

ENERGY POLICY ACT OF 2005

[Public Law 109–58, Enacted August 8, 2005]

[As Amended Through P.L. 119–21, Enacted July 4, 2025]

【Currency: This publication is a compilation of the text of Public Law 109–58. It was last amended by the public law listed in the As Amended Through note above and below at the bottom of each page of the pdf version and reflects current law through the date of the enactment of the public law listed at <https://www.govinfo.gov/app/collection/comps/>】

【Note: While this publication does not represent an official version of any Federal statute, substantial efforts have been made to ensure the accuracy of its contents. The official version of Federal law is found in the United States Statutes at Large and in the United States Code. The legal effect to be given to the Statutes at Large and the United States Code is established by statute (1 U.S.C. 112, 204).】

AN ACT To ensure jobs for our future with secure, affordable, and reliable energy.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. [42 U.S.C. 15801 note] SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the “Energy Policy Act of 2005”.

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.¹

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Subtitle A—Federal Programs

- Sec. 101. Energy and water saving measures in congressional buildings.
- Sec. 102. Energy management requirements.
- Sec. 103. Energy use measurement and accountability.
- Sec. 104. Procurement of energy efficient products.
- Sec. 105. Energy savings performance contracts.
- Sec. 106. Voluntary commitments to reduce industrial energy intensity.
- Sec. 107. Advanced Building Efficiency Testbed.
- Sec. 108. Increased use of recovered mineral component in federally funded projects involving procurement of cement or concrete.
- Sec. 109. Federal building performance standards.
- Sec. 110. Daylight savings.
- Sec. 111. Enhancing energy efficiency in management of Federal lands.

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- Sec. 122. Weatherization assistance.
- Sec. 123. State energy programs.
- Sec. 124. Energy efficient appliance rebate programs.
- Sec. 125. Energy efficient public buildings.
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¹So in law. There is no item relating to section 2 (definitions) in the table of contents.

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 Sec. 128. State building energy efficiency codes incentives.

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 Sec. 134. Energy efficiency public information initiative.
 Sec. 135. Energy conservation standards for additional products.
 Sec. 136. Energy conservation standards for commercial equipment.
 Sec. 137. Energy labeling.
 Sec. 138. Intermittent escalator study.
 Sec. 139. Energy efficient electric and natural gas utilities study.
 Sec. 140. Energy efficiency pilot program.
 Sec. 141. Report on failure to comply with deadlines for new or revised energy conservation standards.

Subtitle D—Public Housing

- Sec. 151. Public housing capital fund.
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 Sec. 202. Renewable energy production incentive.
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 Sec. 205. Biobased products.
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 Sec. 207. Installation of photovoltaic system.
 Sec. 208. Sugar cane ethanol program.
 Sec. 209. Rural and remote community electrification grants.
 Sec. 210. Grants to improve the commercial value of forest biomass for electric energy, useful heat, transportation fuels, and other commercial purposes.
 Sec. 211. Sense of Congress regarding generation capacity of electricity from renewable energy resources on public lands.

Subtitle B—Geothermal Energy

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 Sec. 225. Coordination of geothermal leasing and permitting on Federal lands.
 Sec. 226. Assessment of geothermal energy potential.
 Sec. 227. Cooperative or unit plans.
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 Sec. 229. Authorities of Secretary to readjust terms, conditions, rentals, and royalties.
 Sec. 230. Crediting of rental toward royalty.
 Sec. 231. Lease duration and work commitment requirements.
 Sec. 232. Advanced royalties required for cessation of production.
 Sec. 233. Annual rental.
 Sec. 234. Deposit and use of geothermal lease revenues for 5 fiscal years.
 Sec. 235. Acreage limitations.
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 Sec. 333. Land conveyance, portion of Naval Petroleum Reserve Numbered 2, to City of Taft, California.
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²Sections 969 and 969A both share the same heading. See the amendments made by sections 102(c)(3) of division S and 4004(a)(2) of division Z of Public Law 116-260.

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 Sec. 1504. Elimination of oxygen content requirement for reformulated gasoline.
 Sec. 1505. Public health and environmental impacts of fuels and fuel additives.
 Sec. 1506. Analyses of motor vehicle fuel changes.
 Sec. 1507. Additional opt-in areas under reformulated gasoline program.
 Sec. 1508. Data collection.
 Sec. 1509. Fuel system requirements harmonization study.
 Sec. 1510. Commercial byproducts from municipal solid waste and cellulosic biomass loan guarantee program.
 Sec. 1511. Renewable fuel.
 Sec. 1512. Conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels.
 Sec. 1513. Blending of compliant reformulated gasolines.
 Sec. 1514. Advanced biofuel technologies program.
 Sec. 1515. Waste-derived ethanol and biodiesel.
 Sec. 1516. Sugar ethanol loan guarantee program.

Subtitle B—Underground Storage Tank Compliance

- Sec. 1521. Short title.
- Sec. 1522. Leaking underground storage tanks.
- Sec. 1523. Inspection of underground storage tanks.
- Sec. 1524. Operator training.
- Sec. 1525. Remediation from oxygenated fuel additives.
- Sec. 1526. Release prevention, compliance, and enforcement.
- Sec. 1527. Delivery prohibition.
- Sec. 1528. Federal facilities.
- Sec. 1529. Tanks on tribal lands.
- Sec. 1530. Additional measures to protect groundwater.
- Sec. 1531. Authorization of appropriations.
- Sec. 1532. Conforming amendments.
- Sec. 1533. Technical amendments.

Subtitle C—Boutique Fuels

- Sec. 1541. Reducing the proliferation of boutique fuels.

TITLE XVI—CLIMATE CHANGE

Subtitle A—National Climate Change Technology Deployment

- Sec. 1601. Greenhouse gas intensity reducing technology strategies.

Subtitle B—Climate Change Technology Deployment in Developing Countries

- Sec. 1611. Climate change technology deployment in developing countries.

TITLE XVII—INCENTIVES FOR INNOVATIVE TECHNOLOGIES

- Sec. 1701. Definitions.
- Sec. 1702. Terms and conditions.
- Sec. 1703. Eligible projects.
- Sec. 1704. Authorization of appropriations.
- Sec. 1705. Temporary program for rapid deployment of renewable energy and electric power transmission projects.³

TITLE XVIII—STUDIES

- Sec. 1801. Study on inventory of petroleum and natural gas storage.
- Sec. 1802. Study of energy efficiency standards.
- Sec. 1803. Telecommuting study.
- Sec. 1804. LIHEAP Report.
- Sec. 1805. Oil bypass filtration technology.
- Sec. 1806. Total integrated thermal systems.
- Sec. 1807. Report on energy integration with Latin America.
- Sec. 1808. Low-volume gas reservoir study.
- Sec. 1809. Investigation of gasoline prices.
- Sec. 1810. Alaska natural gas pipeline.
- Sec. 1811. Coal bed methane study.
- Sec. 1812. Backup fuel capability study.
- Sec. 1813. Indian land rights-of-way.
- Sec. 1814. Mobility of scientific and technical personnel.
- Sec. 1815. Interagency review of competition in the wholesale and retail markets for electric energy.
- Sec. 1816. Study of rapid electrical grid restoration.
- Sec. 1817. Study of distributed generation.
- Sec. 1818. Natural gas supply shortage report.
- Sec. 1819. Hydrogen participation study.
- Sec. 1820. Overall employment in a hydrogen economy.
- Sec. 1821. Study of best management practices for energy research and development programs.
- Sec. 1822. Effect of electrical contaminants on reliability of energy production systems.
- Sec. 1823. Alternative fuels reports.
- Sec. 1824. Final action on refunds for excessive charges.
- Sec. 1825. Fuel cell and hydrogen technology study.

³So in law. There is no item for section 1706 which was added by section 50144(c) of Public Law 117-169.

- Sec. 1826. Passive solar technologies.
- Sec. 1827. Study of link between energy security and increases in vehicle miles traveled.
- Sec. 1828. Science study on cumulative impacts of multiple offshore liquefied natural gas facilities.
- Sec. 1829. Energy and water saving measures in congressional buildings.
- Sec. 1830. Study of availability of skilled workers.
- Sec. 1831. Review of Energy Policy Act of 1992 programs.
- Sec. 1832. Study on the benefits of economic dispatch.
- Sec. 1833. Renewable energy on Federal land.
- Sec. 1834. Increased hydroelectric generation at existing Federal facilities.
- Sec. 1835. Split-estate Federal oil and gas leasing and development practices.
- Sec. 1836. Resolution of Federal resource development conflicts in the Powder River Basin.
- Sec. 1837. National security review of international energy requirements.
- Sec. 1838. Used oil re-refining study.
- Sec. 1839. Transmission system monitoring.
- Sec. 1840. Report identifying and describing the status of potential hydropower facilities.

SEC. 2. [42 U.S.C. 15801] DEFINITIONS.

Except as otherwise provided, in this Act:

(1) **DEPARTMENT.**—The term “Department” means the Department of Energy.

(2) **INSTITUTION OF HIGHER EDUCATION.**—

(A) **IN GENERAL.**—The term “institution of higher education” has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

(B) **INCLUSION.**—The term “institution of higher education” includes an organization that—

(i) is organized, and at all times thereafter operated, exclusively for the benefit of, to perform the functions of, or to carry out the functions of one or more organizations referred to in subparagraph (A); and

(ii) is operated, supervised, or controlled by or in connection with one or more of those organizations.

(3) **NATIONAL LABORATORY.**—The term “National Laboratory” means any of the following laboratories owned by the Department:

- (A) Ames Laboratory.
- (B) Argonne National Laboratory.
- (C) Brookhaven National Laboratory.
- (D) Fermi National Accelerator Laboratory.
- (E) Idaho National 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) Savannah River National Laboratory.
- (P) Stanford Linear Accelerator Center.
- (Q) Thomas Jefferson National Accelerator Facility.

(4) SECRETARY.—The term “Secretary” means the Secretary of Energy.

(5) SMALL BUSINESS CONCERN.—The term “small business concern” has the meaning given the term in section 3 of the Small Business Act (15 U.S.C. 632).

TITLE I—ENERGY EFFICIENCY

Subtitle A—Federal Programs

SEC. 101. ENERGY AND WATER SAVING MEASURES IN CONGRESSIONAL BUILDINGS.

(a) IN GENERAL.—Part 3 of title V of the National Energy Conservation Policy Act (42 U.S.C. 8251 et seq.) is amended by adding at the end the following:

“SEC. 552. ENERGY AND WATER SAVINGS MEASURES IN CONGRESSIONAL BUILDINGS.

“(a) IN GENERAL.—The Architect of the Capitol—

“(1) shall develop, update, and implement a cost-effective energy conservation and management plan (referred to in this section as the ‘plan’) for all facilities administered by Congress (referred to in this section as ‘congressional buildings’) to meet the energy performance requirements for Federal buildings established under section 543(a)(1); and

“(2) shall submit the plan to Congress, not later than 180 days after the date of enactment of this section.

“(b) PLAN REQUIREMENTS.—The plan shall include—

“(1) a description of the life cycle cost analysis used to determine the cost-effectiveness of proposed energy efficiency projects;

“(2) a schedule of energy surveys to ensure complete surveys of all congressional buildings every 5 years to determine the cost and payback period of energy and water conservation measures;

“(3) a strategy for installation of life cycle cost-effective energy and water conservation measures;

“(4) the results of a study of the costs and benefits of installation of submetering in congressional buildings; and

“(5) information packages and ‘how-to’ guides for each Member and employing authority of Congress that detail simple, cost-effective methods to save energy and taxpayer dollars in the workplace.

“(c) ANNUAL REPORT.—The Architect of the Capitol shall submit to Congress annually a report on congressional energy management and conservation programs required under this section that describes in detail—

“(1) energy expenditures and savings estimates for each facility;

“(2) energy management and conservation projects; and

“(3) future priorities to ensure compliance with this section.”.

(b) TABLE OF CONTENTS AMENDMENT.—The table of contents of the National Energy Conservation Policy Act is amended by adding

at the end of the items relating to part 3 of title V the following new item:

“Sec. 552. Energy and water savings measures in congressional buildings.”.

(c) REPEAL.—Section 310 of the Legislative Branch Appropriations Act, 1999 (2 U.S.C. 1815), is repealed.

SEC. 102. ENERGY MANAGEMENT REQUIREMENTS.

(a) ENERGY REDUCTION GOALS.—

(1) AMENDMENT.—Section 543(a)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)(1)) is amended by striking “its Federal buildings so that” and all that follows through the end and inserting “the Federal buildings of the agency (including each industrial or laboratory facility) so that the energy consumption per gross square foot of the Federal buildings of the agency in fiscal years 2006 through 2015 is reduced, as compared with the energy consumption per gross square foot of the Federal buildings of the agency in fiscal year 2003, by the percentage specified in the following table:

“Fiscal Year	Percentage reduction
2006	2
2007	4
2008	6
2009	8
2010	10
2011	12
2012	14
2013	16
2014	18
2015	20.”.

(2) REPORTING BASELINE.—The energy reduction goals and baseline established in paragraph (1) of section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)(1)), as amended by this subsection, supersede all previous goals and baselines under such paragraph, and related reporting requirements.

(b) REVIEW AND REVISION OF ENERGY PERFORMANCE REQUIREMENT.—Section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)) is further amended by adding at the end the following:

“(3) Not later than December 31, 2014, the Secretary shall review the results of the implementation of the energy performance requirement established under paragraph (1) and submit to Congress recommendations concerning energy performance requirements for fiscal years 2016 through 2025.”.

(c) EXCLUSIONS.—Section 543(c)(1) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)(1)) is amended by striking “An agency may exclude” and all that follows through the end and inserting “(A) An agency may exclude, from the energy performance requirement for a fiscal year established under subsection (a) and the energy management requirement established under subsection (b), any Federal building or collection of Federal buildings, if the head of the agency finds that—

“(i) compliance with those requirements would be impracticable;

“(ii) the agency has completed and submitted all federally required energy management reports;

“(iii) the agency has achieved compliance with the energy efficiency requirements of this Act, the Energy Policy Act of 1992, Executive orders, and other Federal law; and

“(iv) the agency has implemented all practicable, life cycle cost-effective projects with respect to the Federal building or collection of Federal buildings to be excluded.

“(B) A finding of impracticability under subparagraph (A)(i) shall be based on—

“(i) the energy intensiveness of activities carried out in the Federal building or collection of Federal buildings; or

“(ii) the fact that the Federal building or collection of Federal buildings is used in the performance of a national security function.”.

(d) REVIEW BY SECRETARY.—Section 543(c)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)(2)) is amended—

(1) by striking “impracticability standards” and inserting “standards for exclusion”;

(2) by striking “a finding of impracticability” and inserting “the exclusion”; and

(3) by striking “energy consumption requirements” and inserting “requirements of subsections (a) and (b)(1)”.

(e) CRITERIA.—Section 543(c) of the National Energy Conservation Policy Act (42 U.S.C. 8253(c)) is further amended by adding at the end the following:

“(3) Not later than 180 days after the date of enactment of this paragraph, the Secretary shall issue guidelines that establish criteria for exclusions under paragraph (1).”.

(f) RETENTION OF ENERGY AND WATER SAVINGS.—Section 546 of the National Energy Conservation Policy Act (42 U.S.C. 8256) is amended by adding at the end the following new subsection:

“(e) RETENTION OF ENERGY AND WATER SAVINGS.—An agency may retain any funds appropriated to that agency for energy expenditures, water expenditures, or wastewater treatment expenditures, at buildings subject to the requirements of section 543(a) and (b), that are not made because of energy savings or water savings. Except as otherwise provided by law, such funds may be used only for energy efficiency, water conservation, or unconventional and renewable energy resources projects. Such projects shall be subject to the requirements of section 3307 of title 40, United States Code.”.

(g) REPORTS.—Section 548(b) of the National Energy Conservation Policy Act (42 U.S.C. 8258(b)) is amended—

(1) in the subsection heading, by inserting “THE PRESIDENT AND” before “CONGRESS”; and

(2) by inserting “President and” before “Congress”.

(h) CONFORMING AMENDMENT.—Section 550(d) of the National Energy Conservation Policy Act (42 U.S.C. 8258b(d)) is amended in the second sentence by striking “the 20 percent reduction goal established under section 543(a) of the National Energy Conservation Policy Act (42 U.S.C. 8253(a)).” and inserting “each of the energy reduction goals established under section 543(a).”.

SEC. 103. ENERGY USE MEASUREMENT AND ACCOUNTABILITY.

Section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) is further amended by adding at the end the following:

“(e) **METERING OF ENERGY USE.**—

“(1) **DEADLINE.**—By October 1, 2012, in accordance with guidelines established by the Secretary under paragraph (2), all Federal buildings shall, for the purposes of efficient use of energy and reduction in the cost of electricity used in such buildings, be metered. Each agency shall use, to the maximum extent practicable, advanced meters or advanced metering devices that provide data at least daily and that measure at least hourly consumption of electricity in the Federal buildings of the agency. Such data shall be incorporated into existing Federal energy tracking systems and made available to Federal facility managers.

“(2) **GUIDELINES.**—

“(A) **IN GENERAL.**—Not later than 180 days after the date of enactment of this subsection, the Secretary, in consultation with the Department of Defense, the General Services Administration, representatives from the metering industry, utility industry, energy services industry, energy efficiency industry, energy efficiency advocacy organizations, national laboratories, universities, and Federal facility managers, shall establish guidelines for agencies to carry out paragraph (1).

“(B) **REQUIREMENTS FOR GUIDELINES.**—The guidelines shall—

“(i) take into consideration—

“(I) the cost of metering and the reduced cost of operation and maintenance expected to result from metering;

“(II) the extent to which metering is expected to result in increased potential for energy management, increased potential for energy savings and energy efficiency improvement, and cost and energy savings due to utility contract aggregation; and

“(III) the measurement and verification protocols of the Department of Energy;

“(ii) include recommendations concerning the amount of funds and the number of trained personnel necessary to gather and use the metering information to track and reduce energy use;

“(iii) establish priorities for types and locations of buildings to be metered based on cost-effectiveness and a schedule of one or more dates, not later than 1 year after the date of issuance of the guidelines, on which the requirements specified in paragraph (1) shall take effect; and

“(iv) establish exclusions from the requirements specified in paragraph (1) based on the de minimis quantity of energy use of a Federal building, industrial process, or structure.

“(3) PLAN.—Not later than 6 months after the date guidelines are established under paragraph (2), in a report submitted by the agency under section 548(a), each agency shall submit to the Secretary a plan describing how the agency will implement the requirements of paragraph (1), including (A) how the agency will designate personnel primarily responsible for achieving the requirements and (B) demonstration by the agency, complete with documentation, of any finding that advanced meters or advanced metering devices, as defined in paragraph (1), are not practicable.”.

SEC. 104. PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.

(a) REQUIREMENTS.—Part 3 of title V of the National Energy Conservation Policy Act (42 U.S.C. 8251 et seq.), as amended by section 101, is amended by adding at the end the following:

“SEC. 553. FEDERAL PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.

“(a) DEFINITIONS.—In this section:

“(1) AGENCY.—The term ‘agency’ has the meaning given that term in section 7902(a) of title 5, United States Code.

“(2) ENERGY STAR PRODUCT.—The term ‘Energy Star product’ means a product that is rated for energy efficiency under an Energy Star program.

“(3) ENERGY STAR PROGRAM.—The term ‘Energy Star program’ means the program established by section 324A of the Energy Policy and Conservation Act.

“(4) FEMP DESIGNATED PRODUCT.—The term ‘FEMP designated product’ means a product that is designated under the Federal Energy Management Program of the Department of Energy as being among the highest 25 percent of equivalent products for energy efficiency.

“(5) PRODUCT.—The term ‘product’ does not include any energy consuming product or system designed or procured for combat or combat-related missions.

“(b) PROCUREMENT OF ENERGY EFFICIENT PRODUCTS.—

“(1) REQUIREMENT.—To meet the requirements of an agency for an energy consuming product, the head of the agency shall, except as provided in paragraph (2), procure—

“(A) an Energy Star product; or

“(B) a FEMP designated product.

“(2) EXCEPTIONS.—The head of an agency is not required to procure an Energy Star product or FEMP designated product under paragraph (1) if the head of the agency finds in writing that—

“(A) an Energy Star product or FEMP designated product is not cost-effective over the life of the product taking energy cost savings into account; or

“(B) no Energy Star product or FEMP designated product is reasonably available that meets the functional requirements of the agency.

“(3) PROCUREMENT PLANNING.—The head of an agency shall incorporate into the specifications for all procurements involving energy consuming products and systems, including guide specifications, project specifications, and construction,

renovation, and services contracts that include provision of energy consuming products and systems, and into the factors for the evaluation of offers received for the procurement, criteria for energy efficiency that are consistent with the criteria used for rating Energy Star products and for rating FEMP designated products.

“(c) LISTING OF ENERGY EFFICIENT PRODUCTS IN FEDERAL CATALOGS.—Energy Star products and FEMP designated products shall be clearly identified and prominently displayed in any inventory or listing of products by the General Services Administration or the Defense Logistics Agency. The General Services Administration or the Defense Logistics Agency shall supply only Energy Star products or FEMP designated products for all product categories covered by the Energy Star program or the Federal Energy Management Program, except in cases where the agency ordering a product specifies in writing that no Energy Star product or FEMP designated product is available to meet the buyer’s functional requirements, or that no Energy Star product or FEMP designated product is cost-effective for the intended application over the life of the product, taking energy cost savings into account.

“(d) SPECIFIC PRODUCTS.—(1) In the case of electric motors of 1 to 500 horsepower, agencies shall select only premium efficient motors that meet a standard designated by the Secretary. The Secretary shall designate such a standard not later than 120 days after the date of the enactment of this section, after considering the recommendations of associated electric motor manufacturers and energy efficiency groups.

“(2) All Federal agencies are encouraged to take actions to maximize the efficiency of air conditioning and refrigeration equipment, including appropriate cleaning and maintenance, including the use of any system treatment or additive that will reduce the electricity consumed by air conditioning and refrigeration equipment. Any such treatment or additive must be—

“(A) determined by the Secretary to be effective in increasing the efficiency of air conditioning and refrigeration equipment without having an adverse impact on air conditioning performance (including cooling capacity) or equipment useful life;

“(B) determined by the Administrator of the Environmental Protection Agency to be environmentally safe; and

“(C) shown to increase seasonal energy efficiency ratio (SEER) or energy efficiency ratio (EER) when tested by the National Institute of Standards and Technology according to Department of Energy test procedures without causing any adverse impact on the system, system components, the refrigerant or lubricant, or other materials in the system.

Results of testing described in subparagraph (C) shall be published in the Federal Register for public review and comment. For purposes of this section, a hardware device or primary refrigerant shall not be considered an additive.

“(e) REGULATIONS.—Not later than 180 days after the date of the enactment of this section, the Secretary shall issue guidelines to carry out this section.”

(b) CONFORMING AMENDMENT.—The table of contents of the National Energy Conservation Policy Act is further amended by inserting after the item relating to section 552 the following new item:

“Sec. 553. Federal procurement of energy efficient products.”.

SEC. 105. ENERGY SAVINGS PERFORMANCE CONTRACTS.

(a) EXTENSION.—Section 801(c) of the National Energy Conservation Policy Act (42 U.S.C. 8287(c)) is amended by striking “2006” and inserting “2016”.

(b) EXTENSION OF AUTHORITY.—Any energy savings performance contract entered into under section 801 of the National Energy Conservation Policy Act (42 U.S.C. 8287) after October 1, 2003, and before the date of enactment of this Act, shall be considered to have been entered into under that section.

SEC. 106. [42 U.S.C. 15811] VOLUNTARY COMMITMENTS TO REDUCE INDUSTRIAL ENERGY INTENSITY.

(a) DEFINITION OF ENERGY INTENSITY.—In this section, the term “energy intensity” means the primary energy consumed for each unit of physical output in an industrial process.

(b) VOLUNTARY AGREEMENTS.—The Secretary may enter into voluntary agreements with one or more persons in industrial sectors that consume significant quantities of primary energy for each unit of physical output to reduce the energy intensity of the production activities of the persons.

(c) GOAL.—Voluntary agreements under this section shall have as a goal the reduction of energy intensity by not less than 2.5 percent each year during the period of calendar years 2007 through 2016.

(d) RECOGNITION.—The Secretary, in cooperation with other appropriate Federal agencies, shall develop mechanisms to recognize and publicize the achievements of participants in voluntary agreements under this section.

(e) TECHNICAL ASSISTANCE.—A person that enters into an agreement under this section and continues to make a good faith effort to achieve the energy efficiency goals specified in the agreement shall be eligible to receive from the Secretary a grant or technical assistance, as appropriate, to assist in the achievement of those goals.

(f) REPORT.—Not later than each of June 30, 2012, and June 30, 2017, the Secretary shall submit to Congress a report that—

(1) evaluates the success of the voluntary agreements under this section; and

(2) provides independent verification of a sample of the energy savings estimates provided by participating firms.

SEC. 107. [42 U.S.C. 15812] ADVANCED BUILDING EFFICIENCY TESTBED.

(a) ESTABLISHMENT.—The Secretary, in consultation with the Administrator of General Services, shall establish an Advanced Building Efficiency Testbed program for the development, testing, and demonstration of advanced engineering systems, components, and materials to enable innovations in building technologies. The program shall evaluate efficiency concepts for government and industry buildings, and demonstrate the ability of next generation

buildings to support individual and organizational productivity and health (including by improving indoor air quality) as well as flexibility and technological change to improve environmental sustainability. Such program shall complement and not duplicate existing national programs.

(b) PARTICIPANTS.—The program established under subsection (a) shall be led by a university with the ability to combine the expertise from numerous academic fields including, at a minimum, intelligent workplaces and advanced building systems and engineering, electrical and computer engineering, computer science, architecture, urban design, and environmental and mechanical engineering. Such university shall partner with other universities and entities who have established programs and the capability of advancing innovative building efficiency technologies.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section \$6,000,000 for each of the fiscal years 2006 through 2008, to remain available until expended. For any fiscal year in which funds are expended under this section, the Secretary shall provide one-third of the total amount to the lead university described in subsection (b), and provide the remaining two-thirds to the other participants referred to in subsection (b) on an equal basis.

SEC. 108. INCREASED USE OF RECOVERED MINERAL COMPONENT IN FEDERALLY FUNDED PROJECTS INVOLVING PROCUREMENT OF CEMENT OR CONCRETE.

(a) AMENDMENT.—Subtitle F of the Solid Waste Disposal Act (42 U.S.C. 6961 et seq.) is amended by adding at the end the following:

“INCREASED USE OF RECOVERED MINERAL COMPONENT IN FEDERALLY FUNDED PROJECTS INVOLVING PROCUREMENT OF CEMENT OR CONCRETE

“SEC. 6005. (a) DEFINITIONS.—In this section:

“(1) AGENCY HEAD.—The term ‘agency head’ means—

“(A) the Secretary of Transportation; and

“(B) the head of any other Federal agency that, on a regular basis, procures, or provides Federal funds to pay or assist in paying the cost of procuring, material for cement or concrete projects.

“(2) CEMENT OR CONCRETE PROJECT.—The term ‘cement or concrete project’ means a project for the construction or maintenance of a highway or other transportation facility or a Federal, State, or local government building or other public facility that—

“(A) involves the procurement of cement or concrete; and

“(B) is carried out, in whole or in part, using Federal funds.

“(3) RECOVERED MINERAL COMPONENT.—The term ‘recovered mineral component’ means—

“(A) ground granulated blast furnace slag, excluding lead slag;

“(B) coal combustion fly ash; and

“(C) any other waste material or byproduct recovered or diverted from solid waste that the Administrator, in consultation with an agency head, determines should be treated as recovered mineral component under this section for use in cement or concrete projects paid for, in whole or in part, by the agency head.

“(b) IMPLEMENTATION OF REQUIREMENTS.—

“(1) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Administrator and each agency head shall take such actions as are necessary to implement fully all procurement requirements and incentives in effect as of the date of enactment of this section (including guidelines under section 6002) that provide for the use of cement and concrete incorporating recovered mineral component in cement or concrete projects.

“(2) PRIORITY.—In carrying out paragraph (1), an agency head shall give priority to achieving greater use of recovered mineral component in cement or concrete projects for which recovered mineral components historically have not been used or have been used only minimally.

“(3) FEDERAL PROCUREMENT REQUIREMENTS.—The Administrator and each agency head shall carry out this subsection in accordance with section 6002.

“(c) FULL IMPLEMENTATION STUDY.—

“(1) IN GENERAL.—The Administrator, in cooperation with the Secretary of Transportation and the Secretary of Energy, shall conduct a study to determine the extent to which procurement requirements, when fully implemented in accordance with subsection (b), may realize energy savings and environmental benefits attainable with substitution of recovered mineral component in cement used in cement or concrete projects.

“(2) MATTERS TO BE ADDRESSED.—The study shall—

“(A) quantify—

“(i) the extent to which recovered mineral components are being substituted for Portland cement, particularly as a result of procurement requirements; and

“(ii) the energy savings and environmental benefits associated with the substitution;

“(B) identify all barriers in procurement requirements to greater realization of energy savings and environmental benefits, including barriers resulting from exceptions from the law; and

“(C)(i) identify potential mechanisms to achieve greater substitution of recovered mineral component in types of cement or concrete projects for which recovered mineral components historically have not been used or have been used only minimally;

“(ii) evaluate the feasibility of establishing guidelines or standards for optimized substitution rates of recovered mineral component in those cement or concrete projects; and

“(iii) identify any potential environmental or economic effects that may result from greater substitution of recovered

ered mineral component in those cement or concrete projects.

“(3) REPORT.—Not later than 30 months after the date of enactment of this section, the Administrator shall submit to Congress a report on the study.

“(d) ADDITIONAL PROCUREMENT REQUIREMENTS.—Unless the study conducted under subsection (c) identifies any effects or other problems described in subsection (c)(2)(C)(iii) that warrant further review or delay, the Administrator and each agency head shall, not later than 1 year after the date on which the report under subsection (c)(3) is submitted, take additional actions under this Act to establish procurement requirements and incentives that provide for the use of cement and concrete with increased substitution of recovered mineral component in the construction and maintenance of cement or concrete projects—

“(1) to realize more fully the energy savings and environmental benefits associated with increased substitution; and

“(2) to eliminate barriers identified under subsection (c)(2)(B).

“(e) EFFECT OF SECTION.—Nothing in this section affects the requirements of section 6002 (including the guidelines and specifications for implementing those requirements).”.

(b) CONFORMING AMENDMENT.—The table of contents of the Solid Waste Disposal Act is amended by adding after the item relating to section 6004 the following:

“Sec. 6005. Increased use of recovered mineral component in federally funded projects involving procurement of cement or concrete.”.

SEC. 109. FEDERAL BUILDING PERFORMANCE STANDARDS.

Section 305(a) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)) is amended—

(1) in paragraph (2)(A), by striking “CABO Model Energy Code, 1992 (in the case of residential buildings) or ASHRAE Standard 90.1–1989” and inserting “the 2004 International Energy Conservation Code (in the case of residential buildings) or ASHRAE Standard 90.1–2004”; and

(2) by adding at the end the following:

“(3)(A) Not later than 1 year after the date of enactment of this paragraph, the Secretary shall establish, by rule, revised Federal building energy efficiency performance standards that require that—

“(i) if life-cycle cost-effective for new Federal buildings—

“(I) the buildings be designed to achieve energy consumption levels that are at least 30 percent below the levels established in the version of the ASHRAE Standard or the International Energy Conservation Code, as appropriate, that is in effect as of the date of enactment of this paragraph; and

“(II) sustainable design principles are applied to the siting, design, and construction of all new and replacement buildings; and

“(ii) if water is used to achieve energy efficiency, water conservation technologies shall be applied to the extent that the technologies are life-cycle cost-effective.

“(B) Not later than 1 year after the date of approval of each subsequent revision of the ASHRAE Standard or the International Energy Conservation Code, as appropriate, the Secretary shall determine, based on the cost-effectiveness of the requirements under the amendment, whether the revised standards established under this paragraph should be updated to reflect the amendment.

“(C) In the budget request of the Federal agency for each fiscal year and each report submitted by the Federal agency under section 548(a) of the National Energy Conservation Policy Act (42 U.S.C. 8258(a)), the head of each Federal agency shall include—

“(i) a list of all new Federal buildings owned, operated, or controlled by the Federal agency; and

“(ii) a statement specifying whether the Federal buildings meet or exceed the revised standards established under this paragraph.”.

SEC. 110. DAYLIGHT SAVINGS.

(a) **AMENDMENT.**—Section 3(a) of the Uniform Time Act of 1966 (15 U.S.C. 260a(a)) is amended—

(1) by striking “first Sunday of April” and inserting “second Sunday of March”; and

(2) by striking “last Sunday of October” and inserting “first Sunday of November”.

(b) **EFFECTIVE DATE.**—Subsection (a) shall take effect 1 year after the date of enactment of this Act or March 1, 2007, whichever is later.

(c) **REPORT TO CONGRESS.**—Not later than 9 months after the effective date stated in subsection (b), the Secretary shall report to Congress on the impact of this section on energy consumption in the United States.

(d) **RIGHT TO REVERT.**—Congress retains the right to revert the Daylight Saving Time back to the 2005 time schedules once the Department study is complete.

SEC. 111. [42 U.S.C. 15813] ENHANCING ENERGY EFFICIENCY IN MANAGEMENT OF FEDERAL LANDS.

(a) **SENSE OF THE CONGRESS.**—It is the sense of the Congress that Federal agencies should enhance the use of energy efficient technologies in the management of natural resources.

(b) **ENERGY EFFICIENT BUILDINGS.**—To the extent practicable, the Secretary of the Interior, the Secretary of Commerce, and the Secretary of Agriculture shall seek to incorporate energy efficient technologies in public and administrative buildings associated with management of the National Park System, National Wildlife Refuge System, National Forest System, National Marine Sanctuaries System, and other public lands and resources managed by the Secretaries.

(c) **ENERGY EFFICIENT VEHICLES.**—To the extent practicable, the Secretary of the Interior, the Secretary of Commerce, and the Secretary of Agriculture shall seek to use energy efficient motor vehicles, including vehicles equipped with biodiesel or hybrid engine technologies, in the management of the National Park System, National Wildlife Refuge System, National Forest System, National Marine Sanctuaries System, and other public lands and resources managed by the Secretaries.

Subtitle B—Energy Assistance and State Programs

SEC. 121. LOW-INCOME HOME ENERGY ASSISTANCE PROGRAM.

(a) AUTHORIZATION OF APPROPRIATIONS.—Section 2602(b) of the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621(b)) is amended by striking “and \$2,000,000,000 for each of fiscal years 2002 through 2004” and inserting “and \$5,100,000,000 for each of fiscal years 2005 through 2007”.

(b) RENEWABLE FUELS.—The Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621 et seq.) is amended by adding at the end the following new section:

“RENEWABLE FUELS

“SEC. 2612. In providing assistance pursuant to this title, a State, or any other person with which the State makes arrangements to carry out the purposes of this title, may purchase renewable fuels, including biomass.”.

(c) REPORT TO CONGRESS.—The Secretary shall report to Congress on the use of renewable fuels in providing assistance under the Low-Income Home Energy Assistance Act of 1981 (42 U.S.C. 8621 et seq.).

SEC. 122. WEATHERIZATION ASSISTANCE.

(a) AUTHORIZATION OF APPROPRIATIONS.—Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) is amended by striking “for fiscal years 1999 through 2003 such sums as may be necessary” and inserting “\$500,000,000 for fiscal year 2006, \$600,000,000 for fiscal year 2007, and \$700,000,000 for fiscal year 2008”.

(b) ELIGIBILITY.—Section 412(7) of the Energy Conservation and Production Act (42 U.S.C. 6862(7)) is amended by striking “125 percent” both places it appears and inserting “150 percent”.

SEC. 123. STATE ENERGY PROGRAMS.

(a) STATE ENERGY CONSERVATION PLANS.—Section 362 of the Energy Policy and Conservation Act (42 U.S.C. 6322) is amended by inserting at the end the following new subsection:

“(g) The Secretary shall, at least once every 3 years, invite the Governor of each State to review and, if necessary, revise the energy conservation plan of such State submitted under subsection (b) or (e). Such reviews should consider the energy conservation plans of other States within the region, and identify opportunities and actions carried out in pursuit of common energy conservation goals.”.

(b) STATE ENERGY EFFICIENCY GOALS.—Section 364 of the Energy Policy and Conservation Act (42 U.S.C. 6324) is amended to read as follows:

“STATE ENERGY EFFICIENCY GOALS

“SEC. 364. Each State energy conservation plan with respect to which assistance is made available under this part on or after the date of enactment of the Energy Policy Act of 2005 shall contain

a goal, consisting of an improvement of 25 percent or more in the efficiency of use of energy in the State concerned in calendar year 2012 as compared to calendar year 1990, and may contain interim goals.”.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended by striking “for fiscal years 1999 through 2003 such sums as may be necessary” and inserting “\$100,000,000 for each of the fiscal years 2006 and 2007 and \$125,000,000 for fiscal year 2008”.

SEC. 124. [42 U.S.C. 15821] ENERGY EFFICIENT APPLIANCE REBATE PROGRAMS.

(a) **DEFINITIONS.**—In this section:

(1) **ELIGIBLE STATE.**—The term “eligible State” means a State that meets the requirements of subsection (b).

(2) **ENERGY STAR PROGRAM.**—The term “Energy Star program” means the program established by section 324A of the Energy Policy and Conservation Act.

(3) **RESIDENTIAL ENERGY STAR PRODUCT.**—The term “residential Energy Star product” means a product for a residence that is rated for energy efficiency under the Energy Star program.

(4) **STATE ENERGY OFFICE.**—The term “State energy office” means the State agency responsible for developing State energy conservation plans under section 362 of the Energy Policy and Conservation Act (42 U.S.C. 6322).

(5) **STATE PROGRAM.**—The term “State program” means a State energy efficient appliance rebate program described in subsection (b)(1).

(b) **ELIGIBLE STATES.**—A State shall be eligible to receive an allocation under subsection (c) if the State—

(1) establishes (or has established) a State energy efficient appliance rebate program to provide rebates to residential consumers for the purchase of residential Energy Star products, or products with improved energy efficiency in cold climates, to replace used appliances of the same type;

(2) submits an application for the allocation at such time, in such form, and containing such information as the Secretary may require; and

(3) provides assurances satisfactory to the Secretary that the State will use the allocation to supplement, but not supplant, funds made available to carry out the State program.

(c) **AMOUNT OF ALLOCATIONS.**—

(1) **IN GENERAL.**—Subject to paragraph (2), for each fiscal year, the Secretary shall allocate to the State energy office of each eligible State to carry out subsection (d) an amount equal to the product obtained by multiplying the amount made available under subsection (f) for the fiscal year by the ratio that the population of the State in the most recent calendar year for which data are available bears to the total population of all eligible States in that calendar year.

(2) **MINIMUM ALLOCATIONS.**—For each fiscal year, the amounts allocated under this subsection shall be adjusted proportionately so that no eligible State is allocated a sum that is less than an amount determined by the Secretary.

(d) **USE OF ALLOCATED FUNDS.**—The allocation to a State energy office under subsection (c) may be used to pay up to 50 percent of the cost of establishing and carrying out a State program.

(e) **ISSUANCE OF REBATES.**—Rebates may be provided to residential consumers that meet the requirements of the State program. The amount of a rebate shall be determined by the State energy office, taking into consideration—

(1) the amount of the allocation to the State energy office under subsection (c);

(2) the amount of any Federal or State tax incentive available for the purchase of the residential Energy Star product or product with improved energy efficiency in a cold climate; and

(3) the difference between the cost of the residential Energy Star product or product with improved energy efficiency in a cold climate and the cost of an appliance that is not a residential Energy Star product or product with improved energy efficiency in a cold climate, but is of the same type as, and is the nearest capacity, performance, and other relevant characteristics (as determined by the State energy office) to, the residential Energy Star product or product with improved energy efficiency in a cold climate.

(f) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary to carry out this section \$50,000,000 for each of the fiscal years 2006 through 2010.

SEC. 125. [42 U.S.C. 15822] ENERGY EFFICIENT PUBLIC BUILDINGS.

(a) **GRANTS.**—The Secretary may make grants to the State agency responsible for developing State energy conservation plans under section 362 of the Energy Policy and Conservation Act (42 U.S.C. 6322), or, if no such agency exists, a State agency designated by the Governor of the State, to assist units of local government in the State in improving the energy efficiency of public buildings and facilities—

(1) through construction of new energy efficient public buildings that use at least 30 percent less energy than a comparable public building constructed in compliance with standards prescribed in the most recent version of the International Energy Conservation Code, or a similar State code intended to achieve substantially equivalent efficiency levels; or

(2) through renovation of existing public buildings to achieve reductions in energy use of at least 30 percent as compared to the baseline energy use in such buildings prior to renovation, assuming a 3-year, weather-normalized average for calculating such baseline.

(b) **ADMINISTRATION.**—State energy offices receiving grants under this section shall—

(1) maintain such records and evidence of compliance as the Secretary may require; and

(2) develop and distribute information and materials and conduct programs to provide technical services and assistance to encourage planning, financing, and design of energy efficient public buildings by units of local government.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—For the purposes of this section, there are authorized to be appropriated to the Sec-

retary \$30,000,000 for each of fiscal years 2006 through 2010. Not more than 10 percent of appropriated funds shall be used for administration.

SEC. 126. [42 U.S.C. 15823] LOW INCOME COMMUNITY ENERGY EFFICIENCY PILOT PROGRAM.

(a) GRANTS.—The Secretary is authorized to make grants to units of local government, private, non-profit community development organizations, and Indian tribe economic development entities to improve energy efficiency; identify and develop alternative, renewable, and distributed energy supplies; and increase energy conservation in low income rural and urban communities.

(b) PURPOSE OF GRANTS.—The Secretary may make grants on a competitive basis for—

(1) investments that develop alternative, renewable, and distributed energy supplies;

(2) energy efficiency projects and energy conservation programs;

(3) studies and other activities that improve energy efficiency in low income rural and urban communities;

(4) planning and development assistance for increasing the energy efficiency of buildings and facilities; and

(5) technical and financial assistance to local government and private entities on developing new renewable and distributed sources of power or combined heat and power generation.

(c) DEFINITION.—For purposes of this section, the term “Indian tribe” means any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

(d) AUTHORIZATION OF APPROPRIATIONS.—For the purposes of this section there are authorized to be appropriated to the Secretary \$20,000,000 for each of fiscal years 2006 through 2008.

SEC. 127. [42 U.S.C. 15824] STATE TECHNOLOGIES ADVANCEMENT COLLABORATIVE.

(a) IN GENERAL.—The Secretary, in cooperation with the States, shall establish a cooperative program for research, development, demonstration, and deployment of technologies in which there is a common Federal and State energy efficiency, renewable energy, and fossil energy interest, to be known as the “State Technologies Advancement Collaborative” (referred to in this section as the “Collaborative”).

(b) DUTIES.—The Collaborative shall—

(1) leverage Federal and State funding through cost-shared activity;

(2) reduce redundancies in Federal and State funding; and

(3) create multistate projects to be awarded through a competitive process.

(c) ADMINISTRATION.—The Collaborative shall be administered through an agreement between the Department and appropriate State-based organizations.

(d) **FUNDING SOURCES.**—Funding for the Collaborative may be provided from—

- (1) amounts specifically appropriated for the Collaborative;
- or
- (2) amounts that may be allocated from other appropriations without changing the purpose for which the amounts are appropriated.

(e) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to carry out this section such sums as are necessary for each of fiscal years 2006 through 2010.

SEC. 128. STATE BUILDING ENERGY EFFICIENCY CODES INCENTIVES.

Section 304(e) of the Energy Conservation and Production Act (42 U.S.C. 6833(e)) is amended—

- (1) in paragraph (1), by inserting before the period at the end of the first sentence the following: “, including increasing and verifying compliance with such codes”; and

(2) by striking paragraph (2) and inserting the following: “(2) Additional funding shall be provided under this subsection for implementation of a plan to achieve and document at least a 90 percent rate of compliance with residential and commercial building energy efficiency codes, based on energy performance—

“(A) to a State that has adopted and is implementing, on a statewide basis—

“(i) a residential building energy efficiency code that meets or exceeds the requirements of the 2004 International Energy Conservation Code, or any succeeding version of that code that has received an affirmative determination from the Secretary under subsection (a)(5)(A); and

“(ii) a commercial building energy efficiency code that meets or exceeds the requirements of the ASHRAE Standard 90.1–2004, or any succeeding version of that standard that has received an affirmative determination from the Secretary under subsection (b)(2)(A); or

“(B) in a State in which there is no statewide energy code either for residential buildings or for commercial buildings, to a local government that has adopted and is implementing residential and commercial building energy efficiency codes, as described in subparagraph (A).

“(3) Of the amounts made available under this subsection, the Secretary may use \$500,000 for each fiscal year to train State and local officials to implement codes described in paragraph (2).

“(4)(A) There are authorized to be appropriated to carry out this subsection—

“(i) \$25,000,000 for each of fiscal years 2006 through 2010; and

“(ii) such sums as are necessary for fiscal year 2011 and each fiscal year thereafter.

“(B) Funding provided to States under paragraph (2) for each fiscal year shall not exceed one-half of the excess of funding under this subsection over \$5,000,000 for the fiscal year.”.

Subtitle C—Energy Efficient Products

SEC. 131. ENERGY STAR PROGRAM.

(a) IN GENERAL.—The Energy Policy and Conservation Act is amended by inserting after section 324 (42 U.S.C. 6294) the following:

“ENERGY STAR PROGRAM

“SEC. 324A. (a) IN GENERAL.—There is established within the Department of Energy and the Environmental Protection Agency a voluntary program to identify and promote energy-efficient products and buildings in order to reduce energy consumption, improve energy security, and reduce pollution through voluntary labeling of, or other forms of communication about, products and buildings that meet the highest energy conservation standards.

“(b) DIVISION OF RESPONSIBILITIES.—Responsibilities under the program shall be divided between the Department of Energy and the Environmental Protection Agency in accordance with the terms of applicable agreements between those agencies.

“(c) DUTIES.—The Administrator and the Secretary shall—

“(1) promote Energy Star compliant technologies as the preferred technologies in the marketplace for—

“(A) achieving energy efficiency; and

“(B) reducing pollution;

“(2) work to enhance public awareness of the Energy Star label, including by providing special outreach to small businesses;

“(3) preserve the integrity of the Energy Star label;

“(4) regularly update Energy Star product criteria for product categories;

“(5) solicit comments from interested parties prior to establishing or revising an Energy Star product category, specification, or criterion (or prior to effective dates for any such product category, specification, or criterion);

“(6) on adoption of a new or revised product category, specification, or criterion, provide reasonable notice to interested parties of any changes (including effective dates) in product categories, specifications, or criteria, along with—

“(A) an explanation of the changes; and

“(B) as appropriate, responses to comments submitted by interested parties; and

“(7) provide appropriate lead time (which shall be 270 days, unless the Agency or Department specifies otherwise) prior to the applicable effective date for a new or a significant revision to a product category, specification, or criterion, taking into account the timing requirements of the manufacturing, product marketing, and distribution process for the specific product addressed.

“(d) DEADLINES.—The Secretary shall establish new qualifying levels—

“(1) not later than January 1, 2006, for clothes washers and dishwashers, effective beginning January 1, 2007; and

“(2) not later than January 1, 2008, for clothes washers, effective beginning January 1, 2010.”.

(b) TABLE OF CONTENTS AMENDMENT.—The table of contents of the Energy Policy and Conservation Act (42 U.S.C. prec. 6201) is amended by inserting after the item relating to section 324 the following:

“Sec. 324A. Energy Star program.”.

SEC. 132. HVAC MAINTENANCE CONSUMER EDUCATION PROGRAM.

Section 337 of the Energy Policy and Conservation Act (42 U.S.C. 6307) is amended by adding at the end the following:

“(c) HVAC MAINTENANCE.—(1) To ensure that installed air conditioning and heating systems operate at maximum rated efficiency levels, the Secretary shall, not later than 180 days after the date of enactment of this subsection, carry out a program to educate homeowners and small business owners concerning the energy savings from properly conducted maintenance of air conditioning, heating, and ventilating systems.

“(2) The Secretary shall carry out the program under paragraph (1), on a cost-shared basis, in cooperation with the Administrator of the Environmental Protection Agency and any other entities that the Secretary determines to be appropriate, including industry trade associations, industry members, and energy efficiency organizations.

“(d) SMALL BUSINESS EDUCATION AND ASSISTANCE.—(1) The Administrator of the Small Business Administration, in consultation with the Secretary and the Administrator of the Environmental Protection Agency, shall develop and coordinate a Government-wide program, building on the Energy Star for Small Business Program, to assist small businesses in—

“(A) becoming more energy efficient;

“(B) understanding the cost savings from improved energy 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—

“(A) 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; and

“(B) coordinate assistance with the Secretary of Commerce for manufacturing-related efforts, including the Manufacturing Extension Partnership Program.

“(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, mar-

keting, and other written materials necessary for the dissemination of information under paragraph (2).

“(4) The Secretary, the Administrator of the Environmental Protection Agency, and the Administrator of the Small Business Administration, as part of the outreach to small business concerns under the Energy Star Program for Small Business Program, may enter into cooperative agreements with qualified resources partners (including the National Center for Appropriate Technology) to establish, maintain, and promote a Small Business Energy Clearinghouse (in this subsection referred to as the ‘Clearinghouse’).

“(5) The Secretary, the Administrator of the Environmental Protection Agency, and the Administrator of the Small Business Administration 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.

“(6) There are authorized to be appropriated such sums as are necessary to carry out this subsection, to remain available until expended.”.

SEC. 133. [42 U.S.C. 15831] PUBLIC ENERGY EDUCATION PROGRAM.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall convene an organizational conference for the purpose of establishing an ongoing, self-sustaining national public energy education program.

(b) PARTICIPANTS.—The Secretary shall invite to participate in the conference individuals and entities representing all aspects of energy production and distribution, including—

- (1) industrial firms;
- (2) professional societies;
- (3) educational organizations;
- (4) trade associations; and
- (5) governmental agencies.

(c) PURPOSE, SCOPE, AND STRUCTURE.—

(1) PURPOSE.—The purpose of the conference shall be to establish an ongoing, self-sustaining national public energy education program to examine and recognize interrelationships between energy sources in all forms, including—

- (A) conservation and energy efficiency;
- (B) the role of energy use in the economy; and
- (C) the impact of energy use on the environment.

(2) SCOPE AND STRUCTURE.—Taking into consideration the purpose described in paragraph (1), the participants in the conference invited under subsection (b) shall design the scope and structure of the program described in subsection (a).

(d) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance and other guidance necessary to carry out the program described in subsection (a).

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 134. [42 U.S.C. 15832] ENERGY EFFICIENCY PUBLIC INFORMATION INITIATIVE.

(a) **IN GENERAL.**—The Secretary shall carry out a comprehensive national program, including advertising and media awareness, to inform consumers about—

(1) the need to reduce energy consumption during the 4-year period beginning on the date of enactment of this Act;

(2) the benefits to consumers of reducing consumption of electricity, natural gas, and petroleum, particularly during peak use periods;

(3) the importance of low energy costs to economic growth and preserving manufacturing jobs in the United States; and

(4) practical, cost-effective measures that consumers can take to reduce consumption of electricity, natural gas, and gasoline, including—

(A) maintaining and repairing heating and cooling ducts and equipment;

(B) weatherizing homes and buildings;

(C) purchasing energy efficient products; and

(D) proper tire maintenance.

(b) **COOPERATION.**—The program carried out under subsection (a) shall—

(1) include collaborative efforts with State and local government officials and the private sector; and

(2) incorporate, to the maximum extent practicable, successful State and local public education programs.

(c) **REPORT.**—Not later than July 1, 2009, the Secretary shall submit to Congress a report describing the effectiveness of the program under this section.

(d) **TERMINATION OF AUTHORITY.**—The program carried out under this section shall terminate on December 31, 2010.

(e) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to carry out this section \$90,000,000 for each of fiscal years 2006 through 2010.

SEC. 135. ENERGY CONSERVATION STANDARDS FOR ADDITIONAL PRODUCTS.

(a) **DEFINITIONS.**—Section 321 of the Energy Policy and Conservation Act (42 U.S.C. 6291) is amended—

(1) in paragraph (29)—

(A) in subparagraph (D)—

(i) in clause (i), by striking “C78.1–1978(R1984)” and inserting “C78.81–2003 (Data Sheet 7881–ANSI–1010–1)”;

(ii) in clause (ii), by striking “C78.3–1978 (R1984)” and inserting “C78.81–2003 (Data Sheet 7881–ANSI–3007–1)”;

(iii) in clause (iii), by striking “C78.1–1978(R1984)” and inserting “C78.81–2003 (Data Sheet 7881–ANSI–1019–1)”;

(B) by adding at the end the following:

“(M) The term ‘F34T12 lamp’ (also known as a ‘F40T12/ES lamp’) means a nominal 34 watt tubular fluorescent lamp that is 48 inches in length and 1½ inches in diameter, and con-

forms to ANSI standard C78.81–2003 (Data Sheet 7881–ANSI–1006–1).

“(N) The term ‘F96T12/ES lamp’ means a nominal 60 watt tubular fluorescent lamp that is 96 inches in length and 1½ inches in diameter, and conforms to ANSI standard C78.81–2003 (Data Sheet 7881–ANSI–3006–1).

“(O) The term ‘F96T12HO/ES lamp’ means a nominal 95 watt tubular fluorescent lamp that is 96 inches in length and 1½ inches in diameter, and conforms to ANSI standard C78.81–2003 (Data Sheet 7881–ANSI–1017–1).

“(P) The term ‘replacement ballast’ means a ballast that—

“(i) is designed for use to replace an existing ballast in a previously installed luminaire;

“(ii) is marked ‘FOR REPLACEMENT USE ONLY’;

“(iii) is shipped by the manufacturer in packages containing not more than 10 ballasts; and

“(iv) has output leads that when fully extended are a total length that is less than the length of the lamp with which the ballast is intended to be operated.”;

(2) in paragraph (30)(S)—

(A) by inserting “(i)” before “The term”; and

(B) by adding at the end the following:

“(ii) The term ‘medium base compact fluorescent lamp’ does not include—

“(I) any lamp that is—

“(aa) specifically designed to be used for special purpose applications; and

“(bb) unlikely to be used in general purpose applications, such as the applications described in subparagraph (D); or

“(II) any lamp not described in subparagraph (D) that is excluded by the Secretary, by rule, because the lamp is—

“(aa) designed for special applications; and

“(bb) unlikely to be used in general purpose applications.”; and

(3) by adding at the end the following:

“(32) The term ‘battery charger’ means a device that charges batteries for consumer products, including battery chargers embedded in other consumer products.

“(33)(A) The term ‘commercial prerinse spray valve’ means a handheld device designed and marketed for use with commercial dishwashing and ware washing equipment that sprays water on dishes, flatware, and other food service items for the purpose of removing food residue before cleaning the items.

“(B) The Secretary may modify the definition of ‘commercial prerinse spray valve’ by rule—

“(i) to include products—

“(I) that are extensively used in conjunction with commercial dishwashing and ware washing equipment;

“(II) the application of standards to which would result in significant energy savings; and

“(III) the application of standards to which would meet the criteria specified in section 325(o)(4); and

“(ii) to exclude products—

“(I) that are used for special food service applications;

“(II) that are unlikely to be widely used in conjunction with commercial dishwashing and ware washing equipment; and

“(III) the application of standards to which would not result in significant energy savings.

“(34) The term ‘dehumidifier’ means a self-contained, electrically operated, and mechanically encased assembly consisting of—

“(A) a refrigerated surface (evaporator) that condenses moisture from the atmosphere;

“(B) a refrigerating system, including an electric motor;

“(C) an air-circulating fan; and

“(D) means for collecting or disposing of the condensate.

“(35)(A) The term ‘distribution transformer’ means a transformer that—

“(i) has an input voltage of 34.5 kilovolts or less;

“(ii) has an output voltage of 600 volts or less; and

“(iii) is rated for operation at a frequency of 60 Hertz.

