct greenhouse gas emissions reductions; and

(10) establish best practices to address nonpermanence and risk of release of sequestered greenhouse gases by—

(A) assessing and quantifying risks, both advertent and inadvertent, of release of greenhouse gases sequestered in soils and biomass; and

(B) establishing insurance instruments concerning the release, both advertent and inadvertent, of sequestered greenhouse gases.

(c) ADDITIONALITY DEFINED.—In this section the term ''additionality'' means emissions reduction and sequestration activities that result in atmospheric benefits that would not otherwise have occurred.

SEC. 453. GEOLOGICAL STORAGE OF SEQUESTERED GREENHOUSE GASES.

(a) IN GENERAL.—The Secretary of Energy, in consultation with the Secretary of Agriculture and the Administrator of the Environmental Protection Agency, shall establish guidelines for setting individual project baselines for reductions of greenhouse gas emissions and greenhouse gas storage in various types of geological formations to serve as the basis for determining the amount of greenhouse gas reductions produced by the project.

(b) SPECIFIC ACTIVITIES.—The Secretary of Energy, in consultation with the Director of the U.S. Geological Survey, shall—

(1) develop local and regional databases on existing practices and technologies for greenhouse gas injection in underground aquifers;

(2) develop methods for computation of additionality discounts for prospective greenhouse gas reductions or offsets due to carbon dioxide injection and storage in underground aquifers;

(3) develop accepted standards for monitoring of carbon dioxide stored in geological subsurface reservoirs by—

(A) developing minimum suitability standards for identifying and monitoring of geological storage sites including oil, gas, and coal bed methane reservoir and deep saline aquifers; and

(B) testing monitoring standards using sites with long term (multi-decade) large injections of carbon dioxide into oil field enhanced recovery projects; and

(4) address non-permanence and risk of release of sequestered greenhouse gas by—

(A) establishing guidelines for risk assessment of inadvertent greenhouse gas release, both long-term and short-term, associated with geological sequestration sites; and

(B) developing insurance instruments to address greenhouse gas release liability in geological sequestration.

(c) NATIONAL GEOLOGICAL CARBON SEQUESTRATION ASSESSMENT.—

(1) FINDINGS.—The Congress finds the following:

(A) One of the most promising options for avoiding emissions of carbon dioxide is through long-term storage by geological sequestration in stable geological formations, which involves—

(i) capturing carbon dioxide from industrial sources; and

(ii) injecting the captured carbon dioxide into geological storage sites, such as deep saline formations, unmineable coal seams, and depleted gas and oil fields.

(B) As of the date of introduction of this Act, there are only very broad estimates of national geological storage capacity.

(C) The potential to recover additional oil and gas resources through enhanced oil and gas recovery using captured carbon dioxide emissions is an option that could add the equivalent of tens-of-billions of barrels of oil to the national resource base.

(D) An initial geological survey of storage capacity in the subsurface of sedimentary basins in the United States would—

(i) provide estimates of storage capacity based on clearly defined geological parameters with stated ranges of uncertainty;

(ii) allow for an initial determination of whether a basin or 1 or more portions of the basin may be developed into a storage site; and

(iii) provide information on—

(I) a baseline for monitoring injections and post injection phases of storage; and

(II) early opportunities for matching carbon dioxide sources and sinks for early deployment of zero-emissions fossil fuel plants using capture and storage technologies.

(2) NATIONAL GEOLOGICAL CARBON SEQUESTRATION ASSESSMENT.—

(A) DEVELOPMENT AND TESTING OF ASSESSMENT METHODOLOGY.—

(i) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Director of the United States Geological Survey shall develop and test methods for the conduct of a national assessment of geological storage capacity for carbon dioxide.

(ii) OPPORTUNITY FOR REVIEW AND COMMENT.—During the period beginning on the date that is 180 days after the date of enactment of this Act and ending on the date of completion of the development and testing of the methodologies under clause (i), the Director shall provide the Under Secretary for Oceans and Atmosphere of the Department of Commerce, the Secretary of Energy, the Administrator of the Environmental Protection Agency, the Director of the Minerals Management Service, the Director of the Bureau of Land Management, the heads of other Federal land management agencies, the heads of State land management agencies, industry stakeholders, and other interested parties with an opportunity to review and comment on the proposed methodologies.

(B) ASSESSMENT.—

(i) IN GENERAL.—The Director shall conduct the assessment during the period beginning on the date on which the development and testing of the methodologies is completed under subparagraph (A) and ending 4 years after the date of enactment of this Act.

(ii) AVAILABILITY OF INFORMATION.—The Director shall establish an Internet database accessible to the public that provides the results of the assessment, including a detailed description of the data collected under the assessment.

(iii) REPORT.—Not later than 1 year after the date on which the assessment is completed under clause (i), the Director shall submit to the appropriate committees of Congress and the President a report that describes the findings of the assessment.

(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated $15,000,000 to carry out this section for fiscal years 2006 through 2009.

SEC. 454. ENERGY EFFICIENCY AUDITS.

(a) IN GENERAL.—The Secretary of Energy shall establish a program to reduce greenhouse gas emissions through the deployment of energy efficiency measures, including appropriate technologies, by large commercial customers by providing for energy audits. The program shall provide incentives for large users of electricity or natural gas to obtain an energy audit.

(b) COMPONENTS.—The energy audit shall provide users with an inventory of potential energy efficiency measures, including appropriate technologies, and their cost savings over time, along with financing options to initiate the project.

(c) REIMBURSEMENT OF AUDIT COSTS.—If any of the recommendations of an energy audit implemented by a facility owner result in cost savings greater than 5 times the cost of the original audit, then the facility owner shall reimburse the Secretary for the cost of the audit.

SEC. 455. ADAPTATION TECHNOLOGIES.

(a) IN GENERAL.—The Director of the Office of Science and Technology Policy shall establish a program on adaptation technologies as part of the Climate Technology Challenge Program. The Director shall perform an assessment of the climate change technological needs of various regions of the country. This assessment shall be provided to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science within 6 months after the date of enactment of this Act.

(b) REGIONAL ESTIMATES.—The Director of the Office of Science and Technology Policy, in consultation with the Secretaries of Transportation, Homeland Security, Agriculture, Housing and Urban Development, Health and Human Services, Defense, Interior, Energy, and Commerce, the Administrator of the Environmental Protection Agency, the Director of U.S. Geologic Survey, and other such Federal offices as the Director deems necessary, along with relevant State agencies, shall perform 6 regional infrastructure cost assessments covering the United States, and a national cost assessment, to provide estimates of the range of

costs that should be anticipated for adaptation to the impacts of climate change. The Director shall develop those estimates for low, medium, and high probabilities of climate change and its potential impacts. The assessments shall be provided to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science within 1 year after the date of enactment of this Act.

SEC. 456. ADVANCED RESEARCH AND DEVELOPMENT FOR SAFETY AND NONPROLIFERATION.

The Secretary of Energy shall establish, operate, and report biannually to Congress the results of—

(1) a program of research and development focused on advanced once-through fuel cycles;

(2) a Nuclear System Modeling project to carry out the analysis, research, simulation, and collection of engineering data needed to evaluate all fuel cycles with respect to cost, inherent safety, waste management and proliferation-avoidance and -resistance; and

(3) an Advanced Diversified Waste-Disposal Research Program for deep-bore hole disposal options, alternative geological environments, and improved engineered barriers.

SUBTITLE C—CLIMATE TECHNOLOGY DEPLOYMENT PROGRAM

PART I—PROGRAM AUTHORITY

SEC. 471. GOVERNMENT-INDUSTRY PARTNERSHIPS FOR FIRST-OF-A-KIND ENGINEERING DESIGN.