“(B) The term ‘distribution transformer’ does not include—

“(i) a transformer with multiple voltage taps, the highest of which equals at least 20 percent more than the lowest;

“(ii) a transformer that is designed to be used in a special purpose application and is unlikely to be used in general purpose applications, such as a drive transformer, rectifier transformer, auto-transformer, Uninterruptible Power System transformer, impedance transformer, regulating transformer, sealed and nonventilating transformer, machine tool transformer, welding transformer, grounding transformer, or testing transformer; or

“(iii) any transformer not listed in clause (ii) that is excluded by the Secretary by rule because—

“(I) the transformer is designed for a special application;

“(II) the transformer is unlikely to be used in general purpose applications; and

“(III) the application of standards to the transformer would not result in significant energy savings.

“(36) The term ‘external power supply’ means an external power supply circuit that is used to convert household electric current into DC current or lower-voltage AC current to operate a consumer product.

“(37) The term ‘illuminated exit sign’ means a sign that—

“(A) is designed to be permanently fixed in place to identify an exit; and

“(B) consists of an electrically powered integral light source that—

“(i) illuminates the legend ‘EXIT’ and any directional indicators; and

“(ii) provides contrast between the legend, any directional indicators, and the background.

“(38) The term ‘low-voltage dry-type distribution transformer’ means a distribution transformer that—

“(A) has an input voltage of 600 volts or less;

“(B) is air-cooled; and

“(C) does not use oil as a coolant.

“(39) The term ‘pedestrian module’ means a light signal used to convey movement information to pedestrians.

“(40) The term ‘refrigerated bottled or canned beverage vending machine’ means a commercial refrigerator that cools bottled or canned beverages and dispenses the bottled or canned beverages on payment.

“(41) The term ‘standby mode’ means the lowest power consumption mode, as established on an individual product basis by the Secretary, that—

“(A) cannot be switched off or influenced by the user;

and

“(B) may persist for an indefinite time when an appliance is—

“(i) connected to the main electricity supply; and

“(ii) used in accordance with the instructions of the manufacturer.

“(42) The term ‘torchiere’ means a portable electric lamp with a reflector bowl that directs light upward to give indirect illumination.

“(43) The term ‘traffic signal module’ means a standard 8-inch (200mm) or 12-inch (300mm) traffic signal indication that—

“(A) consists of a light source, a lens, and all other parts necessary for operation; and

“(B) communicates movement messages to drivers through red, amber, and green colors.

“(44) The term ‘transformer’ means a device consisting of 2 or more coils of insulated wire that transfers alternating current by electromagnetic induction from 1 coil to another to change the original voltage or current value.

“(45)(A) The term ‘unit heater’ means a self-contained fan-type heater designed to be installed within the heated space.

“(B) The term ‘unit heater’ does not include a warm air furnace.

“(46)(A) The term ‘high intensity discharge lamp’ means an electric-discharge lamp in which—

“(i) the light-producing arc is stabilized by bulb wall temperature; and

“(ii) the arc tube has a bulb wall loading in excess of 3 Watts/cm².

“(B) The term ‘high intensity discharge lamp’ includes mercury vapor, metal halide, and high-pressure sodium lamps described in subparagraph (A).

“(47)(A) The term ‘mercury vapor lamp’ means a high intensity discharge lamp in which the major portion of the light

is produced by radiation from mercury operating at a partial pressure in excess of 100,000 Pa (approximately 1 atm).

“(B) The term ‘mercury vapor lamp’ includes clear, phosphor-coated, and self-ballasted lamps described in subparagraph (A).

“(48) The term ‘mercury vapor lamp ballast’ means a device that is designed and marketed to start and operate mercury vapor lamps by providing the necessary voltage and current.

“(49) The term ‘ceiling fan’ means a nonportable device that is suspended from a ceiling for circulating air via the rotation of fan blades.

“(50) The term ‘ceiling fan light kit’ means equipment designed to provide light from a ceiling fan that can be—

“(A) integral, such that the equipment is attached to the ceiling fan prior to the time of retail sale; or

“(B) attachable, such that at the time of retail sale the equipment is not physically attached to the ceiling fan, but may be included inside the ceiling fan at the time of sale or sold separately for subsequent attachment to the fan.

“(51) The term ‘medium screw base’ means an Edison screw base identified with the prefix E-26 in the ‘American National Standard for Electric Lamp Bases’, ANSI/IEC C81.61-2003, published by the American National Standards Institute.”

(b) TEST PROCEDURES.—Section 323 of the Energy Policy and Conservation Act (42 U.S.C. 6293) is amended—

(1) in subsection (b), by adding at the end the following:

“(9) Test procedures for illuminated exit signs shall be based on the test method used under version 2.0 of the Energy Star program of the Environmental Protection Agency for illuminated exit signs.

“(10)(A) Test procedures for distribution transformers and low voltage dry-type distribution transformers shall be based on the ‘Standard Test Method for Measuring the Energy Consumption of Distribution Transformers’ prescribed by the National Electrical Manufacturers Association (NEMA TP 2-1998).

“(B) The Secretary may review and revise the test procedures established under subparagraph (A).

“(C) For purposes of section 346(a), the test procedures established under subparagraph (A) shall be considered to be the testing requirements prescribed by the Secretary under section 346(a)(1) for distribution transformers for which the Secretary makes a determination that energy conservation standards would—

“(i) be technologically feasible and economically justified;

and

“(ii) result in significant energy savings.

“(11) Test procedures for traffic signal modules and pedestrian modules shall be based on the test method used under the Energy Star program of the Environmental Protection Agency for traffic signal modules, as in effect on the date of enactment of this paragraph.

“(12)(A) Test procedures for medium base compact fluorescent lamps shall be based on the test methods for compact fluorescent

lamps used under the August 9, 2001, version of the Energy Star program of the Environmental Protection Agency and the Department of Energy.

“(B) Except as provided in subparagraph (C), medium base compact fluorescent lamps shall meet all test requirements for regulated parameters of section 325(cc).

“(C) Notwithstanding subparagraph (B), if manufacturers document engineering predictions and analysis that support expected attainment of lumen maintenance at 40 percent rated life and lamp lifetime, medium base compact fluorescent lamps may be marketed before completion of the testing of lamp life and lumen maintenance at 40 percent of rated life.

“(13) Test procedures for dehumidifiers shall be based on the test criteria used under the Energy Star Program Requirements for Dehumidifiers developed by the Environmental Protection Agency, as in effect on the date of enactment of this paragraph unless revised by the Secretary pursuant to this section.

“(14) The test procedure for measuring flow rate for commercial prerinse spray valves shall be based on American Society for Testing and Materials Standard F2324, entitled ‘Standard Test Method for Pre-Rinse Spray Valves’.

“(15) The test procedure for refrigerated bottled or canned beverage vending machines shall be based on American National Standards Institute/American Society of Heating, Refrigerating and Air-Conditioning Engineers Standard 32.1–2004, entitled ‘Methods of Testing for Rating Vending Machines for Bottled, Canned or Other Sealed Beverages’.

“(16)(A)(i) Test procedures for ceiling fans shall be based on the ‘Energy Star Testing Facility Guidance Manual: Building a Testing Facility and Performing the Solid State Test Method for ENERGY STAR Qualified Ceiling Fans, Version 1.1’ published by the Environmental Protection Agency.

“(ii) Test procedures for ceiling fan light kits shall be based on the test procedures referenced in the Energy Star specifications for Residential Light Fixtures and Compact Fluorescent Light Bulbs, as in effect on the date of enactment of this paragraph.

“(B) The Secretary may review and revise the test procedures established under subparagraph (A).”; and

(2) by adding at the end the following:

“(f) ADDITIONAL CONSUMER AND COMMERCIAL PRODUCTS.—(1) Not later than 2 years after the date of enactment of this subsection, the Secretary shall prescribe testing requirements for refrigerated bottled or canned beverage vending machines.

“(2) To the maximum extent practicable, the testing requirements prescribed under paragraph (1) shall be based on existing test procedures used in industry.”.

(c) STANDARD SETTING AUTHORITY.—Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295) is amended—

(1) in subsection (f)(3), by adding at the end the following:

“(D) Notwithstanding any other provision of this Act, if the requirements of subsection (o) are met, the Secretary may consider and prescribe energy conservation standards or energy use standards for electricity used for purposes of circulating air through duct work.”;

(2) in subsection (g)—
 (A) in paragraph (6)(B), by inserting “and labeled” after “designed”; and
 (B) by adding at the end the following:
 “(8)(A) Each fluorescent lamp ballast (other than replacement ballasts or ballasts described in subparagraph (C))—
 “(i)(I) manufactured on or after July 1, 2009;
 “(II) sold by the manufacturer on or after October 1, 2009;
 or
 “(III) incorporated into a luminaire by a luminaire manufacturer on or after July 1, 2010; and
 “(ii) designed—
 “(I) to operate at nominal input voltages of 120 or 277 volts;
 “(II) to operate with an input current frequency of 60 Hertz; and
 “(III) for use in connection with F34T12 lamps, F96T12/ES lamps, or F96T12HO/ES lamps;
 shall have a power factor of 0.90 or greater and shall have a ballast efficacy factor of not less than the following:”

“Application for operation of	Ballast input voltage	Total nominal lamp watts	Ballast efficacy factor
One F34T12 lamp	120/277	34	2.61
Two F34T12 lamps	120/277	68	1.35
Two F96T12/ES lamps	120/277	120	0.77
Two F96T12HO/ES lamps	120/277	190	0.42.

“(B) The standards described in subparagraph (A) shall apply to all ballasts covered by subparagraph (A)(ii) that are manufactured on or after July 1, 2010, or sold by the manufacturer on or after October 1, 2010.

“(C) The standards described in subparagraph (A) do not apply to—

“(i) a ballast that is designed for dimming to 50 percent or less of the maximum output of the ballast;

“(ii) a ballast that is designed for use with 2 F96T12HO lamps at ambient temperatures of 20°F or less and for use in an outdoor sign; or

“(iii) a ballast that has a power factor of less than 0.90 and is designed and labeled for use only in residential applications.”;

(3) in subsection (o), by adding at the end the following:

“(5) The Secretary may set more than 1 energy conservation standard for products that serve more than 1 major function by setting 1 energy conservation standard for each major function.”; and

(4) by adding at the end the following:

“(u) BATTERY CHARGER AND EXTERNAL POWER SUPPLY ELECTRIC ENERGY CONSUMPTION.—(1)(A) Not later than 18 months after the date of enactment of this subsection, the Secretary shall, after providing notice and an opportunity for comment, prescribe, by

rule, definitions and test procedures for the power use of battery chargers and external power supplies.

“(B) In establishing the test procedures under subparagraph (A), the Secretary shall—

“(i) consider existing definitions and test procedures used for measuring energy consumption in standby mode and other modes; and

“(ii) assess the current and projected future market for battery chargers and external power supplies.

“(C) The assessment under subparagraph (B)(ii) shall include—

“(i) estimates of the significance of potential energy savings from technical improvements to battery chargers and external power supplies; and

“(ii) suggested product classes for energy conservation standards.

“(D) Not later than 18 months after the date of enactment of this subsection, the Secretary shall hold a scoping workshop to discuss and receive comments on plans for developing energy conservation standards for energy use for battery chargers and external power supplies.

“(E)(i) Not later than 3 years after the date of enactment of this subsection, the Secretary shall issue a final rule that determines whether energy conservation standards shall be issued for battery chargers and external power supplies or classes of battery chargers and external power supplies.

“(ii) For each product class, any energy conservation standards issued under clause (i) shall be set at the lowest level of energy use that—

“(I) meets the criteria and procedures of subsections (o), (p), (q), (r), (s), and (t); and

“(II) would result in significant overall annual energy savings, considering standby mode and other operating modes.

“(2) In determining under section 323 whether test procedures and energy conservation standards under this section should be revised with respect to covered products that are major sources of standby mode energy consumption, the Secretary shall consider whether to incorporate standby mode into the test procedures and energy conservation standards, taking into account standby mode power consumption compared to overall product energy consumption.

“(3) The Secretary shall not propose an energy conservation standard under this section, unless the Secretary has issued applicable test procedures for each product under section 323.

“(4) Any energy conservation standard issued under this subsection shall be applicable to products manufactured or imported beginning on the date that is 3 years after the date of issuance.

“(5) The Secretary and the Administrator shall collaborate and develop programs (including programs under section 324A and other voluntary industry agreements or codes of conduct) that are designed to reduce standby mode energy use.

“(v) CEILING FANS AND REFRIGERATED BEVERAGE VENDING MACHINES.—(1) Not later than 1 year after the date of enactment of this subsection, the Secretary shall prescribe, by rule, test procedures and energy conservation standards for ceiling fans and ceil-

ing fan light kits. If the Secretary sets such standards, the Secretary shall consider exempting or setting different standards for certain product classes for which the primary standards are not technically feasible or economically justified, and establishing separate or exempted product classes for highly decorative fans for which air movement performance is a secondary design feature.

“(2) Not later than 4 years after the date of enactment of this subsection, the Secretary shall prescribe, by rule, energy conservation standards for refrigerated bottle or canned beverage vending machines.

“(3) In establishing energy conservation standards under this subsection, the Secretary shall use the criteria and procedures prescribed under subsections (o) and (p).

“(4) Any energy conservation standard prescribed under this subsection shall apply to products manufactured 3 years after the date of publication of a final rule establishing the energy conservation standard.

“(w) ILLUMINATED EXIT SIGNS.—An illuminated exit sign manufactured on or after January 1, 2006, shall meet the version 2.0 Energy Star Program performance requirements for illuminated exit signs prescribed by the Environmental Protection Agency.

“(x) TORCHIERES.—A torchiere manufactured on or after January 1, 2006—

“(1) shall consume not more than 190 watts of power; and

“(2) shall not be capable of operating with lamps that total more than 190 watts.

“(y) LOW VOLTAGE DRY-TYPE DISTRIBUTION TRANSFORMERS.—The efficiency of a low voltage dry-type distribution transformer manufactured on or after January 1, 2007, shall be the Class I Efficiency Levels for distribution transformers specified in table 4–2 of the ‘Guide for Determining Energy Efficiency for Distribution Transformers’ published by the National Electrical Manufacturers Association (NEMA TP–1–2002).

“(z) TRAFFIC SIGNAL MODULES AND PEDESTRIAN MODULES.—Any traffic signal module or pedestrian module manufactured on or after January 1, 2006, shall—

“(1) meet the performance requirements used under the Energy Star program of the Environmental Protection Agency for traffic signals, as in effect on the date of enactment of this subsection; and

“(2) be installed with compatible, electrically connected signal control interface devices and conflict monitoring systems.

“(aa) UNIT HEATERS.—A unit heater manufactured on or after the date that is 3 years after the date of enactment of this subsection shall—

“(1) be equipped with an intermittent ignition device; and

“(2) have power venting or an automatic flue damper.

“(bb) MEDIUM BASE COMPACT FLUORESCENT LAMPS.—(1) A bare lamp and covered lamp (no reflector) medium base compact fluorescent lamp manufactured on or after January 1, 2006, shall meet the following requirements prescribed by the August 9, 2001, version of the Energy Star Program Requirements for Compact Fluorescent Lamps, Energy Star Eligibility Criteria, Energy-Effi-

ciency Specification issued by the Environmental Protection Agency and Department of Energy:

- “(A) Minimum initial efficacy.
- “(B) Lumen maintenance at 1000 hours.
- “(C) Lumen maintenance at 40 percent of rated life.
- “(D) Rapid cycle stress test.
- “(E) Lamp life.

“(2) The Secretary may, by rule, establish requirements for color quality (CRI), power factor, operating frequency, and maximum allowable start time based on the requirements prescribed by the August 9, 2001, version of the Energy Star Program Requirements for Compact Fluorescent Lamps.

“(3) The Secretary may, by rule—

“(A) revise the requirements established under paragraph (2); or

“(B) establish other requirements, after considering energy savings, cost effectiveness, and consumer satisfaction.

“(cc) DEHUMIDIFIERS.—(1) Dehumidifiers manufactured on or after October 1, 2007, shall have an Energy Factor that meets or exceeds the following values:

“Product Capacity (pints/day):	Minimum Energy Factor (Liters/kWh)
25.00 or less	1.00
25.01 – 35.00	1.20
35.01 – 54.00	1.30
54.01 – 74.99	1.50
75.00 or more	2.25.

“(2)(A) Not later than October 1, 2009, the Secretary shall publish a final rule in accordance with subsections (o) and (p), to determine whether the energy conservation standards established under paragraph (1) should be amended.

“(B) The final rule published under subparagraph (A) shall—

- “(i) contain any amendment by the Secretary; and
- “(ii) provide that the amendment applies to products manufactured on or after October 1, 2012.

“(C) If the Secretary does not publish an amendment that takes effect by October 1, 2012, dehumidifiers manufactured on or after October 1, 2012, shall have an Energy Factor that meets or exceeds the following values:

“Product Capacity (pints/day):	Minimum Energy Factor (Liters/kWh)
25.00 or less	1.20
25.01 – 35.00	1.30
35.01 – 45.00	1.40
45.01 – 54.00	1.50
54.01 – 74.99	1.60
75.00 or more	2.5.

“(dd) COMMERCIAL PRERINSE SPRAY VALVES.—Commercial prerinse spray valves manufactured on or after January 1, 2006, shall have a flow rate of not more than 1.6 gallons per minute.

“(ee) MERCURY VAPOR LAMP BALLASTS.—Mercury vapor lamp ballasts shall not be manufactured or imported after January 1, 2008.

“(ff) CEILING FANS AND CEILING FAN LIGHT KITS.—(1)(A) All ceiling fans manufactured on or after January 1, 2007, shall have the following features:

- “(i) Fan speed controls separate from any lighting controls.

“(ii) Adjustable speed controls (either more than 1 speed or variable speed).

“(iii) Adjustable speed controls (either more than 1 speed or variable speed).

“(iv) The capability of reversible fan action, except for—

“(I) fans sold for industrial applications;

“(II) outdoor applications; and

“(III) cases in which safety standards would be violated by the use of the reversible mode.

“(B) The Secretary may define the exceptions described in clause (iv) in greater detail, but shall not substantively expand the exceptions.

“(2)(A) Ceiling fan light kits with medium screw base sockets manufactured on or after January 1, 2007, shall be packaged with screw-based lamps to fill all screw base sockets.

“(B) The screw-based lamps required under subparagraph (A) shall—

“(i) meet the Energy Star Program Requirements for Compact Fluorescent Lamps, version 3.0, issued by the Department of Energy; or

“(ii) use light sources other than compact fluorescent lamps that have lumens per watt performance at least equivalent to comparably configured compact fluorescent lamps meeting the Energy Star Program Requirements described in clause (i).

“(3) Ceiling fan light kits with pin-based sockets for fluorescent lamps manufactured on or after January 1, 2007 shall—

“(A) meet the Energy Star Program Requirements for Residential Light Fixtures version 4.0 issued by the Environmental Protection Agency; and

“(B) be packaged with lamps to fill all sockets.

“(4)(A) By January 1, 2007, the Secretary shall consider and issue requirements for any ceiling fan lighting kits other than those covered in paragraphs (2) and (3), including candelabra screw base sockets.

“(B) The requirements issued under subparagraph (A) shall be effective for products manufactured 2 years after the date of the final rule.

“(C) If the Secretary fails to issue a final rule by the date specified in subparagraph (B), any type of ceiling fan lighting kit described in subparagraph (A) that is manufactured after January 1, 2009—

“(i) shall not be capable of operating with lamps that total more than 190 watts; and

“(ii) shall include the lamps described in clause (i) in the ceiling fan lighting kits.

“(5)(A) After January 1, 2010, the Secretary may consider, and issue, if the requirements of subsections (o) and (p) are met, amended energy efficiency standards for ceiling fan light kits.

“(B) Any amended standards issued under subparagraph (A) shall apply to products manufactured not earlier than 2 years after the date of publication of the final rule establishing the amended standard.

“(6)(A) Notwithstanding any other provision of this Act, the Secretary may consider, and issue, if the requirements of subsections (o) and (p) are met, energy efficiency or energy use standards for electricity used by ceiling fans to circulate air in a room.

“(B) In issuing the standards under subparagraph (A), the Secretary shall consider—

“(C) exempting, or setting different standards for, certain product classes for which the primary standards are not technically feasible or economically justified; and

“(D) establishing separate exempted product classes for highly decorative fans for which air movement performance is a secondary design feature.

“(7) Section 327 shall apply to the products covered in paragraphs (1) through (4) beginning on the date of enactment of this subsection, except that any State or local labeling requirement for ceiling fans prescribed or enacted before the date of enactment of this subsection shall not be preempted until the labeling requirements applicable to ceiling fans established under section 327 take effect.

“(gg) APPLICATION DATE.—Section 327 applies—

“(1) to products for which energy conservation standards are to be established under subsection (l), (u), or (v) beginning on the date on which a final rule is issued by the Secretary, except that any State or local standard prescribed or enacted for the product before the date on which the final rule is issued shall not be preempted until the energy conservation standard established under subsection (l), (u), or (v) for the product takes effect; and

“(2) to products for which energy conservation standards are established under subsections (w) through (ff) on the date of enactment of those subsections, except that any State or local standard prescribed or enacted before the date of enactment of those subsections shall not be preempted until the energy conservation standards established under subsections (w) through (ff) take effect.”.

(d) GENERAL RULE OF PREEMPTION.—Section 327(c) of the Energy Policy and Conservation Act (42 U.S.C. 6297(c)) is amended—

(1) in paragraph (5), by striking “or” at the end;

(2) in paragraph (6), by striking the period at the end and inserting “; or”; and

(3) by adding at the end the following:

“(7)(A) is a regulation concerning standards for commercial prerinse spray valves adopted by the California Energy Commission before January 1, 2005; or

“(B) is an amendment to a regulation described in subparagraph (A) that was developed to align California regulations with changes in American Society for Testing and Materials Standard F2324;

“(8)(A) is a regulation concerning standards for pedestrian modules adopted by the California Energy Commission before January 1, 2005; or

“(B) is an amendment to a regulation described in subparagraph (A) that was developed to align California regulations to changes in the Institute for Transportation Engineers

standards, entitled 'Performance Specification: Pedestrian Traffic Control Signal Indications'.".

SEC. 136. ENERGY CONSERVATION STANDARDS FOR COMMERCIAL EQUIPMENT.

(a) **DEFINITIONS.**—Section 340 of the Energy Policy and Conservation Act (42 U.S.C. 6311) is amended—

(1) in paragraph (1)—

(A) by redesignating subparagraphs (D) through (G) as subparagraphs (H) through (K), respectively; and

(B) by inserting after subparagraph (C) the following:

“(D) Very large commercial package air conditioning and heating equipment.

“(E) Commercial refrigerators, freezers, and refrigerator-freezers.

“(F) Automatic commercial ice makers.

“(G) Commercial clothes washers.”;

(2) in paragraph (2)(B), by striking “small and large commercial package air conditioning and heating equipment” and inserting “commercial package air conditioning and heating equipment, commercial refrigerators, freezers, and refrigerator-freezers, automatic commercial ice makers, commercial clothes washers”;

(3) by striking paragraphs (8) and (9) and inserting the following:

“(8)(A) The term ‘commercial package air conditioning and heating equipment’ means air-cooled, water-cooled, evaporatively-cooled, or water source (not including ground water source) electrically operated, unitary central air conditioners and central air conditioning heat pumps for commercial application.

“(B) The term ‘small commercial package air conditioning and heating equipment’ means commercial package air conditioning and heating equipment that is rated below 135,000 Btu per hour (cooling capacity).

“(C) The term ‘large commercial package air conditioning and heating equipment’ means commercial package air conditioning and heating equipment that is rated—

“(i) at or above 135,000 Btu per hour; and

“(ii) below 240,000 Btu per hour (cooling capacity).

“(D) The term ‘very large commercial package air conditioning and heating equipment’ means commercial package air conditioning and heating equipment that is rated—

“(i) at or above 240,000 Btu per hour; and

“(ii) below 760,000 Btu per hour (cooling capacity).

“(9)(A) The term ‘commercial refrigerator, freezer, and refrigerator-freezer’ means refrigeration equipment that—

“(i) is not a consumer product (as defined in section 321);

“(ii) is not designed and marketed exclusively for medical, scientific, or research purposes;

“(iii) operates at a chilled, frozen, combination chilled and frozen, or variable temperature;

“(iv) displays or stores merchandise and other perishable materials horizontally, semivertically, or vertically;

“(v) has transparent or solid doors, sliding or hinged doors, a combination of hinged, sliding, transparent, or solid doors, or no doors;

“(vi) is designed for pull-down temperature applications or holding temperature applications; and

“(vii) is connected to a self-contained condensing unit or to a remote condensing unit.

“(B) The term ‘holding temperature application’ means a use of commercial refrigeration equipment other than a pull-down temperature application, except a blast chiller or freezer.

“(C) The term ‘integrated average temperature’ means the average temperature of all test package measurements taken during the test.

“(D) The term ‘pull-down temperature application’ means a commercial refrigerator with doors that, when fully loaded with 12 ounce beverage cans at 90 degrees F, can cool those beverages to an average stable temperature of 38 degrees F in 12 hours or less.

“(E) The term ‘remote condensing unit’ means a factory-made assembly of refrigerating components designed to compress and liquefy a specific refrigerant that is remotely located from the refrigerated equipment and consists of one or more refrigerant compressors, refrigerant condensers, condenser fans and motors, and factory supplied accessories.

“(F) The term ‘self-contained condensing unit’ means a factory-made assembly of refrigerating components designed to compress and liquefy a specific refrigerant that is an integral part of the refrigerated equipment and consists of one or more refrigerant compressors, refrigerant condensers, condenser fans and motors, and factory supplied accessories.”; and

(4) by adding at the end the following:

“(19) The term ‘automatic commercial ice maker’ means a factory-made assembly (not necessarily shipped in one package) that—

“(A) consists of a condensing unit and ice-making section operating as an integrated unit, with means for making and harvesting ice; and

“(B) may include means for storing ice, dispensing ice, or storing and dispensing ice.

“(20) The term ‘commercial clothes washer’ means a soft-mount front-loading or soft-mount top-loading clothes washer that—

“(A) has a clothes container compartment that—

“(i) for horizontal-axis clothes washers, is not more than 3.5 cubic feet; and

“(ii) for vertical-axis clothes washers, is not more than 4.0 cubic feet; and

“(B) is designed for use in—

“(i) applications in which the occupants of more than one household will be using the clothes washer, such as multi-family housing common areas and coin laundries; or

“(ii) other commercial applications.

- “(21) The term ‘harvest rate’ means the amount of ice (at 32 degrees F) in pounds produced per 24 hours.”.
- (b) STANDARDS FOR COMMERCIAL PACKAGE AIR CONDITIONING AND HEATING EQUIPMENT.—Section 342(a) of the Energy Policy and Conservation Act (42 U.S.C. 6313(a)) is amended—
- (1) in the subsection heading, by striking “SMALL AND LARGE” and inserting “SMALL, LARGE, AND VERY LARGE”;
 - (2) in paragraph (1), by inserting “but before January 1, 2010,” after “January 1, 1994,”;
 - (3) in paragraph (2), by inserting “but before January 1, 2010,” after “January 1, 1995,”; and
 - (4) in paragraph (6)—
 - (A) in subparagraph (A)—
 - (i) by inserting “(i)” after “(A)”;
 - (ii) by striking “the date of enactment of the Energy Policy Act of 1992” and inserting “January 1, 2010”;
 - (iii) by inserting after “large commercial package air conditioning and heating equipment,” the following: “and very large commercial package air conditioning and heating equipment, or if ASHRAE/IES Standard 90.1, as in effect on October 24, 1992, is amended with respect to any”; and
 - (iv) by adding at the end the following:

“(ii) If ASHRAE/IES Standard 90.1 is not amended with respect to small commercial package air conditioning and heating equipment, large commercial package air conditioning and heating equipment, and very large commercial package air conditioning and heating equipment during the 5-year period beginning on the effective date of a standard, the Secretary may initiate a rule-making to determine whether a more stringent standard—

“(I) would result in significant additional conservation of energy; and

“(II) is technologically feasible and economically justified.”;

and
 - (B) in subparagraph (C)(ii), by inserting “and very large commercial package air conditioning and heating equipment” after “large commercial package air conditioning and heating equipment”; and
 - (5) by adding at the end the following:

“(7) Small commercial package air conditioning and heating equipment manufactured on or after January 1, 2010, shall meet the following standards:

“(A) The minimum energy efficiency ratio of air-cooled central air conditioners at or above 65,000 Btu per hour (cooling capacity) and less than 135,000 Btu per hour (cooling capacity) shall be—

“(i) 11.2 for equipment with no heating or electric resistance heating; and

“(ii) 11.0 for equipment with all other heating system types that are integrated into the equipment (at a standard rating of 95 degrees F db).

“(B) The minimum energy efficiency ratio of air-cooled central air conditioner heat pumps at or above 65,000 Btu per

hour (cooling capacity) and less than 135,000 Btu per hour (cooling capacity) shall be—

“(i) 11.0 for equipment with no heating or electric resistance heating; and

“(ii) 10.8 for equipment with all other heating system types that are integrated into the equipment (at a standard rating of 95 degrees F db).

“(C) The minimum coefficient of performance in the heating mode of air-cooled central air conditioning heat pumps at or above 65,000 Btu per hour (cooling capacity) and less than 135,000 Btu per hour (cooling capacity) shall be 3.3 (at a high temperature rating of 47 degrees F db).

“(8) Large commercial package air conditioning and heating equipment manufactured on or after January 1, 2010, shall meet the following standards:

“(A) The minimum energy efficiency ratio of air-cooled central air conditioners at or above 135,000 Btu per hour (cooling capacity) and less than 240,000 Btu per hour (cooling capacity) shall be—

“(i) 11.0 for equipment with no heating or electric resistance heating; and

“(ii) 10.8 for equipment with all other heating system types that are integrated into the equipment (at a standard rating of 95 degrees F db).

“(B) The minimum energy efficiency ratio of air-cooled central air conditioner heat pumps at or above 135,000 Btu per hour (cooling capacity) and less than 240,000 Btu per hour (cooling capacity) shall be—

“(i) 10.6 for equipment with no heating or electric resistance heating; and

“(ii) 10.4 for equipment with all other heating system types that are integrated into the equipment (at a standard rating of 95 degrees F db).

“(C) The minimum coefficient of performance in the heating mode of air-cooled central air conditioning heat pumps at or above 135,000 Btu per hour (cooling capacity) and less than 240,000 Btu per hour (cooling capacity) shall be 3.2 (at a high temperature rating of 47 degrees F db).

“(9) Very large commercial package air conditioning and heating equipment manufactured on or after January 1, 2010, shall meet the following standards:

“(A) The minimum energy efficiency ratio of air-cooled central air conditioners at or above 240,000 Btu per hour (cooling capacity) and less than 760,000 Btu per hour (cooling capacity) shall be—

“(i) 10.0 for equipment with no heating or electric resistance heating; and

“(ii) 9.8 for equipment with all other heating system types that are integrated into the equipment (at a standard rating of 95 degrees F db).

“(B) The minimum energy efficiency ratio of air-cooled central air conditioner heat pumps at or above 240,000 Btu per hour (cooling capacity) and less than 760,000 Btu per hour (cooling capacity) shall be—

“(i) 9.5 for equipment with no heating or electric resistance heating; and

“(ii) 9.3 for equipment with all other heating system types that are integrated into the equipment (at a standard rating of 95 degrees F db).

“(C) The minimum coefficient of performance in the heating mode of air-cooled central air conditioning heat pumps at or above 240,000 Btu per hour (cooling capacity) and less than 760,000 Btu per hour (cooling capacity) shall be 3.2 (at a high temperature rating of 47 degrees F db).”.

(c) STANDARDS FOR COMMERCIAL REFRIGERATORS, FREEZERS, AND REFRIGERATOR-FREEZERS.—Section 342 of the Energy Policy and Conservation Act (42 U.S.C. 6313) is amended by adding at the end the following:

“(c) COMMERCIAL REFRIGERATORS, FREEZERS, AND REFRIGERATOR-FREEZERS.—(1) In this subsection:

“(A) The term ‘AV’ means the adjusted volume (ft³) (defined as 1.63 x frozen temperature compartment volume (ft³) + chilled temperature compartment volume (ft³)) with compartment volumes measured in accordance with the Association of Home Appliance Manufacturers Standard HRF1–1979.

“(B) The term ‘V’ means the chilled or frozen compartment volume (ft³) (as defined in the Association of Home Appliance Manufacturers Standard HRF1–1979).

“(C) Other terms have such meanings as may be established by the Secretary, based on industry-accepted definitions and practice.

“(2) Each commercial refrigerator, freezer, and refrigerator-freezer with a self-contained condensing unit designed for holding temperature applications manufactured on or after January 1, 2010, shall have a daily energy consumption (in kilowatt hours per day) that does not exceed the following:

Refrigerators with solid doors	0.10 V + 2.04
Refrigerators with transparent doors	0.12 V + 3.34
Freezers with solid doors	0.40 V + 1.38
Freezers with transparent doors	0.75 V + 4.10
Refrigerators/freezers with solid doors the greater of.	0.27 AV – 0.71 or 0.70.

“(3) Each commercial refrigerator with a self-contained condensing unit designed for pull-down temperature applications and transparent doors manufactured on or after January 1, 2010, shall have a daily energy consumption (in kilowatt hours per day) of not more than 0.126 V + 3.51.

“(4)(A) Not later than January 1, 2009, the Secretary shall issue, by rule, standard levels for ice-cream freezers, self-contained commercial refrigerators, freezers, and refrigerator-freezers without doors, and remote condensing commercial refrigerators, freezers, and refrigerator-freezers, with the standard levels effective for equipment manufactured on or after January 1, 2012.

“(B) The Secretary may issue, by rule, standard levels for other types of commercial refrigerators, freezers, and refrigerator-freezers

not covered by paragraph (2)(A) with the standard levels effective for equipment manufactured 3 or more years after the date on which the final rule is published.

“(5)(A) Not later than January 1, 2013, the Secretary shall issue a final rule to determine whether the standards established under this subsection should be amended.

“(B) Not later than 3 years after the effective date of any amended standards under subparagraph (A) or the publication of a final rule determining that the standards should not be amended, the Secretary shall issue a final rule to determine whether the standards established under this subsection or the amended standards, as applicable, should be amended.

“(C) If the Secretary issues a final rule under subparagraph (A) or (B) establishing amended standards, the final rule shall provide that the amended standards apply to products manufactured on or after the date that is—

“(i) 3 years after the date on which the final amended standard is published; or

“(ii) if the Secretary determines, by rule, that 3 years is inadequate, not later than 5 years after the date on which the final rule is published.”.

(d) STANDARDS FOR AUTOMATIC COMMERCIAL ICE MAKERS.—Section 342 of the Energy Policy and Conservation Act (42 U.S.C. 6313) (as amended by subsection (c)) is amended by adding at the end the following:

“(d) AUTOMATIC COMMERCIAL ICE MAKERS.—(1) Each automatic commercial ice maker that produces cube type ice with capacities between 50 and 2500 pounds per 24-hour period when tested according to the test standard established in section 343(a)(7) and is manufactured on or after January 1, 2010, shall meet the following standard levels:”

Equipment Type	Type of Cooling	Harvest Rate (lbs ice/24 hours)	Maximum Energy Use (kWh/100 lbs ice)	Maximum Condenser Water Use (gal/100 lbs ice)
Ice Making Head	Water	<500	7.80–0.0055H	200–0.022H
		≥500 and <1436	5.58–0.0011H	200–0.022H
		≥1436	4.0	200–0.022H
Ice Making Head	Air	<450	10.26–0.0086H	Not Applicable
		≥450	6.89–0.0011H	Not Applicable
Remote Condensing (but not remote compressor)	Air	<1000	8.85–0.0038H	Not Applicable
		≥1000	5.10	Not Applicable
Remote Condensing and Remote Compressor	Air	<934	8.85–0.0038H	Not Applicable
		≥934	5.3	Not Applicable
Self Contained	Water	<200	11.40–0.019H	191–0.0315H
		≥200	7.60	191–0.0315H
Self Contained	Air	<175	18.0–0.0469H	Not Applicable
		≥175	9.80	Not Applicable

H = Harvest rate in pounds per 24 hours.
Water use is for the condenser only and does not include potable water used to make ice.

“(2)(A) The Secretary may issue, by rule, standard levels for types of automatic commercial ice makers that are not covered by paragraph (1).

“(B) The standards established under subparagraph (A) shall apply to products manufactured on or after the date that is—

“(i) 3 years after the date on which the rule is published under subparagraph (A); or

“(ii) if the Secretary determines, by rule, that 3 years is inadequate, not later than 5 years after the date on which the final rule is published.

“(3)(A) Not later than January 1, 2015, with respect to the standards established under paragraph (1), and, with respect to the standards established under paragraph (2), not later than 5 years after the date on which the standards take effect, the Secretary shall issue a final rule to determine whether amending the applicable standards is technologically feasible and economically justified.

“(B) Not later than 5 years after the effective date of any amended standards under subparagraph (A) or the publication of a final rule determining that amending the standards is not technologically feasible or economically justified, the Secretary shall issue a final rule to determine whether amending the standards established under paragraph (1) or the amended standards, as applicable, is technologically feasible or economically justified.

“(C) If the Secretary issues a final rule under subparagraph (A) or (B) establishing amended standards, the final rule shall provide that the amended standards apply to products manufactured on or after the date that is—

“(i) 3 years after the date on which the final amended standard is published; or

“(ii) if the Secretary determines, by rule, that 3 years is inadequate, not later than 5 years after the date on which the final amended standard is published.

“(4) A final rule issued under paragraph (2) or (3) shall establish standards at the maximum level that is technically feasible and economically justified, as provided in subsections (o) and (p) of section 325.”

(e) STANDARDS FOR COMMERCIAL CLOTHES WASHERS.—Section 342 of the Energy Policy and Conservation Act (42 U.S.C. 6313) (as amended by subsection (d)) is amended by adding at the end the following:

“(e) COMMERCIAL CLOTHES WASHERS.—(1) Each commercial clothes washer manufactured on or after January 1, 2007, shall have—

“(A) a Modified Energy Factor of at least 1.26; and

“(B) a Water Factor of not more than 9.5.

“(2)(A)(i) Not later than January 1, 2010, the Secretary shall publish a final rule to determine whether the standards established under paragraph (1) should be amended.

“(ii) The rule published under clause (i) shall provide that any amended standard shall apply to products manufactured 3 years after the date on which the final amended standard is published.

“(B)(i) Not later than January 1, 2015, the Secretary shall publish a final rule to determine whether the standards established under paragraph (1) should be amended.

“(ii) The rule published under clause (i) shall provide that any amended standard shall apply to products manufactured 3 years after the date on which the final amended standard is published.”.

(f) TEST PROCEDURES.—Section 343 of the Energy Policy and Conservation Act (42 U.S.C. 6314) is amended—

(1) in subsection (a)—

(A) in paragraph (4)—

(i) in subparagraph (A), by inserting “very large commercial package air conditioning and heating equipment,” after “large commercial package air conditioning and heating equipment,”; and

(ii) in subparagraph (B), by inserting “very large commercial package air conditioning and heating equipment,” after “large commercial package air conditioning and heating equipment,”; and

(B) by adding at the end the following:

“(6)(A)(i) In the case of commercial refrigerators, freezers, and refrigerator-freezers, the test procedures shall be—

“(I) the test procedures determined by the Secretary to be generally accepted industry testing procedures; or

“(II) rating procedures developed or recognized by the ASHRAE or by the American National Standards Institute.

“(ii) In the case of self-contained refrigerators, freezers, and refrigerator-freezers to which standards are applicable under paragraphs (2) and (3) of section 342(c), the initial test procedures shall be the ASHRAE 117 test procedure that is in effect on January 1, 2005.

“(B)(i) In the case of commercial refrigerators, freezers, and refrigerator-freezers with doors covered by the standards adopted in February 2002, by the California Energy Commission, the rating temperatures shall be the integrated average temperature of 38 degrees F (\pm 2 degrees F) for refrigerator compartments and 0 degrees F (\pm 2 degrees F) for freezer compartments.

“(C) The Secretary shall issue a rule in accordance with paragraphs (2) and (3) to establish the appropriate rating temperatures for the other products for which standards will be established under section 342(c)(4).

“(D) In establishing the appropriate test temperatures under this subparagraph, the Secretary shall follow the procedures and meet the requirements under section 323(e).

“(E)(i) Not later than 180 days after the publication of the new ASHRAE 117 test procedure, if the ASHRAE 117 test procedure for commercial refrigerators, freezers, and refrigerator-freezers is amended, the Secretary shall, by rule, amend the test procedure for the product as necessary to ensure that the test procedure is consistent with the amended ASHRAE 117 test procedure, unless the Secretary makes a determination, by rule, and supported by clear and convincing evidence, that to do so would not meet the requirements for test procedures under paragraphs (2) and (3).

“(ii) If the Secretary determines that 180 days is an insufficient period during which to review and adopt the amended test procedure or rating procedure under clause (i), the Secretary shall publish a notice in the Federal Register stating the intent of the Sec-

retary to wait not longer than 1 additional year before putting into effect an amended test procedure or rating procedure.

“(F)(i) If a test procedure other than the ASHRAE 117 test procedure is approved by the American National Standards Institute, the Secretary shall, by rule—

“(I) review the relative strengths and weaknesses of the new test procedure relative to the ASHRAE 117 test procedure; and

“(II) based on that review, adopt one new test procedure for use in the standards program.

“(ii) If a new test procedure is adopted under clause (i)—

“(I) section 323(e) shall apply; and

“(II) subparagraph (B) shall apply to the adopted test procedure.

“(7)(A) In the case of automatic commercial ice makers, the test procedures shall be the test procedures specified in Air-Conditioning and Refrigeration Institute Standard 810–2003, as in effect on January 1, 2005.

“(B)(i) If Air-Conditioning and Refrigeration Institute Standard 810–2003 is amended, the Secretary shall amend the test procedures established in subparagraph (A) as necessary to be consistent with the amended Air-Conditioning and Refrigeration Institute Standard, unless the Secretary determines, by rule, published in the Federal Register and supported by clear and convincing evidence, that to do so would not meet the requirements for test procedures under paragraphs (2) and (3).

“(ii) If the Secretary issues a rule under clause (i) containing a determination described in clause (ii), the rule may establish an amended test procedure for the product that meets the requirements of paragraphs (2) and (3).

“(C) The Secretary shall comply with section 323(e) in establishing any amended test procedure under this paragraph.

“(8) With respect to commercial clothes washers, the test procedures shall be the same as the test procedures established by the Secretary for residential clothes washers under section 325(g).”; and

(2) in subsection (d)(1), by inserting “very large commercial package air conditioning and heating equipment, commercial refrigerators, freezers, and refrigerator-freezers, automatic commercial ice makers, commercial clothes washers,” after “large commercial package air conditioning and heating equipment,”.

(g) LABELING.—Section 344(e) of the Energy Policy and Conservation Act (42 U.S.C. 6315(e)) is amended by inserting “very large commercial package air conditioning and heating equipment, commercial refrigerators, freezers, and refrigerator-freezers, automatic commercial ice makers, commercial clothes washers,” after “large commercial package air conditioning and heating equipment,” each place it appears.

(h) ADMINISTRATION, PENALTIES, ENFORCEMENT, AND PREEMPTION.—Section 345 of the Energy Policy and Conservation Act (42 U.S.C. 6316) is amended—

(1) in subsection (a)—

(A) in paragraph (7), by striking “and” at the end;

(B) in paragraph (8), by striking the period at the end and inserting “; and”; and

(C) by adding at the end the following:

“(9) in the case of commercial clothes washers, section 327(b)(1) shall be applied as if the National Appliance Energy Conservation Act of 1987 was the Energy Policy Act of 2005.”;

(2) in the first sentence of subsection (b)(1), by striking “part B” and inserting “part A”; and

(3) by adding at the end the following:

“(d)(1) Except as provided in paragraphs (2) and (3), section 327 shall apply with respect to very large commercial package air conditioning and heating equipment to the same extent and in the same manner as section 327 applies under part A on the date of enactment of this subsection.

“(2) Any State or local standard issued before the date of enactment of this subsection shall not be preempted until the standards established under section 342(a)(9) take effect on January 1, 2010.

“(e)(1)(A) Subsections (a), (b), and (d) of section 326, subsections (m) through (s) of section 325, and sections 328 through 336 shall apply with respect to commercial refrigerators, freezers, and refrigerator-freezers to the same extent and in the same manner as those provisions apply under part A.

“(B) In applying those provisions to commercial refrigerators, freezers, and refrigerator-freezers, paragraphs (1), (2), (3), and (4) of subsection (a) shall apply.

“(2)(A) Section 327 shall apply to commercial refrigerators, freezers, and refrigerator-freezers for which standards are established under paragraphs (2) and (3) of section 342(c) to the same extent and in the same manner as those provisions apply under part A on the date of enactment of this subsection, except that any State or local standard issued before the date of enactment of this subsection shall not be preempted until the standards established under paragraphs (2) and (3) of section 342(c) take effect.

“(B) In applying section 327 in accordance with subparagraph (A), paragraphs (1), (2), and (3) of subsection (a) shall apply.

“(3)(A) Section 327 shall apply to commercial refrigerators, freezers, and refrigerator-freezers for which standards are established under section 342(c)(4) to the same extent and in the same manner as the provisions apply under part A on the date of publication of the final rule by the Secretary, except that any State or local standard issued before the date of publication of the final rule by the Secretary shall not be preempted until the standards take effect.

“(B) In applying section 327 in accordance with subparagraph (A), paragraphs (1), (2), and (3) of subsection (a) shall apply.

“(4)(A) If the Secretary does not issue a final rule for a specific type of commercial refrigerator, freezer, or refrigerator-freezer within the time frame specified in section 342(c)(5), subsections (b) and (c) of section 327 shall not apply to that specific type of refrigerator, freezer, or refrigerator-freezer for the period beginning on the date that is 2 years after the scheduled date for a final rule and ending on the date on which the Secretary publishes a final rule covering the specific type of refrigerator, freezer, or refrigerator-freezer.

“(B) Any State or local standard issued before the date of publication of the final rule shall not be preempted until the final rule takes effect.

“(5)(A) In the case of any commercial refrigerator, freezer, or refrigerator-freezer to which standards are applicable under paragraphs (2) and (3) of section 342(c), the Secretary shall require manufacturers to certify, through an independent, nationally recognized testing or certification program, that the commercial refrigerator, freezer, or refrigerator-freezer meets the applicable standard.

“(B) The Secretary shall, to the maximum extent practicable, encourage the establishment of at least 2 independent testing and certification programs.

“(C) As part of certification, information on equipment energy use and interior volume shall be made available to the Secretary.

“(f)(1)(A)(i) Except as provided in clause (ii), section 327 shall apply to automatic commercial ice makers for which standards have been established under section 342(d)(1) to the same extent and in the same manner as the section applies under part A on the date of enactment of this subsection.

“(ii) Any State standard issued before the date of enactment of this subsection shall not be preempted until the standards established under section 342(d)(1) take effect.

“(B) In applying section 327 to the equipment under subparagraph (A), paragraphs (1), (2), and (3) of subsection (a) shall apply.

“(2)(A)(i) Except as provided in clause (ii), section 327 shall apply to automatic commercial ice makers for which standards have been established under section 342(d)(2) to the same extent and in the same manner as the section applies under part A on the date of publication of the final rule by the Secretary.

“(ii) Any State standard issued before the date of publication of the final rule by the Secretary shall not be preempted until the standards established under section 342(d)(2) take effect.

“(B) In applying section 327 in accordance with subparagraph (A), paragraphs (1), (2), and (3) of subsection (a) shall apply.

“(3)(A) If the Secretary does not issue a final rule for a specific type of automatic commercial ice maker within the time frame specified in section 342(d), subsections (b) and (c) of section 327 shall no longer apply to the specific type of automatic commercial ice maker for the period beginning on the day after the scheduled date for a final rule and ending on the date on which the Secretary publishes a final rule covering the specific type of automatic commercial ice maker.

“(B) Any State standard issued before the publication of the final rule shall not be preempted until the standards established in the final rule take effect.

“(4)(A) The Secretary shall monitor whether manufacturers are reducing harvest rates below tested values for the purpose of bringing non-complying equipment into compliance.

“(B) If the Secretary finds that there has been a substantial amount of manipulation with respect to harvest rates under subparagraph (A), the Secretary shall take steps to minimize the manipulation, such as requiring harvest rates to be within 5 percent of tested values.

“(g)(1)(A) If the Secretary does not issue a final rule for commercial clothes washers within the timeframe specified in section 342(e)(2), subsections (b) and (c) of section 327 shall not apply to commercial clothes washers for the period beginning on the day after the scheduled date for a final rule and ending on the date on which the Secretary publishes a final rule covering commercial clothes washers.

“(B) Any State or local standard issued before the date on which the Secretary publishes a final rule shall not be preempted until the standards established under section 342(e)(2) take effect.

“(2) The Secretary shall undertake an educational program to inform owners of laundromats, multifamily housing, and other sites where commercial clothes washers are located about the new standard, including impacts on washer purchase costs and options for recovering those costs through coin collection.”.

SEC. 137. ENERGY LABELING.

(a) RULEMAKING ON EFFECTIVENESS OF CONSUMER PRODUCT LABELING.—Section 324(a)(2) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)(2)) is amended by adding at the end the following:

“(F)(i) Not later than 90 days after the date of enactment of this subparagraph, the Commission shall initiate a rulemaking to consider—

“(I) the effectiveness of the consumer products labeling program in assisting consumers in making purchasing decisions and improving energy efficiency; and

“(II) changes to the labeling rules (including categorical labeling) that would improve the effectiveness of consumer product labels.

“(ii) Not later than 2 years after the date of enactment of this subparagraph, the Commission shall complete the rulemaking initiated under clause (i).

“(G)(i) Not later than 18 months after the date of enactment of this subparagraph, the Commission shall issue by rule, in accordance with this section, labeling requirements for the electricity used by ceiling fans to circulate air in a room.

“(ii) The rule issued under clause (i) shall apply to products manufactured after the later of—

“(I) January 1, 2009; or

“(II) the date that is 60 days after the final rule is issued.”.

(b) RULEMAKING ON LABELING FOR ADDITIONAL PRODUCTS.—Section 324(a) of the Energy Policy and Conservation Act (42 U.S.C. 6294(a)) is amended by adding at the end the following:

“(5)(A) For covered products described in subsections (u) through (ff) of section 325, after a test procedure has been prescribed under section 323, the Secretary or the Commission, as appropriate, may prescribe, by rule, under this section labeling requirements for the products.

“(B) In the case of products to which TP-1 standards under section 325(y) apply, labeling requirements shall be based on the ‘Standard for the Labeling of Distribution Transformer Efficiency’ prescribed by the National Electrical Manufacturers Association

(NEMA TP-3) as in effect on the date of enactment of this paragraph.

“(C) In the case of dehumidifiers covered under section 325(dd), the Commission shall not require an ‘Energy Guide’ label.”.

SEC. 138. INTERMITTENT ESCALATOR STUDY.

(a) **IN GENERAL.**—The Administrator of General Services shall conduct a study on the advantages and disadvantages of employing intermittent escalators in the United States.

(b) **CONTENTS.**—Such study shall include an analysis of—

(1) the energy end-cost savings derived from the use of intermittent escalators;

(2) the cost savings derived from reduced maintenance requirements; and

(3) such other issues as the Administrator considers appropriate.

(c) **REPORT TO CONGRESS.**—Not later than 1 year after the date of enactment of this Act, the Administrator shall transmit to Congress a report on the results of the study.

(d) **DEFINITION.**—For purposes of this section, the term “intermittent escalator” means an escalator that remains in a stationary position until it automatically operates at the approach of a passenger, returning to a stationary position after the passenger completes passage.

SEC. 139. ENERGY EFFICIENT ELECTRIC AND NATURAL GAS UTILITIES STUDY.

(a) **IN GENERAL.**—Not later than 1 year after the date of enactment of this Act, the Secretary, in consultation with the National Association of Regulatory Utility Commissioners and the National Association of State Energy Officials, shall conduct a study of State and regional policies that promote cost-effective programs to reduce energy consumption (including energy efficiency programs) that are carried out by—

(1) utilities that are subject to State regulation; and

(2) nonregulated utilities.

(b) **CONSIDERATION.**—In conducting the study under subsection (a), the Secretary shall take into consideration—

(1) performance standards for achieving energy use and demand reduction targets;

(2) funding sources, including rate surcharges;

(3) infrastructure planning approaches (including energy efficiency programs) and infrastructure improvements;

(4) the costs and benefits of consumer education programs conducted by State and local governments and local utilities to increase consumer awareness of energy efficiency technologies and measures; and

(5) methods of—

(A) removing disincentives for utilities to implement energy efficiency programs;

(B) encouraging utilities to undertake voluntary energy efficiency programs; and

(C) ensuring appropriate returns on energy efficiency programs.

(c) **REPORT.**—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report that includes—

- (1) the findings of the study; and
- (2) any recommendations of the Secretary, including recommendations on model policies to promote energy efficiency programs.

SEC. 140. [42 U.S.C. 15833] ENERGY EFFICIENCY PILOT PROGRAM.

(a) **IN GENERAL.**—The Secretary shall establish a pilot program under which the Secretary provides financial assistance to at least 3, but not more than 7, States to carry out pilot projects in the States for—

- (1) planning and adopting statewide programs that encourage, for each year in which the pilot project is carried out—
 - (A) energy efficiency; and
 - (B) reduction of consumption of electricity or natural gas in the State by at least 0.75 percent, as compared to a baseline determined by the Secretary for the period preceding the implementation of the program; or
- (2) for any State that has adopted a statewide program as of the date of enactment of this Act, activities that reduce energy consumption in the State by expanding and improving the program.

(b) **VERIFICATION.**—A State that receives financial assistance under subsection (a)(1) shall submit to the Secretary independent verification of any energy savings achieved through the statewide program.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this section \$5,000,000 for each of fiscal years 2006 through 2010, to remain available until expended.

SEC. 141. [42 U.S.C. 15834] REPORT ON FAILURE TO COMPLY WITH DEADLINES FOR NEW OR REVISED ENERGY CONSERVATION STANDARDS.

(a) **INITIAL REPORT.**—The Secretary shall submit a report to Congress regarding each new or revised energy conservation or water use standard which the Secretary has failed to issue in conformance with the deadlines established in the Energy Policy and Conservation Act. Such report shall state the reasons why the Secretary has failed to comply with the deadline for issuances of the new or revised standard and set forth the Secretary's plan for expeditiously prescribing such new or revised standard. The Secretary's initial report shall be submitted not later than 6 months following enactment of this Act and subsequent reports shall be submitted whenever the Secretary determines that additional deadlines for issuance of new or revised standards have been missed.

(b) **IMPLEMENTATION REPORT.**—Every 6 months following the submission of a report under subsection (a) until the adoption of a new or revised standard described in such report, the Secretary shall submit to the Congress an implementation report describing the Secretary's progress in implementing the Secretary's plan or the issuance of the new or revised standard.

Subtitle D—Public Housing

SEC. 151. PUBLIC HOUSING CAPITAL FUND.

Section 9 of the United States Housing Act of 1937 (42 U.S.C. 1437g) is amended—

(1) in subsection (d)(1)—

(A) in subparagraph (I), by striking “and” at the end;

(B) in subparagraph (J), by striking the period at the end and inserting a semicolon; and

(C) by adding at the end the following new subparagraphs:

“(K) improvement of energy and water-use efficiency by installing fixtures and fittings that conform to the American Society of Mechanical Engineers/American National Standards Institute standards A112.19.2–1998 and A112.18.1–2000, or any revision thereto, applicable at the time of installation, and by increasing energy efficiency and water conservation by such other means as the Secretary determines are appropriate; and

“(L) integrated utility management and capital planning to maximize energy conservation and efficiency measures.”; and

(2) in subsection (e)(2)(C)—

(A) by striking “The” and inserting the following:

“(i) IN GENERAL.—The”; and

(B) by adding at the end the following:

“(ii) THIRD PARTY CONTRACTS.—Contracts described in clause (i) may include contracts for equipment conversions to less costly utility sources, projects with resident-paid utilities, and adjustments to frozen base year consumption, including systems repaired to meet applicable building and safety codes and adjustments for occupancy rates increased by rehabilitation.

“(iii) TERM OF CONTRACT.—The total term of a contract described in clause (i) shall not exceed 20 years to allow longer payback periods for retrofits, including windows, heating system replacements, wall insulation, site-based generation, advanced energy savings technologies, including renewable energy generation, and other such retrofits.”.

SEC. 152. [42 U.S.C. 15841] ENERGY-EFFICIENT APPLIANCES.