(a) IN GENERAL.—The Corporation may provide funding for a cost-sharing program to address first-of-a-kind engineering costs inherent in building the first facility of a substantially new design that generates electricity with low or no net greenhouse gas emissions or produces transportation fuels that result in low or no net greenhouse gas emissions, including Integrated Gasification Combined Cycle Advanced Coal power generating facilities using carbon capture technology with geological storage of greenhouse gases, advanced reactor designs, large scale biofuels facilities that maximize the use of cellulosic biomass, and large scale solar concentrating power facilities.

(b) PROJECT SELECTION.—The Secretary of Energy in coordination with the Corporation shall select the final designs to be supported, in terms of reducing greenhouse gas emissions, demonstrating a new technology, meeting other clean air attainment goals, generating economic benefits, contributing to energy security, contributing to fuel and technology diversity, maintaining price stability, and attaining cost effectiveness and economic competitiveness.

(c) COST-SHARING LIMITATIONS.—

(1) CORPORATION'S SHARE OF COSTS.—Costs for the program shall be shared equally between the Corporation and the builder of such first facilities.

(2) NUCLEAR REACTORS.—Funding under this section for any nuclear facility—

(A) may not exceed $200,000,000 for an individual project; and

(B) shall be available for no more than 1 of each of the 3 designs certified by the Nuclear Regulatory Commission.

(d) REIMBURSEMENT OF COSTS.—For any subsequently-built facility that uses a design supported by the cost-sharing program under this section, the Secretary of Energy and the Corporation shall specify an amount to be paid to the Corporation in order for the Corporation to receive full reimbursement for costs the Corporation incurred in connection with the design, considering the program's objectives, including the costs of promoting the deployment of cost-effective, economically competitive technologies with no or low net greenhouse gas emissions.

(e) REIMBURSEMENT FOR DELAY.—If the construction of such a first facility of a substantially new design is not started within 10 years after the date on which a commitment under the cost-sharing program is made by the Secretary, then the industry partner shall reimburse the Corporation for any costs incurred by the Corporation under the program.

(f) JURISDICTION.—

(1) NUCLEAR REGULATORY COMMISSION.—Nothing in this Act shall affect the jurisdiction of the Nuclear Regulatory Commission over nuclear power plant design approvals or combined construction and operating licenses pursuant to the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.).

(2) REGULATORY AGENCIES.—Nothing in this Act affects the jurisdiction of any Federal, State, or local government regulatory agency.

SEC. 472. DEMONSTRATION PROGRAMS.

(a) NUCLEAR REGULATORY COMMISSION LICENSING PROCESS.—

(1) DEMONSTRATION PROGRAM.—Within 24 months after the date of enactment of this Act, the Secretary of Energy shall establish a demonstration program to reduce the first-time regulatory costs of the current Nuclear Regulatory Commission licensing process incurred by the first applicant using an advanced reactor design.

(2) PERMITS; LICENSES; COST-SHARING.—

(A) The demonstration program shall—

(i) address the Early Site Permit applications and the combined construction and operating license applications; and

(ii) be jointly funded by the Department of Energy and the applicant.

(B) The Secretary shall work with the applicant to determine the appropriate percentage of costs that the Department and the applicant shall each provide.

(3) REIMBURSEMENT FOR LICENSE TRANSFER.—If an applicant decides to transfer a permit granted by the Commission under the program to another entity, the applicant shall reimburse the Department for its costs in obtaining the permit.

(b) RETOOLING OF ADVANCED VEHICLE MANUFACTURING.—

(1) IN GENERAL.—Within 24 months after the date of enactment of this Act, the Secretary of Energy shall establish a program to demonstrate the effectiveness of retooling an existing vehicle or vehicle component manufacturing facility to reduce reduced greenhouse gas emissions from vehicles and increasing competitiveness of advanced technology vehicle production facilities.

(2) PROGRAM ELEMENTS.—

(A) ACTIVITIES SUPPORTED.—The demonstration program shall be designed—

(i) to re-equip an existing manufacturing facility to produce advanced technology vehicles or components that will result in reduced greenhouse gas emissions; and

(ii) to conduct engineering integration activities of advanced technological vehicles and components.

(B) FUNDING.—The program shall be jointly funded by the private sector and the Department of Energy. Secretary of Energy shall work with participating entities to determine the appropriate percentage of costs that each shall provide.

(C) ELIGIBLE COMPONENTS AND ACTIVITIES.—The Secretary, in coordination with the Administrator of the Environmental Protection Agency and the Secretary of Transportation, shall determine what advanced technology components and engineering integration activities will qualify for support under the program.

(D) ELIGIBLE COSTS.—Costs eligible to be shared under this subsection include the cost of engineering tasks related to—

(i) incorporating qualifying components into the design of advanced technology vehicles; and

(ii) designing new tooling and equipment for production facilities that produce qualifying components or advanced technology vehicles.

(3) LIMITATION.—No more than 2 facilities may receive financial assistance under the program for re-equipment and expansion or for engineering integration.

(4) ADVANCED TECHNOLOGY VEHICLE DEFINED.—In this subsection, the term ''advanced technology vehicle'' means a light duty motor vehicle that is either a hybrid or advanced lean burn technology motor vehicle, and that meets the following additional performance criteria:

(A) The vehicle shall meet the Tier II Bin 5 emission standard established in regulations prescribed by the Administrator under that Act.

(B) The vehicle shall meet any new emission standard for fine particulate matter prescribed by the Administrator under that Act.

(C) The vehicle shall achieve at least 125 percent of the base year city fuel economy for its weight class.

PART II—FINANCING

SEC. 481. CLIMATE TECHNOLOGY FINANCING BOARD.

(a) PURPOSE.—The Climate Technology Financing Board shall work with the Sedretary of Energy to make financial assistance available to joint venture partnerships and promote private sector participation in financing eligible projects under this subtitle.

(b) ESTABLISHMENT.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Secretary of Energy shall establish within the Department of Energy a Climate Technology Financing Board, which shall be responsible for assisting the Secretary in carrying out this subtitle.

(2) MEMBERSHIP.—The Climate Technology Financing Board shall be comprised of—

(A) the Secretary of Energy, who shall serve as chair; and

(B) 6 additional members appointed by the Secretary, including—

(i) the Chief Financial Officer of the Department of Energy;

(ii) at least 1 representative of the Corporation; and

(iii) other members with experience in corporate and project finance in the energy sector as deemed necessary by the Secretary to carry out the functions of the Board.

(3) REPRESENTATION OF FEDERAL INTEREST.—The Climate Technology Financing Board shall represent the Federal government's interest in all negotiations with project developers interested in forming joint venture partnerships and obtaining secured loans or loan guarantees under this subtitle.

(c) REGULATIONS.—

(1) IN GENERAL.—Not later than 12 months after the date of enactment of this Act, the Climate Technology Financing Board, through the Secretary of Energy, shall publish in the Federal Register such final regulations as may be necessary to implement section —0482 of this title.

(2) PROJECT SELECTION CRITERIA.—In selecting eligible projects for financial assistance under this subtitle, the Board shall consider, among other relevant criteria—

(A) the extent to which the project reduces greenhouse gases, demonstrates new technologies, meets other clean air attainment goals, generates economic benefits, contributes to energy security, contributes to fuel and technology diversity, and maintains price stability, cost effectiveness, and economic competitiveness;

(B) the extent to which assistance under this subtitle would foster innovative public-private partnerships and attract private equity investment;

(C) the likelihood that assistance under this subtitle would enable the project to proceed at an earlier date than the project would otherwise be able to proceed without such assistance;

(D) the extent to which the project represents the construction of the first generation of facilities that use substantially new technology; and

(E) any other criteria deemed necessary by the Secretary for the promotion of long-term cost effective climate change-related technologies.