In purchasing appliances, a public housing agency shall purchase energy-efficient appliances that are Energy Star products or FEMP-designated products, as such terms are defined in section 553 of the National Energy Conservation Policy Act, unless the purchase of energy-efficient appliances is not cost-effective to the agency.

SEC. 153. ENERGY EFFICIENCY STANDARDS.

Section 109 of the Cranston-Gonzalez National Affordable Housing Act (42 U.S.C. 12709) is amended—

(1) in subsection (a)—

(A) in paragraph (1)—

(i) by striking “1 year after the date of the enactment of the Energy Policy Act of 1992” and inserting “September 30, 2006”;

(ii) in subparagraph (A), by striking “and” at the end;

(iii) in subparagraph (B), by striking the period at the end and inserting “; and”; and

(iv) by adding at the end the following:

“(C) rehabilitation and new construction of public and assisted housing funded by HOPE VI revitalization grants under section 24 of the United States Housing Act of 1937 (42 U.S.C. 1437v), where such standards are determined to be cost effective by the Secretary of Housing and Urban Development.”; and

(B) in paragraph (2), by inserting “, and, with respect to rehabilitation and new construction of public and assisted housing funded by HOPE VI revitalization grants under section 24 of the United States Housing Act of 1937 (42 U.S.C. 1437v), the 2003 International Energy Conservation Code” after “90.1–1989”;

(2) in subsection (b)—

(A) by striking “within 1 year after the date of the enactment of the Energy Policy Act of 1992” and inserting “by September 30, 2006”; and

(B) by inserting “, and, with respect to rehabilitation and new construction of public and assisted housing funded by HOPE VI revitalization grants under section 24 of the United States Housing Act of 1937 (42 U.S.C. 1437v), the 2003 International Energy Conservation Code” before the period at the end; and

(3) in subsection (c)—

(A) in the heading, by inserting “AND THE INTERNATIONAL ENERGY CONSERVATION CODE” after “MODEL ENERGY CODE”; and

(B) by inserting “, or, with respect to rehabilitation and new construction of public and assisted housing funded by HOPE VI revitalization grants under section 24 of the United States Housing Act of 1937 (42 U.S.C. 1437v), the 2003 International Energy Conservation Code” after “1989”.

SEC. 154. [42 U.S.C. 15842] ENERGY STRATEGY FOR HUD.

The Secretary of Housing and Urban Development shall develop and implement an integrated strategy to reduce utility expenses through cost-effective energy conservation and efficiency measures and energy efficient design and construction of public and assisted housing. The energy strategy shall include the development of energy reduction goals and incentives for public housing agencies. The Secretary shall submit a report to Congress, not later than 1 year after the date of the enactment of this Act, on the energy strategy and the actions taken by the Department of Housing and Urban Development to monitor the energy usage of public housing agencies and shall submit an update every 2 years thereafter on progress in implementing the strategy.

TITLE II—RENEWABLE ENERGY

Subtitle A—General Provisions

SEC. 201. [42 U.S.C. 15851] ASSESSMENT OF RENEWABLE ENERGY RESOURCES.

(a) **RESOURCE ASSESSMENT.**—Not later than 6 months after the date of enactment of this Act, and each year thereafter, the Secretary shall review the available assessments of renewable energy resources within the United States, including solar, wind, biomass, marine, geothermal, and hydroelectric energy resources, and undertake new assessments as necessary, taking into account changes in market conditions, available technologies, and other relevant factors.

(b) **CONTENTS OF REPORTS.**—Not later than 1 year after the date of enactment of this Act, and each year thereafter, the Secretary shall publish a report based on the assessment under subsection (a). The report shall contain—

(1) a detailed inventory describing the available amount and characteristics of the renewable energy resources; and

(2) such other information as the Secretary believes would be useful in developing such renewable energy resources, including descriptions of surrounding terrain, population and load centers, nearby energy infrastructure, location of energy and water resources, and available estimates of the costs needed to develop each resource, together with an identification of any barriers to providing adequate transmission for remote sources of renewable energy resources to current and emerging markets, recommendations for removing or addressing such barriers, and ways to provide access to the grid that do not unfairly disadvantage renewable or other energy producers.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—For the purposes of this section, there are authorized to be appropriated to the Secretary \$10,000,000 for each of fiscal years 2006 through 2010.

SEC. 202. RENEWABLE ENERGY PRODUCTION INCENTIVE.

(a) **INCENTIVE PAYMENTS.**—Section 1212(a) of the Energy Policy Act of 1992 (42 U.S.C. 13317(a)) is amended—

(1) by striking the last sentence;

(2) by designating the first, second, and third sentences as paragraphs (1), (2), and (3), respectively;

(3) in paragraph (3) (as so designated), by striking “and which satisfies” and all that follows through “deems necessary”; and

(4) by adding at the end the following:

“(4)(A) Subject to subparagraph (B), if there are insufficient appropriations to make full payments for electric production from all qualified renewable energy facilities for a fiscal year, the Secretary shall assign—

“(i) 60 percent of appropriated funds for the fiscal year to facilities that use solar, wind, ocean (including tidal, wave, current, and thermal), geothermal, or closed-loop (dedicated energy crops) biomass technologies to generate electricity; and

“(ii) 40 percent of appropriated funds for the fiscal year to other projects.

“(B) After submitting to Congress an explanation of the reasons for the alteration, the Secretary may alter the percentage requirements of subparagraph (A).”

(b) **QUALIFIED RENEWABLE ENERGY FACILITY.**—Section 1212(b) of the Energy Policy Act of 1992 (42 U.S.C. 13317(b)) is amended—

(1) by striking “a State or any political” and all that follows through “nonprofit electrical cooperative” and inserting “a not-for-profit electric cooperative, a public utility described in section 115 of the Internal Revenue Code of 1986, a State, Commonwealth, territory, or possession of the United States, or the District of Columbia, or a political subdivision thereof, an Indian tribal government or subdivision thereof, or a Native Corporation (as defined in section 3 of the Alaska Native Claims Settlement Act (43 U.S.C. 1602)),”; and

(2) by inserting “landfill gas, livestock methane, ocean (including tidal, wave, current, and thermal),” after “wind, biomass,”.

(c) **ELIGIBILITY WINDOW.**—Section 1212(c) of the Energy Policy Act of 1992 (42 U.S.C. 13317(c)) is amended by striking “during the 10-fiscal year period beginning with the first full fiscal year occurring after the enactment of this section” and inserting “before October 1, 2016”.

(d) **PAYMENT PERIOD.**—Section 1212(d) of the Energy Policy Act of 1992 (42 U.S.C. 13317(d)) is amended in the second sentence by inserting “, or in which the Secretary determines that all necessary Federal and State authorizations have been obtained to begin construction of the facility” after “eligible for such payments”.

(e) **AMOUNT OF PAYMENT.**—Section 1212(e)(1) of the Energy Policy Act of 1992 (42 U.S.C. 13317(e)(1)) is amended in the first sentence by inserting “landfill gas, livestock methane, ocean (including tidal, wave, current, and thermal),” after “wind, biomass,”.

(f) **TERMINATION OF AUTHORITY.**—Section 1212(f) of the Energy Policy Act of 1992 (42 U.S.C. 13317(f)) is amended by striking “the expiration of” and all that follows through “of this section” and inserting “September 30, 2026”.

(g) **AUTHORIZATION OF APPROPRIATIONS.**—Section 1212 of the Energy Policy Act of 1992 (42 U.S.C. 13317) is amended by striking subsection (g) and inserting the following:

“(g) **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 2026, to remain available until expended.”

SEC. 203. [42 U.S.C. 15852] FEDERAL PURCHASE REQUIREMENT.

(a) **REQUIREMENT.**—The President, acting through the Secretary, shall seek to ensure that, to the extent economically feasible and technically practicable, of the total amount of electric energy the Federal Government consumes during any fiscal year, the following amounts shall be renewable energy:

(1) Not less than 3 percent in fiscal years 2007 through 2009.

(2) Not less than 5 percent in fiscal years 2010 through 2012.

(3) Not less than 7.5 percent in fiscal year 2013 and each fiscal year thereafter.

(b) DEFINITIONS.—In this section:

(1) BIOMASS.—The term “biomass” means any lignin waste material that is segregated from other waste materials and is determined to be nonhazardous by the Administrator of the Environmental Protection Agency and any solid, nonhazardous, cellulosic material that is derived from—

(A) any of the following forest-related resources: mill residues, precommercial thinnings, slash, and brush, or nonmerchantable material;

(B) solid wood waste materials, including waste pallets, crates, dunnage, manufacturing and construction wood wastes (other than pressure-treated, chemically-treated, or painted wood wastes), and landscape or right-of-way tree trimmings, but not including municipal solid waste (garbage), gas derived from the biodegradation of solid waste, or paper that is commonly recycled;

(C) agriculture wastes, including orchard tree crops, vineyard, grain, legumes, sugar, and other crop by-products or residues, and livestock waste nutrients; or

(D) a plant that is grown exclusively as a fuel for the production of electricity.

(2) RENEWABLE ENERGY.—The term “renewable energy” means marine energy (as defined in section 632 of the Energy Independence and Security Act of 2007), or electric energy produced from solar, wind, biomass, landfill gas, geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

(c) CALCULATION.—

(1) IN GENERAL.—For purposes of determining compliance with the requirement of this section, the amount of renewable energy shall be doubled if

(A) the renewable energy is produced and used on-site at a Federal facility;

(B) the renewable energy is produced on Federal lands and used at a Federal facility; or

(C) the renewable energy is produced on Indian land as defined in title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.) and used at a Federal facility.

(2) SEPARATE CALCULATION.—

(A) IN GENERAL.—For purposes of determining compliance with the requirement of this section, any energy consumption that is avoided through the use of geothermal energy shall be considered to be renewable energy produced.

(B) EFFICIENCY ACCOUNTING.—Energy consumption that is avoided through the use of geothermal energy that is considered to be renewable energy under this section shall not be considered energy efficiency for the purpose of

compliance with Federal energy efficiency goals, targets, and incentives.

(d) REPORT.—Not later than April 15, 2007, and every 2 years thereafter, the Secretary shall provide a report to Congress on the progress of the Federal Government in meeting the goals established by this section.

SEC. 204. USE OF PHOTOVOLTAIC ENERGY IN PUBLIC BUILDINGS.

(a) IN GENERAL.—Subchapter VI of chapter 31 of title 40, United States Code, is amended by adding at the end the following:

“§ 3177. Use of photovoltaic energy in public buildings

“(a) PHOTOVOLTAIC ENERGY COMMERCIALIZATION PROGRAM.—

“(1) IN GENERAL.—The Administrator of General Services may establish a photovoltaic energy commercialization program for the procurement and installation of photovoltaic solar electric systems for electric production in new and existing public buildings.

“(2) PURPOSES.—The purposes of the program shall be to accomplish the following:

“(A) To accelerate the growth of a commercially viable photovoltaic industry to make this energy system available to the general public as an option which can reduce the national consumption of fossil fuel.

“(B) To reduce the fossil fuel consumption and costs of the Federal Government.

“(C) To attain the goal of installing solar energy systems in 20,000 Federal buildings by 2010, as contained in the Federal Government’s Million Solar Roof Initiative of 1997.

“(D) To stimulate the general use within the Federal Government of life-cycle costing and innovative procurement methods.

“(E) To develop program performance data to support policy decisions on future incentive programs with respect to energy.

“(3) ACQUISITION OF PHOTOVOLTAIC SOLAR ELECTRIC SYSTEMS.—

“(A) IN GENERAL.—The program shall provide for the acquisition of photovoltaic solar electric systems and associated storage capability for use in public buildings.

“(B) ACQUISITION LEVELS.—The acquisition of photovoltaic electric systems shall be at a level substantial enough to allow use of low-cost production techniques with at least 150 megawatts (peak) cumulative acquired during the 5 years of the program.

“(4) ADMINISTRATION.—The Administrator shall administer the program and shall—

“(A) issue such rules and regulations as may be appropriate to monitor and assess the performance and operation of photovoltaic solar electric systems installed pursuant to this subsection;

“(B) develop innovative procurement strategies for the acquisition of such systems; and

“(C) transmit to Congress an annual report on the results of the program.

“(b) PHOTOVOLTAIC SYSTEMS EVALUATION PROGRAM.—

“(1) IN GENERAL.—Not later than 60 days after the date of enactment of this section, the Administrator shall establish a photovoltaic solar energy systems evaluation program to evaluate such photovoltaic solar energy systems as are required in public buildings.

“(2) PROGRAM REQUIREMENT.—In evaluating photovoltaic solar energy systems under the program, the Administrator shall ensure that such systems reflect the most advanced technology.

“(c) AUTHORIZATION OF APPROPRIATIONS.—

“(1) PHOTOVOLTAIC ENERGY COMMERCIALIZATION PROGRAM.—There are authorized to be appropriated to carry out subsection (a) \$50,000,000 for each of fiscal years 2006 through 2010. Such sums shall remain available until expended.

“(2) PHOTOVOLTAIC SYSTEMS EVALUATION PROGRAM.—There are authorized to be appropriated to carry out subsection (b) \$10,000,000 for each of fiscal years 2006 through 2010. Such sums shall remain available until expended.”.

(b) CONFORMING AMENDMENT.—The table of sections for the National Energy Conservation Policy Act is amended by inserting after the item relating to section 569 the following:

“Sec. 570. Use of photovoltaic energy in public buildings.”.

SEC. 205. BIOBASED PRODUCTS.

Section 9002(c)(1) of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8102(c)(1)) is amended by inserting “or such items that comply with the regulations issued under section 103 of Public Law 100–556 (42 U.S.C. 6914b–1)” after “practicable”.

SEC. 206. RENEWABLE ENERGY SECURITY.

(a) WEATHERIZATION ASSISTANCE.—Section 415(c) of the Energy Conservation and Production Act (42 U.S.C. 6865(c)) is amended—

(1) in paragraph (1), by striking “in paragraph (3)” and inserting “in paragraphs (3) and (4)”;

(2) in paragraph (3), by striking “\$2,500 per dwelling unit average provided in paragraph (1)” and inserting “dwelling unit averages provided in paragraphs (1) and (4)”;

(3) by adding at the end the following new paragraphs:

“(4) The expenditure of financial assistance provided under this part for labor, weatherization materials, and related matters for a renewable energy system shall not exceed an average of \$3,000 per dwelling unit.

“(5)(A) The Secretary shall by regulations—

“(i) establish the criteria which are to be used in prescribing performance and quality standards under paragraph (6)(A)(ii) or in specifying any form of renewable energy under paragraph (6)(A)(i)(I); and

“(ii) establish a procedure under which a manufacturer of an item may request the Secretary to certify that the item will be treated, for purposes of this paragraph, as a renewable energy system.

“(B) The Secretary shall make a final determination with respect to any request filed under subparagraph (A)(ii) within 1 year after the filing of the request, together with any information required to be filed with such request under subparagraph (A)(ii).

“(C) Each month the Secretary shall publish a report of any request under subparagraph (A)(ii) which has been denied during the preceding month and the reasons for the denial.

“(D) The Secretary shall not specify any form of renewable energy under paragraph (6)(A)(i)(I) unless the Secretary determines that—

“(i) there will be a reduction in oil or natural gas consumption as a result of such specification;

“(ii) such specification will not result in an increased use of any item which is known to be, or reasonably suspected to be, environmentally hazardous or a threat to public health or safety; and

“(iii) available Federal subsidies do not make such specification unnecessary or inappropriate (in the light of the most advantageous allocation of economic resources).

“(6) In this subsection—

“(A) the term ‘renewable energy system’ means a system which—

“(i) when installed in connection with a dwelling, transmits or uses—

“(I) solar energy, energy derived from the geothermal deposits, energy derived from biomass, or any other form of renewable energy which the Secretary specifies by regulations, for the purpose of heating or cooling such dwelling or providing hot water or electricity for use within such dwelling; or

“(II) wind energy for nonbusiness residential purposes;

“(ii) meets the performance and quality standards (if any) which have been prescribed by the Secretary by regulations;

“(iii) in the case of a combustion rated system, has a thermal efficiency rating of at least 75 percent; and

“(iv) in the case of a solar system, has a thermal efficiency rating of at least 15 percent; and

“(B) the term ‘biomass’ means any organic matter that is available on a renewable or recurring basis, including agricultural crops and trees, wood and wood wastes and residues, plants (including aquatic plants), grasses, residues, fibers, and animal wastes, municipal wastes, and other waste materials.”.

(b) DISTRICT HEATING AND COOLING PROGRAMS.—Section 172 of the Energy Policy Act of 1992 (42 U.S.C. 13451 note) is amended—

(1) in subsection (a)—

(A) by striking “and” at the end of paragraph (3);

(B) by striking the period at the end of paragraph (4) and inserting “; and”; and

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

“(5) evaluate the use of renewable energy systems (as such term is defined in section 415(c) of the Energy Conservation

and Production Act (42 U.S.C. 6865(c))) in residential buildings.”; and

(2) in subsection (b), by striking “this Act” and inserting “the Energy Policy Act of 2005”.

(c) REBATE PROGRAM.—

(1) ESTABLISHMENT.—The Secretary shall establish a program providing rebates for consumers for expenditures made for the installation of a renewable energy system in connection with a dwelling unit or small business.

(2) AMOUNT OF REBATE.—Rebates provided under the program established under paragraph (1) shall be in an amount not to exceed the lesser of—

(A) 25 percent of the expenditures described in paragraph (1) made by the consumer; or

(B) \$3,000.

(3) DEFINITION.—For purposes of this subsection, the term “renewable energy system” has the meaning given that term in section 415(c)(6)(A) of the Energy Conservation and Production Act (42 U.S.C. 6865(c)(6)(A)), as added by subsection (a)(3) of this section.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary for carrying out this subsection, to remain available until expended—

(A) \$150,000,000 for fiscal year 2006;

(B) \$150,000,000 for fiscal year 2007;

(C) \$200,000,000 for fiscal year 2008;

(D) \$250,000,000 for fiscal year 2009; and

(E) \$250,000,000 for fiscal year 2010.

(d) RENEWABLE FUEL INVENTORY.—Not later than 180 days after the date of enactment of this Act, the Secretary shall transmit to Congress a report containing—

(1) an inventory of renewable fuels available for consumers; and

(2) a projection of future inventories of renewable fuels based on the incentives provided in this section.

SEC. 207. INSTALLATION OF PHOTOVOLTAIC SYSTEM.

There is authorized to be appropriated to the General Services Administration to install a photovoltaic system, as set forth in the Sun Wall Design Project, for the headquarters building of the Department of Energy located at 1000 Independence Avenue Southwest in the District of Columbia, commonly known as the Forrestal Building, \$20,000,000 for fiscal year 2006. Such sums shall remain available until expended.

SEC. 208. [42 U.S.C. 15854] SUGAR CANE ETHANOL PROGRAM.

(a) DEFINITION OF PROGRAM.—In this section, the term “program” means the Sugar Cane Ethanol Program established by subsection (b).

(b) ESTABLISHMENT.—There is established within the Environmental Protection Agency a program to be known as the “Sugar Cane Ethanol Program”.

(c) PROJECT.—

(1) IN GENERAL.—Subject to the availability of appropriations under subsection (d), in carrying out the program, the

Administrator of the Environmental Protection Agency shall establish a project that is—

(A) carried out in multiple States—

(i) in each of which is produced cane sugar that is eligible for loans under section 156 of the Federal Agriculture Improvement and Reform Act of 1996 (7 U.S.C. 7272), or a similar subsequent authority; and

(ii) at the option of each such State, that have an incentive program that requires the use of ethanol in the State; and

(B) designed to study the production of ethanol from cane sugar, sugarcane, and sugarcane byproducts.

(2) REQUIREMENTS.—A project described in paragraph (1) shall—

(A) be limited to sugar producers and the production of ethanol in the States of Florida, Louisiana, Texas, and Hawaii, divided equally among the States, to demonstrate that the process may be applicable to cane sugar, sugarcane, and sugarcane byproducts;

(B) include information on the ways in which the scale of production may be replicated once the sugar cane industry has located sites for, and constructed, ethanol production facilities; and

(C) not last more than 3 years.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$36,000,000, to remain available until expended.

SEC. 209. RURAL AND REMOTE COMMUNITY ELECTRIFICATION GRANTS.

The Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.) is amended in title VI by adding at the end the following:

“SEC. 609. RURAL AND REMOTE COMMUNITIES ELECTRIFICATION GRANTS.

“(a) DEFINITIONS.—In this section:

“(1) The term ‘eligible grantee’ means a local government or municipality, peoples’ utility district, irrigation district, and cooperative, nonprofit, or limited-dividend association in a rural area.

“(2) The term ‘incremental hydropower’ means additional generation achieved from increased efficiency after January 1, 2005, at a hydroelectric dam that was placed in service before January 1, 2005.

“(3) The term ‘renewable energy’ means electricity generated from—

“(A) a renewable energy source; or

“(B) hydrogen, other than hydrogen produced from a fossil fuel, that is produced from a renewable energy source.

“(4) The term ‘renewable energy source’ means—

“(A) wind;

“(B) ocean waves;

“(C) biomass;

- “(D) solar;
- “(E) landfill gas;
- “(F) incremental hydropower;
- “(G) livestock methane; or
- “(H) geothermal energy.

“(5) The term ‘rural area’ means a city, town, or unincorporated area that has a population of not more than 10,000 inhabitants.

“(b) GRANTS.—The Secretary, in consultation with the Secretary of Agriculture and the Secretary of the Interior, may provide grants under this section to eligible grantees for the purpose of—

“(1) increasing energy efficiency, siting or upgrading transmission and distribution lines serving rural areas; or

“(2) providing or modernizing electric generation facilities that serve rural areas.

“(c) GRANT ADMINISTRATION.—(1) The Secretary shall make grants under this section based on a determination of cost-effectiveness and the most effective use of the funds to achieve the purposes described in subsection (b).

“(2) For each fiscal year, the Secretary shall allocate grant funds under this section equally between the purposes described in paragraphs (1) and (2) of subsection (b).

“(3) In making grants for the purposes described in subsection (b)(2), the Secretary shall give preference to renewable energy facilities.

“(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$20,000,000 for each of fiscal years 2006 through 2012.”.

SEC. 210. [42 U.S.C. 15855] GRANTS TO IMPROVE THE COMMERCIAL VALUE OF FOREST BIOMASS FOR ELECTRIC ENERGY, USEFUL HEAT, TRANSPORTATION FUELS, AND OTHER COMMERCIAL PURPOSES.

(a) DEFINITIONS.—In this section:

(1) BIOMASS.—The term “biomass” means nonmerchantable materials or precommercial thinnings that are byproducts of preventive treatments, such as trees, wood, brush, thinnings, chips, and slash, that are removed—

(A) to reduce hazardous fuels;

(B) to reduce or contain disease or insect infestation;

or

(C) to restore forest health.

(2) INDIAN TRIBE.—The term “Indian tribe” has the meaning given the term in section 4(e) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b(e)).

(3) NONMERCHANTABLE.—For purposes of subsection (b), the term “nonmerchantable” means that portion of the byproducts of preventive treatments that would not otherwise be used for higher value products.

(4) PERSON.—The term “person” includes—

(A) an individual;

(B) a community (as determined by the Secretary concerned);

(C) an Indian tribe;

(D) a small business or a corporation that is incorporated in the United States; and

(E) a nonprofit organization.

(5) PREFERRED COMMUNITY.—The term “preferred community” means—

(A) any Indian tribe;

(B) any town, township, municipality, or other similar unit of local government (as determined by the Secretary concerned) that—

(i) has a population of not more than 50,000 individuals; and

(ii) the Secretary concerned, in the sole discretion of the Secretary concerned, determines contains or is located near Federal or Indian land, the condition of which is at significant risk of catastrophic wildfire, disease, or insect infestation or which suffers from disease or insect infestation; or

(C) any county that—

(i) is not contained within a metropolitan statistical area; and

(ii) the Secretary concerned, in the sole discretion of the Secretary concerned, determines contains or is located near Federal or Indian land, the condition of which is at significant risk of catastrophic wildfire, disease, or insect infestation or which suffers from disease or insect infestation.

(6) SECRETARY CONCERNED.—The term “Secretary concerned” means the Secretary of Agriculture or the Secretary of the Interior.

(b) BIOMASS COMMERCIAL USE GRANT PROGRAM.—

(1) IN GENERAL.—The Secretary concerned may make grants to any person in a preferred community that owns or operates a facility that uses biomass as a raw material to produce electric energy, sensible heat, or transportation fuels to offset the costs incurred to purchase biomass for use by such facility.

(2) GRANT AMOUNTS.—A grant under this subsection may not exceed \$20 per green ton of biomass delivered.

(3) MONITORING OF GRANT RECIPIENT ACTIVITIES.—As a condition of a grant under this subsection, the grant recipient shall keep such records as the Secretary concerned may require to fully and correctly disclose the use of the grant funds and all transactions involved in the purchase of biomass. Upon notice by a representative of the Secretary concerned, the grant recipient shall afford the representative reasonable access to the facility that purchases or uses biomass and an opportunity to examine the inventory and records of the facility.

(c) IMPROVED BIOMASS USE GRANT PROGRAM.—

(1) IN GENERAL.—The Secretary concerned may make grants to persons to offset the cost of projects to develop or research opportunities to improve the use of, or add value to, biomass. In making such grants, the Secretary concerned shall give preference to persons in preferred communities.

(2) SELECTION.—The Secretary concerned shall select a grant recipient under paragraph (1) after giving consideration to—

(A) the anticipated public benefits of the project, including the potential to develop thermal or electric energy resources or affordable energy;

(B) opportunities for the creation or expansion of small businesses and micro-businesses;

(C) the potential for new job creation;

(D) the potential for the project to improve efficiency or develop cleaner technologies for biomass utilization; and

(E) the potential for the project to reduce the hazardous fuels from the areas in greatest need of treatment.

(3) GRANT AMOUNT.—A grant under this subsection may not exceed \$500,000.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated \$50,000,000 for fiscal year 2006 and \$35,000,000 for each of fiscal years 2007 through 2016 to carry out this section.

(e) REPORT.—Not later than October 1, 2010, the Secretary of Agriculture, in consultation with the Secretary of the Interior, shall submit to the Committee on Energy and Natural Resources and the Committee on Agriculture, Nutrition, and Forestry of the Senate, and the Committee on Resources, the Committee on Energy and Commerce, and the Committee on Agriculture of the House of Representatives, a report describing the results of the grant programs authorized by this section. The report shall include the following:

(1) An identification of the size, type, and use of biomass by persons that receive grants under this section.

(2) The distance between the land from which the biomass was removed and the facility that used the biomass.

(3) The economic impacts, particularly new job creation, resulting from the grants to and operation of the eligible operations.

SEC. 211. SENSE OF CONGRESS REGARDING GENERATION CAPACITY OF ELECTRICITY FROM RENEWABLE ENERGY RESOURCES ON PUBLIC LANDS.

It is the sense of the Congress that the Secretary of the Interior should, before the end of the 10-year period beginning on the date of enactment of this Act, seek to have approved non-hydro-power renewable energy projects located on the public lands with a generation capacity of at least 10,000 megawatts of electricity.

Subtitle B—Geothermal Energy

SEC. 221. [30 U.S.C. 1001 note] SHORT TITLE.

This subtitle may be cited as the “John Rishel Geothermal Steam Act Amendments of 2005”.

SEC. 222. COMPETITIVE LEASE SALE REQUIREMENTS.

Section 4 of the Geothermal Steam Act of 1970 (30 U.S.C. 1003) is amended to read as follows:

“SEC. 4. LEASING PROCEDURES.

“(a) **NOMINATIONS.**—The Secretary shall accept nominations of land to be leased at any time from qualified companies and individuals under this Act.

“(b) **COMPETITIVE LEASE SALE REQUIRED.**—

“(1) **IN GENERAL.**—Except as otherwise specifically provided by this Act, all land to be leased that is not subject to leasing under subsection (c) shall be leased as provided in this subsection to the highest responsible qualified bidder, as determined by the Secretary.

“(2) **COMPETITIVE LEASE SALES.**—The Secretary shall hold a competitive lease sale at least once every 2 years for land in a State that has nominations pending under subsection (a) if the land is otherwise available for leasing.

“(3) **LANDS SUBJECT TO MINING CLAIMS.**—Lands that are subject to a mining claim for which a plan of operations has been approved by the relevant Federal land management agency may be available for noncompetitive leasing under this section to the mining claim holder.

“(c) **NONCOMPETITIVE LEASING.**—The Secretary shall make available for a period of 2 years for noncompetitive leasing any tract for which a competitive lease sale is held, but for which the Secretary does not receive any bids in a competitive lease sale.

“(d) **PENDING LEASE APPLICATIONS.**—

“(1) **IN GENERAL.**—It shall be a priority for the Secretary, and for the Secretary of Agriculture with respect to National Forest Systems land, to ensure timely completion of administrative actions, including amendments to applicable forest plans and resource management plans, necessary to process applications for geothermal leasing pending on the date of enactment of this subsection. All future forest plans and resource management plans for areas with high geothermal resource potential shall consider geothermal leasing and development.

“(2) **ADMINISTRATION.**—An application described in paragraph (1) and any lease issued pursuant to the application—

“(A) except as provided in subparagraph (B), shall be subject to this section as in effect on the day before the date of enactment of this paragraph; or

“(B) at the election of the applicant, shall be subject to this section as in effect on the effective date of this paragraph.

“(e) **LEASES SOLD AS A BLOCK.**—If information is available to the Secretary indicating a geothermal resource that could be produced as 1 unit can reasonably be expected to underlie more than 1 parcel to be offered in a competitive lease sale, the parcels for such a resource may be offered for bidding as a block in the competitive lease sale.”

SEC. 223. DIRECT USE.

(a) **FEES FOR DIRECT USE.**—Section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004) is amended—

(1) in subsection (c), by redesignating paragraphs (1) and (2) as subparagraphs (A) and (B), respectively;

(2) by redesignating subsections (a) through (d) as paragraphs (1) through (4), respectively;

(3) by inserting “(a) IN GENERAL.—” after “SEC. 5.”; and
 (4) by adding at the end the following:

“(b) DIRECT USE.—

“(1) IN GENERAL.—Notwithstanding subsection (a)(1), the Secretary shall establish a schedule of fees, in lieu of royalties for geothermal resources, that a lessee or its affiliate—

“(A) uses for a purpose other than the commercial generation of electricity; and

“(B) does not sell.

“(2) SCHEDULE OF FEES.—The schedule of fees—

“(A) may be based on the quantity or thermal content, or both, of geothermal resources used;

“(B) shall ensure a fair return to the United States for use of the resource; and

“(C) shall encourage development of the resource.

“(3) STATE, TRIBAL, OR LOCAL GOVERNMENTS.—If a State, tribal, or local government is the lessee and uses geothermal resources without sale and for public purposes other than commercial generation of electricity, the Secretary shall charge only a nominal fee for use of the resource.

“(4) FINAL REGULATION.—In issuing any final regulation establishing a schedule of fees under this subsection, the Secretary shall seek—

“(A) to provide lessees with a simplified administrative system;

“(B) to facilitate development of direct use of geothermal resources; and

“(C) to contribute to sustainable economic development opportunities in the area.”.

(b) LEASING FOR DIRECT USE.—Section 4 of the Geothermal Steam Act of 1970 (30 U.S.C. 1003) (as amended by section 222) is further amended by adding at the end the following:

“(f) LEASING FOR DIRECT USE OF GEOTHERMAL RESOURCES.—Notwithstanding subsection (b), the Secretary may identify areas in which the land to be leased under this Act exclusively for direct use of geothermal resources, without sale for purposes other than commercial generation of electricity, may be leased to any qualified applicant that first applies for such a lease under regulations issued by the Secretary, if the Secretary—

“(1) publishes a notice of the land proposed for leasing not later than 90 days before the date of the issuance of the lease;

“(2) does not receive during the 90-day period beginning on the date of the publication any nomination to include the land concerned in the next competitive lease sale; and

“(3) determines there is no competitive interest in the geothermal resources in the land to be leased.

“(g) AREA SUBJECT TO LEASE FOR DIRECT USE.—

“(1) IN GENERAL.—Subject to paragraph (2), a geothermal lease for the direct use of geothermal resources shall cover not more than the quantity of acreage determined by the Secretary to be reasonably necessary for the proposed use.

“(2) LIMITATIONS.—The quantity of acreage covered by the lease shall not exceed the limitations established under section 7.”.

(c) APPLICATION OF NEW LEASE TERMS.—The schedule of fees established under the amendment made by subsection (a)(4) shall apply with respect to payments under a lease converted under this subsection that are due and owing, and have been paid, on or after July 16, 2003. This subsection shall not require the refund of royalties paid to a State under section 20 of the Geothermal Steam Act of 1970 (30 U.S.C. 1019) prior to the date of enactment of this Act.

SEC. 224. ROYALTIES AND NEAR-TERM PRODUCTION INCENTIVES.

(a) ROYALTY.—Section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004) is further amended—

(1) in subsection (a) by striking paragraph (1) and inserting the following:

“(1) a royalty on electricity produced using geothermal resources, other than direct use of geothermal resources, that shall be—

“(A) not less than 1 percent and not more than 2.5 percent of the gross proceeds from the sale of electricity produced from such resources during the first 10 years of production under the lease; and

“(B) not less than 2 and not more than 5 percent of the gross proceeds from the sale of electricity produced from such resources during each year after such 10-year period;” and

(2) by adding at the end the following:

“(c) FINAL REGULATION ESTABLISHING ROYALTY RATES.—In issuing any final regulation establishing royalty rates under this section, the Secretary shall seek—

“(1) to provide lessees a simplified administrative system;

“(2) to encourage new development; and

“(3) to achieve the same level of royalty revenues over a 10-year period as the regulation in effect on the date of enactment of this subsection.

“(d) CREDITS FOR IN-KIND PAYMENTS OF ELECTRICITY.—The Secretary may provide to a lessee a credit against royalties owed under this Act, in an amount equal to the value of electricity provided under contract to a State or county government that is entitled to a portion of such royalties under section 20 of this Act, section 35 of the Mineral Leasing Act (30 U.S.C. 191), except as otherwise provided by this section, or section 6 of the Mineral Leasing Act for Acquired Lands (30 U.S.C. 355), if—

“(1) the Secretary has approved in advance the contract between the lessee and the State or county government for such in-kind payments;

“(2) the contract establishes a specific methodology to determine the value of such credits; and

“(3) the maximum credit will be equal to the royalty value owed to the State or county that is a party to the contract and the electricity received will serve as the royalty payment from the Federal Government to that entity.”

(b) DISPOSAL OF MONEYS FROM SALES, BONUSES, ROYALTIES, AND RENTS.—Section 20 of the Geothermal Steam Act of 1970 (30 U.S.C. 1019) is amended to read as follows:

“SEC. 20. DISPOSAL OF MONEYS FROM SALES, BONUSES, RENTALS, AND ROYALTIES.

“(a) **IN GENERAL.**—Except with respect to lands in the State of Alaska, all monies received by the United States from sales, bonuses, rentals, and royalties under this Act shall be paid into the Treasury of the United States. Of amounts deposited under this subsection, subject to the provisions of subsection (b) of section 35 of the Mineral Leasing Act (30 U.S.C. 191(b)) and section 5(a)(2) of this Act—

“(1) 50 percent shall be paid to the State within the boundaries of which the leased lands or geothermal resources are or were located; and

“(2) 25 percent shall be paid to the county within the boundaries of which the leased lands or geothermal resources are or were located.

“(b) **USE OF PAYMENTS.**—Amounts paid to a State or county under subsection (a) shall be used consistent with the terms of section 35 of the Mineral Leasing Act (30 U.S.C. 191).”.

(c) NEAR-TERM PRODUCTION INCENTIVE FOR EXISTING LEASES.—

(1) **IN GENERAL.**—Notwithstanding section 5(a) of the Geothermal Steam Act of 1970, the royalty required to be paid shall be 50 percent of the amount of the royalty otherwise required, on any lease issued before the date of enactment of this Act that does not convert to new royalty terms under subsection (e)—

(A) with respect to commercial production of energy from a facility that begins such production in the 6-year period beginning on the date of enactment of this Act; or

(B) on qualified expansion geothermal energy.

(2) **4-YEAR APPLICATION.**—Paragraph (1) applies only to new commercial production of energy from a facility in the first 4 years of such production.

(d) **DEFINITION OF QUALIFIED EXPANSION GEOTHERMAL ENERGY.**—In this section, the term “qualified expansion geothermal energy” means geothermal energy produced from a generation facility for which—

(1) the production is increased by more than 10 percent as a result of expansion of the facility carried out in the 6-year period beginning on the date of enactment of this Act; and

(2) such production increase is greater than 10 percent of the average production by the facility during the 5-year period preceding the expansion of the facility (as such average is adjusted to reflect any trend in changes in production during that period).

(e) ROYALTY UNDER EXISTING LEASES.—

(1) **IN GENERAL.**—Any lessee under a lease issued under the Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.) before the date of enactment of this Act may, within the time period specified in paragraph (2), submit to the Secretary of the Interior a request to modify the terms of the lease relating to payment of royalties to provide—

(A) in the case of a lease that meets the requirements of subsection (b) of section 5 of the Geothermal Steam Act

of 1970 (30 U.S.C. 1004) (as amended by section 223), that royalties be based on the schedule of fees established under that section; and

(B) in the case of any other lease, that royalties be computed on a percentage of the gross proceeds from the sale of electricity, at a royalty rate that is expected to yield total royalty payments equivalent to payments that would have been received for comparable production under the royalty rate in effect for the lease before the date of enactment of this subsection.

(2) **TIMING.**—A request for a modification under paragraph (1) shall be submitted to the Secretary of the Interior by the date that is not later than—

(A) in the case of a lease for direct use, 18 months after the effective date of the schedule of fees established by the Secretary of the Interior under section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004); or

(B) in the case of any other lease, 18 months after the effective date of the final regulation issued under subsection (a).

(3) **APPLICATION OF MODIFICATION.**—If the lessee requests modification of a lease under paragraph (1)—

(A) the Secretary of the Interior shall, within 180 days after the receipt of the request for modification, modify the lease to comply with—

(i) in the case of a lease for direct use, the schedule of fees established by the Secretary under section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004); or

(ii) in the case of any other lease, the royalty for the lease established under paragraph (1)(B); and

(B) the modification shall apply to any use of geothermal resources to which subsection (a) applies that occurs after the date of the modification.

(4) **CONSULTATION.**—The Secretary of the Interior shall consult with the State and local governments affected by any proposed changes in lease royalty terms under this subsection.

SEC. 225. [42 U.S.C. 15871] COORDINATION OF GEOTHERMAL LEASING AND PERMITTING ON FEDERAL LANDS.

(a) **IN GENERAL.**—Not later than 180 days after the date of enactment of this section, the Secretary of the Interior and the Secretary of Agriculture shall enter into and submit to Congress a memorandum of understanding in accordance with this section, the Geothermal Steam Act of 1970 (as amended by this Act), and other applicable laws, regarding coordination of leasing and permitting for geothermal development of public lands and National Forest System lands under their respective jurisdictions.

(b) **LEASE AND PERMIT APPLICATIONS.**—The memorandum of understanding shall—

(1) establish an administrative procedure for processing geothermal lease applications, including lines of authority, steps in application processing, and time limits for application procession;

(2) establish a 5-year program for geothermal leasing of lands in the National Forest System, and a process for updating that program every 5 years; and

(3) establish a program for reducing the backlog of geothermal lease application pending on January 1, 2005, by 90 percent within the 5-year period beginning on the date of enactment of this Act, including, as necessary, by issuing leases, rejecting lease applications for failure to comply with the provisions of the regulations under which they were filed, or determining that an original applicant (or the applicant's assigns, heirs, or estate) is no longer interested in pursuing the lease application.

(c) **DATA RETRIEVAL SYSTEM.**—The memorandum of understanding shall establish a joint data retrieval system that is capable of tracking lease and permit applications and providing to the applicant information as to their status within the Departments of the Interior and Agriculture, including an estimate of the time required for administrative action.

SEC. 226. [42 U.S.C. 15872] ASSESSMENT OF GEOTHERMAL ENERGY POTENTIAL.

Not later than 3 years after the date of enactment of this Act and thereafter as the availability of data and developments in technology warrants, the Secretary of the Interior, acting through the Director of the United States Geological Survey and in cooperation with the States, shall—

(1) update the Assessment of Geothermal Resources made during 1978; and

(2) submit to Congress the updated assessment.

SEC. 227. COOPERATIVE OR UNIT PLANS.

Section 18 of the Geothermal Steam Act of 1970 (30 U.S.C. 1017) is amended to read as follows:

“SEC. 18. UNIT AND COMMUNITIZATION AGREEMENTS.

“(a) ADOPTION OF UNITS BY LESSEES.—

“(1) IN GENERAL.—For the purpose of more properly conserving the natural resources of any geothermal reservoir, field, or like area, or any part thereof (whether or not any part of the geothermal reservoir, field, or like area, is subject to any cooperative plan of development or operation (referred to in this section as a ‘unit agreement’)), lessees thereof and their representatives may unite with each other, or jointly or separately with others, in collectively adopting and operating under a unit agreement for the reservoir, field, or like area, or any part thereof, including direct use resources, if determined and certified by the Secretary to be necessary or advisable in the public interest.

“(2) MAJORITY INTEREST OF SINGLE LEASES.—A majority interest of owners of any single lease shall have the authority to commit the lease to a unit agreement.

“(3) INITIATIVE OF SECRETARY.—The Secretary may also initiate the formation of a unit agreement, or require an existing Federal lease to commit to a unit agreement, if in the public interest.

“(4) MODIFICATION OF LEASE REQUIREMENTS BY SECRETARY.—

“(A) IN GENERAL.—The Secretary may, in the discretion of the Secretary and with the consent of the holders of leases involved, establish, alter, change, or revoke rates of operations (including drilling, operations, production, and other requirements) of the leases and make conditions with respect to the leases, with the consent of the lessees, in connection with the creation and operation of any such unit agreement as the Secretary may consider necessary or advisable to secure the protection of the public interest.

“(B) UNLIKE TERMS OR RATES.—Leases with unlike lease terms or royalty rates shall not be required to be modified to be in the same unit.

“(b) REQUIREMENT OF PLANS UNDER NEW LEASES.—The Secretary may—

“(1) provide that geothermal leases issued under this Act shall contain a provision requiring the lessee to operate under a unit agreement; and

“(2) prescribe the unit agreement under which the lessee shall operate, which shall adequately protect the rights of all parties in interest, including the United States.

“(c) MODIFICATION OF RATE OF PROSPECTING, DEVELOPMENT, AND PRODUCTION.—The Secretary may require that any unit agreement authorized by this section that applies to land owned by the United States contain a provision under which authority is vested in the Secretary, or any person, committee, or State or Federal officer or agency as may be designated in the unit agreement to alter or modify, from time to time, the rate of prospecting and development and the quantity and rate of production under the unit agreement.

“(d) EXCLUSION FROM DETERMINATION OF HOLDING OR CONTROL.—Any land that is subject to a unit agreement approved or prescribed by the Secretary under this section shall not be considered in determining holdings or control under section 7.

“(e) POOLING OF CERTAIN LAND.—If separate tracts of land cannot be independently developed and operated to use geothermal resources pursuant to any section of this Act—

“(1) the land, or a portion of the land, may be pooled with other land, whether or not owned by the United States, for purposes of development and operation under a communitization agreement providing for an apportionment of production or royalties among the separate tracts of land comprising the production unit, if the pooling is determined by the Secretary to be in the public interest; and

“(2) operation or production pursuant to the communitization agreement shall be treated as operation or production with respect to each tract of land that is subject to the communitization agreement.

“(f) UNIT AGREEMENT REVIEW.—

“(1) IN GENERAL.—Not later than 5 years after the date of approval of any unit agreement and at least every 5 years thereafter, the Secretary shall—

“(A) review each unit agreement; and

“(B) after notice and opportunity for comment, eliminate from inclusion in the unit agreement any land that the Secretary determines is not reasonably necessary for unit operations under the unit agreement.

“(2) BASIS FOR ELIMINATION.—The elimination shall—

“(A) be based on scientific evidence; and

“(B) occur only if the elimination is determined by the Secretary to be for the purpose of conserving and properly managing the geothermal resource.

“(3) EXTENSION.—Any land eliminated under this subsection shall be eligible for an extension under section 6(g) if the land meets the requirements for the extension.

“(g) DRILLING OR DEVELOPMENT CONTRACTS.—

“(1) IN GENERAL.—The Secretary may, on such conditions as the Secretary may prescribe, approve drilling or development contracts made by one or more lessees of geothermal leases, with one or more persons, associations, or corporations if, in the discretion of the Secretary, the conservation of natural resources or the public convenience or necessity may require or the interests of the United States may be best served by the approval.

“(2) HOLDINGS OR CONTROL.—Each lease operated under an approved drilling or development contract, and interest under the contract, shall be excepted in determining holdings or control under section 7.

“(h) COORDINATION WITH STATE GOVERNMENTS.—The Secretary shall coordinate unitization and pooling activities with appropriate State agencies.”.

SEC. 228. ROYALTY ON BYPRODUCTS.

Section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004) (as amended by section 223(a)) is further amended in subsection (a) by striking paragraph (2) and inserting the following:

“(2) a royalty on any byproduct that is a mineral specified in the first section of the Mineral Leasing Act (30 U.S.C. 181), and that is derived from production under the lease, at the rate of the royalty that applies under that Act to production of the mineral under a lease under that Act;”.

SEC. 229. AUTHORITIES OF SECRETARY TO READJUST TERMS, CONDITIONS, RENTALS, AND ROYALTIES.

Section 8(b) of the Geothermal Steam Act of 1970 (30 U.S.C. 1006) is amended in the second sentence by striking “period, and in no event” and all that follows through the end of the sentence and inserting “period”.

SEC. 230. CREDITING OF RENTAL TOWARD ROYALTY.

Section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004) (as amended by sections 223 and 224) is further amended—

(1) in subsection (a)(2) by inserting “and” after the semicolon at the end;

(2) in subsection (a)(3) by striking “; and” and inserting a period;

(3) by striking paragraph (4) of subsection (a); and

(4) by adding at the end the following:

“(e) CREDITING OF RENTAL TOWARD ROYALTY.—Any annual rental under this section that is paid with respect to a lease before the first day of the year for which the annual rental is owed shall be credited to the amount of royalty that is required to be paid under the lease for that year.”.

SEC. 231. LEASE DURATION AND WORK COMMITMENT REQUIREMENTS.

Section 6 of the Geothermal Steam Act of 1970 (30 U.S.C. 1005) is amended—

(1) by striking so much as precedes subsection (c), and striking subsections (e), (g), (h), (i), and (j);

(2) by redesignating subsections (c), (d), and (f) in order as subsections (g), (h), and (i); and

(3) by inserting before subsection (g), as so redesignated, the following:

“SEC. 6. LEASE TERM AND WORK COMMITMENT REQUIREMENTS.

“(a) IN GENERAL.—

“(1) PRIMARY TERM.—A geothermal lease shall be for a primary term of 10 years.

“(2) INITIAL EXTENSION.—The Secretary shall extend the primary term of a geothermal lease for 5 years if, for each year after the 10th year of the lease—

“(A) the Secretary determined under subsection (b) that the lessee satisfied the work commitment requirements that applied to the lease for that year; or

“(B) the lessee paid in annual payments accordance with subsection (c).

“(3) ADDITIONAL EXTENSION.—The Secretary shall extend the primary term of a geothermal lease (after an initial extension under paragraph (2)) for an additional 5 years if, for each year of the initial extension under paragraph (2), the Secretary determined under subsection (b) that the lessee satisfied the minimum work requirements that applied to the lease for that year.

“(b) REQUIREMENT TO SATISFY ANNUAL MINIMUM WORK REQUIREMENT.—

“(1) IN GENERAL.—The lessee for a geothermal lease shall, for each year after the 10th year of the lease, satisfy minimum work requirements prescribed by the Secretary that apply to the lease for that year.

“(2) PRESCRIPTION OF MINIMUM WORK REQUIREMENTS.—The Secretary shall issue regulations prescribing minimum work requirements for geothermal leases, that—

“(A) establish a geothermal potential; and

“(B) if a geothermal potential has been established, confirm the existence of producible geothermal resources.

“(c) PAYMENTS IN LIEU OF MINIMUM WORK REQUIREMENTS.—In lieu of the minimum work requirements set forth in subsection (b)(2), the Secretary shall by regulation establish minimum annual payments which may be made by the lessee for a limited number of years that the Secretary determines will not impair achieving diligent development of the geothermal resource, but in no event

shall the number of years exceed the duration of the extension period provided in subsection (a).

“(d) **TRANSITION RULES FOR LEASES ISSUED PRIOR TO ENACTMENT OF ENERGY POLICY ACT OF 2005.**—The Secretary shall by regulation establish transition rules for leases issued before the date of the enactment of this subsection, including terms under which a lease that is near the end of its term on the date of enactment of this subsection may be extended for up to 2 years—

“(1) to allow achievement of production under the lease; or

“(2) to allow the lease to be included in a producing unit.

“(e) **GEOTHERMAL LEASE OVERLYING MINING CLAIM.**—

“(1) **EXEMPTION.**—The lessee for a geothermal lease of an area overlying an area subject to a mining claim for which a plan of operations has been approved by the relevant Federal land management agency is exempt from annual work requirements established under this Act, if development of the geothermal resource subject to the lease would interfere with the mining operations under such claim.

“(2) **TERMINATION OF EXEMPTION.**—An exemption under this paragraph expires upon the termination of the mining operations.

“(f) **TERMINATION OF APPLICATION OF REQUIREMENTS.**—Minimum work requirements prescribed under this section shall not apply to a geothermal lease after the date on which the geothermal resource is utilized under the lease in commercial quantities.”.

SEC. 232. ADVANCED ROYALTIES REQUIRED FOR CESSATION OF PRODUCTION.

Section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004) (as amended by sections 223, 224, and 230) is further amended by adding at the end the following:

“(f) **ADVANCED ROYALTIES REQUIRED FOR CESSATION OF PRODUCTION.**—

“(1) **IN GENERAL.**—Subject to paragraphs (2) and (3), if, at any time after commercial production under a lease is achieved, production ceases for any reason, the lease shall remain in full force and effect for a period of not more than an aggregate number of 10 years beginning on the date production ceases, if, during the period in which production is ceased, the lessee pays royalties in advance at the monthly average rate at which the royalty was paid during the period of production.

“(2) **REDUCTION.**—The amount of any production royalty paid for any year shall be reduced (but not below 0) by the amount of any advanced royalties paid under the lease to the extent that the advance royalties have not been used to reduce production royalties for a prior year.

“(3) **EXCEPTIONS.**—Paragraph (1) shall not apply if the cessation in production is required or otherwise caused by—

“(A) the Secretary;

“(B) the Secretary of the Air Force;

“(C) the Secretary of the Army;

“(D) the Secretary of the Navy;

“(E) a State or a political subdivision of a State; or

“(F) a force majeure.”.

SEC. 233. ANNUAL RENTAL.

(a) **ANNUAL RENTAL RATE.**—Section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004) (as amended by section 223(a)) is further amended in subsection (a) by striking paragraph (3) and inserting the following:

“(3) payment in advance of an annual rental of not less than—

“(A) for each of the 1st through 10th years of the lease—

“(i) in the case of a lease awarded in a non-competitive lease sale, \$1 per acre or fraction thereof; or

“(ii) in the case of a lease awarded in a competitive lease sale, \$2 per acre or fraction thereof for the 1st year and \$3 per acre or fraction thereof for each of the 2nd through 10th years; and

“(B) for each year after the 10th year of the lease, \$5 per acre or fraction thereof.”

(b) **TERMINATION OF LEASE FOR FAILURE TO PAY RENTAL.**—Section 5 of the Geothermal Steam Act of 1970 (30 U.S.C. 1004) (as amended by sections 223, 224, 230, and 232) is further amended by adding at the end the following:

“(g) **TERMINATION OF LEASE FOR FAILURE TO PAY RENTAL.**—

“(1) **IN GENERAL.**—The Secretary shall terminate any lease with respect to which rental is not paid in accordance with this Act and the terms of the lease under which the rental is required, on the expiration of the 45-day period beginning on the date of the failure to pay the rental.

“(2) **NOTIFICATION.**—The Secretary shall promptly notify a lessee that has not paid rental required under the lease that the lease will be terminated at the end of the period referred to in paragraph (1).

“(3) **REINSTATEMENT.**—A lease that would otherwise terminate under paragraph (1) shall not terminate under that paragraph if the lessee pays to the Secretary, before the end of the period referred to in paragraph (1), the amount of rental due plus a late fee equal to 10 percent of the amount.”

SEC. 234. [42 U.S.C. 15873] DEPOSIT AND USE OF GEOTHERMAL LEASE REVENUES FOR 5 FISCAL YEARS.

(a) **DEPOSIT OF GEOTHERMAL RESOURCES LEASES.**—Notwithstanding any other provision of law, amounts received by the United States in the first 5 fiscal years beginning after the date of enactment of this Act as rentals, royalties, and other payments required under leases under the Geothermal Steam Act of 1970, excluding funds required to be paid to State and county governments, shall be deposited into a separate account in the Treasury.

(b) **USE OF DEPOSITS.**—Amounts deposited under subsection (a) shall be available to the Secretary of the Interior for expenditure, without further appropriation and without fiscal year limitation, to implement the Geothermal Steam Act of 1970 and this Act.

(c) **TRANSFER OF FUNDS.**—For the purposes of coordination and processing of geothermal leases and geothermal use authorizations on Federal land the Secretary of the Interior may authorize the ex-

penditure or transfer of such funds as are necessary to the Forest Service.

SEC. 235. ACREAGE LIMITATIONS.

Section 7 of the Geothermal Steam Act of 1970 (30 U.S.C. 1006) is amended—

(1) by striking “sec. 7.”, and by inserting immediately before and above the first paragraph the following:

“SEC. 7. ACREAGE LIMITATIONS.”;

(2) in the first paragraph—

(A) by striking “two thousand five hundred and sixty acres” and inserting “5,120 acres”; and

(B) by striking “twenty thousand four hundred and eighty acres” and inserting “51,200 acres”; and

(3) by striking the second paragraph.

SEC. 236. TECHNICAL AMENDMENTS.

The Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.) is further amended as follows:

(1) By striking “geothermal steam and associated geothermal resources” each place it appears and inserting “geothermal resources”.

(2) Section 2 (30 U.S.C. 1001) is amended by adding at the end the following:

“(g) ‘direct use’ means utilization of geothermal resources for commercial, residential, agricultural, public facilities, or other energy needs other than the commercial production of electricity; and”.

(3) Section 21 (30 U.S.C. 1020) is amended by striking “(a) Within one hundred” and all that follows through “(b) Geothermal” and inserting “Geothermal”.

(4) The first section (30 U.S.C. 1001 note) is amended by striking “That this” and inserting the following:

“SEC. 1. SHORT TITLE.

“This”.

(5) Section 2 (30 U.S.C. 1001) is amended by striking “sec. 2. As” and inserting the following:

“SEC. 2. DEFINITIONS.

“As”.

(6) Section 3 (30 U.S.C. 1002) is amended by striking “sec. 3. Subject” and inserting the following:

“SEC. 3. LANDS SUBJECT TO GEOTHERMAL LEASING.

“Subject”.

(7) Section 5 (30 U.S.C. 1004) is further amended by striking “sec. 5.”, and by inserting immediately before and above subsection (a) the following:

“SEC. 5. RENTS AND ROYALTIES.”.

(8) Section 8 (30 U.S.C. 1007) is amended by striking “sec. 8. (a) The” and inserting the following:

“SEC. 8. READJUSTMENT OF LEASE TERMS AND CONDITIONS.

“(a) The”.

(9) Section 9 (30 U.S.C. 1008) is amended by striking “sec. 9. If” and inserting the following:

“SEC. 9. BYPRODUCTS.**“If”.**

(10) Section 10 (30 U.S.C. 1009) is amended by striking “sec. 10. The” and inserting the following:

“SEC. 10. RELINQUISHMENT OF GEOTHERMAL RIGHTS.**“The”.**

(11) Section 11 (30 U.S.C. 1010) is amended by striking “sec. 11. The” and inserting the following:

“SEC. 11. SUSPENSION OF OPERATIONS AND PRODUCTION.**“The”.**

(12) Section 12 (30 U.S.C. 1011) is amended by striking “sec. 12. Leases” and inserting the following:

“SEC. 12. TERMINATION OF LEASES.**“Leases”.**

(13) Section 13 (30 U.S.C. 1012) is amended by striking “sec. 13. The” and inserting the following:

**“SEC. 13. WAIVER, SUSPENSION, OR REDUCTION OF RENTAL OR ROY-
ALTY.****“The”.**

(14) Section 14 (30 U.S.C. 1013) is amended by striking “sec. 14. Subject” and inserting the following:

“SEC. 14. SURFACE LAND USE.**“Subject”.**

(15) Section 15 (30 U.S.C. 1014) is amended by striking “sec. 15. (a) Geothermal” and inserting the following:

“SEC. 15. LANDS SUBJECT TO GEOTHERMAL LEASING.**“(a) Geothermal”.**

(16) Section 16 (30 U.S.C. 1015) is amended by striking “sec. 16. Leases” and inserting the following:

“SEC. 16. REQUIREMENT FOR LESSEES.**“Leases”.**

(17) Section 17 (30 U.S.C. 1016) is amended by striking “sec. 17. Administration” and inserting the following:

“SEC. 17. ADMINISTRATION.**“Administration”.**

(18) Section 19 (30 U.S.C. 1018) is amended by striking “sec. 19. Upon” and inserting the following:

“SEC. 19. DATA FROM FEDERAL AGENCIES.**“Upon”.**

(19) Section 21 (30 U.S.C. 1020) is further amended by striking “sec. 21.”, and by inserting immediately before and above the remainder of that section the following:

**“SEC. 21. PUBLICATION IN FEDERAL REGISTER; RESERVATION OF
MINERAL RIGHTS.”.**

(20) Section 22 (30 U.S.C. 1021) is amended by striking “sec. 22. Nothing” and inserting the following:

“SEC. 22. FEDERAL EXEMPTION FROM STATE WATER LAWS.**“Nothing”.**

(21) Section 23 (30 U.S.C. 1022) is amended by striking “sec. 23. (a) All” and inserting the following:

“SEC. 23. PREVENTION OF WASTE; EXCLUSIVITY.

“(a) All”.

(22) Section 24 (30 U.S.C. 1023) is amended by striking “sec. 24. The” and inserting the following:

“SEC. 24. RULES AND REGULATIONS.

“The”.

(23) Section 25 (30 U.S.C. 1024) is amended by striking “sec. 25. As” and inserting the following:

“SEC. 25. INCLUSION OF GEOTHERMAL LEASING UNDER CERTAIN OTHER LAWS.

“As”.

(24) [30 U.S.C. 530] Section 26 is amended by striking “sec. 26. The” and inserting the following:

“SEC. 26. AMENDMENT.

“The”.

(25) Section 27 (30 U.S.C. 1025) is amended by striking “sec. 27. The” and inserting the following:

“SEC. 27. FEDERAL RESERVATION OF CERTAIN MINERAL RIGHTS.

“The”.

(26) Section 28 (30 U.S.C. 1026) is amended by striking “sec. 28. (a)(1) The” and inserting the following:

“SEC. 28. SIGNIFICANT THERMAL FEATURES.

“(a)(1) The”.

(27) Section 29 (30 U.S.C. 1027) is amended by striking “sec. 29. The” and inserting the following:

“SEC. 29. LAND SUBJECT TO PROHIBITION ON LEASING.

“The”.

SEC. 237. INTERMOUNTAIN WEST GEOTHERMAL CONSORTIUM.

(a) PARTICIPATION AUTHORIZED.—The Secretary, acting through the Idaho National Laboratory, may participate in a consortium described in subsection (b) to address science and science policy issues surrounding the expanded discovery and use of geothermal energy, including from geothermal resources on public lands.

(b) MEMBERS.—The consortium referred to in subsection (a) shall—

(1) be known as the “Intermountain West Geothermal Consortium”;

(2) be a regional consortium of institutions and government agencies that focuses on building collaborative efforts among the universities in the State of Idaho, other regional universities, State agencies, and the Idaho National Laboratory;

(3) include Boise State University, the University of Idaho (including the Idaho Water Resources Research Institute), the Oregon Institute of Technology, the Desert Research Institute with the University and Community College System of Nevada, and the Energy and Geoscience Institute at the University of Utah;

(4) be hosted and managed by Boise State University; and

(5) have a director appointed by Boise State University, and associate directors appointed by each participating institution.

(c) **FINANCIAL ASSISTANCE.**—The Secretary, acting through the Idaho National Laboratory and subject to the availability of appropriations, will provide financial assistance to Boise State University for expenditure under contracts with members of the consortium to carry out the activities of the consortium.

Subtitle C—Hydroelectric

SEC. 241. ALTERNATIVE CONDITIONS AND FISHWAYS.

(a) **FEDERAL RESERVATIONS.**—Section 4(e) of the Federal Power Act (16 U.S.C. 797(e)) is amended by inserting after “adequate protection and utilization of such reservation.” at the end of the first proviso the following: “The license applicant and any party to the proceeding shall be entitled to a determination on the record, after opportunity for an agency trial-type hearing of no more than 90 days, on any disputed issues of material fact with respect to such conditions. All disputed issues of material fact raised by any party shall be determined in a single trial-type hearing to be conducted by the relevant resource agency in accordance with the regulations promulgated under this subsection and within the time frame established by the Commission for each license proceeding. Within 90 days of the date of enactment of the Energy Policy Act of 2005, the Secretaries of the Interior, Commerce, and Agriculture shall establish jointly, by rule, the procedures for such expedited trial-type hearing, including the opportunity to undertake discovery and cross-examine witnesses, in consultation with the Federal Energy Regulatory Commission.”.

(b) **FISHWAYS.**—Section 18 of the Federal Power Act (16 U.S.C. 811) is amended by inserting after “and such fishways as may be prescribed by the Secretary of Commerce.” the following: “The license applicant and any party to the proceeding shall be entitled to a determination on the record, after opportunity for an agency trial-type hearing of no more than 90 days, on any disputed issues of material fact with respect to such fishways. All disputed issues of material fact raised by any party shall be determined in a single trial-type hearing to be conducted by the relevant resource agency in accordance with the regulations promulgated under this subsection and within the time frame established by the Commission for each license proceeding. Within 90 days of the date of enactment of the Energy Policy Act of 2005, the Secretaries of the Interior, Commerce, and Agriculture shall establish jointly, by rule, the procedures for such expedited trial-type hearing, including the opportunity to undertake discovery and cross-examine witnesses, in consultation with the Federal Energy Regulatory Commission.”.

(c) **ALTERNATIVE CONDITIONS AND PRESCRIPTIONS.**—Part I of the Federal Power Act (16 U.S.C. 791a et seq.) is amended by adding the following new section at the end thereof:

“SEC. 33. ALTERNATIVE CONDITIONS AND PRESCRIPTIONS.

“(a) **ALTERNATIVE CONDITIONS.**—(1) Whenever any person applies for a license for any project works within any reservation of

the United States, and the Secretary of the department under whose supervision such reservation falls (referred to in this subsection as the ‘Secretary’) deems a condition to such license to be necessary under the first proviso of section 4(e), the license applicant or any other party to the license proceeding may propose an alternative condition.

“(2) Notwithstanding the first proviso of section 4(e), the Secretary shall accept the proposed alternative condition referred to in paragraph (1), and the Commission shall include in the license such alternative condition, if the Secretary determines, based on substantial evidence provided by the license applicant, any other party to the proceeding, or otherwise available to the Secretary, that such alternative condition—

“(A) provides for the adequate protection and utilization of the reservation; and

“(B) will either, as compared to the condition initially by the Secretary—

“(i) cost significantly less to implement; or

“(ii) result in improved operation of the project works for electricity production.

“(3) In making a determination under paragraph (2), the Secretary shall consider evidence provided for the record by any party to a licensing proceeding, or otherwise available to the Secretary, including any evidence provided by the Commission, on the implementation costs or operational impacts for electricity production of a proposed alternative.

“(4) The Secretary concerned shall submit into the public record of the Commission proceeding with any condition under section 4(e) or alternative condition it accepts under this section, a written statement explaining the basis for such condition, and reason for not accepting any alternative condition under this section. The written statement must demonstrate that the Secretary gave equal consideration to the effects of the condition adopted and alternatives not accepted on energy supply, distribution, cost, and use; flood control; navigation; water supply; and air quality (in addition to the preservation of other aspects of environmental quality); based on such information as may be available to the Secretary, including information voluntarily provided in a timely manner by the applicant and others. The Secretary shall also submit, together with the aforementioned written statement, all studies, data, and other factual information available to the Secretary and relevant to the Secretary’s decision.

“(5) If the Commission finds that the Secretary’s final condition would be inconsistent with the purposes of this part, or other applicable law, the Commission may refer the dispute to the Commission’s Dispute Resolution Service. The Dispute Resolution Service shall consult with the Secretary and the Commission and issue a non-binding advisory within 90 days. The Secretary may accept the Dispute Resolution Service advisory unless the Secretary finds that the recommendation will not adequately protect the reservation. The Secretary shall submit the advisory and the Secretary’s final written determination into the record of the Commission’s proceeding.

“(b) ALTERNATIVE PRESCRIPTIONS.—(1) Whenever the Secretary of the Interior or the Secretary of Commerce prescribes a fishway under section 18, the license applicant or any other party to the license proceeding may propose an alternative to such prescription to construct, maintain, or operate a fishway.

“(2) Notwithstanding section 18, the Secretary of the Interior or the Secretary of Commerce, as appropriate, shall accept and prescribe, and the Commission shall require, the proposed alternative referred to in paragraph (1), if the Secretary of the appropriate department determines, based on substantial evidence provided by the license applicant, any other party to the proceeding, or otherwise available to the Secretary, that such alternative—

“(A) will be no less protective than the fishway initially prescribed by the Secretary; and

“(B) will either, as compared to the fishway initially prescribed by the Secretary—

“(i) cost significantly less to implement; or

“(ii) result in improved operation of the project works for electricity production.

“(3) In making a determination under paragraph (2), the Secretary shall consider evidence provided for the record by any party to a licensing proceeding, or otherwise available to the Secretary, including any evidence provided by the Commission, on the implementation costs or operational impacts for electricity production of a proposed alternative.

“(4) The Secretary concerned shall submit into the public record of the Commission proceeding with any prescription under section 18 or alternative prescription it accepts under this section, a written statement explaining the basis for such prescription, and reason for not accepting any alternative prescription under this section. The written statement must demonstrate that the Secretary gave equal consideration to the effects of the prescription adopted and alternatives not accepted on energy supply, distribution, cost, and use; flood control; navigation; water supply; and air quality (in addition to the preservation of other aspects of environmental quality); based on such information as may be available to the Secretary, including information voluntarily provided in a timely manner by the applicant and others. The Secretary shall also submit, together with the aforementioned written statement, all studies, data, and other factual information available to the Secretary and relevant to the Secretary’s decision.

“(5) If the Commission finds that the Secretary’s final prescription would be inconsistent with the purposes of this part, or other applicable law, the Commission may refer the dispute to the Commission’s Dispute Resolution Service. The Dispute Resolution Service shall consult with the Secretary and the Commission and issue a non-binding advisory within 90 days. The Secretary may accept the Dispute Resolution Service advisory unless the Secretary finds that the recommendation will not adequately protect the fish resources. The Secretary shall submit the advisory and the Secretary’s final written determination into the record of the Commission’s proceeding.”.

SEC. 242. [42 U.S.C. 15881] HYDROELECTRIC PRODUCTION INCENTIVES.

(a) **INCENTIVE PAYMENTS.**—For electric energy generated and sold by a qualified hydroelectric facility during the incentive period, the Secretary shall make, subject to the availability of appropriations, incentive payments to the owner or operator of such facility. The amount of such payment made to any such owner or operator shall be as determined under subsection (e) of this section. Payments under this section may only be made upon receipt by the Secretary of an incentive payment application which establishes that the applicant is eligible to receive such payment and which satisfies such other requirements as the Secretary deems necessary. Such application shall be in such form, and shall be submitted at such time, as the Secretary shall establish.

(b) **DEFINITIONS.**—For purposes of this section:

(1) **QUALIFIED HYDROELECTRIC FACILITY.**—The term “qualified hydroelectric facility” means a turbine or other generating device owned or solely operated by a non-Federal entity—

(A) that generates hydroelectric energy for sale; and

(B)(i) that is added to an existing dam or conduit; or

(ii)(I) that has a generating capacity of not more than 20 megawatts;

(II) for which the non-Federal entity has received a construction authorization from the Federal Energy Regulatory Commission, if applicable; and

(III) that is constructed in an area in which there is inadequate electric service, as determined by the Secretary, including by taking into consideration—

(aa) access to the electric grid;

(bb) the frequency of electric outages; or

(cc) the affordability of electricity.

(2) **EXISTING DAM OR CONDUIT.**—The term “existing dam or conduit” means any dam or conduit the construction of which was completed before the date of enactment of the Infrastructure Investment and Jobs Act and which does not require any construction or enlargement of impoundment or diversion structures (other than repair or reconstruction) in connection with the installation of a turbine or other generating device.

(3) **CONDUIT.**—The term “conduit” has the same meaning as when used in section 30(a)(2) of the Federal Power Act (16 U.S.C. 823a(a)(2)).

The terms defined in this subsection shall apply without regard to the hydroelectric kilowatt capacity of the facility concerned, without regard to whether the facility uses a dam owned by a governmental or nongovernmental entity, and without regard to whether the facility begins operation on or after the date of enactment of the Infrastructure Investment and Jobs Act.

(c) **ELIGIBILITY WINDOW.**—Payments may be made under this section only for electric energy generated from a qualified hydroelectric facility which begins operation during the period of 22 fiscal years beginning with the first full fiscal year occurring after the date of enactment of this subtitle.

(d) **INCENTIVE PERIOD.**—A qualified hydroelectric facility may receive payments under this section for a period of 10 fiscal years

(referred to in this section as the “incentive period”). Such period shall begin with the fiscal year in which electric energy generated from the facility is first eligible for such payments.

(e) AMOUNT OF PAYMENT.—

(1) IN GENERAL.—Payments made by the Secretary under this section to the owner or operator of a qualified hydroelectric facility shall be based on the number of kilowatt hours of hydroelectric energy generated by the facility during the incentive period. For any such facility, the amount of such payment shall be 1.8 cents per kilowatt hour (adjusted as provided in paragraph (2)), subject to the availability of appropriations under subsection (g), except that no facility may receive more than \$1,000,000 in 1 calendar year.

(2) ADJUSTMENTS.—The amount of the payment made to any person under this section as provided in paragraph (1) shall be adjusted for inflation for each fiscal year beginning after calendar year 2005 in the same manner as provided in the provisions of section 45K(d)(2)(B) of the Internal Revenue Code of 1986, except that in applying such provisions the calendar year 2005 shall be substituted for calendar year 1979.

(f) SUNSET.—No payment may be made under this section to any qualified hydroelectric facility after the expiration of the period of 32 fiscal years beginning with the first full fiscal year occurring after the date of enactment of this subtitle, and no payment may be made under this section to any such facility after a payment has been made with respect to such facility for a period of 10 fiscal years.

(g) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$125,000,000 for fiscal year 2022, to remain available until expended.

SEC. 243. [42 U.S.C. 15882] HYDROELECTRIC EFFICIENCY IMPROVEMENT INCENTIVES.

(a) INCENTIVE PAYMENTS.—The Secretary shall make incentive payments to the owners or operators of hydroelectric facilities at existing dams to be used to make capital improvements in the facilities that are directly related to improving the efficiency of such facilities by at least 3 percent.

(b) LIMITATIONS.—Incentive payments under this section shall not exceed 30 percent of the costs of the capital improvement concerned and not more than 1 payment may be made with respect to improvements at a single facility. No payment in excess of \$5,000,000 may be made with respect to improvements at a single facility in any 1 fiscal year.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$75,000,000 for fiscal year 2022 to remain available until expended.

SEC. 244. ALASKA STATE JURISDICTION OVER SMALL HYDROELECTRIC PROJECTS.

Section 32 of the Federal Power Act (16 U.S.C. 823c) is amended—

(1) in subsection (a)(3)(C), by inserting “except as provided in subsection (j),” before “conditions”; and

(2) by adding at the end the following:

“(j) FISH AND WILDLIFE.—If the State of Alaska determines that a recommendation under subsection (a)(3)(C) is inconsistent with paragraphs (1) and (2) of subsection (a), the State of Alaska may decline to adopt all or part of the recommendations in accordance with the procedures established under section 10(j)(2).”.

SEC. 245. FLINT CREEK HYDROELECTRIC PROJECT.

(a) EXTENSION OF TIME.—Notwithstanding the time period specified in section 5 of the Federal Power Act (16 U.S.C. 798) that would otherwise apply to the Federal Energy Regulatory Commission (referred to in this section as the “Commission”) project numbered 12107, the Commission shall—

(1) if the preliminary permit is in effect on the date of enactment of this Act, extend the preliminary permit for a period of 3 years beginning on the date on which the preliminary permit expires; or

(2) if the preliminary permit expired before the date of enactment of this Act, on request of the permittee, reinstate the preliminary permit for an additional 3-year period beginning on the date of enactment of this Act.

(b) LIMITATION ON CERTAIN FEES.—Notwithstanding section 10(e)(1) of the Federal Power Act (16 U.S.C. 803(e)(1)) or any other provision of Federal law providing for the payment to the United States of charges for the use of Federal land for the purposes of operating and maintaining a hydroelectric development licensed by the Commission, any political subdivision of the State of Montana that holds a Commission license for the Commission project numbered 12107 in Granite and Deer Lodge Counties, Montana, shall be required to pay to the United States for the use of that land for each year during which the political subdivision continues to hold the license for the project, the lesser of—

(1) \$25,000; or

(2) such annual charge as the Commission or any other department or agency of the Federal Government may assess.

SEC. 246. SMALL HYDROELECTRIC POWER PROJECTS.

Section 408(a)(6) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2708(a)(6)) is amended by striking “April 20, 1977” and inserting “July 22, 2005”.

SEC. 247. [42 U.S.C. 15883] MAINTAINING AND ENHANCING HYDROELECTRICITY INCENTIVES.

(a) DEFINITION OF QUALIFIED HYDROELECTRIC FACILITY.—In this section, the term “qualified hydroelectric facility” means a hydroelectric project that—

(1)(A) is licensed by the Federal Energy Regulatory Commission; or

(B) is a hydroelectric project constructed, operated, or maintained pursuant to a permit or valid existing right-of-way granted prior to June 10, 1920, or a license granted pursuant to the Federal Power Act (16 U.S.C. 791a et seq.);

(2) is placed into service before the date of enactment of this section; and

(3)(A) is in compliance with all applicable Federal, Tribal, and State requirements; or

(B) would be brought into compliance with the requirements described in subparagraph (A) as a result of the capital improvements carried out using an incentive payment under this section.

(b) INCENTIVE PAYMENTS.—The Secretary shall make incentive payments to the owners or operators of qualified hydroelectric facilities for capital improvements directly related to—

(1) improving grid resiliency, including—

(A) adapting more quickly to changing grid conditions;

(B) providing ancillary services (including black start capabilities, voltage support, and spinning reserves);

(C) integrating other variable sources of electricity generation; and

(D) managing accumulated reservoir sediments;

(2) improving dam safety to ensure acceptable performance under all loading conditions (including static, hydrologic, and seismic conditions), including—

(A) the maintenance or upgrade of spillways or other appurtenant structures;

(B) dam stability improvements, including erosion repair and enhanced seepage controls; and

(C) upgrades or replacements of floodgates or natural infrastructure restoration or protection to improve flood risk reduction; or

(3) environmental improvements, including—

(A) adding or improving safe and effective fish passage, including new or upgraded turbine technology, fish ladders, fishways, and all other associated technology, equipment, or other fish passage technology to a qualified hydroelectric facility;

(B) improving the quality of the water retained or released by a qualified hydroelectric facility;

(C) promoting downstream sediment transport processes and habitat maintenance; and

(D) improving recreational access to the project vicinity, including roads, trails, boat ingress and egress, flows to improve recreation, and infrastructure that improves river recreation opportunity.

(c) LIMITATIONS.—

(1) COSTS.—Incentive payments under this section shall not exceed 30 percent of the costs of the applicable capital improvement.

(2) MAXIMUM AMOUNT.—Not more than 1 incentive payment may be made under this section with respect to capital improvements at a single qualified hydroelectric facility in any 1 fiscal year, the amount of which shall not exceed \$5,000,000.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$553,600,000 for fiscal year 2022, to remain available until expended.

Subtitle D—Insular Energy

SEC. 251. INSULAR AREAS ENERGY SECURITY.

Section 604 of the Act entitled “An Act to authorize appropriations for certain insular areas of the United States, and for other purposes”, approved December 24, 1980 (48 U.S.C. 1492), is amended—

(1) in subsection (a)(4) by striking the period and inserting a semicolon;

(2) by adding at the end of subsection (a) the following new paragraphs:

“(5) electric power transmission and distribution lines in insular areas are inadequate to withstand damage caused by the hurricanes and typhoons which frequently occur in insular areas and such damage often costs millions of dollars to repair; and

“(6) the refinement of renewable energy technologies since the publication of the 1982 Territorial Energy Assessment prepared pursuant to subsection (c) reveals the need to reassess the state of energy production, consumption, infrastructure, reliance on imported energy, opportunities for energy conservation and increased energy efficiency, and indigenous sources in regard to the insular areas.”;

(3) by amending subsection (e) to read as follows:

“(e)(1) The Secretary of the Interior, in consultation with the Secretary of Energy and the head of government of each insular area, shall update the plans required under subsection (c) by—

“(A) updating the contents required by subsection (c);

“(B) drafting long-term energy plans for such insular areas with the objective of reducing, to the extent feasible, their reliance on energy imports by the year 2012, increasing energy conservation and energy efficiency, and maximizing, to the extent feasible, use of indigenous energy sources; and

“(C) drafting long-term energy transmission line plans for such insular areas with the objective that the maximum percentage feasible of electric power transmission and distribution lines in each insular area be protected from damage caused by hurricanes and typhoons.

“(2) In carrying out this subsection, the Secretary of Energy shall identify and evaluate the strategies or projects with the greatest potential for reducing the dependence on imported fossil fuels as used for the generation of electricity, including strategies and projects for—

“(A) improved supply-side efficiency of centralized electrical generation, transmission, and distribution systems;

“(B) improved demand-side management through—

“(i) the application of established standards for energy efficiency for appliances;

“(ii) the conduct of energy audits for business and industrial customers; and

“(iii) the use of energy savings performance contracts;

“(C) increased use of renewable energy, including—

“(i) solar thermal energy for electric generation;

“(ii) solar thermal energy for water heating in large buildings, such as hotels, hospitals, government buildings, and residences;

“(iii) photovoltaic energy;

“(iv) wind energy;

“(v) hydroelectric energy;

“(vi) wave energy;

“(vii) energy from ocean thermal resources, including ocean thermal-cooling for community air conditioning;

“(viii) water vapor condensation for the production of potable water;

“(ix) fossil fuel and renewable hybrid electrical generation systems; and

“(x) other strategies or projects that the Secretary may identify as having significant potential; and

“(D) fuel substitution and minimization with indigenous biofuels, such as coconut oil.

“(3) In carrying out this subsection, for each insular area with a significant need for distributed generation, the Secretary of Energy shall identify and evaluate the most promising strategies and projects described in subparagraphs (C) and (D) of paragraph (2) for meeting that need.

“(4) In assessing the potential of any strategy or project under paragraphs (2) and (3), the Secretary of Energy shall consider—

“(A) the estimated cost of the power or energy to be produced, including—

“(i) any additional costs associated with the distribution of the generation; and

“(ii) the long-term availability of the generation source;

“(B) the capacity of the local electrical utility to manage, operate, and maintain any project that may be undertaken; and

“(C) other factors the Secretary of Energy considers to be appropriate.

“(5) Not later than 1 year after the date of enactment of this subsection, the Secretary of the Interior shall submit to the Committee on Energy and Natural Resources of the Senate, the Committee on Resources of the House of Representatives, and the Committee on Energy and Commerce of the House of Representatives, the updated plans for each insular area required by this subsection.”; and

(4) by amending subsection (g)(4) to read as follows:

“(4) POWER LINE GRANTS FOR INSULAR AREAS.—

“(A) IN GENERAL.—The Secretary of the Interior is authorized to make grants to governments of insular areas of the United States to carry out eligible projects to protect electric power transmission and distribution lines in such insular areas from damage caused by hurricanes and typhoons.

“(B) ELIGIBLE PROJECTS.—The Secretary of the Interior may award grants under subparagraph (A) only to governments of insular areas of the United States that

submit written project plans to the Secretary for projects that meet the following criteria:

“(i) The project is designed to protect electric power transmission and distribution lines located in 1 or more of the insular areas of the United States from damage caused by hurricanes and typhoons.

“(ii) The project is likely to substantially reduce the risk of future damage, hardship, loss, or suffering.

“(iii) The project addresses 1 or more problems that have been repetitive or that pose a significant risk to public health and safety.

“(iv) The project is not likely to cost more than the value of the reduction in direct damage and other negative impacts that the project is designed to prevent or mitigate. The cost benefit analysis required by this criterion shall be computed on a net present value basis.

“(v) The project design has taken into consideration long-term changes to the areas and persons it is designed to protect and has manageable future maintenance and modification requirements.

“(vi) The project plan includes an analysis of a range of options to address the problem it is designed to prevent or mitigate and a justification for the selection of the project in light of that analysis.

“(vii) The applicant has demonstrated to the Secretary that the matching funds required by subparagraph (D) are available.

“(C) PRIORITY.—When making grants under this paragraph, the Secretary of the Interior shall give priority to grants for projects which are likely to—

“(i) have the greatest impact on reducing future disaster losses; and

“(ii) best conform with plans that have been approved by the Federal Government or the government of the insular area where the project is to be carried out for development or hazard mitigation for that insular area.

“(D) MATCHING REQUIREMENT.—The Federal share of the cost for a project for which a grant is provided under this paragraph shall not exceed 75 percent of the total cost of that project. The non-Federal share of the cost may be provided in the form of cash or services.

“(E) TREATMENT OF FUNDS FOR CERTAIN PURPOSES.—Grants provided under this paragraph shall not be considered as income, a resource, or a duplicative program when determining eligibility or benefit levels for Federal major disaster and emergency assistance.

“(F) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this paragraph \$6,000,000 for each fiscal year beginning after the date of the enactment of this paragraph.”.

SEC. 252. [42 U.S.C. 15891] PROJECTS ENHANCING INSULAR ENERGY INDEPENDENCE.

(a) PROJECT FEASIBILITY STUDIES.—

(1) IN GENERAL.—On a request described in paragraph (2), the Secretary shall conduct a feasibility study of a project to implement a strategy or project identified in the plans submitted to Congress pursuant to section 604 of the Act entitled “An Act to authorize appropriations for certain insular areas of the United States, and for other purposes”, approved December 24, 1980 (48 U.S.C. 1492), as having the potential to—

(A) significantly reduce the dependence of an insular area on imported fossil fuels; or

(B) provide needed distributed generation to an insular area.

(2) REQUEST.—The Secretary shall conduct a feasibility study under paragraph (1) on—

(A) the request of an electric utility located in an insular area that commits to fund at least 10 percent of the cost of the study; and

(B) if the electric utility is located in the Federated States of Micronesia, the Republic of the Marshall Islands, or the Republic of Palau, written support for that request by the President or the Ambassador of the affected freely associated state.

(3) CONSULTATION.—The Secretary shall consult with regional utility organizations in—

(A) conducting feasibility studies under paragraph (1); and

(B) determining the feasibility of potential projects.

(4) FEASIBILITY.—For the purpose of a feasibility study under paragraph (1), a project shall be determined to be feasible if the project would significantly reduce the dependence of an insular area on imported fossil fuels, or provide needed distributed generation to an insular area, at a reasonable cost.

(b) IMPLEMENTATION.—

(1) IN GENERAL.—On a determination by the Secretary (in consultation with the Secretary of the Interior) that a project is feasible under subsection (a) and a commitment by an electric utility to operate and maintain the project, the Secretary may provide such technical and financial assistance as the Secretary determines is appropriate for the implementation of the project.

(2) REGIONAL UTILITY ORGANIZATIONS.—In providing assistance under paragraph (1), the Secretary shall consider providing the assistance through regional utility organizations.

(c) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary—

(A) \$500,000 for each fiscal year for project feasibility studies under subsection (a); and

(B) \$4,000,000 for each fiscal year for project implementation under subsection (b).

(2) LIMITATION OF FUNDS RECEIVED BY INSULAR AREAS.—No insular area may receive, during any 3-year period, more than 20 percent of the total funds made available during that 3-year period under subparagraphs (A) and (B) of paragraph (1) unless the Secretary determines that providing funding in excess

of that percentage best advances existing opportunities to meet the objectives of this section.

TITLE III—OIL AND GAS

Subtitle A—Petroleum Reserve and Home Heating Oil

SEC. 301. PERMANENT AUTHORITY TO OPERATE THE STRATEGIC PETROLEUM RESERVE AND OTHER ENERGY PROGRAMS.

(a) AMENDMENT TO TITLE I OF THE ENERGY POLICY AND CONSERVATION ACT.—Title I of the Energy Policy and Conservation Act (42 U.S.C. 6212 et seq.) is amended—

(1) by striking section 166 (42 U.S.C. 6246) and inserting the following:

“AUTHORIZATION OF APPROPRIATIONS

“SEC. 166. There are authorized to be appropriated to the Secretary such sums as are necessary to carry out this part and part D, to remain available until expended.”;

(2) by striking section 186 (42 U.S.C. 6250e); and

(3) by striking part E (42 U.S.C. 6251).

(b) AMENDMENT TO TITLE II OF THE ENERGY POLICY AND CONSERVATION ACT.—Title II of the Energy Policy and Conservation Act (42 U.S.C. 6271 et seq.) is amended—

(1) by inserting before section 273 (42 U.S.C. 6283) the following:

“PART C—SUMMER FILL AND FUEL BUDGETING PROGRAMS”;

(2) by striking section 273(e) (42 U.S.C. 6283(e)); and

(3) by striking part D (42 U.S.C. 6285).

(c) TECHNICAL AMENDMENTS.—The table of contents for the Energy Policy and Conservation Act is amended—

(1) by inserting after the items relating to part C of title I the following:

“PART D—NORTHEAST HOME HEATING OIL RESERVE

“Sec. 181. Establishment.

“Sec. 182. Authority.

“Sec. 183. Conditions for release; plan.

“Sec. 184. Northeast Home Heating Oil Reserve Account.

“Sec. 185. Exemptions.”;

(2) by amending the items relating to part C of title II to read as follows:

“PART C—SUMMER FILL AND FUEL BUDGETING PROGRAMS

“Sec. 273. Summer fill and fuel budgeting programs.”;

and

(3) by striking the items relating to part D of title II.

(d) AMENDMENT TO THE ENERGY POLICY AND CONSERVATION ACT.—Section 183(b)(1) of the Energy Policy and Conservation Act

(42 U.S.C. 6250b(b)(1)) is amended by striking “by more” and all that follows through “mid-October through March” and inserting “by more than 60 percent over its 5-year rolling average for the months of mid-October through March (considered as a heating season average)”.

(e) **FILL STRATEGIC PETROLEUM RESERVE TO CAPACITY.**—

(1) **IN GENERAL.**—The Secretary shall, as expeditiously as practicable, without incurring excessive cost or appreciably affecting the price of petroleum products to consumers, acquire petroleum in quantities sufficient to fill the Strategic Petroleum Reserve to the 1,000,000,000-barrel capacity authorized under section 154(a) of the Energy Policy and Conservation Act (42 U.S.C. 6234(a)), in accordance with the sections 159 and 160 of that Act (42 U.S.C. 6239, 6240).

(2) **PROCEDURES.**—

(A) **AMENDMENT.**—Section 160 of the Energy Policy and Conservation Act (42 U.S.C. 6240) is amended by inserting after subsection (b) the following new subsection:

“(c) **PROCEDURES.**—The Secretary shall develop, with public notice and opportunity for comment, procedures consistent with the objectives of this section to acquire petroleum for the Reserve. Such procedures shall take into account the need to—

“(1) maximize overall domestic supply of crude oil (including quantities stored in private sector inventories);

“(2) avoid incurring excessive cost or appreciably affecting the price of petroleum products to consumers;

“(3) minimize the costs to the Department of the Interior and the Department of Energy in acquiring such petroleum products (including foregone revenues to the Treasury when petroleum products for the Reserve are obtained through the royalty-in-kind program);

“(4) protect national security;

“(5) avoid adversely affecting current and futures prices, supplies, and inventories of oil; and

“(6) address other factors that the Secretary determines to be appropriate.”.

(B) **REVIEW OF REQUESTS FOR DEFERRALS OF SCHEDULED DELIVERIES.**—The procedures developed under section 160(c) of the Energy Policy and Conservation Act, as added by subparagraph (A), shall include procedures and criteria for the review of requests for the deferrals of scheduled deliveries.

(C) **DEADLINES.**—The Secretary shall—

(i) propose the procedures required under the amendment made by subparagraph (A) not later than 120 days after the date of enactment of this Act;

(ii) promulgate the procedures not later than 180 days after the date of enactment of this Act; and

(iii) comply with the procedures in acquiring petroleum for the Reserve effective beginning on the date that is 180 days after the date of enactment of this Act.

SEC. 302. NATIONAL OILHEAT RESEARCH ALLIANCE.

Section 713 of the Energy Act of 2000 (Public Law 106–469; 42 U.S.C. 6201 note) is amended by striking “4” and inserting “9”.

SEC. 303. SITE SELECTION.

Not later than 1 year after the date of enactment of this Act, the Secretary shall complete a proceeding to select, from sites that the Secretary has previously studied, sites necessary to enable acquisition by the Secretary of the full authorized volume of the Strategic Petroleum Reserve. In such proceeding, the Secretary shall first consider and give preference to the five sites which the Secretary previously assessed in the Draft Environmental Impact Statement, DOE/EIS–0165–D. However, the Secretary in his discretion may select other sites as proposed by a State where a site has been previously studied by the Secretary to meet the full authorized volume of the Strategic Petroleum Reserve.

Subtitle B—Natural Gas

SEC. 311. EXPORTATION OR IMPORTATION OF NATURAL GAS.

(a) **SCOPE OF NATURAL GAS ACT.**—Section 1(b) of the Natural Gas Act (15 U.S.C. 717(b)) is amended by inserting “and to the importation or exportation of natural gas in foreign commerce and to persons engaged in such importation or exportation,” after “such transportation or sale,”.

(b) **DEFINITION.**—Section 2 of the Natural Gas Act (15 U.S.C. 717a) is amended by adding at the end the following new paragraph:

“(11) ‘LNG terminal’ includes all natural gas facilities located onshore or in State waters that are used to receive, unload, load, store, transport, gasify, liquefy, or process natural gas that is imported to the United States from a foreign country, exported to a foreign country from the United States, or transported in interstate commerce by waterborne vessel, but does not include—

“(A) waterborne vessels used to deliver natural gas to or from any such facility; or

“(B) any pipeline or storage facility subject to the jurisdiction of the Commission under section 7.”.

(c) **AUTHORIZATION FOR SITING, CONSTRUCTION, EXPANSION, OR OPERATION OF LNG TERMINALS.**—(1) The title for section 3 of the Natural Gas Act (15 U.S.C. 717b) is amended by inserting “; LNG TERMINALS” after “EXPORTATION OR IMPORTATION OF NATURAL GAS”.

(2) Section 3 of the Natural Gas Act (15 U.S.C. 717b) is amended by adding at the end the following:

“(d) Except as specifically provided in this Act, nothing in this Act affects the rights of States under—

“(1) the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.);

“(2) the Clean Air Act (42 U.S.C. 7401 et seq.); or

“(3) the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.).

“(e)(1) The Commission shall have the exclusive authority to approve or deny an application for the siting, construction, expan-

sion, or operation of an LNG terminal. Except as specifically provided in this Act, nothing in this Act is intended to affect otherwise applicable law related to any Federal agency's authorities or responsibilities related to LNG terminals.

"(2) Upon the filing of any application to site, construct, expand, or operate an LNG terminal, the Commission shall—

"(A) set the matter for hearing;

"(B) give reasonable notice of the hearing to all interested persons, including the State commission of the State in which the LNG terminal is located and, if not the same, the Governor-appointed State agency described in section 3A;

"(C) decide the matter in accordance with this subsection; and

"(D) issue or deny the appropriate order accordingly.

"(3)(A) Except as provided in subparagraph (B), the Commission may approve an application described in paragraph (2), in whole or part, with such modifications and upon such terms and conditions as the Commission find necessary or appropriate.

"(B) Before January 1, 2015, the Commission shall not—

"(i) deny an application solely on the basis that the applicant proposes to use the LNG terminal exclusively or partially for gas that the applicant or an affiliate of the applicant will supply to the facility; or

"(ii) condition an order on—

"(I) a requirement that the LNG terminal offer service to customers other than the applicant, or any affiliate of the applicant, securing the order;

"(II) any regulation of the rates, charges, terms, or conditions of service of the LNG terminal; or

"(III) a requirement to file with the Commission schedules or contracts related to the rates, charges, terms, or conditions of service of the LNG terminal.

"(C) Subparagraph (B) shall cease to have effect on January 1, 2030.

"(4) An order issued for an LNG terminal that also offers service to customers on an open access basis shall not result in subsidization of expansion capacity by existing customers, degradation of service to existing customers, or undue discrimination against existing customers as to their terms or conditions of service at the facility, as all of those terms are defined by the Commission.

"(f)(1) In this subsection, the term 'military installation'—

"(A) means a base, camp, post, range, station, yard, center, or homeport facility for any ship or other activity under the jurisdiction of the Department of Defense, including any leased facility, that is located within a State, the District of Columbia, or any territory of the United States; and

"(B) does not include any facility used primarily for civil works, rivers and harbors projects, or flood control projects, as determined by the Secretary of Defense.

"(2) The Commission shall enter into a memorandum of understanding with the Secretary of Defense for the purpose of ensuring that the Commission coordinate and consult with the Secretary of Defense on the siting, construction, expansion, or operation of liq-

uefied natural gas facilities that may affect an active military installation.

“(3) The Commission shall obtain the concurrence of the Secretary of Defense before authorizing the siting, construction, expansion, or operation of liquefied natural gas facilities affecting the training or activities of an active military installation.”

(d) LNG TERMINAL STATE AND LOCAL SAFETY CONCERNS.—After section 3 of the Natural Gas Act (15 U.S.C. 717b) insert the following:

“STATE AND LOCAL SAFETY CONSIDERATIONS

“SEC. 3A. (a) The Commission shall promulgate regulations on the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) pre-filing process within 60 days after the date of enactment of this section. An applicant shall comply with pre-filing process required under the National Environmental Policy Act of 1969 prior to filing an application with the Commission. The regulations shall require that the pre-filing process commence at least 6 months prior to the filing of an application for authorization to construct an LNG terminal and encourage applicants to cooperate with State and local officials.

“(b) The Governor of a State in which an LNG terminal is proposed to be located shall designate the appropriate State agency for the purposes of consulting with the Commission regarding an application under section 3. The Commission shall consult with such State agency regarding State and local safety considerations prior to issuing an order pursuant to section 3. For the purposes of this section, State and local safety considerations include—

- “(1) the kind and use of the facility;
- “(2) the existing and projected population and demographic characteristics of the location;
- “(3) the existing and proposed land use near the location;
- “(4) the natural and physical aspects of the location;
- “(5) the emergency response capabilities near the facility location; and
- “(6) the need to encourage remote siting.

“(c) The State agency may furnish an advisory report on State and local safety considerations to the Commission with respect to an application no later than 30 days after the application was filed with the Commission. Before issuing an order authorizing an applicant to site, construct, expand, or operate an LNG terminal, the Commission shall review and respond specifically to the issues raised by the State agency described in subsection (b) in the advisory report. This subsection shall apply to any application filed after the date of enactment of the Energy Policy Act of 2005. A State agency has 30 days after such date of enactment to file an advisory report related to any applications pending at the Commission as of such date of enactment.

“(d) The State commission of the State in which an LNG terminal is located may, after the terminal is operational, conduct safety inspections in conformance with Federal regulations and guidelines with respect to the LNG terminal upon written notice to the Commission. The State commission may notify the Commission of any alleged safety violations. The Commission shall transmit in-

formation regarding such allegations to the appropriate Federal agency, which shall take appropriate action and notify the State commission.

“(e)(1) In any order authorizing an LNG terminal the Commission shall require the LNG terminal operator to develop an Emergency Response Plan. The Emergency Response Plan shall be prepared in consultation with the United States Coast Guard and State and local agencies and be approved by the Commission prior to any final approval to begin construction. The Plan shall include a cost-sharing plan.

“(2) A cost-sharing plan developed under paragraph (1) shall include a description of any direct cost reimbursements that the applicant agrees to provide to any State and local agencies with responsibility for security and safety—

“(A) at the LNG terminal; and

“(B) in proximity to vessels that serve the facility.”.

SEC. 312. NEW NATURAL GAS STORAGE FACILITIES.

Section 4 of the Natural Gas Act (15 U.S.C. 717c) is amended by adding at the end the following:

“(f)(1) In exercising its authority under this Act or the Natural Gas Policy Act of 1978 (15 U.S.C. 3301 et seq.), the Commission may authorize a natural gas company (or any person that will be a natural gas company on completion of any proposed construction) to provide storage and storage-related services at market-based rates for new storage capacity related to a specific facility placed in service after the date of enactment of the Energy Policy Act of 2005, notwithstanding the fact that the company is unable to demonstrate that the company lacks market power, if the Commission determines that—

“(A) market-based rates are in the public interest and necessary to encourage the construction of the storage capacity in the area needing storage services; and

“(B) customers are adequately protected.

“(2) The Commission shall ensure that reasonable terms and conditions are in place to protect consumers.

“(3) If the Commission authorizes a natural gas company to charge market-based rates under this subsection, the Commission shall review periodically whether the market-based rate is just, reasonable, and not unduly discriminatory or preferential.”.

SEC. 313. PROCESS COORDINATION; HEARINGS; RULES OF PROCEDURE.

(a) IN GENERAL.—Section 15 of the Natural Gas Act (15 U.S.C. 717n) is amended—

(1) by striking the section heading and inserting “PROCESS COORDINATION; HEARINGS; RULES OF PROCEDURE”;

(2) by redesignating subsections (a) and (b) as subsections (e) and (f), respectively; and

(3) by striking “SEC. 15.” and inserting the following:

“SEC. 15. (a) In this section, the term ‘Federal authorization’—

“(1) means any authorization required under Federal law with respect to an application for authorization under section 3 or a certificate of public convenience and necessity under section 7; and

“(2) includes any permits, special use authorizations, certifications, opinions, or other approvals as may be required under Federal law with respect to an application for authorization under section 3 or a certificate of public convenience and necessity under section 7.

“(b) DESIGNATION AS LEAD AGENCY.—

“(1) IN GENERAL.—The Commission shall act as the lead agency for the purposes of coordinating all applicable Federal authorizations and for the purposes of complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

“(2) OTHER AGENCIES.—Each Federal and State agency considering an aspect of an application for Federal authorization shall cooperate with the Commission and comply with the deadlines established by the Commission.

“(c) SCHEDULE.—

“(1) COMMISSION AUTHORITY TO SET SCHEDULE.—The Commission shall establish a schedule for all Federal authorizations. In establishing the schedule, the Commission shall—

“(A) ensure expeditious completion of all such proceedings; and

“(B) comply with applicable schedules established by Federal law.

“(2) FAILURE TO MEET SCHEDULE.—If a Federal or State administrative agency does not complete a proceeding for an approval that is required for a Federal authorization in accordance with the schedule established by the Commission, the applicant may pursue remedies under section 19(d).

“(d) CONSOLIDATED RECORD.—The Commission shall, with the cooperation of Federal and State administrative agencies and officials, maintain a complete consolidated record of all decisions made or actions taken by the Commission or by a Federal administrative agency or officer (or State administrative agency or officer acting under delegated Federal authority) with respect to any Federal authorization. Such record shall be the record for—

“(1) appeals or reviews under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.), provided that the record may be supplemented as expressly provided pursuant to section 319 of that Act; or

“(2) judicial review under section 19(d) of decisions made or actions taken of Federal and State administrative agencies and officials, provided that, if the Court determines that the record does not contain sufficient information, the Court may remand the proceeding to the Commission for further development of the consolidated record.”.

(b) JUDICIAL REVIEW.—Section 19 of the Natural Gas Act (15 U.S.C. 717r) is amended by adding at the end the following:

“(d) JUDICIAL REVIEW.—

“(1) IN GENERAL.—The United States Court of Appeals for the circuit in which a facility subject to section 3 or section 7 is proposed to be constructed, expanded, or operated shall have original and exclusive jurisdiction over any civil action for the review of an order or action of a Federal agency (other than the Commission) or State administrative agency acting pursu-

ant to Federal law to issue, condition, or deny any permit, license, concurrence, or approval (hereinafter collectively referred to as ‘permit’) required under Federal law, other than the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.).

“(2) AGENCY DELAY.—The United States Court of Appeals for the District of Columbia shall have original and exclusive jurisdiction over any civil action for the review of an alleged failure to act by a Federal agency (other than the Commission) or State administrative agency acting pursuant to Federal law to issue, condition, or deny any permit required under Federal law, other than the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.), for a facility subject to section 3 or section 7. The failure of an agency to take action on a permit required under Federal law, other than the Coastal Zone Management Act of 1972, in accordance with the Commission schedule established pursuant to section 15(c) shall be considered inconsistent with Federal law for the purposes of paragraph (3).

“(3) COURT ACTION.—If the Court finds that such order or action is inconsistent with the Federal law governing such permit and would prevent the construction, expansion, or operation of the facility subject to section 3 or section 7, the Court shall remand the proceeding to the agency to take appropriate action consistent with the order of the Court. If the Court remands the order or action to the Federal or State agency, the Court shall set a reasonable schedule and deadline for the agency to act on remand.

“(4) COMMISSION ACTION.—For any action described in this subsection, the Commission shall file with the Court the consolidated record of such order or action to which the appeal hereunder relates.

“(5) EXPEDITED REVIEW.—The Court shall set any action brought under this subsection for expedited consideration.”.

SEC. 314. PENALTIES.

(a) CRIMINAL PENALTIES.—

(1) NATURAL GAS ACT.—Section 21 of the Natural Gas Act (15 U.S.C. 717t) is amended—

(A) in subsection (a)—

(i) by striking “\$5,000” and inserting “\$1,000,000”;

and

(ii) by striking “two years” and inserting “5 years”;

and

(B) in subsection (b), by striking “\$500” and inserting “\$50,000”.

(2) NATURAL GAS POLICY ACT OF 1978.—Section 504(c) of the Natural Gas Policy Act of 1978 (15 U.S.C. 3414(c)) is amended—

(A) in paragraph (1)—

(i) in subparagraph (A), by striking “\$5,000” and inserting “\$1,000,000”; and

(ii) in subparagraph (B), by striking “two years” and inserting “5 years”; and

(B) in paragraph (2), by striking “\$500 for each violation” and inserting “\$50,000 for each day on which the offense occurs”.

(b) CIVIL PENALTIES.—

(1) NATURAL GAS ACT.—The Natural Gas Act (15 U.S.C. 717 et seq.) is amended—

(A) by redesignating sections 22 through 24 as sections 24 through 26, respectively; and

(B) by inserting after section 21 (15 U.S.C. 717t) the following:

“CIVIL PENALTY AUTHORITY

“SEC. 22. (a) Any person that violates this Act, or any rule, regulation, restriction, condition, or order made or imposed by the Commission under authority of this Act, shall be subject to a civil penalty of not more than \$1,000,000 per day per violation for as long as the violation continues.

“(b) The penalty shall be assessed by the Commission after notice and opportunity for public hearing.

“(c) In determining the amount of a proposed penalty, the Commission shall take into consideration the nature and seriousness of the violation and the efforts to remedy the violation.”.

(2) NATURAL GAS POLICY ACT OF 1978.—Section 504(b)(6)(A) of the Natural Gas Policy Act of 1978 (15 U.S.C. 3414(b)(6)(A)) is amended—

(A) in clause (i), by striking “\$5,000” and inserting “\$1,000,000”; and

(B) in clause (ii), by striking “\$25,000” and inserting “\$1,000,000”.

SEC. 315. MARKET MANIPULATION.

The Natural Gas Act is amended by inserting after section 4 (15 U.S.C. 717c) the following:

“PROHIBITION ON MARKET MANIPULATION

“SEC. 4A. It shall be unlawful for any entity, directly or indirectly, to use or employ, in connection with the purchase or sale of natural gas or the purchase or sale of transportation services subject to the jurisdiction of the Commission, any manipulative or deceptive device or contrivance (as those terms are used in section 10(b) of the Securities Exchange Act of 1934 (15 U.S.C. 78j(b))) in contravention of such rules and regulations as the Commission may prescribe as necessary in the public interest or for the protection of natural gas ratepayers. Nothing in this section shall be construed to create a private right of action.”.

SEC. 316. NATURAL GAS MARKET TRANSPARENCY RULES.

The Natural Gas Act (15 U.S.C. 717 et seq.) is amended by inserting after section 22 the following:

“NATURAL GAS MARKET TRANSPARENCY RULES

“SEC. 23. (a)(1) The Commission is directed to facilitate price transparency in markets for the sale or transportation of physical natural gas in interstate commerce, having due regard for the pub-

lic interest, the integrity of those markets, fair competition, and the protection of consumers.

“(2) The Commission may prescribe such rules as the Commission determines necessary and appropriate to carry out the purposes of this section. The rules shall provide for the dissemination, on a timely basis, of information about the availability and prices of natural gas sold at wholesale and in interstate commerce to the Commission, State commissions, buyers and sellers of wholesale natural gas, and the public.

“(3) The Commission may—

“(A) obtain the information described in paragraph (2) from any market participant; and

“(B) rely on entities other than the Commission to receive and make public the information, subject to the disclosure rules in subsection (b).

“(4) In carrying out this section, the Commission shall consider the degree of price transparency provided by existing price publishers and providers of trade processing services, and shall rely on such publishers and services to the maximum extent possible. The Commission may establish an electronic information system if it determines that existing price publications are not adequately providing price discovery or market transparency.

“(b)(1) Rules described in subsection (a)(2), if adopted, shall exempt from disclosure information the Commission determines would, if disclosed, be detrimental to the operation of an effective market or jeopardize system security.

“(2) In determining the information to be made available under this section and the time to make the information available, the Commission shall seek to ensure that consumers and competitive markets are protected from the adverse effects of potential collusion or other anticompetitive behaviors that can be facilitated by untimely public disclosure of transaction-specific information.

“(c)(1) Within 180 days of enactment of this section, the Commission shall conclude a memorandum of understanding with the Commodity Futures Trading Commission relating to information sharing, which shall include, among other things, provisions ensuring that information requests to markets within the respective jurisdiction of each agency are properly coordinated to minimize duplicative information requests, and provisions regarding the treatment of proprietary trading information.

“(2) Nothing in this section may be construed to limit or affect the exclusive jurisdiction of the Commodity Futures Trading Commission under the Commodity Exchange Act (7 U.S.C. 1 et seq.).

“(d)(1) The Commission shall not condition access to interstate pipeline transportation on the reporting requirements of this section.

“(2) The Commission shall not require natural gas producers, processors, or users who have a de minimis market presence to comply with the reporting requirements of this section.

“(e)(1) Except as provided in paragraph (2), no person shall be subject to any civil penalty under this section with respect to any violation occurring more than 3 years before the date on which the person is provided notice of the proposed penalty under section 22(b).

“(2) Paragraph (1) shall not apply in any case in which the Commission finds that a seller that has entered into a contract for the transportation or sale of natural gas subject to the jurisdiction of the Commission has engaged in fraudulent market manipulation activities materially affecting the contract in violation of section 4A.”.

SEC. 317. FEDERAL-STATE LIQUEFIED NATURAL GAS FORUMS.

(a) **IN GENERAL.**—Not later than 1 year after the date of enactment of this Act, the Secretary, in cooperation and consultation with the Secretary of Transportation, the Secretary of Homeland Security, the Federal Energy Regulatory Commission, and the Governors of the Coastal States, shall convene not less than 3 forums on liquefied natural gas.

(b) **REQUIREMENTS.**—The forums shall—

(1) be located in areas where liquefied natural gas facilities are under consideration;

(2) be designed to foster dialogue among Federal officials, State and local officials, the general public, independent experts, and industry representatives; and

(3) at a minimum, provide an opportunity for public education and dialogue on—

(A) the role of liquefied natural gas in meeting current and future United States energy supply requirements and demand, in the context of the full range of energy supply options;

(B) the Federal and State siting and permitting processes;

(C) the potential risks and rewards associated with importing liquefied natural gas;

(D) the Federal safety and environmental requirements (including regulations) applicable to liquefied natural gas;

(E) prevention, mitigation, and response strategies for liquefied natural gas hazards; and

(F) additional issues as appropriate.

(c) **PURPOSE.**—The purpose of the forums shall be to identify and develop best practices for addressing the issues and challenges associated with liquefied natural gas imports, building on existing cooperative efforts.

(d) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 318. PROHIBITION OF TRADING AND SERVING BY CERTAIN INDIVIDUALS.

Section 20 of the Natural Gas Act (15 U.S.C. 717s) is amended by adding at the end the following:

“(d) In any proceedings under subsection (a), the court may prohibit, conditionally or unconditionally, and permanently or for such period of time as the court determines, any individual who is engaged or has engaged in practices constituting a violation of section 4A (including related rules and regulations) from—

“(1) acting as an officer or director of a natural gas company; or

“(2) engaging in the business of—
 “(A) the purchasing or selling of natural gas; or
 “(B) the purchasing or selling of transmission services
 subject to the jurisdiction of the Commission.”.

Subtitle C—Production

SEC. 321. OUTER CONTINENTAL SHELF PROVISIONS.

(a) STORAGE ON THE OUTER CONTINENTAL SHELF.—Section 5(a)(5) of the Outer Continental Shelf Lands Act (43 U.S.C. 1334(a)(5)) is amended by inserting “from any source” after “oil and gas”.

(b) NATURAL GAS DEFINED.—Section 3(13) of the Deepwater Port Act of 1974 (33 U.S.C. 1502(13)) is amended by adding at the end before the semicolon the following: “, natural gas liquids, liquefied petroleum gas, and condensate recovered from natural gas”.

SEC. 322. HYDRAULIC FRACTURING.

Paragraph (1) of section 1421(d) of the Safe Drinking Water Act (42 U.S.C. 300h(d)) is amended to read as follows:

“(1) UNDERGROUND INJECTION.—The term ‘underground injection’—

“(A) means the subsurface emplacement of fluids by well injection; and

“(B) excludes—

“(i) the underground injection of natural gas for purposes of storage; and

“(ii) the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities.”.

SEC. 323. OIL AND GAS EXPLORATION AND PRODUCTION DEFINED.

Section 502 of the Federal Water Pollution Control Act (33 U.S.C. 1362) is amended by adding at the end the following:

“(24) OIL AND GAS EXPLORATION AND PRODUCTION.—The term ‘oil and gas exploration, production, processing, or treatment operations or transmission facilities’ means all field activities or operations associated with exploration, production, processing, or treatment operations, or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities.”.

Subtitle D—Naval Petroleum Reserves

SEC. 331. [10 U.S.C. 7420 note] TRANSFER OF ADMINISTRATIVE JURISDICTION AND ENVIRONMENTAL REMEDIATION, NAVAL PETROLEUM RESERVE NUMBERED 2, KERN COUNTY, CALIFORNIA.

(a) ADMINISTRATION JURISDICTION TRANSFER TO SECRETARY OF THE INTERIOR.—Effective on the date of the enactment of this Act, administrative jurisdiction and control over all public domain lands included within Naval Petroleum Reserve Numbered 2 located in

Kern County, California (other than the lands specified in subsection (b)), are transferred from the Secretary to the Secretary of the Interior for management, subject to subsection (c), in accordance with the laws governing management of the public lands, and the regulations promulgated under such laws, including the Mineral Leasing Act (30 U.S.C. 181 et seq.) and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).

(b) **EXCLUSION OF CERTAIN RESERVE LANDS.**—The transfer of administrative jurisdiction made by subsection (a) does not include the following lands:

(1) That portion of Naval Petroleum Reserve Numbered 2 authorized for disposal under section 3403(a) of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (Public Law 105–261; 10 U.S.C. 7420 note).

(2) That portion of the surface estate of Naval Petroleum Reserve Numbered 2 conveyed to the City of Taft, California, by section 333.