(3) MANDATORY REGULATORY PROVISIONS.—The regulations required by paragraph (1) shall include the following:

(A) The general terms and conditions under which non-recourse financial assistance will be provided. Those terms shall include—

(i) a debt-to-equity ratio of up to 80 percent debt from the Corporation, approved by the Secretary, and no less than 20 percent equity from the project developer;

(ii) a pledge of the eligible project's assets to the Secretary and the project developer to secure their respective loan and equity contributions; and

(iii) loan repayment terms generally consistent with financial terms available to project developers in the United States power generation industry.

(B) The general terms and conditions under which loan guarantees will be provided, which shall be consistent with section —0483(c).

(C) The procedures by which project owners and project developers may request such financial assistance.

(D) A process under which the Climate Technology Financing Board, the joint venture partnership, and the project developer shall negotiate commercially reasonable terms consistent with terms generally available in the United States power generation industry regarding cost, construction schedule, and other conditions under which the project developer shall acquire the loan from the joint venture partnership and repay the secured loan and acquire an undivided interest in the eligible project when the project achieves commercial operation. Terms prescribed under this subparagraph shall include—

(i) a defined right of the joint venture partnership to terminate the loan agreement upon a date certain for project delays that are not the fault of the project developer; and

(ii) may not refer to the Federal Acquisition Regulations.

(E) Provisions to retain independent third-party engineering assistance, satisfactory to the Climate Technology Financing Board, the project developer, and the joint venture partnership, to verify and validate construction costs and construction schedules, to monitor construction, and authorize draws on financing during construction to ensure that construction is consistent with generally accepted utility practice, and to make recommendations as to the cause of delay or cost increases should such delays or cost increases occur.

(F) Provisions to ensure—

(i) continued project development and construction in the event of a delay to achieving commercial operation caused by an event outside the control of the joint development partners and the project developer; and

(ii) continued project operations in the event the sale of the eligible project to the project developer is not executed due to an event outside the control of the project developer.

(G) Any other information necessary for the Secretary of Energy to discharge fully the obligation conferred under this subtitle, including a process for negotiating the terms and conditions of such financial assistance.

(d) COMPREHENSIVE IMPLEMENTATION PLAN.—Not later than 12 months after the date of enactment of this Act, the Climate Technology Financing Board shall prepare and transmit to the President and Congress a comprehensive plan for implementation of this subtitle.

(e) PROGRESS REPORTS.—Not later than 12 months after the comprehensive plan required by subsection (d) and annually thereafter the Secretary shall prepare and transmit to the President and the Congress a report summarizing progress in satisfying the requirements established by the subtitle.

SEC. 482. RESPONSIBILITIES OF THE SECRETARY.

(a) FINANCIAL ASSISTANCE.—Subject to the requirements of the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.), the Secretary, in coordination with the Corporation, may make available to joint venture partnerships for eligible project costs such Federal financial assistance as the Climate Technology Financing Board determines is necessary to enable access to, or to supplement, private sector financing for projects if the Board determines that such projects are needed to reduce greenhouse gas emissions, contribute to energy security, fuel or technology diversity, or clean air attainment goals. The Secretary, in coordination with the Corporation, shall prescribe such terms and conditions for financial assistance as the Secretary deems necessary or appropriate to protect the financial interests of the United States.

(b) REQUIREMENTS.—Approval criteria for financial assistance under subsection (a) shall include—

(1) the creditworthiness of the project;

(2) the extent to which Federal financial assistance would encourage public-private partnerships, attract private-sector investment, and demonstrate safe and secure electric generation or fuel production technology;

(3) the likelihood that Federal financial assistance would hasten commencement of the project;

(4) in the case of a nuclear power plant, whether the project developer provides reasonable assurance to the Secretary that the project developer can successfully manage nuclear power plant operations;

(5) the extent to which the project will demonstrate safe and secure reduced or zero greenhouse gas emitting electric generating or fuel production technology; and

(6) any other criteria the Secretary deems necessary or appropriate.

(c) RESERVE AMOUNT.—Before entering into any agreements under this subtitle, the Secretary, in consultation with the Director of the Office of Management and Budget, shall determine an appropriate capital reserve subsidy amount for any loan or loan guarantee provided by the agreement. The Secretary, in consultation with the project developer, shall determine the appropriate type of Federal financial assistance to be provided for eligible projects.

(d) CONFIDENTIALITY.—The Secretary and the Corporation shall protect the confidentiality of any information that is certified by a project developer to be commercially sensitive.

(e) FULL FAITH AND CREDIT.—All loans or loan guarantees provided by the Secretary under this subtitle shall be general obligations of the United States backed by the full faith and credit of the United States.

SEC. 483. LIMITATIONS.

(a) SECURED LOANS.—

(1) IN GENERAL.—The financial assistance provided by this subtitle for secured loans or loan guarantees—

(A) shall be available for new low or zero greenhouse gas emitting energy generating or fuel production facilities, including—

(i) no more than 3 integrated gasification combined cycle coal power plants with carbon capture and geological storage of greenhouse gases;

(ii) no more than the first of each of the 3 advanced reactor design projects for which applications for combined construction and operating licenses have been filed on or before December 31, 2015;

(iii) no more than 3 large scale biofuels production facilities that encourage a diversity of pioneer projects relying on different feedstocks in different regions of the country and maximizing the use of cellulosic biomass; and

(iv) no more than 3 large scale solar facilities of greater than 5 megawatts capacity which begin operation after December 31, 2005, and before January 1, 2011; and

(B) may not exceed 80 percent of eligible project costs for each project.

(2) GOVERNMENT-CAUSED DELAYS.—Paragraph (1)(B) of this subsection does not apply if—

(A) with respect to a nuclear power plant—

(i) the conditions specified in the construction and operation license issued by the Nuclear Regulatory Commission change; and

(ii) the changed conditions result in project delays or changes in project scope after the start of construction that are not attributable to private sector project management, construction, or variances from the Nuclear Regulatory Commission's approved design criteria or safety requirements; or

(B) with respect to an advanced coal power plant, biofuels production facility, solar power facility, or other eligible facility—

(i) the conditions specified in the construction permit change; and

(ii) the changed conditions result in project delays or changes in project scope after the start of construction that are not attributable to private sector project management, construction, or variances from the approved design criteria or safety requirements.

(3) ADDITIONAL ASSISTANCE.—If paragraph (1)(B) of this subsection does not apply for reasons described in paragraph (2), then the financial assistance payable to the project developer shall include additional capital costs, costs of project oversight, lost replacement power, and calculated interest, as determined appropriate by the Secretary of Energy.

(b) LOAN REPAYMENT TERMS.—

(1) The repayment terms for non-recourse secured loans made under this subtitle shall be negotiated among the Climate Technology Financing Board, the joint venture partnership, and the project developer prior to issuance of the loan and commencement of construction.

(2) The project developer shall purchase the joint venture partnership's interest in the project after the start of the eligible project's commercial operation pursuant to the conditions of the loan with the proceeds of refinancing from non-Federal funding sources.

(3) The value of the joint venture partnership's interest in the eligible project shall be determined in negotiations prior to issuance of a secured loan under the subtitle.

(4) The interest rate on loans made under this subtitle shall not be less than the yield on United States Treasury securities of a similar maturity to the maturity of the loan

on the date of execution of the loan agreement.

(5) A secured loan for an eligible project under this subtitle shall be non-recourse to the joint venture partnership in the event of bankruptcy, insolvency, liquidation, or failure of the project to start commercial operation when the project is ready for commercial operation.

(c) LOAN GUARANTEE TERMS.—

(1) IN GENERAL.—A loan guarantee shall apply only when a project developer defaults on a loan solely as a result of the regulatory actions, directly applied to the project, of a State, Federal or local government.

(2) LIMITATION.—Nothing in this subsection shall obligate the Corporation or Secretary to provide payments in the event of a default that results from a project developer's malfeasance, misfeasance, or mismanagement of the construction or operation of the project, or from conduct or circumstances unrelated to the regulatory actions of any governmental entity.

(3) ESCROW.—The corporation shall hold in escrow the amounts necessary for payments in the event of a default by the project developer in accordance with the terms of this subsection.

SEC. 484. SOURCE OF FUNDING FOR PROGRAMS.

Notwithstanding any other provision of law, or any other provision of this division, authorizing or appropriating funds to carry out the provisions of this division, no funds may be made available to carry out any activity under this subtitle except proceeds from the auction authorized by section —0333(g) of this division, subject to the limitation in section —0333(g)(3).

PART III—DEFINITIONS

SEC. 486. DEFINITIONS.

In this subtitle:

(1) ADVANCED REACTOR DESIGN.—The term ''advanced reactor design'' means any reactor design approved and certified by the Nuclear Regulatory Commission.

(2) CELLULOSIC ETHANOL.—The term ''cellulosic ethanol'' means ethanol produced from fibrous or woody plant materials.

(3) COMMERCIAL OPERATION.—

(A) NUCLEAR POWER FACILITY.—With respect to a nuclear power plant, the term ''commercial operation'' means the date—

(i) on which a new nuclear power plant has received a full power 40-year operating license from the Nuclear Regulatory Commission; and

(ii) by which all Federal, State, and local appeals and legal challenges to such operating license have become final.

(B) ADVANCED COAL POWER PLANTS.—With respect to an advanced coal power plant, the term ''commercial operation'' means the date—

(i) on which a new power plant has received a full power rating; and

(ii) by which all Federal, State, and local appeals and legal challenges to the operating license for the power plant have become final.

(4) CORPORATION.—The term ''Corporation'' means the Climate Change Credit Corporation.

(5) ELIGIBLE PROJECT.—The term ''eligible project'' means—

(A) any commercial nuclear power facility for the production of electricity that uses one or more advanced reactor designs;

(B) any advanced coal power plant utilizing the integrated gasification combined cycle technology with carbon capture and geological storage of greenhouse gases;

(C) any biofuels production facility which uses cellulosic feedstock; or

(D) any power facility which uses solar energy for the production of more than 75 percent of its annual output, which output capacity shall not be less than 10 megawatts as determined by common engineering practice.

(6) ELIGIBLE PROJECT COSTS.—The term ''eligible project costs'' means all costs related to the development and construction of an eligible project under this subtitle, including, without limitation, the cost of—

(A) development phase activities, including site acquisition and related real property agreements, environmental reviews, licensing and permitting, engineering and design work, off-taker agreements and arrangements, and other preconstruction activities;

(B) fabrication and acquisition of equipment, project construction activities and construction contingencies, project overheads, project management costs, and labor and engineering costs incurred during construction;

(C) capitalized interest necessary to meet market requirements, reasonably required reserve funds, capital issuance expenses, and other carrying costs during construction; and

(D) any other costs that the Climate Technology Financing Board deems reasonable and appropriate as eligible project costs.

(7) FEDERAL FINANCIAL ASSISTANCE.—The term ''Federal financial assistance'' means project construction financing of up to 80 percent of a project's eligible project costs in the form of a non-recourse secured loan or loan guarantee.

(8) FIRST-OF-A-KIND ENGINEERING COSTS.—The term ''first-of-a-kind engineering costs'' means the extra costs associated with the first units of a design category for engineering work that develops the design details that finish plant standardization up to a complete plant design and that can be reused for building subsequent units.

(9) JOINT VENTURE PARTNERSHIP.—The term ''joint venture partnership'' means a special purpose entity, including corporations, partnerships, or other legal entities established to develop, construct, and finance an eligible project and to receive financing proceeds in the form of non-recourse secured loans provided by the Secretary and private equity provided by project developers.

(10) LOAN.—The term ''loan'' means a direct non-recourse loan issued to a joint venture partnership engaged in developing an eligible project and funded by the Secretary under this subtitle, which is subject to repayment by the joint venture partnership under terms and conditions to be negotiated among the project developer, joint venture partnership, and the Secretary before the start of construction on the project.

(11) LOAN GUARANTEE.—The term ''loan guarantee'' means any guarantee or other pledge by the Secretary to pay all or part of the principle and interest on a loan or other debt obligation issued by a project developer related to its equity investment and funded by a lender.

(12) PROJECT DEVELOPER.—The term ''project developer'' means a corporation, partnership, or limited liability company that—

(A) provides reasonable assurance to the Secretary that the project developer can successfully manage plant operations;

(B) has the financial capability to contribute 20 percent equity to the development of the project; and

(C) upon commercial operation, will purchase the project from the joint venture partnership.

(13) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(14) SUBSIDY AMOUNT.—The term ''subsidy amount'' means the amount of budget authority sufficient to cover the estimated long-term cost to the Federal government of a loan, calculated on a net present value basis, excluding administrative costs and any incidental effects on governmental receipts or outlays, in accordance with the provisions of the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.).

SUBTITLE D—REVERSE AUCTION FOR TECHNOLOGY DISSEMINATION

SEC. 491. CLIMATE TECHNOLOGY CHALLENGE PROGRAM.

(a) IN GENERAL.—The Secretary of Energy, in coordination with the Climate Change Credit Corporation, shall develop and carry out a program in fiscal years 2006 through 2009, to be known as the ''Climate Technology Challenge Program''. The Secretary shall award funding through the program to stimulate innovation in development, demonstration, and deployment of technologies that have the greatest potential for reducing greenhouse gas emissions. The program shall be conducted as follows:

(1) The Secretary shall post a request for zero or low greenhouse gas energy services or products along with a suggested level of funding for each competition.

(2) The Secretary shall award the funding to the lowest bidder in each competition who meets all other qualifications in a form of a production incentive to supply—

(A) the requested services for a specified period of time; or

(B) the requested product within a specified period of time.

(b) FUNDING.—

(1) SOURCE.—Notwithstanding any other provision of law, or any other provision of this division, authorizing or appropriating funds to carry out the provisions of this division, no funds may be made available to carry out any activity under this subtitle except proceeds from the auction authorized by section —0333(g) of this division, subject to the limitation in section —0333(g)(3).

(2) OPERATING FUNDS.—Beginning with fiscal year 2010, the Climate Change Credit Corporation shall administer the Climate Technology Challenge Program using funds generated under section —0352 of this division.

(c) PROGRAM REQUIREMENTS.—

(1) COMPETITIVE PROCESS.—Recipients of awards under the program shall be selected through competitions conducted by the Secretary.

(2) ADVERTISEMENT OF COMPETITIONS.—The Secretary shall widely advertise any competitions conducted under the program.

(3) CATEGORIES OF COMPETITIONS.—The Secretary shall conduct separate competitions in the following areas of energy and fuel production and services:

(A) Advanced coal (including integrated gasification combined cycle) with carbon capture and storage.

(B) Renewable electricity.

(C) Energy efficiency (including transportation).

(D) Advanced technology vehicles.

(E) Transportation fuels.

(F) Carbon sequestration and storage.

(G) Zero and low emissions technologies.

(H) Adaptation technologies.