(c) **PURPOSE OF TRANSFER.**—

(1) **PRODUCTION OF HYDROCARBON RESOURCES.**—Notwithstanding any other provision of law, the principal purpose of the lands subject to transfer under subsection (a) is the production of hydrocarbon resources, and the Secretary of the Interior shall manage the lands in a fashion consistent with this purpose. In managing the lands, the Secretary of the Interior shall regulate operations to prevent unnecessary degradation and to provide for ultimate economic recovery of the resources.

(2) **DISPOSAL AUTHORITY AND SURFACE USE.**—The Secretary of the Interior may make disposals of lands subject to transfer under subsection (a), or allow commercial or non-profit surface use of such lands, not to exceed 10 acres each, so long as the disposals or surface uses do not materially interfere with the ultimate economic recovery of the hydrocarbon resources of such lands. All revenues received from the disposal of lands under this paragraph or from allowing the surface use of such lands shall be deposited in the Naval Petroleum Reserve Numbered 2 Lease Revenue Account established by section 332.

(d) **[Omitted--Amendment]**

SEC. 332. [10 U.S.C. 7420 note] NAVAL PETROLEUM RESERVE NUMBERED 2 LEASE REVENUE ACCOUNT.

(a) **ESTABLISHMENT.**—There is established in the Treasury a special deposit account to be known as the “Naval Petroleum Reserve Numbered 2 Lease Revenue Account” (in this section referred to as the “lease revenue account”). The lease revenue account is a revolving account, and amounts in the lease revenue account shall be available to the Secretary of the Interior, without further appropriation, for the purposes specified in subsection (b).

(b) **PURPOSES OF ACCOUNT.**—

(1) **ENVIRONMENTAL-RELATED COSTS.**—The lease revenue account shall be the sole and exclusive source of funds to pay for any and all costs and expenses incurred by the United States for—

(A) environmental investigations (other than any environmental investigations that were conducted by the Secretary before the transfer of the Naval Petroleum Reserve

Numbered 2 lands under section 331), remediation, compliance actions, response, waste management, impediments, fines or penalties, or any other costs or expenses of any kind arising from, or relating to, conditions existing on or below the Naval Petroleum Reserve Numbered 2 lands, or activities occurring or having occurred on such lands, on or before the date of the transfer of such lands; and

(B) any future remediation necessitated as a result of pre-transfer and leasing activities on such lands.

(2) TRANSITION COSTS.—The lease revenue account shall also be available for use by the Secretary of the Interior to pay for transition costs incurred by the Department of the Interior associated with the transfer and leasing of the Naval Petroleum Reserve Numbered 2 lands.

(c) FUNDING.—The lease revenue account shall consist of the following:

(1) Notwithstanding any other provision of law, for a period of three years after the date of the transfer of the Naval Petroleum Reserve Numbered 2 lands under section 331, the sum of \$500,000 per year of revenue from leases entered into before that date, including bonuses, rents, royalties, and interest charges collected pursuant to the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1701 et. seq.), derived from the Naval Petroleum Reserve Numbered 2 lands, shall be deposited into the lease revenue account.

(2) Subject to subsection (d), all revenues derived from leases on Naval Petroleum Reserve Numbered 2 lands issued on or after the date of the transfer of such lands, including bonuses, rents, royalties, and interest charges collected pursuant to the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. 1701 et seq.), shall be deposited into the lease revenue account.

(d) LIMITATION.—Funds in the lease revenue account shall not exceed \$3,000,000 at any one time. Whenever funds in the lease revenue account are obligated or expended so that the balance in the account falls below that amount, lease revenues referred to in subsection (c)(2) shall be deposited in the account to maintain a balance of \$3,000,000.

(e) TERMINATION OF ACCOUNT.—At such time as the Secretary of the Interior certifies that remediation of all environmental contamination of Naval Petroleum Reserve Numbered 2 lands in existence as of the date of the transfer of such lands under section 331 has been successfully completed, that all costs and expenses of investigation, remediation, compliance actions, response, waste management, impediments, fines, or penalties associated with environmental contamination of such lands in existence as of the date of the transfer have been paid in full, and that the transition costs of the Department of the Interior referred to in subsection (b)(2) have been paid in full, the lease revenue account shall be terminated and any remaining funds shall be distributed in accordance with subsection (f).

(f) DISTRIBUTION OF REMAINING FUNDS.—Section 35 of the Mineral Leasing Act (30 U.S.C. 191) shall apply to the payment

and distribution of all funds remaining in the lease revenue account upon its termination under subsection (e).

SEC. 333. [10 U.S.C. 7420 note] LAND CONVEYANCE, PORTION OF NAVAL PETROLEUM RESERVE NUMBERED 2, TO CITY OF TAFT, CALIFORNIA.

(a) CONVEYANCE.—Effective on the date of the enactment of this Act, there is conveyed to the City of Taft, California (in this section referred to as the “City”), all surface right, title, and interest of the United States in and to a parcel of real property consisting of approximately 220 acres located in the NE $\frac{1}{4}$, the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$, and the N $\frac{1}{2}$ of the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 18, township 32 south, range 24 east, Mount Diablo meridian, Kern County, California.

(b) CONSIDERATION.—The conveyance under subsection (a) is made without the payment of consideration by the City.

(c) TREATMENT OF EXISTING RIGHTS.—The conveyance under subsection (a) is subject to valid existing rights, including Federal oil and gas lease SAC–019577.

(d) TREATMENT OF MINERALS.—All coal, oil, gas, and other minerals within the lands conveyed under subsection (a) are reserved to the United States, except that the United States and its lessees, licensees, permittees, or assignees shall have no right of surface use or occupancy of the lands. Nothing in this subsection shall be construed to require the United States or its lessees, licensees, permittees, or assignees to support the surface of the conveyed lands.

(e) INDEMNIFY AND HOLD HARMLESS.—The City shall indemnify, defend, and hold harmless the United States for, from, and against, and the City shall assume all responsibility for, any and all liability of any kind or nature, including all loss, cost, expense, or damage, arising from the City’s use or occupancy of, or operations on, the land conveyed under subsection (a), whether such use or occupancy of, or operations on, occurred before or occur after the date of the enactment of this Act.

(f) INSTRUMENT OF CONVEYANCE.—Not later than 1 year after the date of the enactment of this Act, the Secretary shall execute, file, and cause to be recorded in the appropriate office a deed or other appropriate instrument documenting the conveyance made by this section.

SEC. 334. [10 U.S.C. 7420 note] REVOCATION OF LAND WITHDRAWAL.

Effective on the date of the enactment of this Act, the Executive Order of December 13, 1912, which created Naval Petroleum Reserve Numbered 2, is revoked in its entirety.

Subtitle E—Production Incentives

SEC. 341. [42 U.S.C. 15901] DEFINITION OF SECRETARY.

In this subtitle, the term “Secretary” means the Secretary of the Interior.

SEC. 342. [42 U.S.C. 15902] PROGRAM ON OIL AND GAS ROYALTIES IN-KIND.

(a) APPLICABILITY OF SECTION.—Notwithstanding any other provision of law, this section applies to all royalty in-kind accepted

by the Secretary on or after the date of enactment of this Act under any Federal oil or gas lease or permit under—

- (1) section 36 of the Mineral Leasing Act (30 U.S.C. 192);
- (2) section 27 of the Outer Continental Shelf Lands Act (43 U.S.C. 1353); or
- (3) any other Federal law governing leasing of Federal land for oil and gas development.

(b) **TERMS AND CONDITIONS.**—All royalty accruing to the United States shall, on the demand of the Secretary, be paid in-kind. If the Secretary makes such a demand, the following provisions apply to the payment:

(1) **SATISFACTION OF ROYALTY OBLIGATION.**—Delivery by, or on behalf of, the lessee of the royalty amount and quality due under the lease satisfies royalty obligation of the lessee for the amount delivered, except that transportation and processing reimbursements paid to, or deductions claimed by, the lessee shall be subject to review and audit.

(2) **MARKETABLE CONDITION.**—

(A) **DEFINITION OF MARKETABLE CONDITION.**—In this paragraph, the term “in marketable condition” means sufficiently free from impurities and otherwise in a condition that the royalty production will be accepted by a purchaser under a sales contract typical of the field or area in which the royalty production was produced.

(B) **REQUIREMENT.**—Royalty production shall be placed in marketable condition by the lessee at no cost to the United States.

(3) **DISPOSITION BY THE SECRETARY.**—The Secretary may—

(A) sell or otherwise dispose of any royalty production taken in-kind (other than oil or gas transferred under section 27(a)(3) of the Outer Continental Shelf Lands Act (43 U.S.C. 1353(a)(3))) for not less than the market price; and

(B) transport or process (or both) any royalty production taken in-kind.

(4) **RETENTION BY THE SECRETARY.**—The Secretary may, notwithstanding section 3302 of title 31, United States Code, retain and use a portion of the revenues from the sale of oil and gas taken in-kind that otherwise would be deposited to miscellaneous receipts, without regard to fiscal year limitation, or may use oil or gas received as royalty taken in-kind (referred to in this paragraph as “royalty production”) to pay the cost of—

- (A) transporting the royalty production;
- (B) processing the royalty production;
- (C) disposing of the royalty production; or
- (D) any combination of transporting, processing, and disposing of the royalty production.

(5) **LIMITATION.**—

(A) **IN GENERAL.**—Except as provided in subparagraph (B), the Secretary may not use revenues from the sale of oil and gas taken in-kind to pay for personnel, travel, or other administrative costs of the Federal Government.

(B) **EXCEPTION.**—Notwithstanding subparagraph (A), the Secretary may use a portion of the revenues from roy-

alty in-kind sales, without fiscal year limitation, to pay salaries and other administrative costs directly related to the royalty in-kind program.

(c) REIMBURSEMENT OF COST.—If the lessee, pursuant to an agreement with the United States or as provided in the lease, processes the royalty gas or delivers the royalty oil or gas at a point not on or adjacent to the lease area, the Secretary shall—

(1) reimburse the lessee for the reasonable costs of transportation (not including gathering) from the lease to the point of delivery or for processing costs; or

(2) allow the lessee to deduct the transportation or processing costs in reporting and paying royalties in-value for other Federal oil and gas leases.

(d) BENEFIT TO THE UNITED STATES REQUIRED.—The Secretary may receive oil or gas royalties in-kind only if the Secretary determines that receiving royalties in-kind provides benefits to the United States that are greater than or equal to the benefits that are likely to have been received had royalties been taken in-value.

(e) DEDUCTION OF EXPENSES.—

(1) IN GENERAL.—Before making payments under section 35 of the Mineral Leasing Act (30 U.S.C. 191) or section 8(g) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(g)) of revenues derived from the sale of royalty production taken in-kind from a lease, the Secretary shall deduct amounts paid or deducted under subsections (b)(4) and (c) and deposit the amount of the deductions in the miscellaneous receipts of the Treasury.

(2) ACCOUNTING FOR DEDUCTIONS.—When the Secretary allows the lessee to deduct transportation or processing costs under subsection (c), the Secretary may not reduce any payments to recipients of revenues derived from any other Federal oil and gas lease as a consequence of that deduction.

(f) CONSULTATION WITH STATES.—The Secretary—

(1) shall consult with a State before conducting a royalty in-kind program under this subtitle within the State;

(2) may delegate management of any portion of the Federal royalty in-kind program to the State except as otherwise prohibited by Federal law; and

(3) shall consult annually with any State from which Federal oil or gas royalty is being taken in-kind to ensure, to the maximum extent practicable, that the royalty in-kind program provides revenues to the State greater than or equal to the revenues likely to have been received had royalties been taken in-value.

(g) SMALL REFINERIES.—

(1) PREFERENCE.—If the Secretary finds that sufficient supplies of crude oil are not available in the open market to refineries that do not have their own source of supply for crude oil, the Secretary may grant preference to those refineries in the sale of any royalty oil accruing or reserved to the United States under Federal oil and gas leases issued under any mineral leasing law, for processing or use in those refineries at private sale at not less than the market price.

(2) PRORATION AMONG REFINERIES IN PRODUCTION AREA.—In disposing of oil under this subsection, the Secretary may, at the discretion of the Secretary, prorate the oil among refineries described in paragraph (1) in the area in which the oil is produced.

(h) DISPOSITION TO FEDERAL AGENCIES.—

(1) ONSHORE ROYALTY.—Any royalty oil or gas taken by the Secretary in-kind from onshore oil and gas leases may be sold at not less than the market price to any Federal agency.

(2) OFFSHORE ROYALTY.—Any royalty oil or gas taken in-kind from a Federal oil or gas lease on the outer Continental Shelf may be disposed of only under section 27 of the Outer Continental Shelf Lands Act (43 U.S.C. 1353).

(i) FEDERAL LOW-INCOME ENERGY ASSISTANCE PROGRAMS.—

(1) PREFERENCE.—In disposing of royalty oil or gas taken in-kind under this section, the Secretary may grant a preference to any person, including any Federal or State agency, for the purpose of providing additional resources to any Federal low-income energy assistance program.

(2) REPORT.—Not later than 3 years after the date of enactment of this Act, the Secretary shall submit a report to Congress—

(A) assessing the effectiveness of granting preferences specified in paragraph (1); and

(B) providing a specific recommendation on the continuation of authority to grant preferences.

(j) MCALESTER ARMY AMMUNITION PLANT.—At the request of the Secretary of Defense, the Secretary shall—

(1) take in-kind royalty gas from any lease on the McAlester Army Ammunition Plant in McAlester, Oklahoma; and

(2) sell such royalty gas to the Department of Defense in accordance with subsection (h)(1), for use only at that plant, only for energy resilience purposes, and only to the extent necessary to meet the natural gas needs of that plant.

SEC. 343. [42 U.S.C. 15903] MARGINAL PROPERTY PRODUCTION INCENTIVES.

(a) DEFINITION OF MARGINAL PROPERTY.—Until such time as the Secretary issues regulations under subsection (e) that prescribe a different definition, in this section, the term “marginal property” means an onshore unit, communitization agreement, or lease not within a unit or communitization agreement, that produces on average the combined equivalent of less than 15 barrels of oil per well per day or 90,000,000 British thermal units of gas per well per day calculated based on the average over the 3 most recent production months, including only wells that produce on more than half of the days during those 3 production months.

(b) CONDITIONS FOR REDUCTION OF ROYALTY RATE.—Until such time as the Secretary issues regulations under subsection (e) that prescribe different standards or requirements, the Secretary shall reduce the royalty rate on—

(1) oil production from marginal properties as prescribed in subsection (c) if the spot price of West Texas Intermediate crude oil at Cushing, Oklahoma, is, on average, less than \$15

per barrel (adjusted in accordance with the Consumer Price Index for all-urban consumers, United States city average, as published by the Bureau of Labor Statistics) for 90 consecutive trading days; and

(2) gas production from marginal properties as prescribed in subsection (c) if the spot price of natural gas delivered at Henry Hub, Louisiana, is, on average, less than \$2.00 per million British thermal units (adjusted in accordance with the Consumer Price Index for all-urban consumers, United States city average, as published by the Bureau of Labor Statistics) for 90 consecutive trading days.

(c) REDUCED ROYALTY RATE.—

(1) IN GENERAL.—When a marginal property meets the conditions specified in subsection (b), the royalty rate shall be the lesser of—

(A) 5 percent; or

(B) the applicable rate under any other statutory or regulatory royalty relief provision that applies to the affected production.

(2) PERIOD OF EFFECTIVENESS.—The reduced royalty rate under this subsection shall be effective beginning on the first day of the production month following the date on which the applicable condition specified in subsection (b) is met.

(d) TERMINATION OF REDUCED ROYALTY RATE.—A royalty rate prescribed in subsection (c)(1) shall terminate—

(1) with respect to oil production from a marginal property, on the first day of the production month following the date on which—

(A) the spot price of West Texas Intermediate crude oil at Cushing, Oklahoma, on average, exceeds \$15 per barrel (adjusted in accordance with the Consumer Price Index for all-urban consumers, United States city average, as published by the Bureau of Labor Statistics) for 90 consecutive trading days; or

(B) the property no longer qualifies as a marginal property; and

(2) with respect to gas production from a marginal property, on the first day of the production month following the date on which—

(A) the spot price of natural gas delivered at Henry Hub, Louisiana, on average, exceeds \$2.00 per million British thermal units (adjusted in accordance with the Consumer Price Index for all-urban consumers, United States city average, as published by the Bureau of Labor Statistics) for 90 consecutive trading days; or

(B) the property no longer qualifies as a marginal property.

(e) REGULATIONS PRESCRIBING DIFFERENT RELIEF.—

(1) DISCRETIONARY REGULATIONS.—The Secretary may by regulation prescribe different parameters, standards, and requirements for, and a different degree or extent of, royalty relief for marginal properties in lieu of those prescribed in subsections (a) through (d).

(2) MANDATORY REGULATIONS.—Unless a determination is made under paragraph (3), not later than 18 months after the date of enactment of this Act, the Secretary shall by regulation—

(A) prescribe standards and requirements for, and the extent of royalty relief for, marginal properties for oil and gas leases on the outer Continental Shelf; and

(B) define what constitutes a marginal property on the outer Continental Shelf for purposes of this section.

(3) REPORT.—To the extent the Secretary determines that it is not practicable to issue the regulations referred to in paragraph (2), the Secretary shall provide a report to Congress explaining such determination by not later than 18 months after the date of enactment of this Act.

(4) CONSIDERATIONS.—In issuing regulations under this subsection, the Secretary may consider—

(A) oil and gas prices and market trends;

(B) production costs;

(C) abandonment costs;

(D) Federal and State tax provisions and the effects of those provisions on production economics;

(E) other royalty relief programs;

(F) regional differences in average wellhead prices;

(G) national energy security issues; and

(H) other relevant matters, as determined by the Secretary.

(f) SAVINGS PROVISION.—Nothing in this section prevents a lessee from receiving royalty relief or a royalty reduction pursuant to any other law (including a regulation) that provides more relief than the amounts provided by this section.

SEC. 344. [42 U.S.C. 15904] INCENTIVES FOR NATURAL GAS PRODUCTION FROM DEEP WELLS IN THE SHALLOW WATERS OF THE GULF OF MEXICO.

(a) ROYALTY INCENTIVE REGULATIONS FOR ULTRA DEEP GAS WELLS.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, in addition to any other regulations that may provide royalty incentives for natural gas produced from deep wells on oil and gas leases issued pursuant to the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.), the Secretary shall issue regulations granting royalty relief suspension volumes of not less than 35 billion cubic feet with respect to the production of natural gas from ultra deep wells on leases issued in shallow waters less than 400 meters deep located in the Gulf of Mexico wholly west of 87 degrees, 30 minutes west longitude. Regulations issued under this subsection shall be retroactive to the date that the notice of proposed rulemaking is published in the Federal Register.

(2) SUSPENSION VOLUMES.—The Secretary may grant suspension volumes of not less than 35 billion cubic feet in any case in which—

(A) the ultra deep well is a sidetrack; or

(B) the lease has previously produced from wells with a perforated interval the top of which is at least 15,000 feet true vertical depth below the datum at mean sea level.

(3) DEFINITIONS.—In this subsection:

(A) ULTRA DEEP WELL.—The term “ultra deep well” means a well drilled with a perforated interval, the top of which is at least 20,000 true vertical depth below the datum at mean sea level.

(B) SIDETRACK.—

(i) IN GENERAL.—The term “sidetrack” means a well resulting from drilling an additional hole to a new objective bottom-hole location by leaving a previously drilled hole.

(ii) INCLUSION.—The term “sidetrack” includes—

(I) drilling a well from a platform slot reclaimed from a previously drilled well;

(II) re-entering and deepening a previously drilled well; and

(III) a bypass from a sidetrack, including drilling around material blocking a hole or drilling to straighten a crooked hole.

(b) ROYALTY INCENTIVE REGULATIONS FOR DEEP GAS WELLS.—Not later than 180 days after the date of enactment of this Act, in addition to any other regulations that may provide royalty incentives for natural gas produced from deep wells on oil and gas leases issued pursuant to the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.), the Secretary shall issue regulations granting royalty relief suspension volumes with respect to production of natural gas from deep wells on leases issued in waters more than 200 meters but less than 400 meters deep located in the Gulf of Mexico wholly west of 87 degrees, 30 minutes west longitude. The suspension volumes for deep wells within 200 to 400 meters of water depth shall be calculated using the same methodology used to calculate the suspension volumes for deep wells in the shallower waters of the Gulf of Mexico, and in no case shall the suspension volumes for deep wells within 200 to 400 meters of water depth be lower than those for deep wells in shallower waters. Regulations issued under this subsection shall be retroactive to the date that the notice of proposed rulemaking is published in the Federal Register.

(c) LIMITATIONS.—The Secretary may place limitations on the royalty relief granted under this section based on market price. The royalty relief granted under this section shall not apply to a lease for which deep water royalty relief is available.

SEC. 345. [42 U.S.C. 15905] ROYALTY RELIEF FOR DEEP WATER PRODUCTION.

(a) IN GENERAL.—Subject to subsections (b) and (c), for each tract located in water depths of greater than 400 meters in the Western and Central Planning Area of the Gulf of Mexico (including the portion of the Eastern Planning Area of the Gulf of Mexico encompassing whole lease blocks lying west of 87 degrees, 30 minutes West longitude), any oil or gas lease sale under the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.) occurring during the 5-year period beginning on the date of enactment of this

Act shall use the bidding system authorized under section 8(a)(1)(H) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(a)(1)(H)).

(b) **SUSPENSION OF ROYALTIES.**—The suspension of royalties under subsection (a) shall be established at a volume of not less than—

(1) 5,000,000 barrels of oil equivalent for each lease in water depths of 400 to 800 meters;

(2) 9,000,000 barrels of oil equivalent for each lease in water depths of 800 to 1,600 meters;

(3) 12,000,000 barrels of oil equivalent for each lease in water depths of 1,600 to 2,000 meters; and

(4) 16,000,000 barrels of oil equivalent for each lease in water depths greater than 2,000 meters.

(c) **LIMITATION.**—The Secretary may place limitations on royalty relief granted under this section based on market price.

SEC. 346. ALASKA OFFSHORE ROYALTY SUSPENSION.

Section 8(a)(3)(B) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(a)(3)(B)) is amended by inserting “and in the Planning Areas offshore Alaska” after “West longitude”.

SEC. 347. OIL AND GAS LEASING IN THE NATIONAL PETROLEUM RESERVE IN ALASKA.

(a) **TRANSFER OF AUTHORITY.**—

(1) **REDESIGNATION.**—The Naval Petroleum Reserves Production Act of 1976 (42 U.S.C. 6501 et seq.) is amended by redesignating section 107 (42 U.S.C. 6507) as section 108.

(2) **TRANSFER.**—The matter under the heading “**EXPLORATION OF NATIONAL PETROLEUM RESERVE IN ALASKA**” under the heading “**ENERGY AND MINERALS**” of title I of Public Law 96–514 (42 U.S.C. 6508) is—

(A) transferred to the Naval Petroleum Reserves Production Act of 1976 (42 U.S.C. 6501 et seq.);

(B) redesignated as section 107 of that Act; and

(C) moved so as to appear after section 106 of that Act (42 U.S.C. 6506).

(b) **COMPETITIVE LEASING.**—Section 107 of the Naval Petroleum Reserves Production Act of 1976 (as amended by subsection (a)(2)) is amended—

(1) by striking the heading and all that follows through “*Provided*, That (1) activities” and inserting the following:

“SEC. 107. COMPETITIVE LEASING OF OIL AND GAS.

“(a) **IN GENERAL.**—The Secretary shall conduct an expeditious program of competitive leasing of oil and gas in the Reserve in accordance with this Act.

“(b) **MITIGATION OF ADVERSE EFFECTS.**—Activities”;

(2) by striking “Alaska (the Reserve); (2) the” and inserting “Alaska”.

“(c) **LAND USE PLANNING; BLM WILDERNESS STUDY.**—The”;

(3) by striking “Reserve; (3) the” and inserting “Reserve”.

“(d) **FIRST LEASE SALE.**—The”;

(4) by striking “4332); (4) the” and inserting “4321 et seq.”.

“(e) **WITHDRAWALS.**—The”;

(5) by striking “herein; (5) bidding” and inserting “under this section”.

“(f) BIDDING SYSTEMS.—Bidding”;

(6) by striking “629); (6) lease” and inserting “629)”.

“(g) GEOLOGICAL STRUCTURES.—Lease”;

(7) by striking “structures; (7) the” and inserting “structures”.

“(h) SIZE OF LEASE TRACTS.—The”;

(8) by striking “Secretary; (8)” and all that follows through “Drilling, production,” and inserting “Secretary”.

“(i) TERMS.—

“(1) IN GENERAL.—Each lease shall be issued for an initial period of not more than 10 years, and shall be extended for so long thereafter as oil or gas is produced from the lease in paying quantities, oil or gas is capable of being produced in paying quantities, or drilling or reworking operations, as approved by the Secretary, are conducted on the leased land.

“(2) RENEWAL OF LEASES WITH DISCOVERIES.—At the end of the primary term of a lease the Secretary shall renew for an additional 10-year term a lease that does not meet the requirements of paragraph (1) if the lessee submits to the Secretary an application for renewal not later than 60 days before the expiration of the primary lease and the lessee certifies, and the Secretary agrees, that hydrocarbon resources were discovered on one or more wells drilled on the leased land in such quantities that a prudent operator would hold the lease for potential future development.

“(3) RENEWAL OF LEASES WITHOUT DISCOVERIES.—At the end of the primary term of a lease the Secretary shall renew for an additional 10-year term a lease that does not meet the requirements of paragraph (1) if the lessee submits to the Secretary an application for renewal not later than 60 days before the expiration of the primary lease and pays the Secretary a renewal fee of \$100 per acre of leased land, and—

“(A) the lessee provides evidence, and the Secretary agrees that, the lessee has diligently pursued exploration that warrants continuation with the intent of continued exploration or future potential development of the leased land; or

“(B) all or part of the lease—

“(i) is part of a unit agreement covering a lease described in subparagraph (A); and

“(ii) has not been previously contracted out of the unit.

“(4) APPLICABILITY.—This subsection applies to a lease that is in effect on or after the date of enactment of the Energy Policy Act of 2005.

“(5) EXPIRATION FOR FAILURE TO PRODUCE.—Notwithstanding any other provision of this Act, if no oil or gas is produced from a lease within 30 years after the date of the issuance of the lease the lease shall expire.

“(6) TERMINATION.—No lease issued under this section covering lands capable of producing oil or gas in paying quantities

shall expire because the lessee fails to produce the same due to circumstances beyond the control of the lessee.

“(j) UNIT AGREEMENTS.—

“(1) IN GENERAL.—For the purpose of conservation of the natural resources of all or part of any oil or gas pool, field, reservoir, or like area, lessees (including representatives) of the pool, field, reservoir, or like area may unite with each other, or jointly or separately with others, in collectively adopting and operating under a unit agreement for all or part of the pool, field, reservoir, or like area (whether or not any other part of the oil or gas pool, field, reservoir, or like area is already subject to any cooperative or unit plan of development or operation), if the Secretary determines the action to be necessary or advisable in the public interest. In determining the public interest, the Secretary should consider, among other things, the extent to which the unit agreement will minimize the impact to surface resources of the leases and will facilitate consolidation of facilities.

“(2) CONSULTATION.—In making a determination under paragraph (1), the Secretary shall consult with and provide opportunities for participation by the State of Alaska or a Regional Corporation (as defined in section 3 of the Alaska Native Claims Settlement Act (43 U.S.C. 1602)) with respect to the creation or expansion of units that include acreage in which the State of Alaska or the Regional Corporation has an interest in the mineral estate.

“(3) PRODUCTION ALLOCATION METHODOLOGY.—(A) The Secretary may use a production allocation methodology for each participating area within a unit that includes solely Federal land in the Reserve.

“(B) The Secretary shall use a production allocation methodology for each participating area within a unit that includes Federal land in the Reserve and non-Federal land based on the characteristics of each specific oil or gas pool, field, reservoir, or like area to take into account reservoir heterogeneity and area variation in reservoir producibility across diverse leasehold interests. The implementation of the foregoing production allocation methodology shall be controlled by agreement among the affected lessors and lessees.

“(4) BENEFIT OF OPERATIONS.—Drilling, production,”;

(9) by striking “When separate” and inserting the following:

“(5) POOLING.—If separate”;

(10) by inserting “(in consultation with the owners of the other land)” after “determined by the Secretary of the Interior”;

(11) by striking “thereto; (10) to” and all that follows through “the terms provided therein” and inserting “to the agreement.

“(k) EXPLORATION INCENTIVES.—

“(1) IN GENERAL.—

“(A) WAIVER, SUSPENSION, OR REDUCTION.—To encourage the greatest ultimate recovery of oil or gas or in the interest of conservation, the Secretary may waive, suspend, or reduce the rental fees or minimum royalty, or re-

duce the royalty on an entire leasehold (including on any lease operated pursuant to a unit agreement), whenever (after consultation with the State of Alaska and the North Slope Borough of Alaska and the concurrence of any Regional Corporation for leases that include land that was made available for acquisition by the Regional Corporation under the provisions of section 1431(o) of the Alaska National Interest Lands Conservation Act (16 U.S.C. 3101 et seq.)) in the judgment of the Secretary it is necessary to do so to promote development, or whenever in the judgment of the Secretary the leases cannot be successfully operated under the terms provided therein.

“(B) APPLICABILITY.—This paragraph applies to a lease that is in effect on or after the date of enactment of the Energy Policy Act of 2005.”;

(12) by striking “The Secretary is authorized to” and inserting the following:

“(2) SUSPENSION OF OPERATIONS AND PRODUCTION.—The Secretary may”;

(13) by striking “In the event” and inserting the following:

“(3) SUSPENSION OF PAYMENTS.—If”;

(14) by striking “thereto; and (11) all” and inserting “to the lease.

“(1) RECEIPTS.—All”;

(15) by redesignating subparagraphs (A), (B), and (C) as paragraphs (1), (2), and (3), respectively;

(16) by striking “Any agency” and inserting the following:

“(m) EXPLORATIONS.—Any agency”;

(17) by striking “Any action” and inserting the following:

“(n) ENVIRONMENTAL IMPACT STATEMENTS.—

“(1) JUDICIAL REVIEW.—Any action”;

(18) by striking “The detailed” and inserting the following:

“(2) INITIAL LEASE SALES.—The detailed”;

(19) by striking “section 104(b) of the Naval Petroleum Reserves Production Act of 1976 (90 Stat. 304; 42 U.S.C. 6504)” and inserting “section 104(a)”;

(20) by adding at the end the following:

“(o) REGULATIONS.—As soon as practicable after the date of enactment of the Energy Policy Act of 2005, the Secretary shall issue regulations to implement this section.

“(p) WAIVER OF ADMINISTRATION FOR CONVEYED LANDS.—

“(1) IN GENERAL.—Notwithstanding section 14(g) of the Alaska Native Claims Settlement Act (43 U.S.C. 1613(g))—

“(A) the Secretary of the Interior shall waive administration of any oil and gas lease to the extent that the lease covers any land in the Reserve in which all of the subsurface estate is conveyed to the Arctic Slope Regional Corporation (referred to in this subsection as the ‘Corporation’);

“(B)(i) in a case in which a conveyance of a subsurface estate described in subparagraph (A) does not include all of the land covered by the oil and gas lease, the person that owns the subsurface estate in any particular portion of the land covered by the lease shall be entitled to all of

the revenues reserved under the lease as to that portion, including, without limitation, all the royalty payable with respect to oil or gas produced from or allocated to that portion;

“(ii) in a case described in clause (i), the Secretary of the Interior shall—

“(I) segregate the lease into 2 leases, 1 of which shall cover only the subsurface estate conveyed to the Corporation; and

“(II) waive administration of the lease that covers the subsurface estate conveyed to the Corporation; and

“(iii) the segregation of the lease described in clause (ii)(I) has no effect on the obligations of the lessee under either of the resulting leases, including obligations relating to operations, production, or other circumstances (other than payment of rentals or royalties); and

“(C) nothing in this subsection limits the authority of the Secretary of the Interior to manage the federally-owned surface estate within the Reserve.”.

(c) CONFORMING AMENDMENTS.—Section 104 of the Naval Petroleum Reserves Production Act of 1976 (42 U.S.C. 6504) is amended—

(1) by striking subsection (a); and

(2) by redesignating subsections (b) through (d) as subsections (a) through (c), respectively.

SEC. 348. [42 U.S.C. 15906] NORTH SLOPE SCIENCE INITIATIVE.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—The Secretary of the Interior shall establish a long-term initiative to be known as the “North Slope Science Initiative” (referred to in this section as the “Initiative”).

(2) PURPOSE.—The purpose of the Initiative shall be to implement efforts to coordinate collection of scientific data that will provide a better understanding of the terrestrial, aquatic, and marine ecosystems of the North Slope of Alaska.

(b) OBJECTIVES.—To ensure that the Initiative is conducted through a comprehensive science strategy and implementation plan, the Initiative shall, at a minimum—

(1) identify and prioritize information needs for inventory, monitoring, and research activities to address the individual and cumulative effects of past, ongoing, and anticipated development activities and environmental change on the North Slope;

(2) develop an understanding of information needs for regulatory and land management agencies, local governments, and the public;

(3) focus on prioritization of pressing natural resource management and ecosystem information needs, coordination, and cooperation among agencies and organizations;

(4) coordinate ongoing and future inventory, monitoring, and research activities to minimize duplication of effort, share

financial resources and expertise, and assure the collection of quality information;

(5) identify priority needs not addressed by agency science programs in effect on the date of enactment of this Act and develop a funding strategy to meet those needs;

(6) provide a consistent approach to high caliber science, including inventory, monitoring, and research;

(7) maintain and improve public and agency access to—

(A) accumulated and ongoing research; and

(B) contemporary and traditional local knowledge; and

(8) ensure through appropriate peer review that the science conducted by participating agencies and organizations is of the highest technical quality.

(c) MEMBERSHIP.—

(1) IN GENERAL.—To ensure comprehensive collection of scientific data, in carrying out the Initiative, the Secretary shall consult and coordinate with Federal, State, and local agencies that have responsibilities for land and resource management across the North Slope.

(2) COOPERATIVE AGREEMENTS.—The Secretary shall enter into cooperative agreements with the State of Alaska, the North Slope Borough, the Arctic Slope Regional Corporation, and other Federal agencies as appropriate to coordinate efforts, share resources, and fund projects under this section.

(d) SCIENCE TECHNICAL ADVISORY PANEL.—

(1) IN GENERAL.—The Initiative shall include a panel to provide advice on proposed inventory, monitoring, and research functions.

(2) MEMBERSHIP.—The panel described in paragraph (1) shall consist of a representative group of not more than 15 scientists and technical experts from diverse professions and interests, including the oil and gas industry, subsistence users, Native Alaskan entities, conservation organizations, wildlife management organizations, and academia, as determined by the Secretary.

(e) REPORTS.—Not later than 3 years after the date of enactment of this section and each year thereafter, the Secretary shall publish a report that describes the studies and findings of the Initiative.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 349. [42 U.S.C. 15907] ORPHANED WELL SITE PLUGGING, REMEDIATION, AND RESTORATION.

(a) DEFINITIONS.—In this section:

(1) FEDERAL LAND.—The term “Federal land” means land administered by a land management agency within—

(A) the Department of Agriculture; or

(B) the Department of the Interior.

(2) IDLED WELL.—The term “idled well” means a well—

(A) that has been nonoperational for not fewer than 4 years; and

(B) for which there is no anticipated beneficial future use.

(3) INDIAN TRIBE.—The term “Indian Tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).

(4) OPERATOR.—The term “operator”, with respect to an oil or gas operation, means any entity, including a lessee or operating rights owner, that has provided to a relevant authority a written statement that the entity is responsible for the oil or gas operation, or any portion of the operation.

(5) ORPHANED WELL.—The term “orphaned well”—

(A) with respect to Federal land or Tribal land, means a well—

(i)(I) that is not used for an authorized purpose, such as production, injection, or monitoring; and

(II)(aa) for which no operator can be located;

(bb) the operator of which is unable—

(AA) to plug the well; and

(BB) to remediate and reclaim the well site;

or

(cc) that is within the National Petroleum Reserve—Alaska; and

(B) with respect to State or private land—

(i) has the meaning given the term by the applicable State; or

(ii) if that State uses different terminology, has the meaning given another term used by the State to describe a well eligible for plugging, remediation, and reclamation by the State.

(6) TRIBAL LAND.—The term “Tribal land” means any land or interest in land owned by an Indian Tribe, the title to which is—

(A) held in trust by the United States; or

(B) subject to a restriction against alienation under Federal law.

(b) FEDERAL PROGRAM.—

(1) ESTABLISHMENT.—Not later than 60 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall establish a program to plug, remediate, and reclaim orphaned wells located on Federal land.

(2) INCLUDED ACTIVITIES.—The program under this subsection shall—

(A) include a method of—

(i) identifying, characterizing, and inventorying orphaned wells and associated pipelines, facilities, and infrastructure on Federal land; and

(ii) ranking those orphaned wells for priority in plugging, remediation, and reclamation, based on—

(I) public health and safety;

(II) potential environmental harm; and

(III) other subsurface impacts or land use priorities;

(B) distribute funding in accordance with the priorities established under subparagraph (A)(ii) for—

(i) plugging orphaned wells;

- (ii) remediating and reclaiming well pads and facilities associated with orphaned wells;
 - (iii) remediating soil and restoring native species habitat that has been degraded due to the presence of orphaned wells and associated pipelines, facilities, and infrastructure; and
 - (iv) remediating land adjacent to orphaned wells and decommissioning or removing associated pipelines, facilities, and infrastructure;
- (C) provide a public accounting of the costs of plugging, remediation, and reclamation for each orphaned well;
- (D) seek to determine the identities of potentially responsible parties associated with the orphaned well (or a surety or guarantor of such a party), to the extent such information can be ascertained, and make efforts to obtain reimbursement for expenditures to the extent practicable;
- (E) measure or estimate and track—
 - (i) emissions of methane and other gases associated with orphaned wells; and
 - (ii) contamination of groundwater or surface water associated with orphaned wells; and
- (F) identify and address any disproportionate burden of adverse human health or environmental effects of orphaned wells on communities of color, low-income communities, and Tribal and indigenous communities.
- (3) IDLED WELLS.—The Secretary, acting through the Director of the Bureau of Land Management, shall—
 - (A) periodically review all idled wells on Federal land; and
 - (B) reduce the inventory of idled wells on Federal land.
- (4) COOPERATION AND CONSULTATION.—In carrying out the program under this subsection, the Secretary shall—
 - (A) work cooperatively with—
 - (i) the Secretary of Agriculture;
 - (ii) affected Indian Tribes; and
 - (iii) each State within which Federal land is located; and
 - (B) consult with—
 - (i) the Secretary of Energy; and
 - (ii) the Interstate Oil and Gas Compact Commission.
- (c) FUNDING FOR STATE PROGRAMS.—
 - (1) IN GENERAL.—The Secretary shall provide to States, in accordance with this subsection—
 - (A) initial grants under paragraph (3);
 - (B) formula grants under paragraph (4); and
 - (C) performance grants under paragraph (5).
 - (2) ACTIVITIES.—
 - (A) IN GENERAL.—A State may use funding provided under this subsection for any of the following purposes:
 - (i) To plug, remediate, and reclaim orphaned wells located on State-owned or privately owned land.

(ii) To identify and characterize undocumented orphaned wells on State and private land.

(iii) To rank orphaned wells based on factors including—

- (I) public health and safety;
- (II) potential environmental harm; and
- (III) other land use priorities.

(iv) To make information regarding the use of funds received under this subsection available on a public website.

(v) To measure and track—

- (I) emissions of methane and other gases associated with orphaned wells; and
- (II) contamination of groundwater or surface water associated with orphaned wells.

(vi) To remediate soil and restore native species habitat that has been degraded due to the presence of orphaned wells and associated pipelines, facilities, and infrastructure.

(vii) To remediate land adjacent to orphaned wells and decommission or remove associated pipelines, facilities, and infrastructure.

(viii) To identify and address any disproportionate burden of adverse human health or environmental effects of orphaned wells on communities of color, low-income communities, and Tribal and indigenous communities.

(ix) Subject to subparagraph (B), to administer a program to carry out any activities described in clauses (i) through (viii).

(B) ADMINISTRATIVE COST LIMITATION.—

(i) IN GENERAL.—Except as provided in clause (ii), a State shall not use more than 10 percent of the funds received under this subsection during a fiscal year for administrative costs under subparagraph (A)(ix).

(ii) EXCEPTION.—The limitation under clause (i) shall not apply to funds used by a State as described in paragraph (3)(A)(ii).

(3) INITIAL GRANTS.—

(A) IN GENERAL.—Subject to the availability of appropriations, the Secretary shall distribute—

(i) not more than \$25,000,000 to each State that submits to the Secretary, by not later than 180 days after the date of enactment of the Infrastructure Investment and Jobs Act, a request for funding under this clause, including—

(I) an estimate of the number of jobs that will be created or saved through the activities proposed to be funded; and

(II) a certification that—

(aa) the State is a Member State or Associate Member State of the Interstate Oil and Gas Compact Commission;

- (bb) there are 1 or more documented orphaned wells located in the State; and
- (cc) the State will use not less than 90 percent of the funding requested under this subsection to issue new contracts, amend existing contracts, or issue grants for plugging, remediation, and reclamation work by not later than 90 days after the date of receipt of the funds; and
- (ii) not more than \$5,000,000 to each State that—
 - (I) requests funding under this clause;
 - (II) does not receive a grant under clause (i);
 and
 - (III) certifies to the Secretary that—
 - (aa) the State—
 - (AA) has in effect a plugging, remediation, and reclamation program for orphaned wells; or
 - (BB) the capacity to initiate such a program; or
 - (bb) the funds provided under this paragraph will be used to carry out any administrative actions necessary to develop an application for a formula grant under paragraph (4) or a performance grant under paragraph (5).

(B) DISTRIBUTION.—Subject to the availability of appropriations, the Secretary shall distribute funds to a State under this paragraph by not later than the date that is 30 days after the date on which the State submits to the Secretary the certification required under clause (i)(II) or (ii)(III) of subparagraph (A), as applicable.

(C) DEADLINE FOR EXPENDITURE.—A State that receives funds under this paragraph shall reimburse the Secretary in an amount equal to the amount of the funds that remain unobligated on the date that is 1 year after the date of receipt of the funds.

(D) REPORT.—Not later than 15 months after the date on which a State receives funds under this paragraph, the State shall submit to the Secretary a report that describes the means by which the State used the funds in accordance with the certification submitted by the State under subparagraph (A).

(4) FORMULA GRANTS.—

(A) ESTABLISHMENT.—

(i) IN GENERAL.—The Secretary shall establish a formula for the distribution to each State described in clause (ii) of funds under this paragraph.

(ii) DESCRIPTION OF STATES.—A State referred to in clause (i) is a State that, by not later than 45 days after the date of enactment of the Infrastructure Investment and Jobs Act, submits to the Secretary a notice of the intent of the State to submit an application under subparagraph (B), including a description of the

factors described in clause (iii) with respect to the State.

(iii) **FACTORS.**—The formula established under clause (i) shall account for, with respect to an applicant State, the following factors:

(I) Job losses in the oil and gas industry in the State during the period—

(aa) beginning on March 1, 2020; and

(bb) ending on the date of enactment of the Infrastructure Investment and Jobs Act.

(II) The number of documented orphaned wells located in the State, and the projected cost—

(aa) to plug or reclaim those orphaned wells;

(bb) to reclaim adjacent land; and

(cc) to decommission or remove associated pipelines, facilities, and infrastructure.

(iv) **PUBLICATION.**—Not later than 75 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall publish on a public website the amount that each State is eligible to receive under the formula under this subparagraph.

(B) **APPLICATION.**—To be eligible to receive a formula grant under this paragraph, a State shall submit to the Secretary an application that includes—

(i) a description of—

(I) the State program for orphaned well plugging, remediation, and restoration, including legal authorities, processes used to identify and prioritize orphaned wells, procurement mechanisms, and other program elements demonstrating the readiness of the State to carry out proposed activities using the grant;

(II) the activities to be carried out with the grant, including an identification of the estimated health, safety, habitat, and environmental benefits of plugging, remediating, or reclaiming orphaned wells; and

(III) the means by which the information regarding the activities of the State under this paragraph will be made available on a public website;

(ii) an estimate of—

(I) the number of orphaned wells in the State that will be plugged, remediated, or reclaimed;

(II) the projected cost of—

(aa) plugging, remediating, or reclaiming orphaned wells;

(bb) remediating or reclaiming adjacent land; and

(cc) decommissioning or removing associated pipelines, facilities, and infrastructure;

(III) the amount of that projected cost that will be offset by the forfeiture of financial assurance instruments, the estimated salvage of well

site equipment, or other proceeds from the orphaned wells and adjacent land;

(IV) the number of jobs that will be created or saved through the activities to be funded under this paragraph; and

(V) the amount of funds to be spent on administrative costs;

(iii) a certification that any financial assurance instruments available to cover plugging, remediation, or reclamation costs will be used by the State; and

(iv) the definitions and processes used by the State to formally identify a well as—

(I) an orphaned well; or

(II) if the State uses different terminology, otherwise eligible for plugging, remediation, and reclamation by the State.

(C) DISTRIBUTION.—Subject to the availability of appropriations, the Secretary shall distribute funds to a State under this paragraph by not later than the date that is 60 days after the date on which the State submits to the Secretary a completed application under subparagraph (B).

(D) DEADLINE FOR EXPENDITURE.—A State that receives funds under this paragraph shall reimburse the Secretary in an amount equal to the amount of the funds that remain unobligated on the date that is 5 years after the date of receipt of the funds.

(E) CONSULTATION.—In making a determination under this paragraph regarding the eligibility of a State to receive a formula grant, the Secretary shall consult with—

(i) the Administrator of the Environmental Protection Agency;

(ii) the Secretary of Energy; and

(iii) the Interstate Oil and Gas Compact Commission.

(5) PERFORMANCE GRANTS.—

(A) ESTABLISHMENT.—The Secretary shall provide to States, in accordance with this paragraph—

(i) regulatory improvement grants under subparagraph (E); and

(ii) matching grants under subparagraph (F).

(B) APPLICATION.—To be eligible to receive a grant under this paragraph, a State shall submit to the Secretary an application including—

(i) each element described in an application for a grant under paragraph (4)(B);

(ii) activities carried out by the State to address orphaned wells located in the State, including—

(I) increasing State spending on well plugging, remediation, and reclamation; or

(II) improving regulation of oil and gas wells;

and

(iii) the means by which the State will use funds provided under this paragraph—

(I) to lower unemployment in the State; and

(II) to improve economic conditions in economically distressed areas of the State.

(C) DISTRIBUTION.—Subject to the availability of appropriations, the Secretary shall distribute funds to a State under this paragraph by not later than the date that is 60 days after the date on which the State submits to the Secretary a completed application under subparagraph (B).

(D) CONSULTATION.—In making a determination under this paragraph regarding the eligibility of a State to receive a grant under subparagraph (E) or (F), the Secretary shall consult with—

- (i) the Administrator of the Environmental Protection Agency;
- (ii) the Secretary of Energy; and
- (iii) the Interstate Oil and Gas Compact Commission.

(E) REGULATORY IMPROVEMENT GRANTS.—

(i) IN GENERAL.—Beginning on the date that is 180 days after the date on which an initial grant is provided to a State under paragraph (3), the Secretary shall, subject to the availability of appropriations, provide to the State a regulatory improvement grant under this subparagraph, if the State meets, during the 10-year period ending on the date on which the State submits to the Secretary an application under subparagraph (B), 1 of the following criteria:

(I) The State has strengthened plugging standards and procedures designed to ensure that wells located in the State are plugged in an effective manner that protects groundwater and other natural resources, public health and safety, and the environment.

(II) The State has made improvements to State programs designed to reduce future orphaned well burdens, such as financial assurance reform, alternative funding mechanisms for orphaned well programs, and reforms to programs relating to well transfer or temporary abandonment.

(ii) LIMITATIONS.—

(I) NUMBER.—The Secretary may issue to a State under this subparagraph not more than 1 grant for each criterion described in subclause (I) or (II) of clause (i).

(II) MAXIMUM AMOUNT.—The amount of a single grant provided to a State under this subparagraph shall be not more than \$20,000,000.

(iii) REIMBURSEMENT FOR FAILURE TO MAINTAIN PROTECTIONS.—A State that receives a grant under this subparagraph shall reimburse the Secretary in an amount equal to the amount of the grant in any case in which, during the 10-year period beginning on the date of receipt of the grant, the State enacts a law or regulation that, if in effect on the date of submission

of the application under subparagraph (B), would have prevented the State from being eligible to receive the grant under clause (i).

(F) MATCHING GRANTS.—

(i) IN GENERAL.—Beginning on the date that is 180 days after the date on which an initial grant is provided to a State under paragraph (3), the Secretary shall, subject to the availability of appropriations, provide to the State funding, in an amount equal to the difference between—

(I) the average annual amount expended by the State during the period of fiscal years 2010 through 2019—

(aa) to plug, remediate, and reclaim orphaned wells; and

(bb) to decommission or remove associated pipelines, facilities, or infrastructure; and

(II) the amount that the State certifies to the Secretary the State will expend, during the fiscal year in which the State will receive the grant under this subparagraph—

(aa) to plug, remediate, and reclaim orphaned wells;

(bb) to remediate or reclaim adjacent land; and

(cc) to decommission or remove associated pipelines, facilities, and infrastructure.

(ii) LIMITATIONS.—

(I) FISCAL YEAR.—The Secretary may issue to a State under this subparagraph not more than 1 grant for each fiscal year.

(II) TOTAL FUNDS PROVIDED.—The Secretary may provide to a State under this subparagraph a total amount equal to not more than \$30,000,000 during the period of fiscal years 2022 through 2031.

(d) TRIBAL ORPHANED WELL SITE PLUGGING, REMEDIATION, AND RESTORATION.—

(1) ESTABLISHMENT.—The Secretary shall establish a program under which the Secretary shall—

(A) provide to Indian Tribes grants in accordance with this subsection; or

(B) on request of an Indian Tribe and in lieu of a grant under subparagraph (A), administer and carry out plugging, remediation, and reclamation activities in accordance with paragraph (7).

(2) ELIGIBLE ACTIVITIES.—

(A) IN GENERAL.—An Indian Tribe may use a grant received under this subsection—

(i) to plug, remediate, or reclaim an orphaned well on Tribal land;

(ii) to remediate soil and restore native species habitat that has been degraded due to the presence of

an orphaned well or associated pipelines, facilities, or infrastructure on Tribal land;

(iii) to remediate Tribal land adjacent to orphaned wells and decommission or remove associated pipelines, facilities, and infrastructure;

(iv) to provide an online public accounting of the cost of plugging, remediation, and reclamation for each orphaned well site on Tribal land;

(v) to identify and characterize undocumented orphaned wells on Tribal land; and

(vi) to develop or administer a Tribal program to carry out any activities described in clauses (i) through (v).

(B) ADMINISTRATIVE COST LIMITATION.—

(i) IN GENERAL.—Except as provided in clause (ii), an Indian Tribe shall not use more than 10 percent of the funds received under this subsection during a fiscal year for administrative costs under subparagraph (A)(vi).

(ii) EXCEPTION.—The limitation under clause (i) shall not apply to any funds used to carry out an administrative action necessary for the development of a Tribal program described in subparagraph (A)(vi).

(3) FACTORS FOR CONSIDERATION.—In determining whether to provide to an Indian Tribe a grant under this subsection, the Secretary shall take into consideration—

(A) the unemployment rate of the Indian Tribe on the date on which the Indian Tribe submits an application under paragraph (4); and

(B) the estimated number of orphaned wells on the Tribal land of the Indian Tribe.

(4) APPLICATION.—To be eligible to receive a grant under this subsection, an Indian Tribe shall submit to the Secretary an application that includes—

(A) a description of—

(i) the Tribal program for orphaned well plugging, remediation, and restoration, including legal authorities, processes used to identify and prioritize orphaned wells, procurement mechanisms, and other program elements demonstrating the readiness of the Indian Tribe to carry out the proposed activities, or plans to develop such a program; and

(ii) the activities to be carried out with the grant, including an identification of the estimated health, safety, habitat, and environmental benefits of plugging, remediating, or reclaiming orphaned wells and remediating or reclaiming adjacent land; and

(B) an estimate of—

(i) the number of orphaned wells that will be plugged, remediated, or reclaimed; and

(ii) the projected cost of—

(I) plugging, remediating, or reclaiming orphaned wells;

(II) remediating or reclaiming adjacent land;
and

(III) decommissioning or removing associated pipelines, facilities, and infrastructure.

(5) DISTRIBUTION.—Subject to the availability of appropriations, the Secretary shall distribute funds to an Indian Tribe under this subsection by not later than the date that is 60 days after the date on which the Indian Tribe submits to the Secretary a completed application under paragraph (4).

(6) DEADLINE FOR EXPENDITURE.—An Indian Tribe that receives funds under this subsection shall reimburse the Secretary in an amount equal to the amount of the funds that remain unobligated on the date that is 5 years after the date of receipt of the funds, except for cases in which the Secretary has granted the Indian Tribe an extended deadline for completion of the eligible activities after consultation.

(7) DELEGATION TO SECRETARY IN LIEU OF A GRANT.—

(A) IN GENERAL.—In lieu of a grant under this subsection, an Indian Tribe may submit to the Secretary a request for the Secretary to administer and carry out plugging, remediation, and reclamation activities relating to an orphaned well on behalf of the Indian Tribe.

(B) ADMINISTRATION.—Subject to the availability of appropriations under subsection (h)(1)(E), on submission of a request under subparagraph (A), the Secretary shall administer or carry out plugging, remediation, and reclamation activities for an orphaned well on Tribal land.

(e) TECHNICAL ASSISTANCE.—The Secretary of Energy, in cooperation with the Secretary and the Interstate Oil and Gas Compact Commission, shall provide technical assistance to the Federal land management agencies and oil and gas producing States and Indian Tribes to support practical and economical remedies for environmental problems caused by orphaned wells on Federal land, Tribal land, and State and private land, including the sharing of best practices in the management of oil and gas well inventories to ensure the availability of funds to plug, remediate, and restore oil and gas well sites on cessation of operation.

(f) REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of the Infrastructure Investment and Jobs Act, and not less frequently than annually thereafter, the Secretary shall submit to the Committees on Appropriations and Energy and Natural Resources of the Senate and the Committees on Appropriations and Natural Resources of the House of Representatives a report describing the program established and grants awarded under this section, including—

(1) an updated inventory of wells located on Federal land, Tribal land, and State and private land that are—

(A) orphaned wells; or

(B) at risk of becoming orphaned wells;

(2) an estimate of the quantities of—

(A) methane and other gasses emitted from orphaned wells; and

(B) emissions reduced as a result of plugging, remediating, and reclaiming orphaned wells;

(3) the number of jobs created and saved through the plugging, remediation, and reclamation of orphaned wells; and

(4) the acreage of habitat restored using grants awarded to plug, remediate, and reclaim orphaned wells and to remediate or reclaim adjacent land, together with a description of the purposes for which that land is likely to be used in the future.

(g) EFFECT OF SECTION.—

(1) NO EXPANSION OF LIABILITY.—Nothing in this section establishes or expands the responsibility or liability of any entity with respect to—

(A) plugging any well; or

(B) remediating or reclaiming any well site.

(2) TRIBAL LAND.—Nothing in this section—

(A) relieves the Secretary of any obligation under section 3 of the Act of May 11, 1938 (25 U.S.C. 396c; 52 Stat. 348, chapter 198), to plug, remediate, or reclaim an orphaned well located on Tribal land; or

(B) absolves the United States from a responsibility to plug, remediate, or reclaim an orphaned well located on Tribal land or any other responsibility to an Indian Tribe, including any responsibility that derives from—

(i) the trust relationship between the United States and Indian Tribes;

(ii) any treaty, law, or Executive order; or

(iii) any agreement between the United States and an Indian Tribe.

(3) OWNER OR OPERATOR NOT ABSOLVED.—Nothing in this section absolves the owner or operator of an oil or gas well of any potential liability for—

(A) reimbursement of any plugging or reclamation costs associated with the well; or

(B) any adverse effect of the well on the environment.