(I) The Secretary may also conduct competition for a general category to stimulate additional, unanticipated advances in technology.

(4) EVALUATIONS AND CRITERIA FOR COMPETITIONS.—

(A) PANEL OF EXPERTS.—The Secretary shall establish a separate panel of experts to evaluate proposals submitted under each competition.

(B) COMPETITION CRITERIA.—The Secretary, in consultation with other relevant Federal agency heads, shall set minimum criteria, including performance and safety criteria, for each competition. Proposals shall be evaluated on their ability to reduce, avoid, or sequester greenhouse gas emissions at a given price.

(C) FULL LIFE CYCLE.—All proposals within a competition shall compete on full life cycle avoided greenhouse gas emissions (as weighted by global warming potential) per dollar of incentive.

(5) REPORT OF AWARDS.—In 2009 and every 5 years thereafter the Secretary shall issue a report on the awards granted by the program, funding provided, and greenhouse gas emissions avoided or sequestered.

(6) PROGRAM EVALUATION.—The Secretary, in coordination with the National Academies of Science, shall evaluate the continued necessity of the program and future funding needs after fiscal year 2009. The evaluation shall be submitted 3 months before the end of fiscal year 2009 to the Congress and the Climate Change Credit Corporation.

(7) REVIEW AND REVISION BY CORPORATION.—The Climate Change Credit Corporation shall review and revise the awards program every 5 years starting in 2009, issuing new guidelines for the next 5 years of Climate Technology Challenge Program by the end of the fiscal year in which the evaluation in paragraph (6) is reported. The Climate Change Credit Corporation shall assess and adjust the categories of competitions as described in paragraph (3) to ensure new developing technologies that reduce, avoid, or sequester greenhouse gases and are in need of financial assistance for further development and deployment are the focus of the awards program.

(d) BUDGETING AND AWARDING OF FUNDS.—

(1) AVAILABILITY OF FUNDS.—Any funds appropriated to carry out this section shall remain available until expended, but for not more than 4 fiscal years.

(2) DEPOSIT AND WITHDRAWAL OF FUNDS.—When an award is offered, the Secretary shall deposit the total amount of funding made available for that award in the Climate Technology Challenge Trust Fund. If funding expires before an award is granted, the Secretary shall deposit additional funds in the account to ensure the availability of funding for all awards. If an award competition expires before its goals are met, the Secretary may redesignate those funds for a new challenge, but any redesignated funds will be considered as newly deposited for the purposes of paragraph (3). All cash awards made under this section shall be paid from that account.

(3) MAXIMUM AWARD.—No competition under the program may result in the award of more than $100,000,000 without the approval of the Secretary.

(4) POST-2010 FUNDING.—Funding for the competitions after fiscal year 2010 shall be taken from the Climate Change Credit Corporation.

(e) REGISTRATION; ASSUMPTION OF RISK.—

(1) REGISTRATION.—Each potential recipient of an award in a competition under the program under this section shall register for the competition.

(2) ASSUMPTION OF RISK.—In registering for a competition under paragraph (1), a potential recipient of a prize shall assume any and all risks, and waive claims against the United States Government and its related entities (including contractors and subcontractors at any tier, suppliers, users, customers, cooperating parties, grantees, investigators, and detailees), for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from participation in the competition, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of willful misconduct.

(f) RELATIONSHIP TO OTHER AUTHORITY.—The Secretary may exercise the authority in this section in conjunction with or in addition to any other authority of the Secretary to acquire, support, or stimulate basic and applied research, technology development, or prototype demonstration projects that promote reduced greenhouse gas emissions.

SA 827. Mr. BINGAMAN (for Mr. DORGAN) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

At the appropriate place insert the following:

SEC. ___. EXTENSION OF RENEWABLE ELECTRICITY PRODUCTION CREDIT THROUGH 2010.

Paragraphs (1), (2), (3), (5), (6), (7), (9), and (10) of section 45(d) of the Internal Revenue Code of 1986, as amended by title XV, are amended by striking ''2009'' each place it appears and inserting ''2011''.

SA 828. Mr. BINGAMAN (for Mr. DORGAN) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

At the end appropriate place insert the following:

SEC. ___. EXPANSION OF CREDIT FOR RESIDENTIAL ENERGY EFFICIENT PROPERTY TO INCLUDE ELECTRIC THERMAL STORAGE UNIT.

(a) IN GENERAL.—Section 25C(b) of the Internal Revenue Code of 1986 (relating to limitation), as added by title XV, is amended—

(1) by striking ''and'' at the end of paragraph (2),

(2) by striking the period at the end of paragraph (3) and inserting '', and'', and

(3) by adding at the end the following new paragraph:

''(4) $250 for any electric thermal storage unit.''.

(b) ELECTRIC THERMAL STORAGE UNIT.—Section 25C(c)(2)(A) of such Code, as so added, is amended—

(1) by striking ''or'' at the end of clause (ii),

(2) by striking the period at the end of clause (iii) and inserting '', or'', and

(3) by adding at the end the following new clause:

''(iv) an electric thermal storage unit which converts low-cost, off-peak electricity to heat and stores such heat for later use in specially designed ceramic bricks.''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after December 31, 2005.

SA 829. Mr. BINGAMAN (for Mr. JEFFORDS) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 746, line 9, insert '', in consultation with the Administrator of the Environmental Protection Agency,'' after ''Secretary''.

SA 830. Mr. BINGAMAN (for Mr. JEFFORDS) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 732, lines 6 and 7, insert '', in consultation with the Administrator of the Environmental Protection Agency,'' after ''Administration''.

SA 831. Mr. BINGAMAN (for Mr. JEFFORDS) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 726, line 21, insert '', in consultation with the Administrator of the Environmental Protection Agency,'' after ''Secretary''.

SA 832. Mr. BINGAMAN (for Mr. JEFFORDS) submitted an amendment intended to be proposed by Mr. BINGAMAN to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 724, line 12, insert before ''shall enter'' the following: '', in consultation with the Administrator of the Environmental Protection Agency,''.

On page 726, line 5, insert ''and the Administrator of the Environmental Protection Agency'' after ''Interior''.

On page 726, line 10, insert before ''shall report'' the following: ''and the Administrator of the Environmental Protection Agency''.

On page 726, line 14, strike ''Secretary's agreement or disagreement'' and insert ''agreement or disagreement of the Secretary of the Interior and the Administrator of the Environmental Protection Agency''.

SA 833. Mr. KOHL (for himself, Mr. DEWINE, Mr. LIEBERMAN, Mr. LEVIN, and Mr. REED) submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 53, strike lines 4 through 8 and insert the following:

Small Business Administration shall make program information available directly to small businesses and through other Federal agencies, including the Federal Emergency Management Agency and the Department of Agriculture, and coordinate assistance with the Secretary of Commerce for manufacturing-related efforts, including the Manufacturing Extension Partnership Program.''.

SA 834. Ms. SNOWE submitted an amendment intended to be proposed by her to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 52, line 24, strike ''efficiency; and'' and all that follows through page 53, line 8 and insert the following: ''efficiency;

''(C) understanding and accessing Federal procurement opportunities with regard to Energy Star technologies and products; and

''(D) identifying financing options for energy efficiency upgrades.

''(2) The Secretary, the Administrator of the Environmental Protection Agency, and the Administrator of the Small Business Administration shall make program information available to small business concerns directly through the district offices and resource partners of the Small Business Administration, including small business development centers, women's business centers, and the Service Corps of Retired Executives (SCORE), and through other Federal agencies, including the Federal Emergency Management Agency and the Department of Agriculture.

''(3) The Secretary, on a cost shared basis in cooperation with the Administrator of the Environmental Protection Agency, shall provide to the Small Business Administration all advertising, marketing, and other written materials necessary for the dissemination of information under paragraph (2).

''(4) There are authorized to be appropriated in fiscal year 2006, such sums as may be necessary to carry out this subsection, which shall remain available until expended.''.

SA 835. Mrs. CLINTON (for herself and Mr. ALLARD) submitted an amendment intended to be proposed by her to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 159, after line 23, add the following:

SEC. 2___. NATIONAL PRIORITY PROJECT DESIGNATION.

(a) DESIGNATION OF NATIONAL PRIORITY PROJECTS.—

(1) IN GENERAL.—There is established the National Priority Project Designation (referred to in this section as the ''Designation''), which shall be evidenced by a medal bearing the inscription ''National Priority Project''.

(2) DESIGN AND MATERIALS.—The medal shall be of such design and materials and bear such additional inscriptions as the President may prescribe.

(b) MAKING AND PRESENTATION OF DESIGNATION.—

(1) IN GENERAL.—The President, on the basis of recommendations made by the Secretary, shall annually designate organizations that have—

(A) advanced the field of renewable energy technology and contributed to North American energy independence; and

(B) been certified by the Secretary under subsection (e).

(2) PRESENTATION.—The President shall designate projects with such ceremonies as the President may prescribe.

(3) USE OF DESIGNATION.—An organization that receives a Designation under this section may publicize the Designation of the organization as a National Priority Project in advertising.

(4) CATEGORIES IN WHICH THE DESIGNATION MAY BE GIVEN.—Separate Designations shall be made to qualifying projects in each of the following categories:

(A) Wind and biomass energy generation projects.

(B) Photovoltaic and fuel cell energy generation projects.

(C) Energy efficient building and renewable energy projects.

(D) First-in-Class projects.

(c) SELECTION CRITERIA.—

(1) IN GENERAL.—Certification and selection of the projects to receive the Designation shall be based on criteria established under this subsection.

(2) WIND, BIOMASS, AND BUILDING PROJECTS.—In the case of a wind, biomass, or building project, the project shall demonstrate that the project will install not less than 30 megawatts of renewable energy generation capacity.

(3) SOLAR PHOTOVOLTAIC AND FUEL CELL PROJECTS.—In the case of a solar photovoltaic or fuel cell project, the project shall demonstrate that the project will install not less than 3 megawatts of renewable energy generation capacity.

(4) ENERGY EFFICIENT BUILDING AND RENEWABLE ENERGY PROJECTS.—In the case of an energy efficient building or renewable energy project, in addition to meeting the criteria established under paragraph (2), each building project shall demonstrate that the project will—

(A) comply with third-party certification standards for high-performance, sustainable buildings;

(B) use whole-building integration of energy efficiency and environmental performance design and technology, including advanced building controls;

(C) use renewable energy for at least 50 percent of the energy consumption of the project;

(D) comply with applicable Energy Star standards; and

(E) include at least 5,000,000 square feet of enclosed space.

(5) FIRST-IN-CLASS USE.—Notwithstanding paragraphs (2) through (4), a new building project may qualify under this section if the Secretary determines that the project—

(A) represents a First-In-Class use of renewable energy; or

(B) otherwise establishes a new paradigm of building integrated renewable energy use or energy efficiency.

(d) APPLICATION.—

(1) INITIAL APPLICATIONS.—No later than 120 days after the date of enactment of this Act, and annually thereafter, the Secretary shall publish in the Federal Register an invitation and guidelines for submitting applications, consistent with this section.

(2) CONTENTS.—The application shall describe the project, or planned project, and the plans to meet the criteria established under subsection (c).

(e) CERTIFICATION.—

(1) IN GENERAL.—Not later than 60 days after the application period described in subsection (d), and annually thereafter, the Secretary shall certify projects that are reasonably expected to meet the criteria established under subsection (c).

(2) CERTIFIED PROJECTS.—The Secretary shall designate personnel of the Department to work with persons carrying out each certified project and ensure that the personnel—

(A) provide each certified project with guidance in meeting the criteria established under subsection (c);

(B) identify programs of the Department, including National Laboratories and Technology Centers, that will assist each project in meeting the criteria established under subsection (c); and

(C) ensure that knowledge and transfer of the most current technology between the applicable resources of the Federal Government (including the National Laboratories and Technology Centers, the Department, and the Environmental Protection Agency) and the certified projects is being facilitated to accelerate commercialization of work developed through those resources.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section for each of fiscal years 2006 through 2010.

SA 836. Mr. BAUCUS submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 346, between lines 21 and 22, add the following:

Subtitle C—Loan Guarantees

SEC. 421. LOAN GUARANTEES.

(a) IN GENERAL.—Subject to the availability of appropriations, the Secretary may provide loan guarantees for a project to produce energy and clean fuels from Western subbituminous coal using appropriate coal liquefaction technology.

(b) REQUIREMENTS.—The project described in subsection (a) shall use coal owned by a State government, in combination with private and Tribal coal resources.

SA 837. Mr. BAUCUS submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 53, line 8, strike the quotation marks and the final period and insert the following:

''(3) NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY SMALL BUSINESS ENERGY CLEARINGHOUSE.—The Secretary and the Administrator of the Small Business Administration, as a part of the outreach to small business concerns regarding the Energy Star Program required by this subsection, may enter into a cooperative agreement with the National Center for Appropriate Technology to establish, maintain, and promote a Small Business Energy Clearinghouse (in this section referred to as the 'Clearinghouse'). The Secretary and the Administrator shall ensure that the Clearinghouse provides a centralized resource where small business concerns may access, telephonically and electronically, technical information and advice to help increase energy efficiency and reduce energy costs.

''(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to carry out this subsection, to remain available until expended.''.

SA 838. Mr. MCCONNELL submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

On page 656, between lines 19 and 20, insert the following:

SEC. 1237. KENTUCKY PILOT PROGRAM.

(a) EQUITABILITY WITHIN TERRITORY RESTRICTED ELECTRIC SYSTEMS.—Section 212(j) of the Federal Power Act (16 U.S.C. 824k(j)) is amended—

(1) by striking ''October 1, 1991'' and inserting ''April 1, 2005''; and

(2) by striking the period at the end and inserting '': *Provided further*, That this subsection shall not apply in the Commonwealth of Kentucky.''.

(b) STUDY AND REPORT.—

(1) STUDY.—

(A) IN GENERAL.—The Comptroller General of the United States shall conduct a study of the costs, benefits, and other effects of the amendment made by this section, including differing costs to electricity consumers in the Commonwealth of Kentucky.

(B) INCLUSION.—In conducting the study under subparagraph (A), the Comptroller General shall evaluate the potential costs and benefits of granting the Federal Energy Regulatory Commission jurisdiction over the entire Tennessee Valley Authority grid with respect to sales and purchases of electricity by the Tennessee Valley Authority.

(2) REPORT.—Not later than 1 year after the date of enactment of this Act, the Comptroller General shall submit to Congress a report describing the findings of the study under paragraph (1).

SA 839. Mr. LAUTENBERG (for himself, Mr. REID, Mr. LIEBERMAN, and Mr. JEFFORDS) submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future

with secure, affordable, and reliable energy; as follows:

At the appropriate place, insert the following:

TITLE —SAVE CLIMATE SCIENCE

SEC. —01. SHORT TITLE.

This title may be cited as the ''Save Climate Scientific Credibility, Integrity, Ethics, Nonpartisanship, Consistency, and Excellence Act'' or the ''Save Climate SCIENCE Act''.

SEC. —02. FINDINGS.