(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated for fiscal year 2022, to remain available until September 30, 2030:

(1) to the Secretary—

(A) \$250,000,000 to carry out the program under subsection (b);

(B) \$775,000,000 to provide grants under subsection (c)(3);

(C) \$2,000,000,000 to provide grants under subsection (c)(4);

(D) \$1,500,000,000 to provide grants under subsection (c)(5); and

(E) \$150,000,000 to carry out the program under subsection (d);

(2) to the Secretary of Energy, \$30,000,000 to conduct research and development activities in cooperation with the Interstate Oil and Gas Compact Commission to assist the Federal land management agencies, States, and Indian Tribes in—

(A) identifying and characterizing undocumented orphaned wells; and

(B) mitigating the environmental risks of undocumented orphaned wells; and

(3) to the Interstate Oil and Gas Compact Commission, \$2,000,000 to carry out this section.

SEC. 350. COMBINED HYDROCARBON LEASING.

(a) SPECIAL PROVISIONS REGARDING LEASING.—Section 17(b)(2) of the Mineral Leasing Act (30 U.S.C. 226(b)(2)) is amended—

(1) by inserting “(A)” after “(2)”; and

(2) by adding at the end the following:

“(B) For any area that contains any combination of tar sand and oil or gas (or both), the Secretary may issue under this Act, separately—

“(i) a lease for exploration for and extraction of tar sand; and

“(ii) a lease for exploration for and development of oil and gas.

“(C) A lease issued for tar sand shall be issued using the same bidding process, annual rental, and posting period as a lease issued for oil and gas, except that the minimum acceptable bid required for a lease issued for tar sand shall be \$2 per acre.

“(D) The Secretary may waive, suspend, or alter any requirement under section 26 that a permittee under a permit authorizing prospecting for tar sand must exercise due diligence, to promote any resource covered by a combined hydrocarbon lease.”.

(b) CONFORMING AMENDMENT.—Section 17(b)(1)(B) of the Mineral Leasing Act (30 U.S.C. 226(b)(1)(B)) is amended in the second sentence by inserting “, subject to paragraph (2)(B),” after “Secretary”.

(c) REGULATIONS.—Not later than 45 days after the date of enactment of this Act, the Secretary shall issue final regulations to implement this section.

SEC. 351. [42 U.S.C. 15908] PRESERVATION OF GEOLOGICAL AND GEOPHYSICAL DATA.

(a) SHORT TITLE.—This section may be cited as the “National Geological and Geophysical Data Preservation Program Act of 2005”.

(b) PROGRAM.—The Secretary shall carry out a National Geological and Geophysical Data Preservation Program in accordance with this section—

(1) to archive geologic, geophysical, and engineering data, maps, well logs, and samples;

(2) to provide a national catalog of such archival material;

(3) to provide technical and financial assistance related to the archival material; and

(4) to provide for preservation of samples to track geochemical signatures from critical mineral (as defined in section 7002(a) of the Energy Act of 2020 (30 U.S.C. 1606(a))) ore bodies for use in provenance tracking frameworks.

(c) PLAN.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a plan for the implementation of the Program.

(d) DATA ARCHIVE SYSTEM.—

(1) ESTABLISHMENT.—The Secretary shall establish, as a component of the Program, a data archive system to provide for the storage, preservation, and archiving of subsurface, sur-

face, geological, geophysical, and engineering data and samples. The Secretary, in consultation with the Advisory Committee, shall develop guidelines relating to the data archive system, including the types of data and samples to be preserved.

(2) SYSTEM COMPONENTS.—The system shall be comprised of State agencies that elect to be part of the system and agencies within the Department of the Interior that maintain geological and geophysical data and samples that are designated by the Secretary in accordance with this subsection. The Program shall provide for the storage of data and samples through data repositories operated by such agencies.

(3) LIMITATION OF DESIGNATION.—The Secretary may not designate a State agency as a component of the data archive system unless that agency is the agency that acts as the geological survey in the State.

(4) DATA FROM FEDERAL LAND.—The data archive system shall provide for the archiving of relevant subsurface data and samples obtained from Federal land—

(A) in the most appropriate repository designated under paragraph (2), with preference being given to archiving data in the State in which the data were collected; and

(B) consistent with all applicable law and requirements relating to confidentiality and proprietary data.

(e) NATIONAL CATALOG.—

(1) IN GENERAL.—As soon as practicable after the date of enactment of this Act, the Secretary shall develop and maintain, as a component of the Program, a national catalog that identifies—

(A) data and samples available in the data archive system established under subsection (d);

(B) the repository for particular material in the system; and

(C) the means of accessing the material.

(2) AVAILABILITY.—The Secretary shall make the national catalog accessible to the public on the site of the Survey on the Internet, consistent with all applicable requirements related to confidentiality and proprietary data.

(f) ADVISORY COMMITTEE.—

(1) IN GENERAL.—The Advisory Committee shall advise the Secretary on planning and implementation of the Program.

(2) NEW DUTIES.—In addition to its duties under the National Geologic Mapping Act of 1992 (43 U.S.C. 31a et seq.), the Advisory Committee shall perform the following duties:

(A) Advise the Secretary on developing guidelines and procedures for providing assistance for facilities under subsection (g)(1).

(B) Review and critique the draft implementation plan prepared by the Secretary under subsection (c).

(C) Identify useful studies of data archived under the Program that will advance understanding of the Nation's energy and mineral resources, geologic hazards, and engineering geology.

(D) Review the progress of the Program in archiving significant data and preventing the loss of such data, and the scientific progress of the studies funded under the Program.

(E) Include in the annual report to the Secretary required under section 5(b)(3) of the National Geologic Mapping Act of 1992 (43 U.S.C. 31d(b)(3)) an evaluation of the progress of the Program toward fulfilling the purposes of the Program under subsection (b).

(g) FINANCIAL ASSISTANCE.—

(1) ARCHIVE FACILITIES.—Subject to the availability of appropriations, the Secretary shall provide financial assistance to a State agency that is designated under subsection (d)(2) for providing facilities to archive energy material.

(2) STUDIES.—Subject to the availability of appropriations, the Secretary shall provide financial assistance to any State agency designated under subsection (d)(2) for studies and technical assistance activities that enhance understanding, interpretation, and use of materials archived in the data archive system established under subsection (d).

(3) FEDERAL SHARE.—The Federal share of the cost of an activity carried out with assistance under this subsection shall be not more than 50 percent of the total cost of the activity.

(4) PRIVATE CONTRIBUTIONS.—The Secretary shall apply to the non-Federal share of the cost of an activity carried out with assistance under this subsection the value of private contributions of property and services used for that activity.

(h) REPORT.—The Secretary shall include in each report under section 8 of the National Geologic Mapping Act of 1992 (43 U.S.C. 31g)—

(1) a description of the status of the Program;

(2) an evaluation of the progress achieved in developing the Program during the period covered by the report; and

(3) any recommendations for legislative or other action the Secretary considers necessary and appropriate to fulfill the purposes of the Program under subsection (b).

(i) MAINTENANCE OF STATE EFFORT.—It is the intent of Congress that the States not use this section as an opportunity to reduce State resources applied to the activities that are the subject of the Program.

(j) DEFINITIONS.—In this section:

(1) ADVISORY COMMITTEE.—The term “Advisory Committee” means the advisory committee established under section 5 of the National Geologic Mapping Act of 1992 (43 U.S.C. 31d).

(2) PROGRAM.—The term “Program” means the National Geological and Geophysical Data Preservation Program carried out under this section.

(3) SECRETARY.—The term “Secretary” means the Secretary of the Interior, acting through the Director of the United States Geological Survey.

(4) SURVEY.—The term “Survey” means the United States Geological Survey.

(k) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to carry out this section \$5,000,000 for each of fiscal years 2021 through 2029, to remain available until expended.

SEC. 352. OIL AND GAS LEASE ACREAGE LIMITATIONS.

Section 27(d)(1) of the Mineral Leasing Act (30 U.S.C. 184(d)(1)) is amended by inserting after “acreage held in special tar sand areas” the following: “, and acreage under any lease any portion of which has been committed to a federally approved unit or cooperative plan or communitization agreement or for which royalty (including compensatory royalty or royalty in-kind) was paid in the preceding calendar year,”.

SEC. 353. [42 U.S.C. 15909] GAS HYDRATE PRODUCTION INCENTIVE.

(a) **PURPOSE.**—The purpose of this section is to promote natural gas production from the natural gas hydrate resources on the outer Continental Shelf and Federal lands in Alaska by providing royalty incentives.

(b) **SUSPENSION OF ROYALTIES.**—

(1) **IN GENERAL.**—The Secretary may grant royalty relief in accordance with this section for natural gas produced from gas hydrate resources under an eligible lease.

(2) **ELIGIBLE LEASES.**—A lease shall be an eligible lease for purposes of this section if—

(A) it is issued under the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.), or is an oil and gas lease issued for onshore Federal lands in Alaska;

(B) it is issued prior to January 1, 2016; and

(C) production under the lease of natural gas from gas hydrate resources commences prior to January 1, 2018.

(3) **AMOUNT OF RELIEF.**—The Secretary shall conduct a rulemaking and grant royalty relief under this section as a suspension volume if the Secretary determines that such royalty relief would encourage production of natural gas from gas hydrate resources from an eligible lease. The maximum suspension volume shall be 30 billion cubic feet of natural gas per lease. Such relief shall be in addition to any other royalty relief under any other provision applicable to the lease that does not specifically grant a gas hydrate production incentive. Such royalty suspension volume shall be applied to any eligible production occurring on or after the date of publication of the advanced notice of proposed rulemaking.

(4) **LIMITATION.**—The Secretary may place limitations on royalty relief granted under this section based on market price.

(c) **APPLICATION.**—This section shall apply to any eligible lease issued before, on, or after the date of enactment of this Act.

(d) **RULEMAKINGS.**—

(1) **REQUIREMENT.**—The Secretary shall publish the advanced notice of proposed rulemaking within 180 days after the date of enactment of this Act and complete the rulemaking implementing this section within 365 days after the date of enactment of this Act.

(2) **GAS HYDRATE RESOURCES DEFINED.**—Such regulations shall define the term “gas hydrate resources” to include both the natural gas content of gas hydrates within the hydrate sta-

bility zone and free natural gas trapped by and beneath the hydrate stability zone.

(e) REVIEW.—Not later than 365 days after the date of enactment of this Act, the Secretary, in consultation with the Secretary of Energy, shall carry out a review of, and submit to Congress a report on, further opportunities to enhance production of natural gas from gas hydrate resources on the outer Continental Shelf and on Federal lands in Alaska through the provision of other production incentives or through technical or financial assistance.

SEC. 354. [42 U.S.C. 15910] ENHANCED OIL AND NATURAL GAS PRODUCTION THROUGH CARBON DIOXIDE INJECTION.

(a) PRODUCTION INCENTIVE.—

(1) FINDINGS.—Congress finds the following:

(A) Approximately two-thirds of the original oil in place in the United States remains unproduced.

(B) Enhanced oil and natural gas production from the sequestering of carbon dioxide and other appropriate gases has the potential to increase oil and natural gas production.

(C) Capturing and productively using carbon dioxide would help reduce the carbon intensity of the economy.

(2) PURPOSE.—The purpose of this section is—

(A) to promote the capturing, transportation, and injection of produced carbon dioxide, natural carbon dioxide, and other appropriate gases or other matter for sequestration into oil and gas fields; and

(B) to promote oil and natural gas production from the outer Continental Shelf and onshore Federal lands under lease by providing royalty incentives to use enhanced recovery techniques using injection of the substances referred to in subparagraph (A).

(b) SUSPENSION OF ROYALTIES.—

(1) IN GENERAL.—If the Secretary determines that reduction of the royalty under a Federal oil and gas lease that is an eligible lease is in the public interest and promotes the purposes of this section, the Secretary shall undertake a rulemaking to provide for such reduction for an eligible lease.

(2) RULEMAKINGS.—The Secretary shall publish the advanced notice of proposed rulemaking within 180 days after the date of enactment of this Act and complete the rulemaking implementing this section within 365 days after the date of enactment of this Act.

(3) ELIGIBLE LEASES.—A lease shall be an eligible lease for purposes of this section if—

(A) it is a lease for production of oil and gas from the outer Continental Shelf or Federal onshore lands;

(B) the injection of the substances referred to in subsection (a)(2)(A) will be used as an enhanced recovery technique on such lease; and

(C) the Secretary determines that the lease contains oil or gas that would not likely be produced without the royalty reduction provided under this section.

(4) AMOUNT OF RELIEF.—The rulemaking shall provide for a suspension volume, which shall not exceed 5,000,000 barrels

of oil equivalent for each eligible lease. Such suspension volume shall be applied to any production from an eligible lease occurring on or after the date of publication of any advanced notice of proposed rulemaking under this subsection.

(5) LIMITATION.—The Secretary may place limitations on the royalty reduction granted under this section based on market price.

(6) APPLICATION.—This section shall apply to any eligible lease issued before, on, or after the date of enactment of this Act.

(c) DEMONSTRATION PROGRAM.—

(1) ESTABLISHMENT.—

(A) IN GENERAL.—The Secretary of Energy shall establish a competitive grant program to provide grants to producers of oil and gas to carry out projects to inject carbon dioxide for the purpose of enhancing recovery of oil or natural gas while increasing the sequestration of carbon dioxide.

(B) PROJECTS.—The demonstration program shall provide for—

(i) not more than 10 projects in the Williston Basin in North Dakota and Montana; and

(ii) 1 project in the Cook Inlet Basin in Alaska.

(2) REQUIREMENTS.—

(A) IN GENERAL.—The Secretary of Energy shall issue requirements relating to applications for grants under paragraph (1).

(B) RULEMAKING.—The issuance of requirements under subparagraph (A) shall not require a rulemaking.

(C) MINIMUM REQUIREMENTS.—At a minimum, the Secretary shall require under subparagraph (A) that an application for a grant include—

(i) a description of the project proposed in the application;

(ii) an estimate of the production increase and the duration of the production increase from the project, as compared to conventional recovery techniques, including water flooding;

(iii) an estimate of the carbon dioxide sequestered by project, over the life of the project;

(iv) a plan to collect and disseminate data relating to each project to be funded by the grant;

(v) a description of the means by which the project will be sustainable without Federal assistance after the completion of the term of the grant;

(vi) a complete description of the costs of the project, including acquisition, construction, operation, and maintenance costs over the expected life of the project;

(vii) a description of which costs of the project will be supported by Federal assistance under this section; and

- (viii) a description of any secondary or tertiary recovery efforts in the field and the efficacy of water flood recovery techniques used.
- (3) PARTNERS.—An applicant for a grant under paragraph (1) may carry out a project under a pilot program in partnership with 1 or more other public or private entities.
- (4) SELECTION CRITERIA.—In evaluating applications under this subsection, the Secretary of Energy shall—
- (A) consider the previous experience with similar projects of each applicant; and
 - (B) give priority consideration to applications that—
 - (i) are most likely to maximize production of oil and gas in a cost-effective manner;
 - (ii) sequester significant quantities of carbon dioxide from anthropogenic sources;
 - (iii) demonstrate the greatest commitment on the part of the applicant to ensure funding for the proposed project and the greatest likelihood that the project will be maintained or expanded after Federal assistance under this section is completed; and
 - (iv) minimize any adverse environmental effects from the project.
- (5) DEMONSTRATION PROGRAM REQUIREMENTS.—
- (A) MAXIMUM AMOUNT.—The Secretary of Energy shall not provide more than \$3,000,000 in Federal assistance under this subsection to any applicant.
 - (B) COST SHARING.—The Secretary of Energy shall require cost-sharing under this subsection in accordance with section 988.
 - (C) PERIOD OF GRANTS.—
 - (i) IN GENERAL.—A project funded by a grant under this subsection shall begin construction not later than 2 years after the date of provision of the grant, but in any case not later than December 31, 2010.
 - (ii) TERM.—The Secretary shall not provide grant funds to any applicant under this subsection for a period of more than 5 years.
- (6) TRANSFER OF INFORMATION AND KNOWLEDGE.—The Secretary of Energy shall establish mechanisms to ensure that the information and knowledge gained by participants in the program under this subsection are transferred among other participants and interested persons, including other applicants that submitted applications for a grant under this subsection.
- (7) SCHEDULE.—
- (A) PUBLICATION.—Not later than 180 days after the date of enactment of this Act, the Secretary of Energy shall publish in the Federal Register, and elsewhere, as appropriate, a request for applications to carry out projects under this subsection.
 - (B) DATE FOR APPLICATIONS.—An application for a grant under this subsection shall be submitted not later than 180 days after the date of publication of the request under subparagraph (A).

(C) SELECTION.—After the date by which applications for grants are required to be submitted under subparagraph (B), the Secretary of Energy, in a timely manner, shall select, after peer review and based on the criteria under paragraph (4), those projects to be awarded a grant under this subsection.

(d) RECORDS AND INVENTORY.—The Secretary of the Interior, acting through the Bureau of Land Management, shall maintain records on, and an inventory of, the quantity of carbon dioxide stored within Federal mineral leaseholds.

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 355. ASSESSMENT OF DEPENDENCE OF STATE OF HAWAII ON OIL.

(a) ASSESSMENT.—The Secretary of Energy shall assess the economic implications of the dependence of the State of Hawaii on oil as the principal source of energy for the State, including—

(1) the short- and long-term prospects for crude oil supply disruption and price volatility and potential impacts on the economy of Hawaii;

(2) the economic relationship between oil-fired generation of electricity from residual fuel and refined petroleum products consumed for ground, marine, and air transportation;

(3) the technical and economic feasibility of increasing the contribution of renewable energy resources for generation of electricity, on an island-by-island basis, including—

(A) siting and facility configuration;

(B) environmental, operational, and safety considerations;

(C) the availability of technology;

(D) the effects on the utility system, including reliability;

(E) infrastructure and transport requirements;

(F) community support; and

(G) other factors affecting the economic impact of such an increase and any effect on the economic relationship described in paragraph (2);

(4) the technical and economic feasibility of using liquefied natural gas to displace residual fuel oil for electric generation, including neighbor island opportunities, and the effect of the displacement on the economic relationship described in paragraph (2), including—

(A) the availability of supply;

(B) siting and facility configuration for onshore and offshore liquefied natural gas receiving terminals;

(C) the factors described in subparagraphs (B) through (F) of paragraph (3); and

(D) other economic factors;

(5) the technical and economic feasibility of using renewable energy sources (including hydrogen) for ground, marine, and air transportation energy applications to displace the use of refined petroleum products, on an island-by-island basis,

and the economic impact of the displacement on the relationship described in paragraph (2); and

(6) an island-by-island approach to—

(A) the development of hydrogen from renewable resources; and

(B) the application of hydrogen to the energy needs of Hawaii.

(b) **CONTRACTING AUTHORITY.**—The Secretary of Energy may carry out the assessment under subsection (a) directly or, in whole or in part, through 1 or more contracts with qualified public or private entities.

(c) **REPORT.**—Not later than 300 days after the date of enactment of this Act, the Secretary of Energy shall prepare (in consultation with agencies of the State of Hawaii and other stakeholders, as appropriate), and submit to Congress, a report describing the findings, conclusions, and recommendations resulting from the assessment.

(d) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 356. [42 U.S.C. 15911] DENALI COMMISSION.

(a) **DEFINITION OF COMMISSION.**—In this section, the term “Commission” means the Denali Commission established by the Denali Commission Act of 1998 (42 U.S.C. 3121 note; Public Law 105–277).

(b) **ENERGY PROGRAMS.**—The Commission shall use amounts made available under subsection (d) to carry out energy programs, including—

(1) energy generation and development, including—

(A) fuel cells, hydroelectric, solar, wind, wave, and tidal energy; and

(B) alternative energy sources;

(2) the construction of energy transmission, including interties;

(3) the replacement and cleanup of fuel tanks;

(4) the construction of fuel transportation networks and related facilities;

(5) power cost equalization programs; and

(6) projects using coal as a fuel, including coal gasification projects.

(c) **OPEN MEETINGS.**—

(1) **IN GENERAL.**—Except as provided in paragraph (2), a meeting of the Commission shall be open to the public if—

(A) the Commission members take action on behalf of the Commission; or

(B) the deliberations of the Commission determine, or result in the joint conduct or disposition of, official Commission business.

(2) **EXCEPTIONS.**—Paragraph (1) shall not apply to any portion of a Commission meeting for which the Commission, in public session, votes to close the meeting for the reasons described in paragraph (2), (4), (5), or (6) of subsection (c) of section 552b of title 5, United States Code.

(3) PUBLIC NOTICE.—

(A) IN GENERAL.—At least 1 week before a meeting of the Commission, the Commission shall make a public announcement of the meeting that describes—

(i) the time, place, and subject matter of the meeting;

(ii) whether the meeting is to be open or closed to the public; and

(iii) the name and telephone number of an appropriate person to respond to requests for information about the meeting.

(B) ADDITIONAL NOTICE.—The Commission shall make a public announcement of any change to the information made available under subparagraph (A) at the earliest practicable time.

(4) MINUTES.—The Commission shall keep, and make available to the public, a transcript, electronic recording, or minutes from each Commission meeting, except for portions of the meeting closed under paragraph (2).

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Commission not more than \$55,000,000 for each of fiscal years 2006 through 2015 to carry out subsection (b).

SEC. 357. [42 U.S.C. 15912] COMPREHENSIVE INVENTORY OF OCS OIL AND NATURAL GAS RESOURCES.

(a) IN GENERAL.—The Secretary shall conduct an inventory and analysis of oil and natural gas resources beneath all of the waters of the United States Outer Continental Shelf (“OCS”). The inventory and analysis shall—

(1) use available data on oil and gas resources in areas offshore of Mexico and Canada that will provide information on trends of oil and gas accumulation in areas of the OCS;

(2) use any available technology, except drilling, but including 3-D seismic technology to obtain accurate resource estimates;

(3) analyze how resource estimates in OCS areas have changed over time in regards to gathering geological and geophysical data, initial exploration, or full field development, including areas such as the deepwater and subsalt areas in the Gulf of Mexico;

(4) estimate the effect that understated oil and gas resource inventories have on domestic energy investments; and

(5) identify and explain how legislative, regulatory, and administrative programs or processes restrict or impede the development of identified resources and the extent that they affect domestic supply, such as moratoria, lease terms and conditions, operational stipulations and requirements, approval delays by the Federal Government and coastal States, and local zoning restrictions for onshore processing facilities and pipeline landings.

(b) REPORTS.—The Secretary shall submit a report to Congress on the inventory of estimates and the analysis of restrictions or impediments, together with any recommendations, within 6 months of

the date of enactment of the section. The report shall be publicly available and updated at least every 5 years.

Subtitle F—Access to Federal Lands

SEC. 361. FEDERAL ONSHORE OIL AND GAS LEASING AND PERMITTING PRACTICES.

(a) REVIEW OF ONSHORE OIL AND GAS LEASING PRACTICES.—

(1) IN GENERAL.—The Secretary of the Interior, in consultation with the Secretary of Agriculture with respect to National Forest System lands under the jurisdiction of the Department of Agriculture, shall perform an internal review of current Federal onshore oil and gas leasing and permitting practices.

(2) INCLUSIONS.—The review shall include the process for—

(A) accepting or rejecting offers to lease;

(B) administrative appeals of decisions or orders of officers or employees of the Bureau of Land Management with respect to a Federal oil or gas lease;

(C) considering surface use plans of operation, including the timeframes in which the plans are considered, and any recommendations for improving and expediting the process; and

(D) identifying stipulations to address site-specific concerns and conditions, including those stipulations relating to the environment and resource use conflicts.

(b) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary of the Interior and the Secretary of Agriculture shall transmit a report to Congress that describes—

(1) actions taken under section 3 of Executive Order No. 13212 (42 U.S.C. 13201 note); and

(2) actions taken or any plans to improve the Federal onshore oil and gas leasing program.

SEC. 362. [42 U.S.C. 15921] MANAGEMENT OF FEDERAL OIL AND GAS LEASING PROGRAMS.

(a) TIMELY ACTION ON LEASES AND PERMITS.—

(1) SECRETARY OF THE INTERIOR.—To ensure timely action on oil and gas leases and applications for permits to drill on land otherwise available for leasing, the Secretary of the Interior (referred to in this section as the “Secretary”) shall—

(A) ensure expeditious compliance with section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) and any other applicable environmental and cultural resources laws;

(B) improve consultation and coordination with the States and the public; and

(C) improve the collection, storage, and retrieval of information relating to the oil and gas leasing activities.

(2) SECRETARY OF AGRICULTURE.—To ensure timely action on oil and gas lease applications for permits to drill on land otherwise available for leasing, the Secretary of Agriculture shall—

- (A) ensure expeditious compliance with all applicable environmental and cultural resources laws; and
- (B) improve the collection, storage, and retrieval of information relating to the oil and gas leasing activities.
- (b) BEST MANAGEMENT PRACTICES.—
 - (1) IN GENERAL.—Not later than 18 months after the date of enactment of this Act, the Secretary shall develop and implement best management practices to—
 - (A) improve the administration of the onshore oil and gas leasing program under the Mineral Leasing Act (30 U.S.C. 181 et seq.); and
 - (B) ensure timely action on oil and gas leases and applications for permits to drill on land otherwise available for leasing.
 - (2) CONSIDERATIONS.—In developing the best management practices under paragraph (1), the Secretary shall consider any recommendations from the review under section 361.
 - (3) REGULATIONS.—Not later than 180 days after the development of the best management practices under paragraph (1), the Secretary shall publish, for public comment, proposed regulations that set forth specific timeframes for processing leases and applications in accordance with the best management practices, including deadlines for—
 - (A) approving or disapproving—
 - (i) resource management plans and related documents;
 - (ii) lease applications;
 - (iii) applications for permits to drill; and
 - (iv) surface use plans; and
 - (B) related administrative appeals.
- (c) IMPROVED ENFORCEMENT.—The Secretary and the Secretary of Agriculture shall improve inspection and enforcement of oil and gas activities, including enforcement of terms and conditions in permits to drill on land under the jurisdiction of the Secretary and the Secretary of Agriculture, respectively.
- (d) AUTHORIZATION OF APPROPRIATIONS.—In addition to amounts made available to carry out activities relating to oil and gas leasing on public land administered by the Secretary and National Forest System land administered by the Secretary of Agriculture, there are authorized to be appropriated for each of fiscal years 2006 through 2010—
 - (1) to the Secretary, acting through the Director of the Bureau of Land Management—
 - (A) \$40,000,000 to carry out subsections (a)(1) and (b); and
 - (B) \$20,000,000 to carry out subsection (c);
 - (2) to the Secretary, acting through the Director of the United States Fish and Wildlife Service, \$5,000,000 to carry out subsection (a)(1); and
 - (3) to the Secretary of Agriculture, acting through the Chief of the Forest Service, \$5,000,000 to carry out subsections (a)(2) and (c).

SEC. 363. [42 U.S.C. 15922] CONSULTATION REGARDING OIL AND GAS LEASING ON PUBLIC LAND.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary of the Interior and the Secretary of Agriculture shall enter into a memorandum of understanding regarding oil and gas leasing on—

(1) public land under the jurisdiction of the Secretary of the Interior; and

(2) National Forest System land under the jurisdiction of the Secretary of Agriculture.

(b) CONTENTS.—The memorandum of understanding shall include provisions that—

(1) establish administrative procedures and lines of authority that ensure timely processing of—

(A) oil and gas lease applications;

(B) surface use plans of operation, including steps for processing surface use plans; and

(C) applications for permits to drill consistent with applicable timelines;

(2) eliminate duplication of effort by providing for coordination of planning and environmental compliance efforts;

(3) ensure that lease stipulations are—

(A) applied consistently;

(B) coordinated between agencies; and

(C) only as restrictive as necessary to protect the resource for which the stipulations are applied;

(4) establish a joint data retrieval system that is capable of—

(A) tracking applications and formal requests made in accordance with procedures of the Federal onshore oil and gas leasing program; and

(B) providing information regarding the status of the applications and requests within the Department of the Interior and the Department of Agriculture; and

(5) establish a joint geographic information system mapping system for use in—

(A) tracking surface resource values to aid in resource management; and

(B) processing surface use plans of operation and applications for permits to drill.

SEC. 364. ESTIMATES OF OIL AND GAS RESOURCES UNDERLYING ON-SHORE FEDERAL LAND.

(a) ASSESSMENT.—Section 604 of the Energy Act of 2000 (42 U.S.C. 6217) is amended—

(1) in subsection (a)—

(A) in paragraph (1)—

(i) by striking “reserve”; and

(ii) by striking “and” after the semicolon; and

(B) by striking paragraph (2) and inserting the following:

“(2) the extent and nature of any restrictions or impediments to the development of the resources, including—

“(A) impediments to the timely granting of leases;

“(B) post-lease restrictions, impediments, or delays on development for conditions of approval, applications for permits to drill, or processing of environmental permits; and

“(C) permits or restrictions associated with transporting the resources for entry into commerce; and

“(3) the quantity of resources not produced or introduced into commerce because of the restrictions.”;

(2) in subsection (b)—

(A) by striking “reserve” and inserting “resource”; and

(B) by striking “publically” and inserting “publicly”;

and

(3) by striking subsection (d) and inserting the following:

“(d) ASSESSMENTS.—Using the inventory, the Secretary of Energy shall make periodic assessments of economically recoverable resources accounting for a range of parameters such as current costs, commodity prices, technology, and regulations.”.

(b) METHODOLOGY.—The Secretary of the Interior shall use the same assessment methodology across all geological provinces, areas, and regions in preparing and issuing national geological assessments to ensure accurate comparisons of geological resources.

SEC. 365. [42 U.S.C. 15924] PROJECT TO IMPROVE FEDERAL PERMIT COORDINATION.

(a) ESTABLISHMENT.—The Secretary of the Interior (referred to in this section as the “Secretary”) shall establish a Federal Permit Streamlining Project (referred to in this section as the “Project”).

(b) MEMORANDUM OF UNDERSTANDING.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Secretary shall enter into a memorandum of understanding for purposes of this section with—

(A) the Secretary of Agriculture;

(B) the Administrator of the Environmental Protection Agency; and

(C) the Chief of Engineers.

(2) STATE PARTICIPATION.—The Secretary may request that the Governors of the States in which Project offices are located be signatories to the memorandum of understanding.

(c) DESIGNATION OF QUALIFIED STAFF.—

(1) IN GENERAL.—Not later than 30 days after the date of the signing of the memorandum of understanding under subsection (b), all Federal signatory parties shall, if appropriate, assign to each of the field offices identified in subsection (d) an employee who has expertise in the regulatory issues relating to the office in which the employee is employed, including, as applicable, particular expertise in—

(A) the consultations and the preparation of biological opinions under section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1536);

(B) permits under section 404 of Federal Water Pollution Control Act (33 U.S.C. 1344);

(C) regulatory matters under the Clean Air Act (42 U.S.C. 7401 et seq.);

(D) planning under the National Forest Management Act of 1976 (16 U.S.C. 472a et seq.); and

- (E) the preparation of analyses under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).
- (2) DUTIES.—Each employee assigned under paragraph (1) shall—
- (A) not later than 90 days after the date of assignment, report to the Bureau of Land Management Field Managers in the office to which the employee is assigned;
 - (B) be responsible for all issues relating to the jurisdiction of the home office or agency of the employee; and
 - (C) participate as part of the team of personnel working on proposed energy projects, planning, and environmental analyses.
- (d) PROJECT OFFICES.—The following Bureau of Land Management Offices shall serve as the Project offices:
- (1) Rawlins Field Office, Wyoming.
 - (2) High Plains District Office, Wyoming.
 - (3) Montana/Dakotas State Office, Montana.
 - (4) Farmington Field Office, New Mexico.
 - (5) Carlsbad Field Office, New Mexico.
 - (6) Grand Junction/Glenwood Springs Field Office, Colorado.
 - (7) Vernal Field Office, Utah.
 - (8) Any other State, district, or field office of the Bureau of Land Management determined by the Secretary.
- (e) REPORT TO CONGRESS.—Not later than February 1 of the first fiscal year beginning after the date of enactment of the National Defense Authorization Act for Fiscal Year 2015 and each February 1 thereafter, the Secretary shall report to the Chairman and ranking minority Member of the Committee on Energy and Natural Resources of the Senate and the Committee on Natural Resources of the House of Representatives, which shall include—
- (1) the allocation of funds to each Project office for the previous fiscal year; and
 - (2) the accomplishments of each Project office relating to the coordination and processing of oil and gas use authorizations during that fiscal year.
- (f) ADDITIONAL PERSONNEL.—The Secretary shall assign to each field office identified in subsection (d) any additional personnel that are necessary to ensure the effective implementation of—
- (1) the Project; and
 - (2) other programs administered by the field offices, including inspection and enforcement relating to energy development on Federal land, in accordance with the multiple use mandate of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).
- (g) PERMIT PROCESSING IMPROVEMENT FUND.—Section 35 of the Mineral Leasing Act (30 U.S.C. 191) is amended by adding at the end the following:
- “(c)(1) Notwithstanding the first sentence of subsection (a), any rentals received from leases in any State (other than the State of Alaska) on or after the date of enactment of this subsection shall be deposited in the Treasury, to be allocated in accordance with paragraph (2).

“(2) Of the amounts deposited in the Treasury under paragraph (1)—

“(A) 50 percent shall be paid by the Secretary of the Treasury to the State within the boundaries of which the leased land is located or the deposits were derived; and

“(B) 50 percent shall be deposited in a special fund in the Treasury, to be known as the ‘BLM Permit Processing Improvement Fund’ (referred to in this subsection as the ‘Fund’).

“(3) For each of fiscal years 2006 through 2015, the Fund shall be available to the Secretary of the Interior for expenditure, without further appropriation and without fiscal year limitation, for the coordination and processing of oil and gas use authorizations on onshore Federal land under the jurisdiction of the Project offices identified in section 365(d) of the Energy Policy Act of 2005.”.

(h) TRANSFER OF FUNDS.—For the purposes of coordination and processing of oil and gas use authorizations on Federal land under the administration of the Project offices identified in subsection (d), the Secretary may authorize the expenditure or transfer of such funds as are necessary to—

(1) the United States Fish and Wildlife Service;

(2) the Bureau of Indian Affairs;

(3) the Forest Service;

(4) the Environmental Protection Agency;

(5) the Corps of Engineers; and

(6) the States in which Project offices are located.

(i) SAVINGS PROVISION.—Nothing in this section affects—

(1) the operation of any Federal or State law; or

(2) any delegation of authority made by the head of a Federal agency whose employees are participating in the Project.

SEC. 366. DEADLINE FOR CONSIDERATION OF APPLICATIONS FOR PERMITS.

Section 17 of the Mineral Leasing Act (30 U.S.C. 226) is amended by adding at the end the following:

“(p) DEADLINES FOR CONSIDERATION OF APPLICATIONS FOR PERMITS.—

“(1) IN GENERAL.—Not later than 10 days after the date on which the Secretary receives an application for any permit to drill, the Secretary shall—

“(A) notify the applicant that the application is complete; or

“(B) notify the applicant that information is missing and specify any information that is required to be submitted for the application to be complete.

“(2) ISSUANCE OR DEFERRAL.—Not later than 30 days after the applicant for a permit has submitted a complete application, the Secretary shall—

“(A) issue the permit, if the requirements under the National Environmental Policy Act of 1969 and other applicable law have been completed within such timeframe; or

“(B) defer the decision on the permit and provide to the applicant a notice—

“(i) that specifies any steps that the applicant could take for the permit to be issued; and

“(ii) a list of actions that need to be taken by the agency to complete compliance with applicable law together with timelines and deadlines for completing such actions.

“(3) REQUIREMENTS FOR DEFERRED APPLICATIONS.—

“(A) IN GENERAL.—If the Secretary provides notice under paragraph (2)(B), the applicant shall have a period of 2 years from the date of receipt of the notice in which to complete all requirements specified by the Secretary, including providing information needed for compliance with the National Environmental Policy Act of 1969.

“(B) ISSUANCE OF DECISION ON PERMIT.—If the applicant completes the requirements within the period specified in subparagraph (A), the Secretary shall issue a decision on the permit not later than 10 days after the date of completion of the requirements described in subparagraph (A), unless compliance with the National Environmental Policy Act of 1969 and other applicable law has not been completed within such timeframe.

“(C) DENIAL OF PERMIT.—If the applicant does not complete the requirements within the period specified in subparagraph (A) or if the applicant does not comply with applicable law, the Secretary shall deny the permit.”.

SEC. 367. [42 U.S.C. 15925] FAIR MARKET VALUE DETERMINATIONS FOR LINEAR RIGHTS-OF-WAY ACROSS PUBLIC LANDS AND NATIONAL FORESTS.

(a) UPDATE OF FEE SCHEDULE.—Not later than 1 year after the date of enactment of this section—

(1) the Secretary of the Interior shall update section 2806.20 of title 43, Code of Federal Regulations, as in effect on the date of enactment of this section, to revise the per acre rental fee zone value schedule by State, county, and type of linear right-of-way use to reflect current values of land in each zone; and

(2) the Secretary of Agriculture shall make the same revision for linear rights-of-way granted, issued, or renewed under title V of the Federal Lands Policy and Management Act of 1976 (43 U.S.C. 1761 et seq.) on National Forest System land.

(b) FAIR MARKET VALUE RENTAL DETERMINATION FOR LINEAR RIGHTS-OF-WAY.—The fair market value rent of a linear right-of-way across public lands or National Forest System lands issued under section 504 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1764) or section 28 of the Mineral Leasing Act (30 U.S.C. 185) shall be determined in accordance with subpart 2806 of title 43, Code of Federal Regulations, as in effect on the date of enactment of this section (including the annual or periodic updates specified in the regulations) and as updated in accordance with subsection (a).

SEC. 368. [42 U.S.C. 15926] ENERGY RIGHT-OF-WAY CORRIDORS ON FEDERAL LAND.

(a) WESTERN STATES.—Not later than 2 years after the date of enactment of this Act, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Defense, the Secretary of Energy, and the Secretary of the Interior (in this section referred to collec-

tively as “the Secretaries”), in consultation with the Federal Energy Regulatory Commission, States, tribal or local units of governments as appropriate, affected utility industries, and other interested persons, shall consult with each other and shall—

(1) designate, under their respective authorities, corridors for oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities on Federal land in the eleven contiguous Western States (as defined in section 103(o) of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702(o)));

(2) perform any environmental reviews that may be required to complete the designation of such corridors; and

(3) incorporate the designated corridors into the relevant agency land use and resource management plans or equivalent plans.

(b) OTHER STATES.—Not later than 4 years after the date of enactment of this Act, the Secretaries, in consultation with the Federal Energy Regulatory Commission, affected utility industries, and other interested persons, shall jointly—

(1) identify corridors for oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities on Federal land in States other than those described in subsection (a); and

(2) schedule prompt action to identify, designate, and incorporate the corridors into the applicable land use plans.

(c) ONGOING RESPONSIBILITIES.—The Secretaries, in consultation with the Federal Energy Regulatory Commission, affected utility industries, and other interested parties, shall establish procedures under their respective authorities that—

(1) ensure that additional corridors for oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities on Federal land are promptly identified and designated as necessary; and

(2) expedite applications to construct or modify oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities within such corridors, taking into account prior analyses and environmental reviews undertaken during the designation of such corridors.

(d) CONSIDERATIONS.—In carrying out this section, the Secretaries shall take into account the need for upgraded and new electricity transmission and distribution facilities to—

(1) improve reliability;

(2) relieve congestion; and

(3) enhance the capability of the national grid to deliver electricity.

(e) SPECIFICATIONS OF CORRIDOR.—A corridor designated under this section shall, at a minimum, specify the centerline, width, and compatible uses of the corridor.

SEC. 369. [42 U.S.C. 15927] OIL SHALE, TAR SANDS, AND OTHER STRATEGIC UNCONVENTIONAL FUELS.

(a) SHORT TITLE.—This section may be cited as the “Oil Shale, Tar Sands, and Other Strategic Unconventional Fuels Act of 2005”.

(b) DECLARATION OF POLICY.—Congress declares that it is the policy of the United States that—

(1) United States oil shale, tar sands, and other unconventional fuels are strategically important domestic resources that should be developed to reduce the growing dependence of the United States on politically and economically unstable sources of foreign oil imports;

(2) the development of oil shale, tar sands, and other strategic unconventional fuels, for research and commercial development, should be conducted in an environmentally sound manner, using practices that minimize impacts; and

(3) development of those strategic unconventional fuels should occur, with an emphasis on sustainability, to benefit the United States while taking into account affected States and communities.

(c) LEASING PROGRAM FOR RESEARCH AND DEVELOPMENT OF OIL SHALE AND TAR SANDS.—In accordance with section 21 of the Mineral Leasing Act (30 U.S.C. 241) and any other applicable law, except as provided in this section, not later than 180 days after the date of enactment of this Act, from land otherwise available for leasing, the Secretary of the Interior (referred to in this section as the “Secretary”) shall make available for leasing such land as the Secretary considers to be necessary to conduct research and development activities with respect to technologies for the recovery of liquid fuels from oil shale and tar sands resources on public lands. Prospective public lands within each of the States of Colorado, Utah, and Wyoming shall be made available for such research and development leasing.

(d) PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT AND COMMERCIAL LEASING PROGRAM FOR OIL SHALE AND TAR SANDS.—

(1) PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT.—

Not later than 18 months after the date of enactment of this Act, in accordance with section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)), the Secretary shall complete a programmatic environmental impact statement for a commercial leasing program for oil shale and tar sands resources on public lands, with an emphasis on the most geologically prospective lands within each of the States of Colorado, Utah, and Wyoming.

(2) FINAL REGULATION.—Not later than 6 months after the completion of the programmatic environmental impact statement under this subsection, the Secretary shall publish a final regulation establishing such program.

(e) COMMENCEMENT OF COMMERCIAL LEASING OF OIL SHALE AND TAR SANDS.—Not later than 180 days after publication of the final regulation required by subsection (d), the Secretary shall consult with the Governors of States with significant oil shale and tar sands resources on public lands, representatives of local governments in such States, interested Indian tribes, and other interested persons, to determine the level of support and interest in the States in the development of tar sands and oil shale resources. If the Secretary finds sufficient support and interest exists in a State, the Secretary may conduct a lease sale in that State under the commercial leasing program regulations. Evidence of interest in a lease sale under this subsection shall include, but not be limited to,

appropriate areas nominated for leasing by potential lessees and other interested parties.

(f) DILIGENT DEVELOPMENT REQUIREMENTS.—The Secretary shall, by regulation, designate work requirements and milestones to ensure the diligent development of the lease.

(g) INITIAL REPORT BY THE SECRETARY OF THE INTERIOR.—Within 90 days after the date of enactment of this Act, the Secretary of the Interior shall report to the Committee on Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate on—

(1) the interim actions necessary to—

(A) develop the program, complete the programmatic environmental impact statement, and promulgate the final regulation as required by subsection (d); and

(B) conduct the first lease sales under the program as required by subsection (e); and

(2) a schedule to complete such actions within the time limits mandated by this section.

(h) TASK FORCE.—

(1) ESTABLISHMENT.—The Secretary of Energy, in cooperation with the Secretary of the Interior and the Secretary of Defense, shall establish a task force to develop a program to coordinate and accelerate the commercial development of strategic unconventional fuels, including but not limited to oil shale and tar sands resources within the United States, in an integrated manner.

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

(A) the Secretary of Energy (or the designee of the Secretary);

(B) the Secretary of the Interior (or the designee of the Secretary of the Interior);

(C) the Secretary of Defense (or the designee of the Secretary of Defense);

(D) the Governors of affected States; and

(E) representatives of local governments in affected areas.

(3) RECOMMENDATIONS.—The Task Force shall make such recommendations regarding promoting the development of the strategic unconventional fuels resources within the United States as it may deem appropriate.

(4) PARTNERSHIPS.—The Task Force shall make recommendations with respect to initiating a partnership with the Province of Alberta, Canada, for purposes of sharing information relating to the development and production of oil from tar sands, and similar partnerships with other nations that contain significant oil shale resources.

(5) REPORTS.—

(A) INITIAL REPORT.—Not later than 180 days after the date of enactment of this Act, the Task Force shall submit to the President and Congress a report that describes the analysis and recommendations of the Task Force.

(B) SUBSEQUENT REPORTS.—The Secretary shall provide an annual report describing the progress in developing the strategic unconventional fuels resources within

the United States for each of the 5 years following submission of the report provided for in subparagraph (A).

(i) OFFICE OF PETROLEUM RESERVES.—

(1) IN GENERAL.—The Office of Petroleum Reserves of the Department of Energy shall—

(A) coordinate the creation and implementation of a commercial strategic fuel development program for the United States;

(B) evaluate the strategic importance of unconventional sources of strategic fuels to the security of the United States;

(C) promote and coordinate Federal Government actions that facilitate the development of strategic fuels in order to effectively address the energy supply needs of the United States;

(D) identify, assess, and recommend appropriate actions of the Federal Government required to assist in the development and manufacturing of strategic fuels; and

(E) coordinate and facilitate appropriate relationships between private industry and the Federal Government to promote sufficient and timely private investment to commercialize strategic fuels for domestic and military use.

(2) CONSULTATION AND COORDINATION.—The Office of Petroleum Reserves shall work closely with the Task Force and coordinate its staff support.

(j) MINERAL LEASING ACT AMENDMENTS.—

(1) SECTION 17.—Section 17(b)(2) of the Mineral Leasing Act (30 U.S.C. 226(b)(2)), as amended by section 350, is further amended—

(A) in subparagraph (A) (as designated by the amendment made by subsection (a)(1) of that section) by designating the first, second, and third sentences as clauses (i), (ii), and (iii), respectively;

(B) by moving clause (ii), as so designated, so as to begin immediately after and below clause (i);

(C) by moving clause (iii), as so designated, so as to begin immediately after and below clause (ii);

(D) in clause (i) of subparagraph (A) (as designated by subparagraph (A) of this paragraph) by striking “five thousand one hundred and twenty” and inserting “5,760”; and

(E) by adding at the end the following:

“(iv) No lease issued under this paragraph shall be included in any chargeability limitation associated with oil and gas leases.”.

(2) SECTION 21.—Section 21(a) of the Mineral Leasing Act (30 U.S.C. 241(a)) is amended—

(A) by striking “(a) That the Secretary” and inserting the following:

“(a)(1) The Secretary”;

(B) by striking “; that no lease” and inserting a period, followed by the following:

“(2) No lease”;

(C) by striking “Leases may be for” and inserting the following:

“(3) Leases may be for”;

(D) by striking “For the privilege” and inserting the following:

“(4) For the privilege”;

(E) in paragraph (2) (as designated by subparagraph (B) of this paragraph) by striking “five thousand one hundred and twenty” and inserting “5,760”;

(F) in paragraph (4) (as designated by subparagraph (D) of this paragraph) by striking “rate of 50 cents per acre” and inserting “rate of \$2.00 per acre”;

(G)(i) by striking “: *Provided further*, That not more than one lease shall be granted under this section to any” and inserting “: *Provided further*, That no”; and

(ii) by striking “except that with respect to leases for” and inserting “shall acquire or hold more than 50,000 acres of oil shale leases in any one State. For”; and

(H) by adding at the end the following:

“(5) No lease issued under this section shall be included in any chargeability limitation associated with oil and gas leases.”.

(k) INTERAGENCY COORDINATION AND EXPEDITIOUS REVIEW OF PERMITTING PROCESS.—

(1) DEPARTMENT OF THE INTERIOR AS LEAD AGENCY.—Upon written request of a prospective applicant for Federal authorization to develop a proposed oil shale or tar sands project, the Department of the Interior shall act as the lead Federal agency for the purposes of coordinating all applicable Federal authorizations and environmental reviews. To the maximum extent practicable under applicable Federal law, the Secretary shall coordinate this Federal authorization and review process with any Indian tribes and State and local agencies responsible for conducting any separate permitting and environmental reviews.

(2) IMPLEMENTING REGULATIONS.—Not later than 6 months after the date of enactment of this Act, the Secretary shall issue any regulations necessary to implement this subsection.

(l) COST-SHARED DEMONSTRATION TECHNOLOGIES.—

(1) IDENTIFICATION.—The Secretary of Energy shall identify technologies for the development of oil shale and tar sands that—

(A) are ready for demonstration at a commercially-representative scale; and

(B) have a high probability of leading to commercial production.

(2) ASSISTANCE.—For each technology identified under paragraph (1), the Secretary of Energy may provide—

(A) technical assistance;

(B) assistance in meeting environmental and regulatory requirements; and

(C) cost-sharing assistance.

(m) NATIONAL OIL SHALE AND TAR SANDS ASSESSMENT.—

(1) ASSESSMENT.—

(A) IN GENERAL.—The Secretary shall carry out a national assessment of oil shale and tar sands resources for

the purposes of evaluating and mapping oil shale and tar sands deposits, in the geographic areas described in subparagraph (B). In conducting such an assessment, the Secretary shall make use of the extensive geological assessment work for oil shale and tar sands already conducted by the United States Geological Survey.

(B) GEOGRAPHIC AREAS.—The geographic areas referred to in subparagraph (A), listed in the order in which the Secretary shall assign priority, are—

(i) the Green River Region of the States of Colorado, Utah, and Wyoming;

(ii) the Devonian oil shales and other hydrocarbon-bearing rocks having the nomenclature of “shale” located east of the Mississippi River; and

(iii) any remaining area in the central and western United States (including the State of Alaska) that contains oil shale and tar sands, as determined by the Secretary.

(2) USE OF STATE SURVEYS AND UNIVERSITIES.—In carrying out the assessment under paragraph (1), the Secretary may request assistance from any State-administered geological survey or university.

(n) LAND EXCHANGES.—

(1) IN GENERAL.—To facilitate the recovery of oil shale and tar sands, especially in areas where Federal, State, and private lands are intermingled, the Secretary shall consider the use of land exchanges where appropriate and feasible to consolidate land ownership and mineral interests into manageable areas.

(2) IDENTIFICATION AND PRIORITY OF PUBLIC LANDS.—The Secretary shall identify public lands containing deposits of oil shale or tar sands within the Green River, Piceance Creek, Uintah, and Washakie geologic basins, and shall give priority to implementing land exchanges within those basins. The Secretary shall consider the geology of the respective basin in determining the optimum size of the lands to be consolidated.

(3) COMPLIANCE WITH SECTION 206 OF FLPMA.—A land exchange undertaken in furtherance of this subsection shall be implemented in accordance with section 206 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1716).

(o) ROYALTY RATES FOR LEASES.—The Secretary shall establish royalties, fees, rentals, bonus, or other payments for leases under this section that shall—

(1) encourage development of the oil shale and tar sands resource; and

(2) ensure a fair return to the United States.

(p) HEAVY OIL TECHNICAL AND ECONOMIC ASSESSMENT.—The Secretary of Energy shall update the 1987 technical and economic assessment of domestic heavy oil resources that was prepared by the Interstate Oil and Gas Compact Commission. Such an update should include all of North America and cover all unconventional oil, including heavy oil, tar sands (oil sands), and oil shale.

(q) PROCUREMENT OF UNCONVENTIONAL FUELS BY THE DEPARTMENT OF DEFENSE.—

(1) IN GENERAL.—Chapter 141 of title 10, United States Code, is amended by inserting after section 2398 the following:

“§ 2398a. Procurement of fuel derived from coal, oil shale, and tar sands

“(a) USE OF FUEL TO MEET DEPARTMENT OF DEFENSE NEEDS.—The Secretary of Defense shall develop a strategy to use fuel produced, in whole or in part, from coal, oil shale, and tar sands (referred to in this section as a ‘covered fuel’) that are extracted by either mining or in-situ methods and refined or otherwise processed in the United States in order to assist in meeting the fuel requirements of the Department of Defense when the Secretary determines that it is in the national interest.

“(b) AUTHORITY TO PROCURE.—The Secretary of Defense may enter into 1 or more contracts or other agreements (that meet the requirements of this section) to procure a covered fuel to meet 1 or more fuel requirements of the Department of Defense.

“(c) CLEAN FUEL REQUIREMENTS.—A covered fuel may be procured under subsection (b) only if the covered fuel meets such standards for clean fuel produced from domestic sources as the Secretary of Defense shall establish for purposes of this section in consultation with the Department of Energy.

“(d) MULTIYEAR CONTRACT AUTHORITY.—Subject to applicable provisions of law, any contract or other agreement for the procurement of covered fuel under subsection (b) may be for 1 or more years at the election of the Secretary of Defense.

“(e) FUEL SOURCE ANALYSIS.—In order to facilitate the procurement by the Department of Defense of covered fuel under subsection (b), the Secretary of Defense may carry out a comprehensive assessment of current and potential locations in the United States for the supply of covered fuel to the Department.”.

(2) CLERICAL AMENDMENT.—The table of sections for chapter 141 of title 10, United States Code, is amended by inserting after the item relating to section 2398 the following:

“2398a. Procurement of fuel derived from coal, oil shale, and tar sands.”.

(r) STATE WATER RIGHTS.—Nothing in this section preempts or affects any State water law or interstate compact relating to water.

(s) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 370. FINGER LAKES 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.

SEC. 371. [30 U.S.C. 188 note] REINSTATEMENT OF LEASES.

(a) LEASES TERMINATED FOR CERTAIN FAILURE TO PAY RENTAL.—Notwithstanding section 31(d)(2)(B) of the Mineral Leasing Act (30 U.S.C. 188(d)(2)(B)) as in effect before the effective date of this section, and notwithstanding the amendment made by subsection (b) of this section, the Secretary of the Interior may rein-

state any oil and gas lease issued under that Act that was terminated for failure of a lessee to pay the full amount of rental on or before the anniversary date of the lease, during the period beginning on September 1, 2001, and ending on June 30, 2004, if—

(1) not later than 120 days after the date of enactment of this Act, the lessee—

(A) files a petition for reinstatement of the lease;

(B) complies with the conditions of section 31(e) of the Mineral Leasing Act (30 U.S.C. 188(e)); and

(C) certifies that the lessee did not receive a notice of termination by the date that was 13 months before the date of termination; and

(2) the land is available for leasing.

(b) **DEADLINE FOR PETITIONS, GENERALLY.**—Section 31(d)(2) of the Mineral Leasing Act (30 U.S.C. 188(d)(2)) is amended by striking subparagraphs (A) and (B) and inserting the following:

“(A) with respect to any lease that terminated under subsection (b) on or before the date of the enactment of the Energy Policy Act of 2005, a petition for reinstatement (together with the required back rental and royalty accruing after the date of termination) is filed on or before the earlier of—

“(i) 60 days after the lessee receives from the Secretary notice of termination, whether by return of check or by any other form of actual notice; or

“(ii) 15 months after the termination of the lease;

or

“(B) with respect to any lease that terminates under subsection (b) after the date of the enactment of the Energy Policy Act of 2005, a petition for reinstatement (together with the required back rental and royalty accruing after the date of termination) is filed on or before the earlier of—

“(i) 60 days after receipt of the notice of termination sent by the Secretary by certified mail to all lessees of record; or

“(ii) 24 months after the termination of the lease.”.

SEC. 372. [42 U.S.C. 15928] CONSULTATION REGARDING ENERGY RIGHTS-OF-WAY ON PUBLIC LAND.

(a) **MEMORANDUM OF UNDERSTANDING.**—

(1) **IN GENERAL.**—Not later than 6 months after the date of enactment of this Act, the Secretary of Energy, in consultation with the Secretary of the Interior, the Secretary of Agriculture, and the Secretary of Defense with respect to lands under their respective jurisdictions, shall enter into a memorandum of understanding to coordinate all applicable Federal authorizations and environmental reviews relating to a proposed or existing utility facility. To the maximum extent practicable under applicable law, the Secretary of Energy shall, to ensure timely review and permit decisions, coordinate such authorizations and reviews with any Indian tribes, multi-State entities, and State agencies that are responsible for conducting any separate permitting and environmental reviews of the affected utility facility.

(2) CONTENTS.—The memorandum of understanding shall include provisions that—

(A) establish—

(i) a unified right-of-way application form; and

(ii) an administrative procedure for processing right-of-way applications, including lines of authority, steps in application processing, and timeframes for application processing;

(B) provide for coordination of planning relating to the granting of the rights-of-way;

(C) provide for an agreement among the affected Federal agencies to prepare a single environmental review document to be used as the basis for all Federal authorization decisions; and

(D) provide for coordination of use of right-of-way stipulations to achieve consistency.

(b) NATURAL GAS PIPELINES.—

(1) IN GENERAL.—With respect to permitting activities for interstate natural gas pipelines, the May 2002 document entitled “Interagency Agreement On Early Coordination Of Required Environmental And Historic Preservation Reviews Conducted In Conjunction With The Issuance Of Authorizations To Construct And Operate Interstate Natural Gas Pipelines Certificated By The Federal Energy Regulatory Commission” shall constitute compliance with subsection (a).