The Congress finds the following:

(1) Federal climate-related reports and studies that summarize or synthesize science that was rigorously peer-reviewed and that cost taxpayers millions of dollars, were altered to misrepresent or omit information contained in the underlying scientific reports or studies.

(2) Reports of such alterations were exposed by scientists who were involved in the preparation of the underlying scientific reports or studies.

(3) Such alteration of Federal climate-related reports and studies raises questions about the credibility, integrity, and consistency of the United States climate science program.

SEC. —03. PUBLICATION REQUIREMENT.

(a) IN GENERAL.—Within 48 hours after an executive agency (as defined in section 105 of title 5, United States Code) publishes a summary, synthesis, or analysis of a scientific study or report on climate change that has been modified to reflect comments by the Executive Office of the President that change the force, meaning, emphasis, conclusions, findings, or recommendations of the scientific or technical component of the study or report, the head of that agency shall make available on a departmental or agency website, and on a public docket, if any, that is accessible by the public both the final version and the last draft version before it was modified to reflect those comments.

(b) FORMAT AND EASE OF COMPARISON.—The documents shall be made available—

(1) in a format that is generally available to the public; and

(2) in the same format and accessible on the same page with equal prominence, or in any other manner that facilitates comparison of the 2 texts.

SEC. —04. ENFORCEMENT.

The failure, by the head of an executive agency, to comply with the requirements of section —02 shall be considered a failure to file a report required by section 102 of the Ethics in Government Act of 1978 (5 U.S.C. App.).

SEC. —05. ANNUAL REPORT BY COMPTROLLER GENERAL.

The Comptroller General shall transmit to the Congress within 1 year after the date of enactment of this Act, and annually thereafter, a report on compliance with the requirements of section —02 by executive agencies that includes a information on the status of any enforcement actions brought under section 104 of the Ethics in Government Act of 1978 (5 U.S.C. App.) for violations of section —02 of this Act during the 12-month period covered by the report.

SEC. —06. WHISTLEBLOWER EXTENSION FOR DISCLOSURES RELATING TO INTERFERENCE WITH CLIMATE SCIENCE.

(a) IN GENERAL.—Subparagraphs (A) and (B) of section 2302(b)(8) of title 5, United States Code, are amended—

(1) in clause (i), by striking ''or'' at the end;

(2) in clause (ii), by adding ''or'' at the end; and

(3) by inserting after clause (ii) the following:

''(iii) tampering with the conduct of Federally funded climate-related scientific research or analysis, altering or omitting the findings of Federally funded climate-related scientific research or analysis, or directing the dissemination of climate-related scientific information known by the directing employee to be false or misleading,''.

(b) CONFORMING AMENDMENTS.—

(1) Section 1212(a)(3) of title 5, United States Code, is amended—

(A) by striking ''regulation, or gross'' and inserting ''regulation; gross''; and

(B) by adding at the end the following: ''or tampering with the conduct of Federally funded climate-related scientific research or analysis, altering or omitting the findings of Federally funded climate-related scientific research or analysis, or directing the dissemination of climate-related scientific information known by the directing employee to be false or misleading;''

(2) Section 1213(a) of such title is amended—

(A) in paragraph (1)—

(i) by striking ''or'' at the end of subparagraph (A);

(ii) by inserting ''or'' at the end of subparagraph (B); and

(iii) by inserting after subparagraph (B) the following:

''(C) tampering with the conduct of Federally funded climate-related scientific research or analysis, altering or omitting the findings of Federally funded climate-related scientific research or analysis, or directing the dissemination of climate-related scientific information known by the directing employee to be false or misleading;''; and

(B) in paragraph (2)—

(i) by striking ''or'' at the end of subparagraph (A);

(ii) by striking ''safety.'' in subparagraph (B) and inserting ''safety; or''; and

(C) by inserting after subparagraph (B) the following:

''(C) tampering with the conduct of Federally funded climate-related scientific research or analysis, altering or omitting the findings of Federally funded climate-related scientific research or analysis, or directing the dissemination of climate-related scientific information known by the directing employee to be false or misleading.''.

SA 840. Mr. SMITH (for himself and Mrs. LINCOLN) submitted an amendment intended to be proposed by him to the bill H.R. 6, to ensure jobs for our future with secure, affordable, and reliable energy; which was ordered to lie on the table; as follows:

At the appropriate place, insert the following:

SEC. _____. TAX INCENTIVES FOR TRUCKS WITH NEW DIESEL ENGINE TECHNOLOGIES.

(a) INVESTMENT CREDIT FOR TRUCKS WITH NEW DIESEL TECHNOLOGY.—

(1) IN GENERAL.—

(A) ALLOWANCE OF CREDIT.—Subpart E of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986, as amended by this Act, is amended by inserting after section 48 the following new section:

''SEC. 48E. NEW DIESEL TECHNOLOGY CREDIT.

''(a) GENERAL RULE.—For purposes of section 46, the new diesel technology credit for any taxable year is 5 percent of the cost of any qualified truck which is placed in service on or after January 1, 2007, and before January 1, 2008.

''(b) QUALIFIED TRUCK.—For purposes of this section, the term 'qualified truck' means any motor vehicle (as defined in section 30(c)(2)) which—

''(1) is first placed in service on or after January 1, 2007,

''(2) is propelled by diesel fuel,

''(3) has a gross vehicle weight rating of more than 33,000 pounds, and

''(4) complies with the regulations of the Environmental Protection Agency with respect to diesel emissions for model year 2007 and later.''.

(B) CREDIT TREATED AS PART OF INVESTMENT CREDIT.—Section 46 of such Code, as amended by this Act, is amended by striking ''and'' at the end of paragraph (5), by striking the period at the end of paragraph (6) and inserting '', and'', and by adding at the end the following new paragraph:

''(7) the new diesel technology credit.''.

(C) CONFORMING AMENDMENTS.—

(i) Section 49(a)(1)(C) of such Code, as amended by this Act, is amended by striking ''and'' at the end of clause (v), by striking the period at the end of clause (vi) and inserting '', and'', and by adding at the end the following new clause:

''(vii) the basis of any qualified truck.''.

(ii) The table of sections for subpart E of part IV of subchapter A of chapter 1 of such Code, as amended by this Act, is amended by inserting after the item relating to section 48 the following new item:

''Sec. 48E. New diesel technology credit.''.

(2) CREDIT ALLOWED AGAINST AMT.—

(A) IN GENERAL.—Subsection (c) of section 38 of such Code is amended by redesignating paragraph (5) as paragraph (6) and by inserting after paragraph (4) the following new paragraph:

''(5) SPECIAL RULES FOR NEW DIESEL TECHNOLOGY CREDIT.—

''(A) IN GENERAL.—In the case of the new diesel technology credit—

''(i) this section and section 39 shall be applied separately with respect to such credit, and

''(ii) in applying paragraph (1) to such credit—

''(I) the tentative minimum tax shall be treated as being zero, and

''(II) the limitation under paragraph (1) (as modified by subclause (I)) shall be reduced by the credit allowed under subsection (a) for the taxable year (other than the new diesel technology credit).

''(B) NEW DIESEL TECHNOLOGY CREDIT.—For purposes of this subsection, the term 'new diesel technology credit' means the portion of the investment credit under section 46 determined under section 48E.''.

(B) CONFORMING AMENDMENTS.—Paragraphs (2)(A)(ii)(II), (3)(A)(ii)(II), and (4)(A)(ii)(II) of section 38(c) of such Code are each amended by inserting ''or the new diesel technology credit'' after ''the specified credits''.