(2) REPORT.—

(A) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, and every 2 years thereafter, agencies that are signatories to the document referred to in paragraph (1) shall transmit to Congress a report on how the agencies under the jurisdiction of the Secretaries are incorporating and implementing the provisions of the document referred to in paragraph (1).

(B) CONTENTS.—The report shall address—

(i) efforts to implement the provisions of the document referred to in paragraph (1);

(ii) whether the efforts have had a streamlining effect;

(iii) further improvements to the permitting process of the agency; and

(iv) recommendations for inclusion of State and tribal governments in a coordinated permitting process.

(c) DEFINITION OF UTILITY FACILITY.—In this section, the term “utility facility” means any privately, publicly, or cooperatively owned line, facility, or system—

(1) for the transportation of—

(A) oil, natural gas, synthetic liquid fuel, or gaseous fuel;

(B) any refined product produced from oil, natural gas, synthetic liquid fuel, or gaseous fuel; or

(C) products in support of the production of material referred to in subparagraph (A) or (B);

(2) for storage and terminal facilities in connection with the production of material referred to in paragraph (1); or

(3) for the generation, transmission, and distribution of electric energy.

SEC. 373. SENSE OF CONGRESS REGARDING DEVELOPMENT OF MINERALS UNDER PADRE ISLAND NATIONAL SEASHORE.

(a) FINDINGS.—Congress finds the following:

(1) Pursuant to Public Law 87–712 (16 U.S.C. 459d et seq.; popularly known as the “Federal Enabling Act”) and various deeds and actions under that Act, the United States is the owner of only the surface estate of certain lands constituting the Padre Island National Seashore.

(2) Ownership of the oil, gas, and other minerals in the subsurface estate of the lands constituting the Padre Island National Seashore was never acquired by the United States, and ownership of those interests is held by the State of Texas and private parties.

(3) Public Law 87–712 (16 U.S.C. 459d et seq.)—

(A) expressly contemplated that the United States would recognize the ownership and future development of the oil, gas, and other minerals in the subsurface estate of the lands constituting the Padre Island National Seashore by the owners and their mineral lessees; and

(B) recognized that approval of the State of Texas was required to create Padre Island National Seashore.

(4) Approval was given for the creation of Padre Island National Seashore by the State of Texas through Tex. Rev. Civ. Stat. Ann. Art. 6077(t) (Vernon 1970), which expressly recognized that development of the oil, gas, and other minerals in the subsurface of the lands constituting Padre Island National Seashore would be conducted with full rights of ingress and egress under the laws of the State of Texas.

(b) SENSE OF CONGRESS.—It is the sense of Congress that with regard to Federal law, any regulation of the development of oil, gas, or other minerals in the subsurface of the lands constituting Padre Island National Seashore should be made as if those lands retained the status that the lands had on September 27, 1962.

SEC. 374. LIVINGSTON PARISH MINERAL RIGHTS TRANSFER.

Section 102 of Public Law 102–562 (106 Stat. 4234) is amended by striking subsection (b) and inserting the following:

“(b) RESERVATION OF OIL AND GAS RIGHTS AND CONVEYANCE OF REMAINING MINERAL RIGHTS.—Subject to the limitations set forth in subsection (c), the United States hereby excepts and reserves from the provisions of subsection (a), all rights to oil and gas underlying such lands, along with the right to explore for, and produce the oil and gas under applicable law and such regulations as the Secretary of the Interior may prescribe. Not later than 180 days after the date of enactment of the Energy Policy Act of 2005, the Secretary of the Interior shall convey the remaining mineral rights to the parties who as of the date of enactment of the Energy Policy Act of 2005 would be recognized as holders of a right, title, or interest to any portion of such minerals under the laws of the

State of Louisiana, but for the interest of the United States in such minerals.

“(c) OIL AND GAS RESOURCE ASSESSMENT AND REPORT.—The United States Geological Survey shall conduct a resource assessment and publish a report of the findings of such resource assessment (‘USGS Assessment and Report’) within 1 year of the date of enactment of the Energy Policy Act of 2005. The USGS Assessment and Report shall provide an assessment of all oil and gas resources underlying the certain lands in Livingston Parish, Louisiana, as described in section 103 (the ‘Livingston Parish lands’). Upon a finding by the Secretary of the Interior based upon the USGS Assessment and Report that it is unlikely that economically recoverable oil and gas resources are present, the Secretary shall convey all rights to oil and gas underlying such lands to the recipients, or their successors, heirs, or assigns, of the conveyances under subsection (b). Such further conveyances shall be made within 180 days after a finding by the Secretary that it is unlikely that economically recoverable oil and gas resources are present.”.

Subtitle G—Miscellaneous

SEC. 381. DEADLINE FOR DECISION ON APPEALS OF CONSISTENCY DETERMINATION UNDER THE COASTAL ZONE MANAGEMENT ACT OF 1972.

Section 319 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1465) is amended to read as follows:

“APPEALS TO THE SECRETARY

“SEC. 319. (a) NOTICE.—Not later than 30 days after the date of the filing of an appeal to the Secretary of a consistency determination under section 307, the Secretary shall publish an initial notice in the Federal Register.

“(b) CLOSURE OF RECORD.—

“(1) IN GENERAL.—Not later than the end of the 160-day period beginning on the date of publication of an initial notice under subsection (a), except as provided in paragraph (3), the Secretary shall immediately close the decision record and receive no more filings on the appeal.

“(2) NOTICE.—After closing the administrative record, the Secretary shall immediately publish a notice in the Federal Register that the administrative record has been closed.

“(3) EXCEPTION.—

“(A) IN GENERAL.—Subject to subparagraph (B), during the 160-day period described in paragraph (1), the Secretary may stay the closing of the decision record—

“(i) for a specific period mutually agreed to in writing by the appellant and the State agency; or

“(ii) as the Secretary determines necessary to receive, on an expedited basis—

“(I) any supplemental information specifically requested by the Secretary to complete a consistency review under this Act; or

“(II) any clarifying information submitted by a party to the proceeding related to information in the consolidated record compiled by the lead Federal permitting agency.

“(B) APPLICABILITY.—The Secretary may only stay the 160-day period described in paragraph (1) for a period not to exceed 60 days.

“(c) DEADLINE FOR DECISION.—

“(1) IN GENERAL.—Not later than 60 days after the date of publication of a Federal Register notice stating when the decision record for an appeal has been closed, the Secretary shall issue a decision or publish a notice in the Federal Register explaining why a decision cannot be issued at that time.

“(2) SUBSEQUENT DECISION.—Not later than 15 days after the date of publication of a Federal Register notice explaining why a decision cannot be issued within the 60-day period, the Secretary shall issue a decision.”

SEC. 382. [16 U.S.C. 1466] APPEALS RELATING TO OFFSHORE MINERAL DEVELOPMENT.

For any Federal administrative agency proceeding that is an appeal or review under section 319 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1465), as amended by this Act, related to any Federal authorization for the permitting, approval, or other authorization of an energy project, the lead Federal permitting agency for the project shall, with the cooperation of Federal and State administrative agencies, maintain a consolidated record of all decisions made or actions taken by the lead agency or by another Federal or State administrative agency or officer. Such record shall be the initial record for appeals or reviews under that Act, provided that the record may be supplemented as expressly provided pursuant to section 319 of that Act.

SEC. 383. ROYALTY PAYMENTS UNDER LEASES UNDER THE OUTER CONTINENTAL SHELF LANDS ACT.

(a) ROYALTY RELIEF.—

(1) IN GENERAL.—For purposes of providing compensation for lessees and a State for which amounts are authorized by section 6004(c) of the Oil Pollution Act of 1990 (Public Law 101–380), a lessee may withhold from payment any royalty due and owing to the United States under any leases under the Outer Continental Shelf Lands Act (43 U.S.C. 1301 et seq.) for offshore oil or gas production from a covered lease tract if, on or before the date that the payment is due and payable to the United States, the lessee makes a payment to the State of 44 cents for every \$1 of royalty withheld.

(2) TREATMENT OF AMOUNTS.—Any royalty withheld by a lessee in accordance with this section (including any portion thereof that is paid to the State under paragraph (1)) shall be treated as paid for purposes of satisfaction of the royalty obligations of the lessee to the United States.

(3) CERTIFICATION OF WITHHELD AMOUNTS.—The Secretary of the Treasury shall—

(A) determine the amount of royalty withheld by a lessee under this section; and

- (B) promptly publish a certification when the total amount of royalty withheld by the lessee under this section is equal to—
- (i) the dollar amount stated at page 47 of Senate Report number 101–534, which is designated therein as the total drainage claim for the West Delta field; plus
 - (ii) interest as described at page 47 of that Report.
- (b) PERIOD OF ROYALTY RELIEF.—Subsection (a) shall apply to royalty amounts that are due and payable in the period beginning on October 1, 2006, and ending on the date on which the Secretary of the Treasury publishes a certification under subsection (a)(3)(B).
- (c) DEFINITIONS.—As used in this section:
- (1) COVERED LEASE TRACT.—The term “covered lease tract” means a leased tract (or portion of a leased tract)—
 - (A) lying seaward of the zone defined and governed by section 8(g) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(g)); or
 - (B) lying within such zone but to which such section does not apply.
 - (2) LESSEE.—The term “lessee”—
 - (A) means a person or entity that, on the date of the enactment of the Oil Pollution Act of 1990, was a lessee referred to in section 6004(c) of that Act (as in effect on that date of the enactment), but did not hold lease rights in Federal offshore lease OCS–G–5669; and
 - (B) includes successors and affiliates of a person or entity described in subparagraph (A).

SEC. 384. COASTAL IMPACT ASSISTANCE PROGRAM.

Section 31 of the Outer Continental Shelf Lands Act (43 U.S.C. 1356a) is amended to read as follows:

“SEC. 31. COASTAL IMPACT ASSISTANCE PROGRAM.

“(a) DEFINITIONS.—In this section:

“(1) COASTAL POLITICAL SUBDIVISION.—The term ‘coastal political subdivision’ means a political subdivision of a coastal State any part of which political subdivision is—

“(A) within the coastal zone (as defined in section 304 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453)) of the coastal State as of the date of enactment of the Energy Policy Act of 2005; and

“(B) not more than 200 nautical miles from the geographic center of any leased tract.

“(2) COASTAL POPULATION.—The term ‘coastal population’ means the population, as determined by the most recent official data of the Census Bureau, of each political subdivision any part of which lies within the designated coastal boundary of a State (as defined in a State’s coastal zone management program under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.)).

“(3) COASTAL STATE.—The term ‘coastal State’ has the meaning given the term in section 304 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1453).

“(4) COASTLINE.—The term ‘coastline’ has the meaning given the term ‘coast line’ in section 2 of the Submerged Lands Act (43 U.S.C. 1301).

“(5) DISTANCE.—The term ‘distance’ means the minimum great circle distance, measured in statute miles.

“(6) LEASED TRACT.—The term ‘leased tract’ means a tract that is subject to a lease under section 6 or 8 for the purpose of drilling for, developing, and producing oil or natural gas resources.

“(7) LEASING MORATORIA.—The term ‘leasing moratoria’ means the prohibitions on preleasing, leasing, and related activities on any geographic area of the outer Continental Shelf as contained in sections 107 through 109 of division E of the Consolidated Appropriations Act, 2005 (Public Law 108–447; 118 Stat. 3063).

“(8) POLITICAL SUBDIVISION.—The term ‘political subdivision’ means the local political jurisdiction immediately below the level of State government, including counties, parishes, and boroughs.

“(9) PRODUCING STATE.—

“(A) IN GENERAL.—The term ‘producing State’ means a coastal State that has a coastal seaward boundary within 200 nautical miles of the geographic center of a leased tract within any area of the outer Continental Shelf.

“(B) EXCLUSION.—The term ‘producing State’ does not include a producing State, a majority of the coastline of which is subject to leasing moratoria, unless production was occurring on January 1, 2005, from a lease within 10 nautical miles of the coastline of that State.

“(10) QUALIFIED OUTER CONTINENTAL SHELF REVENUES.—

“(A) IN GENERAL.—The term ‘qualified Outer Continental Shelf revenues’ means all amounts received by the United States from each leased tract or portion of a leased tract—

“(i) lying—

“(I) seaward of the zone covered by section 8(g); or

“(II) within that zone, but to which section 8(g) does not apply; and

“(ii) the geographic center of which lies within a distance of 200 nautical miles from any part of the coastline of any coastal State.

“(B) INCLUSIONS.—The term ‘qualified Outer Continental Shelf revenues’ includes bonus bids, rents, royalties (including payments for royalty taken in kind and sold), net profit share payments, and related late-payment interest from natural gas and oil leases issued under this Act.

“(C) EXCLUSION.—The term ‘qualified Outer Continental Shelf revenues’ does not include any revenues from a leased tract or portion of a leased tract that is located in a geographic area subject to a leasing moratorium on January 1, 2005, unless the lease was in production on January 1, 2005.

“(b) PAYMENTS TO PRODUCING STATES AND COASTAL POLITICAL SUBDIVISIONS.—

“(1) IN GENERAL.—The Secretary shall, without further appropriation, disburse to producing States and coastal political subdivisions in accordance with this section \$250,000,000 for each of fiscal years 2007 through 2010.

“(2) DISBURSEMENT.—In each fiscal year, the Secretary shall disburse to each producing State for which the Secretary has approved a plan under subsection (c), and to coastal political subdivisions under paragraph (4), such funds as are allocated to the producing State or coastal political subdivision, respectively, under this section for the fiscal year.

“(3) ALLOCATION AMONG PRODUCING STATES.—

“(A) IN GENERAL.—Except as provided in subparagraph (C) and subject to subparagraph (D), the amounts available under paragraph (1) shall be allocated to each producing State based on the ratio that—

“(i) the amount of qualified outer Continental Shelf revenues generated off the coastline of the producing State; bears to

“(ii) the amount of qualified outer Continental Shelf revenues generated off the coastline of all producing States.

“(B) AMOUNT OF OUTER CONTINENTAL SHELF REVENUES.—For purposes of subparagraph (A)—

“(i) the amount of qualified outer Continental Shelf revenues for each of fiscal years 2007 and 2008 shall be determined using qualified outer Continental Shelf revenues received for fiscal year 2006; and

“(ii) the amount of qualified outer Continental Shelf revenues for each of fiscal years 2009 and 2010 shall be determined using qualified outer Continental Shelf revenues received for fiscal year 2008.

“(C) MULTIPLE PRODUCING STATES.—In a case in which more than one producing State is located within 200 nautical miles of any portion of a leased tract, the amount allocated to each producing State for the leased tract shall be inversely proportional to the distance between—

“(i) the nearest point on the coastline of the producing State; and

“(ii) the geographic center of the leased tract.

“(D) MINIMUM ALLOCATION.—The amount allocated to a producing State under subparagraph (A) shall be at least 1 percent of the amounts available under paragraph (1).

“(4) PAYMENTS TO COASTAL POLITICAL SUBDIVISIONS.—

“(A) IN GENERAL.—The Secretary shall pay 35 percent of the allocable share of each producing State, as determined under paragraph (3) to the coastal political subdivisions in the producing State.

“(B) FORMULA.—Of the amount paid by the Secretary to coastal political subdivisions under subparagraph (A)—

“(i) 25 percent shall be allocated to each coastal political subdivision in the proportion that—

“(I) the coastal population of the coastal political subdivision; bears to

“(II) the coastal population of all coastal political subdivisions in the producing State;

“(ii) 25 percent shall be allocated to each coastal political subdivision in the proportion that—

“(I) the number of miles of coastline of the coastal political subdivision; bears to

“(II) the number of miles of coastline of all coastal political subdivisions in the producing State; and

“(iii) 50 percent shall be allocated in amounts that are inversely proportional to the respective distances between the points in each coastal political subdivision that are closest to the geographic center of each leased tract, as determined by the Secretary.

“(C) EXCEPTION FOR THE STATE OF LOUISIANA.—For the purposes of subparagraph (B)(ii), the coastline for coastal political subdivisions in the State of Louisiana without a coastline shall be considered to be $\frac{1}{3}$ the average length of the coastline of all coastal political subdivisions with a coastline in the State of Louisiana.

“(D) EXCEPTION FOR THE STATE OF ALASKA.—For the purposes of carrying out subparagraph (B)(iii) in the State of Alaska, the amounts allocated shall be divided equally among the two coastal political subdivisions that are closest to the geographic center of a leased tract.

“(E) EXCLUSION OF CERTAIN LEASED TRACTS.—For purposes of subparagraph (B)(iii), a leased tract or portion of a leased tract shall be excluded if the tract or portion of a leased tract is located in a geographic area subject to a leasing moratorium on January 1, 2005, unless the lease was in production on that date.

“(5) NO APPROVED PLAN.—

“(A) IN GENERAL.—Subject to subparagraph (B) and except as provided in subparagraph (C), in a case in which any amount allocated to a producing State or coastal political subdivision under paragraph (4) or (5) is not disbursed because the producing State does not have in effect a plan that has been approved by the Secretary under subsection (c), the Secretary shall allocate the undisbursed amount equally among all other producing States.

“(B) RETENTION OF ALLOCATION.—The Secretary shall hold in escrow an undisbursed amount described in subparagraph (A) until such date as the final appeal regarding the disapproval of a plan submitted under subsection (c) is decided.

“(C) WAIVER.—The Secretary may waive subparagraph (A) with respect to an allocated share of a producing State and hold the allocable share in escrow if the Secretary determines that the producing State is making a good faith effort to develop and submit, or update, a plan in accordance with subsection (c).

“(c) COASTAL IMPACT ASSISTANCE PLAN.—

“(1) SUBMISSION OF STATE PLANS.—

“(A) IN GENERAL.—Not later than July 1, 2008, the Governor of a producing State shall submit to the Secretary a coastal impact assistance plan.

“(B) PUBLIC PARTICIPATION.—In carrying out subparagraph (A), the Governor shall solicit local input and provide for public participation in the development of the plan.

“(2) APPROVAL.—

“(A) IN GENERAL.—The Secretary shall approve a plan of a producing State submitted under paragraph (1) before disbursing any amount to the producing State, or to a coastal political subdivision located in the producing State, under this section.

“(B) COMPONENTS.—The Secretary shall approve a plan submitted under paragraph (1) if—

“(i) the Secretary determines that the plan is consistent with the uses described in subsection (d); and

“(ii) the plan contains—

“(I) the name of the State agency that will have the authority to represent and act on behalf of the producing State in dealing with the Secretary for purposes of this section;

“(II) a program for the implementation of the plan that describes how the amounts provided under this section to the producing State will be used;

“(III) for each coastal political subdivision that receives an amount under this section—

“(aa) the name of a contact person; and

“(bb) a description of how the coastal political subdivision will use amounts provided under this section;

“(IV) a certification by the Governor that ample opportunity has been provided for public participation in the development and revision of the plan; and

“(V) a description of measures that will be taken to determine the availability of assistance from other relevant Federal resources and programs.

“(3) AMENDMENT.—Any amendment to a plan submitted under paragraph (1) shall be—

“(A) developed in accordance with this subsection; and

“(B) submitted to the Secretary for approval or disapproval under paragraph (4).

“(4) PROCEDURE.—Not later than 90 days after the date on which a plan or amendment to a plan is submitted under paragraph (1) or (3), the Secretary shall approve or disapprove the plan or amendment.

“(d) AUTHORIZED USES.—

“(1) IN GENERAL.—A producing State or coastal political subdivision shall use all amounts received under this section, including any amount deposited in a trust fund that is admin-

istered by the State or coastal political subdivision and dedicated to uses consistent with this section, in accordance with all applicable Federal and State laws, only for one or more of the following purposes:

“(A) Projects and activities for the conservation, protection, or restoration of coastal areas, including wetland.

“(B) Mitigation of damage to fish, wildlife, or natural resources.

“(C) Planning assistance and the administrative costs of complying with this section.

“(D) Implementation of a federally-approved marine, coastal, or comprehensive conservation management plan.

“(E) Mitigation of the impact of outer Continental Shelf activities through funding of onshore infrastructure projects and public service needs.

“(2) COMPLIANCE WITH AUTHORIZED USES.—If the Secretary determines that any expenditure made by a producing State or coastal political subdivision is not consistent with this subsection, the Secretary shall not disburse any additional amount under this section to the producing State or the coastal political subdivision until such time as all amounts obligated for unauthorized uses have been repaid or reobligated for authorized uses.

“(3) LIMITATION.—Not more than 23 percent of amounts received by a producing State or coastal political subdivision for any 1 fiscal year shall be used for the purposes described in subparagraphs (C) and (E) of paragraph (1).”.

SEC. 385. STUDY OF AVAILABILITY OF SKILLED WORKERS.

(a) IN GENERAL.—The Secretary shall enter into an arrangement with the National Academy of Sciences under which the National Academy of Sciences shall conduct a study of the short-term and long-term availability of skilled workers to meet the energy and mineral security requirements of the United States.

(b) INCLUSIONS.—The study shall include an analysis of—

(1) the need for and availability of workers for the oil, gas, and mineral industries;

(2) the availability of skilled labor at both entry level and more senior levels; and

(3) recommendations for future actions needed to meet future labor requirements.

(c) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report that describes the results of the study.

SEC. 386. [42 U.S.C. 15941] GREAT LAKES OIL AND GAS DRILLING BAN.

No Federal or State permit or lease shall be issued for new oil and gas slant, directional, or offshore drilling in or under one or more of the Great Lakes.

SEC. 387. [42 U.S.C. 13368 note] FEDERAL COALBED METHANE REGULATION.

Any State currently on the list of Affected States established under section 1339(b) of the Energy Policy Act of 1992 (42 U.S.C. 13368(b)) shall be removed from the list if, not later than 3 years after the date of enactment of this Act, the State takes, or prior to

the date of enactment has taken, any of the actions required for removal from the list under such section 1339(b).

SEC. 388. ALTERNATE ENERGY-RELATED USES ON THE OUTER CONTINENTAL SHELF.

(a) AMENDMENT TO OUTER CONTINENTAL SHELF LANDS ACT.—Section 8 of the Outer Continental Shelf Lands Act (43 U.S.C. 1337) is amended by adding at the end the following:

“(p) LEASES, EASEMENTS, OR RIGHTS-OF-WAY FOR ENERGY AND RELATED PURPOSES.—

“(1) IN GENERAL.—The Secretary, in consultation with the Secretary of the Department in which the Coast Guard is operating and other relevant departments and agencies of the Federal Government, may grant a lease, easement, or right-of-way on the outer Continental Shelf for activities not otherwise authorized in this Act, the Deepwater Port Act of 1974 (33 U.S.C. 1501 et seq.), the Ocean Thermal Energy Conversion Act of 1980 (42 U.S.C. 9101 et seq.), or other applicable law, if those activities—

“(A) support exploration, development, production, or storage of oil or natural gas, except that a lease, easement, or right-of-way shall not be granted in an area in which oil and gas preleasing, leasing, and related activities are prohibited by a moratorium;

“(B) support transportation of oil or natural gas, excluding shipping activities;

“(C) produce or support production, transportation, or transmission of energy from sources other than oil and gas; or

“(D) use, for energy-related purposes or for other authorized marine-related purposes, facilities currently or previously used for activities authorized under this Act, except that any oil and gas energy-related uses shall not be authorized in areas in which oil and gas preleasing, leasing, and related activities are prohibited by a moratorium.

“(2) PAYMENTS AND REVENUES.—(A) The Secretary shall establish royalties, fees, rentals, bonuses, or other payments to ensure a fair return to the United States for any lease, easement, or right-of-way granted under this subsection.

“(B) The Secretary shall provide for the payment of 27 percent of the revenues received by the Federal Government as a result of payments under this section from projects that are located wholly or partially within the area extending three nautical miles seaward of State submerged lands. Payments shall be made based on a formula established by the Secretary by rulemaking no later than 180 days after the date of enactment of this section that provides for equitable distribution, based on proximity to the project, among coastal states that have a coastline that is located within 15 miles of the geographic center of the project.

“(3) COMPETITIVE OR NONCOMPETITIVE BASIS.—Except with respect to projects that meet the criteria established under section 388(d) of the Energy Policy Act of 2005, the Secretary shall issue a lease, easement, or right-of-way under paragraph (1) on a competitive basis unless the Secretary determines

after public notice of a proposed lease, easement, or right-of-way that there is no competitive interest.

“(4) REQUIREMENTS.—The Secretary shall ensure that any activity under this subsection is carried out in a manner that provides for—

“(A) safety;

“(B) protection of the environment;

“(C) prevention of waste;

“(D) conservation of the natural resources of the outer Continental Shelf;

“(E) coordination with relevant Federal agencies;

“(F) protection of national security interests of the United States;

“(G) protection of correlative rights in the outer Continental Shelf;

“(H) a fair return to the United States for any lease, easement, or right-of-way under this subsection;

“(I) prevention of interference with reasonable uses (as determined by the Secretary) of the exclusive economic zone, the high seas, and the territorial seas;

“(J) consideration of—

“(i) the location of, and any schedule relating to, a lease, easement, or right-of-way for an area of the outer Continental Shelf; and

“(ii) any other use of the sea or seabed, including use for a fishery, a sealane, a potential site of a deep-water port, or navigation;

“(K) public notice and comment on any proposal submitted for a lease, easement, or right-of-way under this subsection; and

“(L) oversight, inspection, research, monitoring, and enforcement relating to a lease, easement, or right-of-way under this subsection.

“(5) LEASE DURATION, SUSPENSION, AND CANCELLATION.—The Secretary shall provide for the duration, issuance, transfer, renewal, suspension, and cancellation of a lease, easement, or right-of-way under this subsection.

“(6) SECURITY.—The Secretary shall require the holder of a lease, easement, or right-of-way granted under this subsection to—

“(A) furnish a surety bond or other form of security, as prescribed by the Secretary;

“(B) comply with such other requirements as the Secretary considers necessary to protect the interests of the public and the United States; and

“(C) provide for the restoration of the lease, easement, or right-of-way.

“(7) COORDINATION AND CONSULTATION WITH AFFECTED STATE AND LOCAL GOVERNMENTS.—The Secretary shall provide for coordination and consultation with the Governor of any State or the executive of any local government that may be affected by a lease, easement, or right-of-way under this subsection.

“(8) REGULATIONS.—Not later than 270 days after the date of enactment of the Energy Policy Act of 2005, the Secretary, in consultation with the Secretary of Defense, the Secretary of the Department in which the Coast Guard is operating, the Secretary of Commerce, heads of other relevant departments and agencies of the Federal Government, and the Governor of any affected State, shall issue any necessary regulations to carry out this subsection.

“(9) EFFECT OF SUBSECTION.—Nothing in this subsection displaces, supersedes, limits, or modifies the jurisdiction, responsibility, or authority of any Federal or State agency under any other Federal law.

“(10) APPLICABILITY.—This subsection does not apply to any area on the outer Continental Shelf within the exterior boundaries of any unit of the National Park System, National Wildlife Refuge System, or National Marine Sanctuary System, or any National Monument.”

(b) COORDINATED OCS MAPPING INITIATIVE.—

(1) IN GENERAL.—The Secretary of the Interior, in cooperation with the Secretary of Commerce, the Commandant of the Coast Guard, and the Secretary of Defense, shall establish an interagency comprehensive digital mapping initiative for the outer Continental Shelf to assist in decisionmaking relating to the siting of activities under subsection (p) of section 8 of the Outer Continental Shelf Lands Act (43 U.S.C. 1337) (as added by subsection (a)).

(2) USE OF DATA.—The mapping initiative shall use, and develop procedures for accessing, data collected before the date on which the mapping initiative is established, to the maximum extent practicable.

(3) INCLUSIONS.—Mapping carried out under the mapping initiative shall include an indication of the locations on the outer Continental Shelf of—

- (A) Federally-permitted activities;
- (B) obstructions to navigation;
- (C) submerged cultural resources;
- (D) undersea cables;
- (E) offshore aquaculture projects; and
- (F) any area designated for the purpose of safety, national security, environmental protection, or conservation and management of living marine resources.

(c) CONFORMING AMENDMENT.—Section 8 of the Outer Continental Shelf Lands Act (43 U.S.C. 1337) is amended by striking the section heading and inserting the following: “LEASES, EASEMENTS, AND RIGHTS-OF-WAY ON THE OUTER CONTINENTAL SHELF.—”.

(d) SAVINGS PROVISION.—Nothing in the amendment made by subsection (a) requires the resubmittal of any document that was previously submitted or the reauthorization of any action that was previously authorized with respect to a project for which, before the date of enactment of this Act—

- (1) an offshore test facility has been constructed; or
- (2) a request for a proposal has been issued by a public authority.

(e) STATE CLAIMS TO JURISDICTION OVER SUBMERGED LANDS.—Nothing in this section shall be construed to alter, limit, or modify any claim of any State to any jurisdiction over, or any right, title, or interest in, any submerged lands.

SEC. 389. OIL SPILL RECOVERY INSTITUTE.

Title V of the Oil Pollution Act of 1990 (33 U.S.C. 2731 et seq.) is amended—

(1) in section 5001(i), by striking “September 30, 2012” and inserting “1 year after the date on which the Secretary, in consultation with the Secretary of the Interior, determines that oil and gas exploration, development, and production in the State of Alaska have ceased”; and

(2) in section 5006(c), by striking “October 1, 2012” and inserting “1 year after the date on which the Secretary, in consultation with the Secretary of the Interior, determines that oil and gas exploration, development, and production in the State of Alaska have ceased,”.

SEC. 390. [42 U.S.C. 15942] NEPA REVIEW.

(a) NEPA REVIEW.—Action by the Secretary of the Interior in managing the public lands, or the Secretary of Agriculture in managing National Forest System Lands, with respect to any of the activities described in subsection (b) shall be subject to a rebuttable presumption that the use of a categorical exclusion under the National Environmental Policy Act of 1969 (NEPA) would apply if the activity is conducted pursuant to the Mineral Leasing Act for the purpose of exploration or development of oil or gas.

(b) ACTIVITIES DESCRIBED.—The activities referred to in subsection (a) are the following:

(1) Individual surface disturbances of less than 5 acres so long as the total surface disturbance on the lease is not greater than 150 acres and site-specific analysis in a document prepared pursuant to NEPA has been previously completed.

(2) Drilling an oil or gas well at a location or well pad site at which drilling has occurred previously within 5 years prior to the date of spudding the well.

(3) Drilling an oil or gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed such drilling as a reasonably foreseeable activity, so long as such plan or document was approved within 5 years prior to the date of spudding the well.

(4) Placement of a pipeline in an approved right-of-way corridor, so long as the corridor was approved within 5 years prior to the date of placement of the pipeline.

(5) Maintenance of a minor activity, other than any construction or major renovation or a building or facility.

Subtitle H—Refinery Revitalization

SEC. 391. [42 U.S.C. 15951] FINDINGS AND DEFINITIONS.

(a) FINDINGS.—Congress finds that—

(1) it serves the national interest to increase petroleum refining capacity for gasoline, heating oil, diesel fuel, jet fuel, kerosene, and petrochemical feedstocks wherever located within the United States, to bring more supply to the markets for the use of the American people;

(2) United States demand for refined petroleum products currently exceeds the country's petroleum refining capacity to produce such products;

(3) this excess demand has been met with increased imports;

(4) due to lack of capacity, refined petroleum product imports are expected to grow from 7.9 percent to 10.7 percent of total refined product by 2025;

(5) refiners are still subject to significant environmental and other regulations and face several new requirements under the Clean Air Act (42 U.S.C. 7401 et seq.) over the next decade; and

(6) better coordination of Federal and State regulatory reviews may help facilitate siting and construction of new refineries to meet the demand in the United States for refined products.

(b) DEFINITIONS.—In this subtitle:

(1) ADMINISTRATOR.—The term “Administrator” means the Administrator of the Environmental Protection Agency.

(2) STATE.—The term “State” means—

(A) a State;

(B) the Commonwealth of Puerto Rico; and

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

SEC. 392. [42 U.S.C. 15952] FEDERAL-STATE REGULATORY COORDINATION AND ASSISTANCE.

(a) IN GENERAL.—At the request of the Governor of a State, the Administrator may enter into a refinery permitting cooperative agreement with the State, under which each party to the agreement identifies steps, including timelines, that it will take to streamline the consideration of Federal and State environmental permits for a new refinery.

(b) AUTHORITY UNDER AGREEMENT.—The Administrator shall be authorized to—

(1) accept from a refiner a consolidated application for all permits required from the Environmental Protection Agency, to the extent consistent with other applicable law;

(2) enter into memoranda of agreement with other Federal agencies to coordinate consideration of refinery applications and permits among Federal agencies; and

(3) enter into memoranda of agreement with a State, under which Federal and State review of refinery permit applications will be coordinated and concurrently considered, to the extent practicable.

(c) STATE ASSISTANCE.—The Administrator is authorized to provide financial assistance to State governments to facilitate the hiring of additional personnel with expertise in fields relevant to consideration of refinery permits.

(d) OTHER ASSISTANCE.—The Administrator is authorized to provide technical, legal, or other assistance to State governments to facilitate their review of applications to build new refineries.

TITLE IV—COAL

Subtitle A—Clean Coal Power Initiative

SEC. 401. [42 U.S.C. 15961] AUTHORIZATION OF APPROPRIATIONS.

(a) CLEAN COAL POWER INITIATIVE.—There are authorized to be appropriated to the Secretary to carry out the activities authorized by this subtitle \$200,000,000 for each of fiscal years 2006 through 2014, to remain available until expended.

(b) REPORT.—The Secretary shall submit to Congress the report required by this subsection not later than March 31, 2007. The report shall include, with respect to subsection (a), a plan containing—

(1) a detailed assessment of whether the aggregate funding levels provided under subsection (a) are the appropriate funding levels for that program;

(2) a detailed description of how proposals will be solicited and evaluated, including a list of all activities expected to be undertaken;

(3) a detailed list of technical milestones for each coal and related technology that will be pursued; and

(4) a detailed description of how the program will avoid problems enumerated in Government Accountability Office reports on the Clean Coal Technology Program, including problems that have resulted in unspent funds and projects that failed either financially or scientifically.

SEC. 402. [42 U.S.C. 15962] PROJECT CRITERIA.

(a) IN GENERAL.—To be eligible to receive assistance under this subtitle, a project shall advance efficiency, environmental performance, and cost competitiveness well beyond the level of technologies that are in commercial service or have been demonstrated on a scale that the Secretary determines is sufficient to demonstrate that commercial service is viable as of the date of enactment of this Act.

(b) TECHNICAL CRITERIA FOR CLEAN COAL POWER INITIATIVE.—

(1) GASIFICATION PROJECTS.—

(A) IN GENERAL.—In allocating the funds made available under section 401(a), the Secretary shall ensure that at least 70 percent of the funds are used only to fund projects on coal-based gasification technologies, including—

(i) gasification combined cycle;

(ii) gasification fuel cells and turbine combined cycle;

(iii) gasification coproduction;

(iv) hybrid gasification and combustion; and

(v) other advanced coal based technologies capable of producing a concentrated stream of carbon dioxide.

(B) TECHNICAL MILESTONES.—

(i) PERIODIC DETERMINATION.—

(I) IN GENERAL.—The Secretary shall periodically set technical milestones specifying the emission and thermal efficiency levels that coal gasification projects under this subtitle shall be designed, and reasonably expected, to achieve.

(II) PRESCRIPTIVE MILESTONES.—The technical milestones shall become more prescriptive during the period of the clean coal power initiative.

(ii) 2020 GOALS.—The Secretary shall establish the periodic milestones so as to achieve by the year 2020 coal gasification projects able—

(I)(aa) to remove at least 99 percent of sulfur dioxide; or

(bb) to emit not more than 0.04 pound SO₂ per million Btu, based on a 30-day average;

(II) to emit not more than .05 lbs of NO_x per million Btu;

(III) to achieve at least 95 percent reductions in mercury emissions; and

(IV) to achieve a thermal efficiency of at least—

(aa) 50 percent for coal of more than 9,000 Btu;

(bb) 48 percent for coal of 7,000 to 9,000 Btu; and

(cc) 46 percent for coal of less than 7,000 Btu.

(2) OTHER PROJECTS.—

(A) ALLOCATION OF FUNDS.—The Secretary shall ensure that up to 30 percent of the funds made available under section 401(a) are used to fund projects other than those described in paragraph (1).

(B) TECHNICAL MILESTONES.—

(i) PERIODIC DETERMINATION.—

(I) IN GENERAL.—The Secretary shall periodically establish technical milestones specifying the emission and thermal efficiency levels that projects funded under this paragraph shall be designed, and reasonably expected, to achieve.

(II) PRESCRIPTIVE MILESTONES.—The technical milestones shall become more prescriptive during the period of the clean coal power initiative.

(ii) 2020 GOALS.—The Secretary shall set the periodic milestones so as to achieve by the year 2020 projects able—

(I) to remove at least 97 percent of sulfur dioxide;

(II) to emit no more than .08 lbs of NO_x per million Btu;

(III) to achieve at least 90 percent reductions in mercury emissions; and

(IV) to achieve a thermal efficiency of at least—

(aa) 43 percent for coal of more than 9,000 Btu;

(bb) 41 percent for coal of 7,000 to 9,000 Btu; and

(cc) 39 percent for coal of less than 7,000 Btu.

(3) CONSULTATION.—Before setting the technical milestones under paragraphs (1)(B) and (2)(B), the Secretary shall consult with—

(A) the Administrator of the Environmental Protection Agency; and

(B) interested entities, including—

(i) coal producers;

(ii) industries using coal;

(iii) organizations that promote coal or advanced coal technologies;

(iv) environmental organizations;

(v) organizations representing workers; and

(vi) organizations representing consumers.

(4) EXISTING UNITS.—In the case of projects at units in existence on the date of enactment of this Act, in lieu of the thermal efficiency requirements described in paragraphs (1)(B)(ii)(IV) and (2)(B)(ii)(IV), the milestones shall be designed to achieve an overall thermal design efficiency improvement, compared to the efficiency of the unit as operated, of not less than—

(A) 7 percent for coal of more than 9,000 Btu;

(B) 6 percent for coal of 7,000 to 9,000 Btu; or

(C) 4 percent for coal of less than 7,000 Btu.

(5) ADMINISTRATION.—

(A) ELEVATION OF SITE.—In evaluating project proposals to achieve thermal efficiency levels established under paragraphs (1)(B)(i) and (2)(B)(i) and in determining progress towards thermal efficiency milestones under paragraphs (1)(B)(ii)(IV), (2)(B)(ii)(IV), and (4), the Secretary shall take into account and make adjustments for the elevation of the site at which a project is proposed to be constructed.

(B) APPLICABILITY OF MILESTONES.—In applying the thermal efficiency milestones under paragraphs (1)(B)(ii)(IV), (2)(B)(ii)(IV), and (4) to projects that separate and capture at least 50 percent of the potential emissions of carbon dioxide by a facility, the energy used for separation and capture of carbon dioxide shall not be counted in calculating the thermal efficiency.

(C) PERMITTED USES.—In carrying out this section, the Secretary may give priority to projects that include, as part of the project—

(i) the separation or capture of carbon dioxide; or

(ii) the reduction of the demand for natural gas if deployed.

(c) FINANCIAL CRITERIA.—The Secretary shall not provide financial assistance under this subtitle for a project unless the recipient documents to the satisfaction of the Secretary that—

- (1) the recipient is financially responsible;
- (2) the recipient will provide sufficient information to the Secretary to enable the Secretary to ensure that the funds are spent efficiently and effectively; and
- (3) a market exists for the technology being demonstrated or applied, as evidenced by statements of interest in writing from potential purchasers of the technology.
- (d) FINANCIAL ASSISTANCE.—The Secretary shall provide financial assistance to projects that, as determined by the Secretary—
 - (1) meet the requirements of subsections (a), (b), and (c); and
 - (2) are likely—
 - (A) to achieve overall cost reductions in the use of coal to generate useful forms of energy or chemical feedstocks;
 - (B) to improve the competitiveness of coal among various forms of energy in order to maintain a diversity of fuel choices in the United States to meet electricity generation requirements; and
 - (C) to demonstrate methods and equipment that are applicable to 25 percent of the electricity generating facilities, using various types of coal, that use coal as the primary feedstock as of the date of enactment of this Act.
- (e) COST-SHARING.—In carrying out this subtitle, the Secretary shall require cost sharing in accordance with section 988.
- (f) SCHEDULED COMPLETION OF SELECTED PROJECTS.—
 - (1) IN GENERAL.—In selecting a project for financial assistance under this section, the Secretary shall establish a reasonable period of time during which the owner or operator of the project shall complete the construction or demonstration phase of the project, as the Secretary determines to be appropriate.
 - (2) CONDITION OF FINANCIAL ASSISTANCE.—The Secretary shall require as a condition of receipt of any financial assistance under this subtitle that the recipient of the assistance enter into an agreement with the Secretary not to request an extension of the time period established for the project by the Secretary under paragraph (1).
 - (3) EXTENSION OF TIME PERIOD.—
 - (A) IN GENERAL.—Subject to subparagraph (B), the Secretary may extend the time period established under paragraph (1) if the Secretary determines, in the sole discretion of the Secretary, that the owner or operator of the project cannot complete the construction or demonstration phase of the project within the time period due to circumstances beyond the control of the owner or operator.
 - (B) LIMITATION.—The Secretary shall not extend a time period under subparagraph (A) by more than 4 years.
- (g) FEE TITLE.—The Secretary may vest fee title or other property interests acquired under cost-share clean coal power initiative agreements under this subtitle in any entity, including the United States.
- (h) DATA PROTECTION.—For a period not exceeding 5 years after completion of the operations phase of a cooperative agreement, the Secretary may provide appropriate protections (including

exemptions from subchapter II of chapter 5 of title 5, United States Code) against the dissemination of information that—

(1) results from demonstration activities carried out under the clean coal power initiative program; and

(2) would be a trade secret or commercial or financial information that is privileged or confidential if the information had been obtained from and first produced by a non-Federal party participating in a clean coal power initiative project.

(i) **APPLICABILITY.**—No technology, or level of emission reduction, solely by reason of the use of the technology, or the achievement of the emission reduction, by 1 or more facilities receiving assistance under this Act, shall be considered to be—

(1) adequately demonstrated for purposes of section 111 of the Clean Air Act (42 U.S.C. 7411);

(2) achievable for purposes of section 169 of that Act (42 U.S.C. 7479); or

(3) achievable in practice for purposes of section 171 of that Act (42 U.S.C. 7501).

SEC. 403. [42 U.S.C. 15963] REPORT.

Not later than 1 year after the date of enactment of this Act, and once every 2 years thereafter through 2014, the Secretary, in consultation with other appropriate Federal agencies, shall submit to Congress a report describing—

(1) the technical milestones set forth in section 402 and how those milestones ensure progress toward meeting the requirements of subsections (b)(1)(B) and (b)(2) of section 402; and

(2) the status of projects funded under this subtitle.

SEC. 404. [42 U.S.C. 15964] CLEAN COAL CENTERS OF EXCELLENCE.

(a) **IN GENERAL.**—As part of the clean coal power initiative, the Secretary shall award competitive, merit-based grants to institutions of higher education for the establishment of centers of excellence for energy systems of the future.

(b) **BASIS FOR GRANTS.**—The Secretary shall award grants under this section to institutions of higher education that show the greatest potential for advancing new clean coal technologies.

Subtitle B—Clean Power Projects

SEC. 411. [42 U.S.C. 15971] INTEGRATED COAL/RENEWABLE ENERGY SYSTEM.

(a) **IN GENERAL.**—Subject to the availability of appropriations, the Secretary may provide loan guarantees for a project to produce energy from coal of less than 7,000 Btu/lb. using appropriate advanced integrated gasification combined cycle technology, including repowering of existing facilities, that—

(1) is combined with wind and other renewable sources;

(2) minimizes and offers the potential to sequester carbon dioxide emissions; and

(3) provides a ready source of hydrogen for near-site fuel cell demonstrations.

(b) **REQUIREMENTS.**—The facility—

(1) may be built in stages;

(2) shall have a combined output of at least 200 megawatts at successively more competitive rates; and

(3) shall be located in the Upper Great Plains.

(c) TECHNICAL CRITERIA.—Technical criteria described in section 402(b) shall apply to the facility.

(d) INVESTMENT TAX CREDITS.—

(1) IN GENERAL.—The loan guarantees provided under this section do not preclude the facility from receiving an allocation for investment tax credits under section 48A of the Internal Revenue Code of 1986.

(2) OTHER FUNDING.—Use of the investment tax credit described in paragraph (1) does not prohibit the use of other clean coal program funding.

SEC. 412. [42 U.S.C. 15972] LOAN TO PLACE ALASKA CLEAN COAL TECHNOLOGY FACILITY IN SERVICE.

(a) DEFINITIONS.—In this section:

(1) BORROWER.—The term “borrower” means the owner of the clean coal technology plant.

(2) CLEAN COAL TECHNOLOGY PLANT.—The term “clean coal technology plant” means the plant located near Healy, Alaska, constructed under Department cooperative agreement number DE-FC-22-91PC90544.

(3) COST OF A DIRECT LOAN.—The term “cost of a direct loan” has the meaning given the term in section 502(5)(B) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(B)).

(b) AUTHORIZATION.—Subject to subsection (c), the Secretary shall use amounts made available under subsection (e) to provide the cost of a direct loan to the borrower for purposes of placing the clean coal technology plant into reliable operation for the generation of electricity.

(c) REQUIREMENTS.—

(1) MAXIMUM LOAN AMOUNT.—The amount of the direct loan provided under subsection (b) shall not exceed \$80,000,000.

(2) DETERMINATIONS BY SECRETARY.—Before providing the direct loan to the borrower under subsection (b), the Secretary shall determine that—

(A) the plan of the borrower for placing the clean coal technology plant in reliable operation has a reasonable prospect of success;

(B) the amount of the loan (when combined with amounts available to the borrower from other sources) will be sufficient to carry out the project; and

(C) there is a reasonable prospect that the borrower will repay the principal and interest on the loan.

(3) INTEREST; TERM.—The direct loan provided under subsection (b) shall bear interest at a rate and for a term that the Secretary determines appropriate, after consultation with the Secretary of the Treasury, taking into account the needs and capacities of the borrower and the prevailing rate of interest for similar loans made by public and private lenders.

(4) ADDITIONAL TERMS AND CONDITIONS.—The Secretary may require any other terms and conditions that the Secretary determines to be appropriate.

(d) **USE OF PAYMENTS.**—The Secretary shall retain any payments of principal and interest on the direct loan provided under subsection (b) to support energy research and development activities, to remain available until expended, subject to any other conditions in an applicable appropriations Act.

(e) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated such sums as are necessary to provide the cost of a direct loan under subsection (b).

SEC. 413. [42 U.S.C. 15973] WESTERN INTEGRATED COAL GASIFICATION DEMONSTRATION PROJECT.

(a) **IN GENERAL.**—Subject to the availability of appropriations, the Secretary shall carry out a project to demonstrate production of energy from coal mined in the western United States using integrated gasification combined cycle technology (referred to in this section as the “demonstration project”).

(b) **COMPONENTS.**—The demonstration project—

- (1) may include repowering of existing facilities;
- (2) shall be designed to demonstrate the ability to use coal with an energy content of not more than 9,000 Btu/lb.; and
- (3) shall be capable of removing and sequestering carbon dioxide emissions.

(c) **ALL TYPES OF WESTERN COALS.**—Notwithstanding the foregoing, and to the extent economically feasible, the demonstration project shall also be designed to demonstrate the ability to use a variety of types of coal (including subbituminous and bituminous coal with an energy content of up to 13,000 Btu/lb.) mined in the western United States.

(d) **LOCATION.**—The demonstration project shall be located in a western State at an altitude of greater than 4,000 feet above sea level.

(e) **COST SHARING.**—The Federal share of the cost of the demonstration project shall be determined in accordance with section 988.

(f) **LOAN GUARANTEES.**—Notwithstanding title XIV, the demonstration project shall not be eligible for Federal loan guarantees.

SEC. 414. [42 U.S.C. 15974] COAL GASIFICATION.

The Secretary is authorized to provide loan guarantees for a project to produce energy from a plant using integrated gasification combined cycle technology of at least 400 megawatts in capacity that produces power at competitive rates in deregulated energy generation markets and that does not receive any subsidy (direct or indirect) from ratepayers.

SEC. 415. [42 U.S.C. 15975] PETROLEUM COKE GASIFICATION.

The Secretary is authorized to provide loan guarantees for at least 5 petroleum coke gasification projects.

SEC. 416. [42 U.S.C. 15976] ELECTRON SCRUBBING DEMONSTRATION.

The Secretary shall use \$5,000,000 from amounts appropriated to initiate, through the Chicago Operations Office, a project to demonstrate the viability of high-energy electron scrubbing technology on commercial-scale electrical generation using high-sulfur coal.

SEC. 417. [42 U.S.C. 15977] DEPARTMENT OF ENERGY TRANSPORTATION FUELS FROM ILLINOIS BASIN COAL.

(a) **IN GENERAL.**—The Secretary shall carry out a program to evaluate the commercial and technical viability of advanced technologies for the production of Fischer-Tropsch transportation fuels, and other transportation fuels, manufactured from Illinois basin coal, including the capital modification of existing facilities and the construction of testing facilities under subsection (b).

(b) **FACILITIES.**—For the purpose of evaluating the commercial and technical viability of different processes for producing Fischer-Tropsch transportation fuels, and other transportation fuels, from Illinois basin coal, the Secretary shall support the use and capital modification of existing facilities and the construction of new facilities at—

- (1) Southern Illinois University Coal Research Center;
- (2) University of Kentucky Center for Applied Energy Research; and
- (3) Energy Center at Purdue University.

(c) **GASIFICATION PRODUCTS TEST CENTER.**—In conjunction with the activities described in subsections (a) and (b), the Secretary shall construct a test center to evaluate and confirm liquid and gas products from syngas catalysis in order that the system has an output of at least 500 gallons of Fischer-Tropsch transportation fuel per day in a 24-hour operation.

(d) **MILESTONES.**—

(1) **SELECTION OF PROCESSES.**—Not later than 180 days after the date of enactment of this Act, the Secretary shall select processes for evaluating the commercial and technical viability of different processes of producing Fischer-Tropsch transportation fuels, and other transportation fuels, from Illinois basin coal.

(2) **AGREEMENTS.**—Not later than 1 year after the date of enactment of this Act, the Secretary shall offer to enter into agreements—

(A) to carry out the activities described in this section, at the facilities described in subsection (b); and

(B) for the capital modifications or construction of the facilities at the locations described in subsection (b).

(3) **EVALUATIONS.**—Not later than 3 years after the date of enactment of the Act, the Secretary shall begin, at the facilities described in subsection (b), evaluation of the technical and commercial viability of different processes of producing Fischer-Tropsch transportation fuels, and other transportation fuels, from Illinois basin coal.

(4) **CONSTRUCTION OF FACILITIES.**—

(A) **IN GENERAL.**—The Secretary shall construct the facilities described in subsection (b) at the lowest cost practicable.

(B) **GRANTS OR AGREEMENTS.**—The Secretary may make grants or enter into agreements or contracts with the institutions of higher education described in subsection (b).

(e) **COST SHARING.**—The cost of making grants under this section shall be shared in accordance with section 988.

(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$85,000,000 for the period of fiscal years 2006 through 2010.

Subtitle C—Coal and Related Programs

SEC. 421. AMENDMENT OF THE ENERGY POLICY ACT OF 1992.

(a) AMENDMENT.—The Energy Policy Act of 1992 (42 U.S.C. 13201 et seq.) is amended by adding at the end the following:

“TITLE XXXI—CLEAN AIR COAL PROGRAM

“SEC. 3101. PURPOSES.

“The purposes of this title are to—

“(1) promote national energy policy and energy security, diversity, and economic competitiveness benefits that result from the increased use of coal;

“(2) mitigate financial risks, reduce the cost of clean coal generation, and increase the marketplace acceptance of clean coal generation and pollution control equipment and processes; and

“(3) facilitate the environmental performance of clean coal generation.

“SEC. 3102. AUTHORIZATION OF PROGRAM.

“(a) IN GENERAL.—The Secretary shall carry out a program of financial assistance to—

“(1) facilitate the production and generation of coal-based power, through the deployment of clean coal electric generating equipment and processes that, compared to equipment or processes that are in operation on a full scale—

“(A) improve—

“(i) energy efficiency; or

“(ii) environmental performance consistent with relevant Federal and State clean air requirements, including those promulgated under the Clean Air Act (42 U.S.C. 7401 et seq.); and

“(B) are not yet cost competitive; and

“(2) facilitate the utilization of existing coal-based electricity generation plants through projects that—

“(A) deploy advanced air pollution control equipment and processes; and

“(B) are designed to voluntarily enhance environmental performance above current applicable obligations under the Clean Air Act and State implementation efforts pursuant to such Act.

“(b) FINANCIAL CRITERIA.—As determined by the Secretary for a particular project, financial assistance under this title shall be in the form of—

“(1) cost-sharing of an appropriate percentage of the total project cost, not to exceed 50 percent as calculated under section 988 of the Energy Policy Act of 2005; or

“(2) financial assistance, including grants, cooperative agreements, or loans as authorized under this Act or other statutory authority of the Secretary.

“SEC. 3103. GENERATION PROJECTS.

“(a) **ELIGIBLE PROJECTS.**—Projects supported under section 3102(a)(1) may include—

“(1) equipment or processes previously supported by a Department of Energy program;

“(2) advanced combustion equipment and processes that the Secretary determines will be cost-effective and could substantially contribute to meeting environmental or energy needs, including gasification, gasification fuel cells, gasification coproduction, oxidation combustion techniques, ultra-supercritical boilers, and chemical looping; and

“(3) hybrid gasification/combustion systems, including systems integrating fuel cells with gasification or combustion units.

“(b) **CRITERIA.**—The Secretary shall establish criteria for the selection of generation projects under section 3102(a)(1). The Secretary may modify the criteria as appropriate to reflect improvements in equipment, except that the criteria shall not be modified to be less stringent. The selection criteria shall include—

“(1) prioritization of projects whose installation is likely to result in significant air quality improvements in nonattainment air quality areas;

“(2) prioritization of projects whose installation is likely to result in lower emission rates of pollution;

“(3) prioritization of projects that result in the repowering or replacement of older, less efficient units;

“(4) documented broad interest in the procurement of the equipment and utilization of the processes used in the projects by owners or operators of facilities for electricity generation;

“(5) equipment and processes beginning in 2006 through 2011 that are projected to achieve a thermal efficiency of—

“(A) 40 percent for coal of more than 9,000 Btu per pound based on higher heating values;

“(B) 38 percent for coal of 7,000 to 9,000 Btu per pound based on higher heating values; and

“(C) 36 percent for coal of less than 7,000 Btu per pound based on higher heating values;

except that energy used for coproduction or cogeneration shall not be counted in calculating the thermal efficiency under this paragraph; and

“(6) equipment and processes beginning in 2012 and 2013 that are projected to achieve a thermal efficiency of—

“(A) 45 percent for coal of more than 9,000 Btu per pound based on higher heating values;

“(B) 44 percent for coal of 7,000 to 9,000 Btu per pound based on higher heating values; and

“(C) 40 percent for coal of less than 7,000 Btu per pound based on higher heating values;

except that energy used for coproduction or cogeneration shall not be counted in calculating the thermal efficiency under this paragraph.

“(c) PROGRAM BALANCE AND PRIORITY.—In carrying out the program under section 3102(a)(1), the Secretary shall ensure, to the extent practicable, that—

“(1) between 25 percent and 75 percent of the projects supported are for the sole purpose of electrical generation; and

“(2) priority is given to projects that use electrical generation equipment and processes that have been developed and demonstrated and applied in actual production of electricity, but are not yet cost-competitive, and that achieve greater efficiency and environmental performance.

“(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out section 3102(a)(1)—

“(1) \$250,000,000 for fiscal year 2007;

“(2) \$350,000,000 for fiscal year 2008;

“(3) \$400,000,000 for each of fiscal years 2009 through 2012; and

“(4) \$300,000,000 for fiscal year 2013.

“(e) APPLICABILITY.—No technology, or level of emission reduction, shall be treated as adequately demonstrated for purpose of section 111 of the Clean Air Act (42 U.S.C. 7411), achievable for purposes of section 169 of that Act (42 U.S.C. 7479), or achievable in practice for purposes of section 171 of that Act (42 U.S.C. 7501) solely by reason of the use of such technology, or the achievement of such emission reduction, by one or more facilities receiving assistance under section 3102(a)(1).