(3) EFFECTIVE DATE.—The amendments made by this subsection shall apply to periods after December 31, 2006, in taxable years ending after such date, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

(b) ELECTION TO EXPENSE QUALIFIED TRUCKS.—

(1) IN GENERAL.—Part VI of subchapter B of chapter 1 of the Internal Revenue Code of 1986, as amended by this Act, is amended by inserting after section 179B the following new section:

''SEC. 179E. ELECTION TO EXPENSE NEW DIESEL TECHNOLOGY TRUCKS.

''(a) TREATMENT AS EXPENSES.—A taxpayer may elect to treat the cost of any qualified truck (as defined in section 48E) as an expense which is not chargeable to a capital account. Any cost so treated shall be allowed as a deduction for the taxable year in which the qualified truck is placed in service.

''(b) ELECTION.—

''(1) IN GENERAL.—An election under this section for any taxable year shall be made on the taxpayer's return of the tax imposed by this chapter for the taxable year. Such election shall be made in such manner as the Secretary may by regulations prescribe.

''(2) ELECTION IRREVOCABLE.—Any election made under this section may not be revoked except with the consent of the Secretary.

''(c) TERMINATION.—This section shall not apply to property placed in service after December 31, 2007.''.

(2) CONFORMING AMENDMENT.—The table of sections for part VI of subchapter B of chapter 1 of such Code, as amended by this Act, is amended by inserting after the item relating to section 179D the following new item:

''Sec. 179E. Election to expense new diesel technology trucks.''.

(3) EFFECTIVE DATE.—The amendments made by this subsection shall apply to property placed in service on or after January 1, 2007.

NOTICES OF HEARINGS/MEETINGS

SUBCOMMITTEE ON WATER AND POWER

Ms. MURKOWSKI. Mr. President, I would like to announce for the information of the Senate and the public that the hearing previously scheduled before the Subcommittee on Water and Power of the Committee on Energy and Natural Resources for Tuesday, June 28, 2005 at 3 p.m. has been cancelled.

The purpose of the hearing was to receive testimony on the water supply status in the Pacific Northwest and its impact on power production, as well as to receive testimony on S. 648, to amend the Reclamation States Emergency Drought Relief Act of 1991 to extend the authority for drought assistance.

For further information, please contact Kellie Donnelly 202–224–9360 or Steve Waskiewicz at 202–224–9313.

AUTHORITY FOR COMMITTEES TO MEET

COMMITTEE ON ARMED SERVICES

Mr. DOMENICI. Mr. President, I ask unanimous consent that the Committee on Armed Services be authorized to meet during the session of the Senate on June 21, 2005, at 9:30 a.m., to receive a classified briefing regarding improvised explosive devices (IEDS).

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

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS

Mr. DOMENICI. Mr. President, I ask unanimous consent that the Committee on Banking, Housing, and Urban Affairs be authorized to meet during the session of the Senate on June 21, 2005, at 10 a.m., to conduct a hearing on ''The Consideration of Regulatory Relief Proposals.''

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

COMMITTEE ON FOREIGN RELATIONS

Mr. DOMENICI. Mr. President, I ask unanimous consent that the Committee on Foreign Relations be authorized to meet during the session of the Senate on Tuesday, June 21, 2005 at 9:30 a.m. to hold a hearing on Russia.

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

COMMITTEE ON FOREIGN RELATIONS

Mr. DOMENICI. Mr. President, I ask unanimous consent that the Committee on Foreign Relations be authorized to meet during the session of the Senate on Tuesday, June 21, 2005 at 2:30 p.m., to hold a hearing on nominations.

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

COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS

Mr. DOMENICI. Mr. President, I ask unanimous consent that the Committee on Homeland Security and Governmental Affairs be authorized to meet on Tuesday, June 21, 2005, at 9:15 a.m., for a hearing titled, ''Juvenile Diabetes: Examining the Personal Toll on Families, Financial Costs to the Federal Health Care System, and Research Progress Toward a Cure.''

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

COMMITTEE ON RULES AND ADMINISTRATION

Mr. DOMENICI. Mr. President, I ask unanimous consent that the Committee on Rules and Administration be authorized to meet during the session of the Senate on Tuesday, June 21, 2005, at 10 a.m., to conduct a hearing to examine the issue of voter verification in the Federal elections process.

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

SUBCOMMITTEE ON FISHERIES AND COAST GUARD

Mr. DOMENICI. Mr. President, I ask unanimous consent that the Subcommittee on Fisheries and Coast Guard be authorized to meet on Tuesday, June 21, 2005, on Coast Guard's Revised Deepwater Implementation Plan at 10 a.m., in SR–253.

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

PRIVILEGE OF THE FLOOR

Mr. HAGEL. Mr. President, I further ask consent that Eric Loewen of my staff be granted floor privileges during consideration of the Energy bill.

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

Mr. DAYTON. Mr. President, I ask unanimous consent that Max Frances Moran of my office be granted floor privileges during the debate on the Energy bill.

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

Mr. DEWINE. Mr. President, I ask unanimous consent that Douglas Rathbun be granted the privilege of the floor for the duration of debate on H.R. 6.

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

AMENDING COMMUNICATIONS SATELLITE ACT OF 1962

Mr. DOMENICI. I ask unanimous consent that the Senate proceed to the immediate consideration of S. 1282 that was introduced earlier today.

The PRESIDING OFFICER. The clerk will report the bill by title.

The bill clerk read as follows:

A bill (S. 1282) to amend the Communications Satellite Act of 1962 to strike the privatization criteria for INTELSAT separated entities, remove certain restrictions on separated and successor entities to INTELSAT, and for other purposes.

There being no objection, the Senate proceeded to consider the bill.

Mr. DOMENICI. I ask unanimous consent that the bill be read a third time and passed, the motion to reconsider be laid upon the table, and any statements relating to the bill be printed in the RECORD.

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

The bill (S. 1282) was read the third time and passed, as follows:

S. 1282

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. FINANCIAL INTERESTS OF OFFICERS, MANAGERS, OR DIRECTORS.

Section 621(5)(D) of the Communications Satellite Act of 1962 (47 U.S.C. 763(5)(D)) is amended—

(1) by striking ''(I)'' in clause (ii);

(2) by striking ''signatories, or (II)'' in clause (ii) and all that follows through ''mechanism;'' and inserting ''signatories; and'';

(3) by striking ''organization; and'' in clause (iii) and inserting ''organization.''; and

(4) by striking clause (iv).

SEC. 2. CRITERIA FOR INTELSAT SEPARATED ENTITIES.

Subtitle B of title VI of the Communications Satellite Act of 1962 (47 U.S.C. 763 et seq.) is amended by striking section 623 (47 U.S.C. 763b).

SEC. 3. PRESERVATION OF SPACE SEGMENT CAPACITY OF THE GMDSS.

Section 624 of the Communications Satellite Act of 1962 (47 U.S.C. 763c) is amended to read as follows:

''SEC. 624. SPACE SEGMENT CAPACITY OF THE GMDSS.

''The United States shall preserve the space segment capacity of the GMDSS. This section is not intended to alter the status that the GMDSS would otherwise have under United States laws and regulations of the International Telecommunication Union with respect to spectrum, orbital locations, or other operational parameters, or to be a barrier to competition for the provision of GMDSS services.''.

SEC. 4. SATELLITE SERVICE REPORT.

(a) ANNUAL REPORT.—The Federal Communications Commission shall review competitive market conditions with respect to domestic and international satellite communications services and shall include in an annual report an analysis of those conditions. The Commission shall transmit a copy of the report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Energy and Commerce.

(b) CONTENT.—The Commission shall include in the report—

(1) an identification of the number and market share of competitors in domestic and international satellite markets;

(2) an analysis of whether there is effective competition in the market for domestic and international satellite services; and