“SEC. 3104. AIR QUALITY ENHANCEMENT PROGRAM.

“(a) ELIGIBLE PROJECTS.—Projects supported under section 3102(a)(2) shall—

“(1) utilize technologies that meet relevant Federal and State clean air requirements applicable to the unit or facility, including being adequately demonstrated for purposes of section 111 of the Clean Air Act (42 U.S.C. 7411), achievable for purposes of section 169 of that Act (42 U.S.C. 7479), or achievable in practice for purposes of section 171 of that Act (42 U.S.C. 7501); or

“(2) utilize equipment or processes that exceed relevant Federal or State clean air requirements applicable to the unit or facilities included in the projects by achieving greater efficiency or environmental performance.

“(b) PRIORITY IN PROJECT SELECTION.—In making an award under section 3102(a)(2), the Secretary shall give priority to—

“(1) projects whose installation is likely to result in significant air quality improvements in nonattainment air quality areas or substantially reduce the emission level of criteria pollutants and mercury air emissions;

“(2) projects for pollution control that result in the mitigation or collection of more than 1 pollutant; and

“(3) projects designed to allow the use of the waste byproducts or other byproducts of the equipment.

“(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out section 3102(a)(2)—

- “(1) \$300,000,000 for fiscal year 2007;
- “(2) \$100,000,000 for fiscal year 2008;
- “(3) \$40,000,000 for fiscal year 2009;
- “(4) \$30,000,000 for fiscal year 2010; and
- “(5) \$30,000,000 for fiscal year 2011.

“(d) APPLICABILITY.—No technology, or level of emission reduction under subsection (a)(2) shall be treated as adequately demonstrated for purpose of Section 111 of the Clean Air Act (42 U.S.C. 7411), achievable for purposes of section 169 of that Act (42 U.S.C. 7479), or achievable in practice for purposes of section 171 of that Act (42 U.S.C. 7501) solely by reason of the use of such technology, or the achievement of such emission reduction, by one or more facilities receiving assistance under section 3102(a)(2).”.

(b) TABLE OF CONTENTS AMENDMENT.—The table of contents of the Energy Policy Act of 1992 (42 U.S.C. prec. 13201) is amended by adding at the end the following:

“TITLE XXXI—CLEAN AIR COAL PROGRAM

- “Sec. 3101. Purposes.
- “Sec. 3102. Authorization of program.
- “Sec. 3103. Generation projects.
- “Sec. 3104. Air quality enhancement program.”.

Subtitle D—Federal Coal Leases

SEC. 431. [42 U.S.C. 15801] SHORT TITLE.

This subtitle may be cited as the “Coal Leasing Amendments Act of 2005”.

SEC. 432. REPEAL OF THE 160-ACRE LIMITATION FOR COAL LEASES.

Section 3 of the Mineral Leasing Act (30 U.S.C. 203) is amended—

(1) in the first sentence, by striking “Any person” and inserting the following: “(a)(1) Except as provided in paragraph (3), on a finding by the Secretary under paragraph (2), any person”;

(2) in the second sentence, by striking “The Secretary” and inserting the following:

“(b) The Secretary”;

(3) in the third sentence, by striking “The minimum” and inserting the following:

“(c) The minimum”;

(4) in subsection (a) (as designated by paragraph (1))—

(A) by striking “upon” and all that follows and inserting the following: “secure modifications of the original coal lease by including additional coal lands or coal deposits contiguous or cornering to those embraced in the lease.”; and

(B) by adding at the end the following:

“(2) A finding referred to in paragraph (1) is a finding by the Secretary that the modifications—

“(A) would be in the interest of the United States;

“(B) would not displace a competitive interest in the lands; and
 “(C) would not include lands or deposits that can be developed as part of another potential or existing operation.
 “(3) In no case shall the total area added by modifications to an existing coal lease under paragraph (1)—
 “(A) exceed 960 acres; or
 “(B) add acreage larger than that in the original lease.”.

SEC. 433. APPROVAL OF LOGICAL MINING UNITS.

Section 2(d)(2) of the Mineral Leasing Act (30 U.S.C. 202a(2)) is amended—

(1) by inserting “(A)” after “(2)”; and
 (2) by adding at the end the following:
 “(B) The Secretary may establish a period of more than 40 years if the Secretary determines that the longer period—
 “(i) will ensure the maximum economic recovery of a coal deposit; or
 “(ii) the longer period is in the interest of the orderly, efficient, or economic development of a coal resource.”.

SEC. 434. PAYMENT OF ADVANCE ROYALTIES UNDER COAL LEASES.

Section 7(b) of the Mineral Leasing Act (30 U.S.C. 207(b)) is amended—

(1) in the first sentence, by striking “Each lease” and inserting the following: “(1) Each lease”;
 (2) in the second sentence, by striking “The Secretary” and inserting the following:
 “(2) The Secretary”;
 (3) in the third sentence, by striking “Such advance royalties” and inserting the following:
 “(3) Advance royalties described in paragraph (2)”;
 (4) in the seventh sentence, by striking “The Secretary” and inserting the following:
 “(6) The Secretary”;
 (5) in the last sentence, by striking “Nothing” and inserting the following:
 “(7) Nothing”;
 (6) by striking the fourth, fifth, and sixth sentences; and
 (7) by inserting after paragraph (3) (as designated by paragraph (3)) the following:
 “(4) Advance royalties described in paragraph (2) shall be computed—

“(A) based on—
 “(i) the average price in the spot market for sales of comparable coal from the same region during the last month of each applicable continued operation year; or
 “(ii) in the absence of a spot market for comparable coal from the same region, by using a comparable method established by the Secretary of the Interior to capture the commercial value of coal; and
 “(B) based on commercial quantities, as defined by regulation by the Secretary of the Interior.

“(5) The aggregate number of years during the period of any lease for which advance royalties may be accepted in lieu of the condition of continued operation shall not exceed 20 years.

“(6) The amount of any production royalty paid for any year shall be reduced (but not below 0) by the amount of any advance royalties paid under a lease described in paragraph (5) to the extent that the advance royalties have not been used to reduce production royalties for a prior year.”.

SEC. 435. ELIMINATION OF DEADLINE FOR SUBMISSION OF COAL LEASE OPERATION AND RECLAMATION PLAN.

Section 7(c) of the Mineral Leasing Act (30 U.S.C. 207(c)) is amended by striking “and not later than three years after a lease is issued,”.

SEC. 436. AMENDMENT RELATING TO FINANCIAL ASSURANCES WITH RESPECT TO BONUS BIDS.

Section 2(a) of the Mineral Leasing Act (30 U.S.C. 201(a)) is amended by adding at the end the following:

“(4)(A) The Secretary shall not require a surety bond or any other financial assurance to guarantee payment of deferred bonus bid installments with respect to any coal lease issued on a cash bonus bid to a lessee or successor in interest having a history of a timely payment of noncontested coal royalties and advanced coal royalties in lieu of production (where applicable) and bonus bid installment payments.

“(B) The Secretary may waive any requirement that a lessee provide a surety bond or other financial assurance to guarantee payment of deferred bonus bid installment with respect to any coal lease issued before the date of the enactment of the Energy Policy Act of 2005 only if the Secretary determines that the lessee has a history of making timely payments referred to in subparagraph (A).

“(5) Notwithstanding any other provision of law, if the lessee under a coal lease fails to pay any installment of a deferred cash bonus bid within 10 days after the Secretary provides written notice that payment of the installment is past due—

“(A) the lease shall automatically terminate; and

“(B) any bonus payments already made to the United States with respect to the lease shall not be returned to the lessee or credited in any future lease sale.”.

SEC. 437. [42 U.S.C. 15991] INVENTORY REQUIREMENT.

(a) REVIEW OF ASSESSMENTS.—

(1) IN GENERAL.—The Secretary of the Interior, in consultation with the Secretary of Agriculture and the Secretary, shall review coal assessments and other available data to identify—

(A) Federal lands with coal resources that are available for development;

(B) the extent and nature of any restrictions on the development of coal resources on Federal lands identified under paragraph (1); and

(C) with respect to areas of such lands for which sufficient data exists, resources of compliant coal and super-compliant coal.

(2) DEFINITIONS.—For purposes of this subsection—

(A) the term “compliant coal” means coal that contains not less than 1.0 and not more than 1.2 pounds of sulfur dioxide per million Btu; and

(B) the term “supercompliant coal” means coal that contains less than 1.0 pounds of sulfur dioxide per million Btu.

(b) COMPLETION AND UPDATING OF THE INVENTORY.—The Secretary—

(1) shall complete the inventory under subsection (a) by not later than 2 years after the date of enactment of this Act; and

(2) shall update the inventory as the availability of data and developments in technology warrant.

(c) REPORT.—The Secretary shall submit to the Committee on Resources of the House of Representatives and to the Committee on Energy and Natural Resources of the Senate and make publicly available—

(1) a report containing the inventory under this section, by not later than 2 years after the effective date of this section; and

(2) each update of such inventory.

SEC. 438. [30 U.S.C. 201 note] APPLICATION OF AMENDMENTS.

The amendments made by this subtitle apply with respect to any coal lease issued before, on, or after the date of the enactment of this Act.

TITLE V—INDIAN ENERGY

SEC. 501. [42 U.S.C. 15801 note] SHORT TITLE.

This title may be cited as the “Indian Tribal Energy Development and Self-Determination Act of 2005”.

SEC. 502. OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS.

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

“OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

“SEC. 217. (a) ESTABLISHMENT.—There is established within the Department an Office of Indian Energy Policy and Programs (referred to in this section as the ‘Office’). The Office shall be headed by a Director, who shall be appointed by the Secretary and compensated at a rate equal to that of level IV of the Executive Schedule under section 5315 of title 5, United States Code.

“(b) DUTIES OF DIRECTOR.—The Director, in accordance with Federal policies promoting Indian self-determination and the purposes of this Act, shall provide, direct, foster, coordinate, and implement energy planning, education, management, conservation, and delivery programs of the Department that—

“(1) promote Indian tribal energy development, efficiency, and use;

“(2) reduce or stabilize energy costs;

“(3) enhance and strengthen Indian tribal energy and economic infrastructure relating to natural resource development and electrification; and

“(4) bring electrical power and service to Indian land and the homes of tribal members located on Indian lands or acquired, constructed, or improved (in whole or in part) with Federal funds.”.

(b) CONFORMING AMENDMENTS.—

(1) The table of contents of the Department of Energy Organization Act (42 U.S.C. prec. 7101) is amended—

(A) in the item relating to section 209, by striking “Section” and inserting “Sec.”; and

(B) by striking the items relating to sections 213 through 216 and inserting the following:

“Sec. 213. Establishment of policy for National Nuclear Security Administration.

“Sec. 214. Establishment of security, counterintelligence, and intelligence policies.

“Sec. 215. Office of Counterintelligence.

“Sec. 216. Office of Intelligence.

“Sec. 217. Office of Indian Energy Policy and Programs.”.

(2) Section 5315 of title 5, United States Code, is amended by inserting after the item related to the Inspector General, Department of Energy the following new item:

“Director, Office of Indian Energy Policy and Programs, Department of Energy.”.

SEC. 503. INDIAN ENERGY.

(a) IN GENERAL.—Title XXVI of the Energy Policy Act of 1992 (25 U.S.C. 3501 et seq.) is amended to read as follows:

“TITLE XXVI—INDIAN ENERGY

“SEC. 2601. DEFINITIONS.

“In this title:

“(1) The term ‘Director’ means the Director of the Office of Indian Energy Policy and Programs, Department of Energy.

“(2) The term ‘Indian land’ means—

“(A) any land located within the boundaries of an Indian reservation, pueblo, or rancheria;

“(B) any land not located within the boundaries of an Indian reservation, pueblo, or rancheria, the title to which is held—

“(i) in trust by the United States for the benefit of an Indian tribe or an individual Indian;

“(ii) by an Indian tribe or an individual Indian, subject to restriction against alienation under laws of the United States; or

“(iii) by a dependent Indian community; and

“(C) land that is owned by an Indian tribe and was conveyed by the United States to a Native Corporation pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.), or that was conveyed by the United States to a Native Corporation in exchange for such land.

“(3) The term ‘Indian reservation’ includes—

“(A) an Indian reservation in existence in any State or States as of the date of enactment of this paragraph;

“(B) a public domain Indian allotment; and

“(C) a dependent Indian community located within the borders of the United States, regardless of whether the community is located—

“(i) on original or acquired territory of the community; or

“(ii) within or outside the boundaries of any State or States.

“(4)(A) The term ‘Indian tribe’ has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b).

“(B) For the purpose of paragraph (12) and sections 2603(b)(1)(C) and 2604, the term ‘Indian tribe’ does not include any Native Corporation.

“(5) The term ‘integration of energy resources’ means any project or activity that promotes the location and operation of a facility (including any pipeline, gathering system, transportation system or facility, or electric transmission or distribution facility) on or near Indian land to process, refine, generate electricity from, or otherwise develop energy resources on, Indian land.

“(6) The term ‘Native Corporation’ has the meaning given the term in section 3 of the Alaska Native Claims Settlement Act (43 U.S.C. 1602).

“(7) The term ‘organization’ means a partnership, joint venture, limited liability company, or other unincorporated association or entity that is established to develop Indian energy resources.

“(8) The term ‘Program’ means the Indian energy resource development program established under section 2602(a).

“(9) The term ‘Secretary’ means the Secretary of the Interior.

“(10) 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.

“(11) The term ‘tribal energy resource development organization’ means an organization of two or more entities, at least one of which is an Indian tribe, that has the written consent of the governing bodies of all Indian tribes participating in the organization to apply for a grant, loan, or other assistance under section 2602.

“(12) The term ‘tribal land’ means any land or interests in land owned by any Indian tribe, title to which is held in trust by the United States, or is subject to a restriction against alienation under laws of the United States.

“SEC. 2602. INDIAN TRIBAL ENERGY RESOURCE DEVELOPMENT.

“(a) DEPARTMENT OF THE INTERIOR PROGRAM.—

“(1) To assist Indian tribes in the development of energy resources and further the goal of Indian self-determination, the Secretary shall establish and implement an Indian energy resource development program to assist consenting Indian tribes and tribal energy resource development organizations in achieving the purposes of this title.

“(2) In carrying out the Program, the Secretary shall—

“(A) provide development grants to Indian tribes and tribal energy resource development organizations for use in developing or obtaining the managerial and technical capacity needed to develop energy resources on Indian land, and to properly account for resulting energy production and revenues;

“(B) provide grants to Indian tribes and tribal energy resource development organizations for use in carrying out projects to promote the integration of energy resources, and to process, use, or develop those energy resources, on Indian land;

“(C) provide low-interest loans to Indian tribes and tribal energy resource development organizations for use in the promotion of energy resource development on Indian land and integration of energy resources; and

“(D) provide grants and technical assistance to an appropriate tribal environmental organization, as determined by the Secretary, that represents multiple Indian tribes to establish a national resource center to develop tribal capacity to establish and carry out tribal environmental programs in support of energy-related programs and activities under this title, including—

“(i) training programs for tribal environmental officials, program managers, and other governmental representatives;

“(ii) the development of model environmental policies and tribal laws, including tribal environmental review codes, and the creation and maintenance of a clearinghouse of best environmental management practices; and

“(iii) recommended standards for reviewing the implementation of tribal environmental laws and policies within tribal judicial or other tribal appeals systems.

“(3) There are authorized to be appropriated to carry out this subsection such sums as are necessary for each of fiscal years 2006 through 2016.

“(b) DEPARTMENT OF ENERGY INDIAN ENERGY EDUCATION PLANNING AND MANAGEMENT ASSISTANCE PROGRAM.—

“(1) The Director shall establish programs to assist consenting Indian tribes in meeting energy education, research and development, planning, and management needs.

“(2) In carrying out this subsection, the Director may provide grants, on a competitive basis, to an Indian tribe or tribal energy resource development organization for use in carrying out—

“(A) energy, energy efficiency, and energy conservation programs;

“(B) studies and other activities supporting tribal acquisitions of energy supplies, services, and facilities, including the creation of tribal utilities to assist in securing electricity to promote electrification of homes and businesses on Indian land;

“(C) planning, construction, development, operation, maintenance, and improvement of tribal electrical generation, transmission, and distribution facilities located on Indian land; and

“(D) development, construction, and interconnection of electric power transmission facilities located on Indian land with other electric transmission facilities.

“(3)(A) The Director shall develop a program to support and implement research projects that provide Indian tribes with opportunities to participate in carbon sequestration practices on Indian land, including—

“(i) geologic sequestration;

“(ii) forest sequestration;

“(iii) agricultural sequestration; and

“(iv) any other sequestration opportunities the Director considers to be appropriate.

“(B) The activities carried out under subparagraph (A) shall be—

“(i) coordinated with other carbon sequestration research and development programs conducted by the Secretary of Energy;

“(ii) conducted to determine methods consistent with existing standardized measurement protocols to account and report the quantity of carbon dioxide or other greenhouse gases sequestered in projects that may be implemented on Indian land; and

“(iii) reviewed periodically to collect and distribute to Indian tribes information on carbon sequestration practices that will increase the sequestration of carbon without threatening the social and economic well-being of Indian tribes.

“(4)(A) The Director, in consultation with Indian tribes, may develop a formula for providing grants under this subsection.

“(B) In providing a grant under this subsection, the Director shall give priority to any application received from an Indian tribe with inadequate electric service (as determined by the Director).

“(C) In providing a grant under this subsection for an activity to provide, or expand the provision of, electricity on Indian land, the Director shall encourage cooperative arrangements between Indian tribes and utilities that provide service to Indian tribes, as the Director determines to be appropriate.

“(5) The Secretary of Energy may issue such regulations as the Secretary determines to be necessary to carry out this subsection.

“(6) There is authorized to be appropriated to carry out this subsection \$20,000,000 for each of fiscal years 2006 through 2016.

“(c) DEPARTMENT OF ENERGY LOAN GUARANTEE PROGRAM.—

“(1) Subject to paragraphs (2) and (4), the Secretary of Energy may provide loan guarantees (as defined in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a)) for an amount equal to not more than 90 percent of the unpaid prin-

capital and interest due on any loan made to an Indian tribe for energy development.

“(2) In providing a loan guarantee under this subsection for an activity to provide, or expand the provision of, electricity on Indian land, the Secretary of Energy shall encourage cooperative arrangements between Indian tribes and utilities that provide service to Indian tribes, as the Secretary determines to be appropriate.

“(3) A loan guarantee under this subsection shall be made by—

“(A) a financial institution subject to examination by the Secretary of Energy; or

“(B) an Indian tribe, from funds of the Indian tribe.

“(4) The aggregate outstanding amount guaranteed by the Secretary of Energy at any time under this subsection shall not exceed \$2,000,000,000.

“(5) The Secretary of Energy may issue such regulations as the Secretary of Energy determines are necessary to carry out this subsection.

“(6) There are authorized to be appropriated such sums as are necessary to carry out this subsection, to remain available until expended.

“(7) Not later than 1 year after the date of enactment of this section, the Secretary of Energy shall submit to Congress a report on the financing requirements of Indian tribes for energy development on Indian land.

“(d) PREFERENCE.—

“(1) In purchasing electricity or any other energy product or byproduct, a Federal agency or department may give preference to an energy and resource production enterprise, partnership, consortium, corporation, or other type of business organization the majority of the interest in which is owned and controlled by 1 or more Indian tribes.

“(2) In carrying out this subsection, a Federal agency or department shall not—

“(A) pay more than the prevailing market price for an energy product or byproduct; or

“(B) obtain less than prevailing market terms and conditions.

“SEC. 2603. INDIAN TRIBAL ENERGY RESOURCE REGULATION.

“(a) GRANTS.—The Secretary may provide to Indian tribes, on an annual basis, grants for use in accordance with subsection (b).

“(b) USE OF FUNDS.—Funds from a grant provided under this section may be used—

“(1)(A) by an Indian tribe for the development of a tribal energy resource inventory or tribal energy resource on Indian land;

“(B) by an Indian tribe for the development of a feasibility study or other report necessary to the development of energy resources on Indian land;

“(C) by an Indian tribe (other than an Indian Tribe in the State of Alaska, except the Metlakatla Indian Community) for—

- “(i) the development and enforcement of tribal laws (including regulations) relating to tribal energy resource development; and
 - “(ii) the development of technical infrastructure to protect the environment under applicable law; or
 - “(D) by a Native Corporation for the development and implementation of corporate policies and the development of technical infrastructure to protect the environment under applicable law; and
 - “(2) by an Indian tribe for the training of employees that—
 - “(A) are engaged in the development of energy resources on Indian land; or
 - “(B) are responsible for protecting the environment.
 - “(c) OTHER ASSISTANCE.—
 - “(1) In carrying out the obligations of the United States under this title, the Secretary shall ensure, to the maximum extent practicable and to the extent of available resources, that on the request of an Indian tribe, the Indian tribe shall have available scientific and technical information and expertise, for use in the regulation, development, and management of energy resources of the Indian tribe on Indian land.
 - “(2) The Secretary may carry out paragraph (1)—
 - “(A) directly, through the use of Federal officials; or
 - “(B) indirectly, by providing financial assistance to an Indian tribe to secure independent assistance.
- “SEC. 2604. LEASES, BUSINESS AGREEMENTS, AND RIGHTS-OF-WAY INVOLVING ENERGY DEVELOPMENT OR TRANSMISSION.**
- “(a) LEASES AND BUSINESS AGREEMENTS.—In accordance with this section—
- “(1) an Indian tribe may, at the discretion of the Indian tribe, enter into a lease or business agreement for the purpose of energy resource development on tribal land, including a lease or business agreement for—
 - “(A) exploration for, extraction of, processing of, or other development of the energy mineral resources of the Indian tribe located on tribal land; or
 - “(B) construction or operation of—
 - “(i) an electric generation, transmission, or distribution facility located on tribal land; or
 - “(ii) a facility to process or refine energy resources developed on tribal land; and
 - “(2) a lease or business agreement described in paragraph (1) shall not require review by or the approval of the Secretary under section 2103 of the Revised Statutes (25 U.S.C. 81), or any other provision of law, if—
 - “(A) the lease or business agreement is executed pursuant to a tribal energy resource agreement approved by the Secretary under subsection (e);
 - “(B) the term of the lease or business agreement does not exceed—
 - “(i) 30 years; or
 - “(ii) in the case of a lease for the production of oil resources, gas resources, or both, 10 years and as long

thereafter as oil or gas is produced in paying quantities; and

“(C) the Indian tribe has entered into a tribal energy resource agreement with the Secretary, as described in subsection (e), relating to the development of energy resources on tribal land (including the periodic review and evaluation of the activities of the Indian tribe under the agreement, to be conducted pursuant to subsection (e)(2)(D)(i)).

“(b) **RIGHTS-OF-WAY FOR PIPELINES OR ELECTRIC TRANSMISSION OR DISTRIBUTION LINES.**—An Indian tribe may grant a right-of-way over tribal land for a pipeline or an electric transmission or distribution line without review or approval by the Secretary if—

“(1) the right-of-way is executed in accordance with a tribal energy resource agreement approved by the Secretary under subsection (e);

“(2) the term of the right-of-way does not exceed 30 years;

“(3) the pipeline or electric transmission or distribution line serves—

“(A) an electric generation, transmission, or distribution facility located on tribal land; or

“(B) a facility located on tribal land that processes or refines energy resources developed on tribal land; and

“(4) the Indian tribe has entered into a tribal energy resource agreement with the Secretary, as described in subsection (e), relating to the development of energy resources on tribal land (including the periodic review and evaluation of the activities of the Indian tribe under an agreement described in subparagraphs (D) and (E) of subsection (e)(2)).

“(c) **RENEWALS.**—A lease or business agreement entered into, or a right-of-way granted, by an Indian tribe under this section may be renewed at the discretion of the Indian tribe in accordance with this section.

“(d) **VALIDITY.**—No lease, business agreement, or right-of-way relating to the development of tribal energy resources under this section shall be valid unless the lease, business agreement, or right-of-way is authorized by a tribal energy resource agreement approved by the Secretary under subsection (e)(2).

“(e) **TRIBAL ENERGY RESOURCE AGREEMENTS.**—

“(1) On the date on which regulations are promulgated under paragraph (8), an Indian tribe may submit to the Secretary for approval a tribal energy resource agreement governing leases, business agreements, and rights-of-way under this section.

“(2)(A) Not later than 270 days after the date on which the Secretary receives a tribal energy resource agreement from an Indian tribe under paragraph (1), or not later than 60 days after the Secretary receives a revised tribal energy resource agreement from an Indian tribe under paragraph (4)(C) (or a later date, as agreed to by the Secretary and the Indian tribe), the Secretary shall approve or disapprove the tribal energy resource agreement.

“(B) The Secretary shall approve a tribal energy resource agreement submitted under paragraph (1) if—

“(i) the Secretary determines that the Indian tribe has demonstrated that the Indian tribe has sufficient capacity to regulate the development of energy resources of the Indian tribe;

“(ii) the tribal energy resource agreement includes provisions required under subparagraph (D); and

“(iii) the tribal energy resource agreement includes provisions that, with respect to a lease, business agreement, or right-of-way under this section—

“(I) ensure the acquisition of necessary information from the applicant for the lease, business agreement, or right-of-way;

“(II) address the term of the lease or business agreement or the term of conveyance of the right-of-way;

“(III) address amendments and renewals;

“(IV) address the economic return to the Indian tribe under leases, business agreements, and rights-of-way;

“(V) address technical or other relevant requirements;

“(VI) establish requirements for environmental review in accordance with subparagraph (C);

“(VII) ensure compliance with all applicable environmental laws, including a requirement that each lease, business agreement, and right-of-way state that the lessee, operator, or right-of-way grantee shall comply with all such laws;

“(VIII) identify final approval authority;

“(IX) provide for public notification of final approvals;

“(X) establish a process for consultation with any affected States regarding off-reservation impacts, if any, identified under subparagraph (C)(i);

“(XI) describe the remedies for breach of the lease, business agreement, or right-of-way;

“(XII) require each lease, business agreement, and right-of-way to include a statement that, if any of its provisions violates an express term or requirement of the tribal energy resource agreement pursuant to which the lease, business agreement, or right-of-way was executed—

“(aa) the provision shall be null and void; and

“(bb) if the Secretary determines the provision to be material, the Secretary may suspend or rescind the lease, business agreement, or right-of-way or take other appropriate action that the Secretary determines to be in the best interest of the Indian tribe;

“(XIII) require each lease, business agreement, and right-of-way to provide that it will become effective on the date on which a copy of the executed lease, business agreement, or right-of-way is delivered to the

Secretary in accordance with regulations promulgated under paragraph (8);

“(XIV) include citations to tribal laws, regulations, or procedures, if any, that set out tribal remedies that must be exhausted before a petition may be submitted to the Secretary under paragraph (7)(B);

“(XV) specify the financial assistance, if any, to be provided by the Secretary to the Indian tribe to assist in implementation of the tribal energy resource agreement, including environmental review of individual projects; and

“(XVI) in accordance with the regulations promulgated by the Secretary under paragraph (8), require that the Indian tribe, as soon as practicable after receipt of a notice by the Indian tribe, give written notice to the Secretary of—

“(aa) any breach or other violation by another party of any provision in a lease, business agreement, or right-of-way entered into under the tribal energy resource agreement; and

“(bb) any activity or occurrence under a lease, business agreement, or right-of-way that constitutes a violation of Federal or tribal environmental laws.

“(C) Tribal energy resource agreements submitted under paragraph (1) shall establish, and include provisions to ensure compliance with, an environmental review process that, with respect to a lease, business agreement, or right-of-way under this section, provides for, at a minimum—

“(i) the identification and evaluation of all significant environmental effects (as compared to a no-action alternative), including effects on cultural resources;

“(ii) the identification of proposed mitigation measures, if any, and incorporation of appropriate mitigation measures into the lease, business agreement, or right-of-way;

“(iii) a process for ensuring that—

“(I) the public is informed of, and has an opportunity to comment on, the environmental impacts of the proposed action; and

“(II) responses to relevant and substantive comments are provided, before tribal approval of the lease, business agreement, or right-of-way;

“(iv) sufficient administrative support and technical capability to carry out the environmental review process; and

“(v) oversight by the Indian tribe of energy development activities by any other party under any lease, business agreement, or right-of-way entered into pursuant to the tribal energy resource agreement, to determine whether the activities are in compliance with the tribal energy resource agreement and applicable Federal environmental laws.

“(D) A tribal energy resource agreement between the Secretary and an Indian tribe under this subsection shall include—

“(i) provisions requiring the Secretary to conduct a periodic review and evaluation to monitor the performance of the activities of the Indian tribe associated with the development of energy resources under the tribal energy resource agreement; and

“(ii) if a periodic review and evaluation, or an investigation, by the Secretary of any breach or violation described in a notice provided by the Indian tribe to the Secretary in accordance with subparagraph (B)(iii)(XVI), results in a finding by the Secretary of imminent jeopardy to a physical trust asset arising from a violation of the tribal energy resource agreement or applicable Federal laws, provisions authorizing the Secretary to take actions determined by the Secretary to be necessary to protect the asset, including reassumption of responsibility for activities associated with the development of energy resources on tribal land until the violation and any condition that caused the jeopardy are corrected.

“(E) Periodic review and evaluation under subparagraph (D) shall be conducted on an annual basis, except that, after the third annual review and evaluation, the Secretary and the Indian tribe may mutually agree to amend the tribal energy resource agreement to authorize the review and evaluation under subparagraph (D) to be conducted once every 2 years.

“(3) The Secretary shall provide notice and opportunity for public comment on tribal energy resource agreements submitted for approval under paragraph (1). The Secretary’s review of a tribal energy resource agreement shall be limited to activities specified by the provisions of the tribal energy resource agreement.

“(4) If the Secretary disapproves a tribal energy resource agreement submitted by an Indian tribe under paragraph (1), the Secretary shall, not later than 10 days after the date of disapproval—

“(A) notify the Indian tribe in writing of the basis for the disapproval;

“(B) identify what changes or other actions are required to address the concerns of the Secretary; and

“(C) provide the Indian tribe with an opportunity to revise and resubmit the tribal energy resource agreement.

“(5) If an Indian tribe executes a lease or business agreement, or grants a right-of-way, in accordance with a tribal energy resource agreement approved under this subsection, the Indian tribe shall, in accordance with the process and requirements under regulations promulgated under paragraph (8), provide to the Secretary—

“(A) a copy of the lease, business agreement, or right-of-way document (including all amendments to and renewals of the document); and

“(B) in the case of a tribal energy resource agreement or a lease, business agreement, or right-of-way that permits payments to be made directly to the Indian tribe, information and documentation of those payments sufficient to enable the Secretary to discharge the trust responsibility of the United States to enforce the terms of, and protect the rights of the Indian tribe under, the lease, business agreement, or right-of-way.

“(6)(A) In carrying out this section, the Secretary shall—

“(i) act in accordance with the trust responsibility of the United States relating to mineral and other trust resources; and

“(ii) act in good faith and in the best interests of the Indian tribes.

“(B) Subject to the provisions of subsections (a)(2), (b), and (c) waiving the requirement of Secretarial approval of leases, business agreements, and rights-of-way executed pursuant to tribal energy resource agreements approved under this section, and the provisions of subparagraph (D), nothing in this section shall absolve the United States from any responsibility to Indians or Indian tribes, including, but not limited to, those which derive from the trust relationship or from any treaties, statutes, and other laws of the United States, Executive orders, or agreements between the United States and any Indian tribe.

“(C) The Secretary shall continue to fulfill the trust obligation of the United States to ensure that the rights and interests of an Indian tribe are protected if—

“(i) any other party to a lease, business agreement, or right-of-way violates any applicable Federal law or the terms of any lease, business agreement, or right-of-way under this section; or

“(ii) any provision in a lease, business agreement, or right-of-way violates the tribal energy resource agreement pursuant to which the lease, business agreement, or right-of-way was executed.

“(D)(i) In this subparagraph, the term ‘negotiated term’ means any term or provision that is negotiated by an Indian tribe and any other party to a lease, business agreement, or right-of-way entered into pursuant to an approved tribal energy resource agreement.

“(ii) Notwithstanding subparagraph (B), the United States shall not be liable to any party (including any Indian tribe) for any negotiated term of, or any loss resulting from the negotiated terms of, a lease, business agreement, or right-of-way executed pursuant to and in accordance with a tribal energy resource agreement approved by the Secretary under paragraph (2).

“(7)(A) In this paragraph, the term ‘interested party’ means any person (including an entity) that has demonstrated that an interest of the person has sustained, or will sustain, an adverse environmental impact as a result of the failure of an Indian tribe to comply with a tribal energy resource agreement of the Indian tribe approved by the Secretary under paragraph (2).

“(B) After exhaustion of any tribal remedy, and in accordance with regulations promulgated by the Secretary under paragraph (8), an interested party may submit to the Secretary a petition to review the compliance by an Indian tribe with a tribal energy resource agreement of the Indian tribe approved by the Secretary under paragraph (2).

“(C)(i) Not later than 20 days after the date on which the Secretary receives a petition under subparagraph (B), the Secretary shall—

“(I) provide to the Indian tribe a copy of the petition; and

“(II) consult with the Indian tribe regarding any non-compliance alleged in the petition.

“(ii) Not later than 45 days after the date on which a consultation under clause (i)(II) takes place, the Indian tribe shall respond to any claim made in a petition under subparagraph (B).

“(iii) The Secretary shall act in accordance with subparagraphs (D) and (E) only if the Indian tribe—

“(I) denies, or fails to respond to, each claim made in the petition within the period described in clause (ii); or

“(II) fails, refuses, or is unable to cure or otherwise resolve each claim made in the petition within a reasonable period, as determined by the Secretary, after the expiration of the period described in clause (ii).

“(D)(i) Not later than 120 days after the date on which the Secretary receives a petition under subparagraph (B), the Secretary shall determine whether the Indian tribe is not in compliance with the tribal energy resource agreement.

“(ii) The Secretary may adopt procedures under paragraph (8) authorizing an extension of time, not to exceed 120 days, for making the determination under clause (i) in any case in which the Secretary determines that additional time is necessary to evaluate the allegations of the petition.

“(iii) Subject to subparagraph (E), if the Secretary determines that the Indian tribe is not in compliance with the tribal energy resource agreement, the Secretary shall take such action as the Secretary determines to be necessary to ensure compliance with the tribal energy resource agreement, including—

“(I) temporarily suspending any activity under a lease, business agreement, or right-of-way under this section until the Indian tribe is in compliance with the approved tribal energy resource agreement; or

“(II) rescinding approval of all or part of the tribal energy resource agreement, and if all of the agreement is rescinded, reassuming the responsibility for approval of any future leases, business agreements, or rights-of-way described in subsection (a) or (b).

“(E) Before taking an action described in subparagraph (D)(iii), the Secretary shall—

“(i) make a written determination that describes the manner in which the tribal energy resource agreement has been violated;

“(ii) provide the Indian tribe with a written notice of the violations together with the written determination; and

“(iii) before taking any action described in subparagraph (D)(iii) or seeking any other remedy, provide the Indian tribe with a hearing and a reasonable opportunity to attain compliance with the tribal energy resource agreement.

“(F) An Indian tribe described in subparagraph (E) shall retain all rights to appeal under any regulation promulgated by the Secretary.

“(8) Not later than 1 year after the date of enactment of the Energy Policy Act of 2005, the Secretary shall promulgate regulations that implement this subsection, including—

“(A) criteria to be used in determining the capacity of an Indian tribe under paragraph (2)(B)(i), including the experience of the Indian tribe in managing natural resources and financial and administrative resources available for use by the Indian tribe in implementing the approved tribal energy resource agreement of the Indian tribe;

“(B) a process and requirements in accordance with which an Indian tribe may—

“(i) voluntarily rescind a tribal energy resource agreement approved by the Secretary under this subsection; and

“(ii) return to the Secretary the responsibility to approve any future lease, business agreement, or right-of-way under this subsection;

“(C) provisions establishing the scope of, and procedures for, the periodic review and evaluation described in subparagraphs (D) and (E) of paragraph (2), including provisions for review of transactions, reports, site inspections, and any other review activities the Secretary determines to be appropriate; and

“(D) provisions describing final agency actions after exhaustion of administrative appeals from determinations of the Secretary under paragraph (7).

“(f) NO EFFECT ON OTHER LAW.—Nothing in this section affects the application of—

“(1) any Federal environmental law;

“(2) the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.); or

“(3) except as otherwise provided in this title, the Indian Mineral Development Act of 1982 (25 U.S.C. 2101 et seq.).

“(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as are necessary for each of fiscal years 2006 through 2016 to carry out this section and to make grants or provide other appropriate assistance to Indian tribes to assist the Indian tribes in developing and implementing tribal energy resource agreements in accordance with this section.

“SEC. 2605. FEDERAL POWER MARKETING ADMINISTRATIONS.

“(a) DEFINITIONS.—In this section:

“(1) The term ‘Administrator’ means the Administrator of the Bonneville Power Administration and the Administrator of the Western Area Power Administration.

“(2) The term ‘power marketing administration’ means—

“(A) the Bonneville Power Administration;

“(B) the Western Area Power Administration; and

“(C) any other power administration the power allocation of which is used by or for the benefit of an Indian tribe located in the service area of the administration.

“(b) ENCOURAGEMENT OF INDIAN TRIBAL ENERGY DEVELOPMENT.—Each Administrator shall encourage Indian tribal energy development by taking such actions as the Administrators determine to be appropriate, including administration of programs of the power marketing administration, in accordance with this section.

“(c) ACTION BY ADMINISTRATORS.—In carrying out this section, in accordance with laws in existence on the date of enactment of the Energy Policy Act of 2005—

“(1) each Administrator shall consider the unique relationship that exists between the United States and Indian tribes;

“(2) power allocations from the Western Area Power Administration to Indian tribes may be used to meet firming and reserve needs of Indian-owned energy projects on Indian land;

“(3) the Administrator of the Western Area Power Administration may purchase non-federally generated power from Indian tribes to meet the firming and reserve requirements of the Western Area Power Administration; and

“(4) each Administrator shall not—

“(A) pay more than the prevailing market price for an energy product; or

“(B) obtain less than prevailing market terms and conditions.

“(d) ASSISTANCE FOR TRANSMISSION SYSTEM USE.—

“(1) An Administrator may provide technical assistance to Indian tribes seeking to use the high-voltage transmission system for delivery of electric power.

“(2) The costs of technical assistance provided under paragraph (1) shall be funded—

“(A) by the Secretary of Energy using nonreimbursable funds appropriated for that purpose; or

“(B) by any appropriate Indian tribe.

“(e) POWER ALLOCATION STUDY.—Not later than 2 years after the date of enactment of the Energy Policy Act of 2005, the Secretary of Energy shall submit to Congress a report that—

“(1) describes the use by Indian tribes of Federal power allocations of the power marketing administration (or power sold by the Southwestern Power Administration) to or for the benefit of Indian tribes in a service area of the power marketing administration; and

“(2) identifies—

“(A) the quantity of power allocated to, or used for the benefit of, Indian tribes by the Western Area Power Administration;

“(B) the quantity of power sold to Indian tribes by any other power marketing administration; and

“(C) barriers that impede tribal access to and use of Federal power, including an assessment of opportunities to remove those barriers and improve the ability of power marketing administrations to deliver Federal power.

“(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section \$750,000, non-reimbursable, to remain available until expended.

“SEC. 2606. WIND AND HYDROPOWER FEASIBILITY STUDY.

“(a) STUDY.—The Secretary of Energy, in coordination with the Secretary of the Army and the Secretary, shall conduct a study of the cost and feasibility of developing a demonstration project that uses wind energy generated by Indian tribes and hydropower generated by the Army Corps of Engineers on the Missouri River to supply firming power to the Western Area Power Administration.

“(b) SCOPE OF STUDY.—The study shall—

“(1) determine the economic and engineering feasibility of blending wind energy and hydropower generated from the Missouri River dams operated by the Army Corps of Engineers, including an assessment of the costs and benefits of blending wind energy and hydropower compared to current sources used for firming power to the Western Area Power Administration;

“(2) review historical and projected requirements for, patterns of availability and use of, and reasons for historical patterns concerning the availability of firming power;

“(3) assess the wind energy resource potential on tribal land and projected cost savings through a blend of wind and hydropower over a 30-year period;

“(4) determine seasonal capacity needs and associated transmission upgrades for integration of tribal wind generation and identify costs associated with these activities;

“(5) include an independent tribal engineer and a Western Area Power Administration customer representative as study team members; and

“(6) incorporate, to the extent appropriate, the results of the Dakotas Wind Transmission study prepared by the Western Area Power Administration.

“(c) REPORT.—Not later than 1 year after the date of enactment of the Energy Policy Act of 2005, the Secretary of Energy, the Secretary, and the Secretary of the Army shall submit to Congress a report that describes the results of the study, including—

“(1) an analysis and comparison of the potential energy cost or benefits to the customers of the Western Area Power Administration through the use of combined wind and hydropower;

“(2) an economic and engineering evaluation of whether a combined wind and hydropower system can reduce reservoir fluctuation, enhance efficient and reliable energy production, and provide Missouri River management flexibility;

“(3) if found feasible, recommendations for a demonstration project to be carried out by the Western Area Power Administration, in partnership with an Indian tribal government or tribal energy resource development organization, and Western Area Power Administration customers to demonstrate the fea-

sibility and potential of using wind energy produced on Indian land to supply firming energy to the Western Area Power Administration; and

“(4) an identification of—

“(A) the economic and environmental costs of, or benefits to be realized through, a Federal-tribal-customer partnership; and

“(B) the manner in which a Federal-tribal-customer partnership could contribute to the energy security of the United States.

“(d) FUNDING.—

“(1) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$1,000,000, to remain available until expended.

“(2) NONREIMBURSABILITY.—Costs incurred by the Secretary in carrying out this section shall be nonreimbursable.”.

(b) CONFORMING AMENDMENTS.—The table of contents for the Energy Policy Act of 1992 is amended by striking the items relating to title XXVI and inserting the following:

“Sec. 2601. Definitions.

“Sec. 2602. Indian tribal energy resource development.

“Sec. 2603. Indian tribal energy resource regulation.

“Sec. 2604. Leases, business agreements, and rights-of-way involving energy development or transmission.

“Sec. 2605. Federal Power Marketing Administrations.

“Sec. 2606. Wind and hydropower feasibility study.”.

SEC. 504. [25 U.S.C. 3501 note] CONSULTATION WITH INDIAN TRIBES.

In carrying out this title and the amendments made by this title, the Secretary and the Secretary of the Interior shall, as appropriate and to the maximum extent practicable, involve and consult with Indian tribes.

SEC. 505. FOUR CORNERS TRANSMISSION LINE PROJECT AND ELECTRIFICATION.

(a) TRANSMISSION LINE PROJECT.—The Dine Power Authority, an enterprise of the Navajo Nation, shall be eligible to receive grants and other assistance under section 217 of the Department of Energy Organization Act, as added by section 502, and section 2602 of the Energy Policy Act of 1992, as amended by this Act, for activities associated with the development of a transmission line from the Four Corners Area to southern Nevada, including related power generation opportunities.

(b) NAVAJO ELECTRIFICATION.—Section 602 of Public Law 106–511 (114 Stat. 2376) is amended—

(1) in subsection (a)—

(A) in the first sentence, by striking “5-year” and inserting “10-year”; and

(B) in the third sentence, by striking “2006” and inserting “2011”; and

(2) in the first sentence of subsection (e) by striking “2006” and inserting “2011”.

SEC. 506. [42 U.S.C. 16001] ENERGY EFFICIENCY IN FEDERALLY ASSISTED HOUSING.

(a) IN GENERAL.—The Secretary of Housing and Urban Development shall promote energy conservation in housing that is lo-

cated on Indian land and assisted with Federal resources through—

(1) the use of energy-efficient technologies and innovations (including the procurement of energy-efficient refrigerators and other appliances);

(2) the promotion of shared savings contracts; and

(3) the use and implementation of such other similar technologies and innovations as the Secretary of Housing and Urban Development considers to be appropriate.

(b) AMENDMENT.—Section 202(2) of the Native American Housing and Self-Determination Act of 1996 (25 U.S.C. 4132(2)) is amended by inserting “improvement to achieve greater energy efficiency,” after “planning,”.

TITLE VI—NUCLEAR MATTERS

Subtitle A—Price-Anderson Act Amendments

SEC. 601. [42 U.S.C. 2011 note] SHORT TITLE.

This subtitle may be cited as the “Price-Anderson Amendments Act of 2005”.

SEC. 602. EXTENSION OF INDEMNIFICATION AUTHORITY.

(a) INDEMNIFICATION OF NUCLEAR REGULATORY COMMISSION LICENSEES.—Section 170 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(c)) is amended—

(1) in the subsection heading, by striking “LICENSES” and inserting “LICENSEES”; and

(2) by striking “December 31, 2003” each place it appears and inserting “December 31, 2025”.

(b) INDEMNIFICATION OF DEPARTMENT CONTRACTORS.—Section 170 d.(1)(A) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking “December 31, 2006” and inserting “December 31, 2025”.

(c) INDEMNIFICATION OF NONPROFIT EDUCATIONAL INSTITUTIONS.—Section 170 k. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended by striking “August 1, 2002” each place it appears and inserting “December 31, 2025”.

SEC. 603. MAXIMUM ASSESSMENT.

Section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210) is amended—

(1) in the second proviso of the third sentence of subsection b.(1)—

(A) by striking “\$63,000,000” and inserting “\$95,800,000”; and

(B) by striking “\$10,000,000 in any 1 year” and inserting “\$15,000,000 in any 1 year (subject to adjustment for inflation under subsection t.)”; and

(2) in subsection t.(1)—

(A) by inserting “total and annual” after “amount of the maximum”;

(B) by striking “the date of the enactment of the Price-Anderson Amendments Act of 1988” and inserting “August 20, 2003”; and

(C) in subparagraph (A), by striking “such date of enactment” and inserting “August 20, 2003”.

SEC. 604. DEPARTMENT LIABILITY LIMIT.

(a) INDEMNIFICATION OF DEPARTMENT CONTRACTORS.—Section 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking paragraph (2) and inserting the following:

“(2) In an agreement of indemnification entered into under paragraph (1), the Secretary—

“(A) may require the contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity; and

“(B) shall indemnify the persons indemnified against such liability above the amount of the financial protection required, in the amount of \$10,000,000,000 (subject to adjustment for inflation under subsection t.), in the aggregate, for all persons indemnified in connection with the contract and for each nuclear incident, including such legal costs of the contractor as are approved by the Secretary.”.

(b) CONTRACT AMENDMENTS.—Section 170 d. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is further amended by striking paragraph (3) and inserting the following—

“(3) All agreements of indemnification under which the Department of Energy (or its predecessor agencies) may be required to indemnify any person under this section shall be deemed to be amended, on the date of enactment of the Price-Anderson Amendments Act of 2005, to reflect the amount of indemnity for public liability and any applicable financial protection required of the contractor under this subsection.”.

(c) LIABILITY LIMIT.—Section 170 e.(1)(B) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(1)(B)) is amended—

(1) by striking “the maximum amount of financial protection required under subsection b. or”; and

(2) by striking “paragraph (3) of subsection d., whichever amount is more” and inserting “paragraph (2) of subsection d.”.

SEC. 605. INCIDENTS OUTSIDE THE UNITED STATES.

(a) AMOUNT OF INDEMNIFICATION.—Section 170 d.(5) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(5)) is amended by striking “\$100,000,000” and inserting “\$500,000,000”.

(b) LIABILITY LIMIT.—Section 170 e.(4) of the Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(4)) is amended by striking “\$100,000,000” and inserting “\$500,000,000”.

SEC. 606. REPORTS.

Section 170 p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by striking “August 1, 1998” and inserting “December 31, 2021”.

SEC. 607. INFLATION ADJUSTMENT.

Section 170 t. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(t)) is amended—

- (1) by redesignating paragraph (2) as paragraph (3); and
- (2) by inserting after paragraph (1) the following:

“(2) The Secretary shall adjust the amount of indemnification provided under an agreement of indemnification under subsection d. not less than once during each 5-year period following July 1, 2003, in accordance with the aggregate percentage change in the Consumer Price Index since—

“(A) that date, in the case of the first adjustment under this paragraph; or

“(B) the previous adjustment under this paragraph.”.

SEC. 608. TREATMENT OF MODULAR REACTORS.

Section 170 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended by adding at the end the following:

“(5)(A) For purposes of this section only, the Commission shall consider a combination of facilities described in subparagraph (B) to be a single facility having a rated capacity of 100,000 electrical kilowatts or more.

“(B) A combination of facilities referred to in subparagraph (A) is two or more facilities located at a single site, each of which has a rated capacity of 100,000 electrical kilowatts or more but not more than 300,000 electrical kilowatts, with a combined rated capacity of not more than 1,300,000 electrical kilowatts.”.

SEC. 609. [42 U.S.C. 2210 note] APPLICABILITY.

The amendments made by sections 603, 604, and 605 do not apply to a nuclear incident that occurs before the date of the enactment of this Act.

SEC. 610. CIVIL PENALTIES.

(a) **REPEAL OF AUTOMATIC REMISSION.**—Section 234A b.(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(b)(2)) is amended by striking the last sentence.

(b) **LIMITATION FOR NOT-FOR-PROFIT INSTITUTIONS.**—Subsection d. of section 234A of the Atomic Energy Act of 1954 (42 U.S.C. 2282a(d)) is amended to read as follows:

“d.(1) Notwithstanding subsection a., in the case of any not-for-profit contractor, subcontractor, or supplier, the total amount of civil penalties paid under subsection a. may not exceed the total amount of fees paid within any 1-year period (as determined by the Secretary) under the contract under which the violation occurs.

“(2) For purposes of this section, the term ‘not-for-profit’ means that no part of the net earnings of the contractor, subcontractor, or supplier inures to the benefit of any natural person or for-profit artificial person.”.

(c) **EFFECTIVE DATE.**—The amendments made by this section shall not apply to any violation of the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) occurring under a contract entered into before the date of enactment of this section.

Subtitle B—General Nuclear Matters

SEC. 621. LICENSES.

Section 103 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2133(c)) is amended by inserting “from the authorization to commence operations” after “forty years”.

SEC. 622. NUCLEAR REGULATORY COMMISSION SCHOLARSHIP AND FELLOWSHIP PROGRAM.

(a) IN GENERAL.—Chapter 19 of the Atomic Energy Act of 1954 is amended by inserting after section 242 (42 U.S.C. 2015a) the following:

“SEC. 243. SCHOLARSHIP AND FELLOWSHIP PROGRAM.

“a. SCHOLARSHIP PROGRAM.—To enable students to study, for at least 1 academic semester or equivalent term, science, engineering, or another field of study that the Commission determines is in a critical skill area related to the regulatory mission of the Commission, the Commission may carry out a program to—

“(1) award scholarships to undergraduate students who—

“(A) are United States citizens; and

“(B) enter into an agreement under subsection c. to be employed by the Commission in the area of study for which the scholarship is awarded.

“b. FELLOWSHIP PROGRAM.—To enable students to pursue education in science, engineering, or another field of study that the Commission determines is in a critical skill area related to its regulatory mission, in a graduate or professional degree program offered by an institution of higher education in the United States, the Commission may carry out a program to—

“(1) award fellowships to graduate students who—

“(A) are United States citizens; and

“(B) enter into an agreement under subsection c. to be employed by the Commission in the area of study for which the fellowship is awarded.

“c. REQUIREMENTS.—

“(1) IN GENERAL.—As a condition of receiving a scholarship or fellowship under subsection a. or b., a recipient of the scholarship or fellowship shall enter into an agreement with the Commission under which, in return for the assistance, the recipient shall—

“(A) maintain satisfactory academic progress in the studies of the recipient, as determined by criteria established by the Commission;

“(B) agree that failure to maintain satisfactory academic progress shall constitute grounds on which the Commission may terminate the assistance;

“(C) on completion of the academic course of study in connection with which the assistance was provided, and in accordance with criteria established by the Commission, engage in employment by the Commission for a period specified by the Commission, that shall be not less than 1 time and not more than 3 times the period for which the assistance was provided; and

“(D) if the recipient fails to meet the requirements of subparagraph (A), (B), or (C), reimburse the United States Government for—

- “(i) the entire amount of the assistance provided the recipient under the scholarship or fellowship; and
- “(ii) interest at a rate determined by the Commission.

“(2) WAIVER OR SUSPENSION.—The Commission may establish criteria for the partial or total waiver or suspension of any obligation of service or payment incurred by a recipient of a scholarship or fellowship under this section.

“d. COMPETITIVE PROCESS.—Recipients of scholarships or fellowships under this section shall be selected through a competitive process primarily on the basis of academic merit and such other criteria as the Commission may establish, with consideration given to financial need and the goal of promoting the participation of individuals identified in section 33 or 34 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a, 1885b).

“e. DIRECT APPOINTMENT.—The Commission may appoint directly, with no further competition, public notice, or consideration of any other potential candidate, an individual who has—

- “(1) received a scholarship or fellowship awarded by the Commission under this section; and
- “(2) completed the academic program for which the scholarship or fellowship was awarded.”.

(b) CONFORMING AMENDMENT.—The table of sections of the Atomic Energy Act of 1954 (42 U.S.C. prec. 2011) is amended by adding after the item relating to section 242 the following:

“Sec. 243. Scholarship and fellowship program.”.

SEC. 623. COST RECOVERY FROM GOVERNMENT AGENCIES.

Section 161 w. of the Atomic Energy Act of 1954 (42 U.S.C. 2201(w)) is amended—

- (1) by striking “for or is issued” and all that follows through “1702” and inserting “to the Commission for, or is issued by the Commission, a license or certificate”;
- (2) by striking “483a” and inserting “9701”; and
- (3) by striking “, of applicants for, or holders of, such licenses or certificates”.

SEC. 624. ELIMINATION OF PENSION OFFSET FOR CERTAIN REHIRED FEDERAL RETIREES.

(a) IN GENERAL.—Chapter 14 of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.) is amended by adding at the end the following:

“SEC. 170C. ELIMINATION OF PENSION OFFSET FOR CERTAIN REHIRED FEDERAL RETIREES.

“a. IN GENERAL.—The Commission may waive the application of section 8344 or 8468 of title 5, United States Code, on a case-by-case basis for employment of an annuitant—

- “(1) in a position of the Commission for which there is exceptional difficulty in recruiting or retaining a qualified employee; or
- “(2) when a temporary emergency hiring need exists.

“b. PROCEDURES.—The Commission shall prescribe procedures for the exercise of authority under this section, including—

“(1) criteria for any exercise of authority; and

“(2) procedures for a delegation of authority.

“c. EFFECT OF WAIVER.—An employee as to whom a waiver under this section is in effect shall not be considered an employee for purposes of subchapter II of chapter 83, or chapter 84, of title 5, United States Code.”

(b) CONFORMING AMENDMENT.—The table of sections of the Atomic Energy Act of 1954 (42 U.S.C. prec. 2011) is amended by adding at the end of the items relating to chapter 14 the following: “Sec. 170C. Elimination of pension offset for certain rehired Federal retirees.”.

SEC. 625. ANTITRUST REVIEW.

Section 105 c. of the Atomic Energy Act of 1954 (42 U.S.C. 2135(c)) is amended by adding at the end the following:

“(9) APPLICABILITY.—This subsection does not apply to an application for a license to construct or operate a utilization facility or production facility under section 103 or 104 b. that is filed on or after the date of enactment of this paragraph.”.

SEC. 626. DECOMMISSIONING.

Section 161 i. of the Atomic Energy Act of 1954 (42 U.S.C. 2201(i)) is amended—

(1) by striking “and (3)” and inserting “(3)”; and

(2) by inserting before the semicolon at the end the following: “; and (4) to ensure that sufficient funds will be available for the decommissioning of any production or utilization facility licensed under section 103 or 104 b., including standards and restrictions governing the control, maintenance, use, and disbursement by any former licensee under this Act that has control over any fund for the decommissioning of the facility”.

SEC. 627. LIMITATION ON LEGAL FEE REIMBURSEMENT.

Title II of the Energy Reorganization Act of 1974 (42 U.S.C. 5841 et seq.) is amended by adding at the end the following new section:

“LIMITATION ON LEGAL FEE REIMBURSEMENT

“SEC. 212. The Department of Energy shall not, except as required under a contract entered into before the date of enactment of this section, reimburse any contractor or subcontractor of the Department for any legal fees or expenses incurred with respect to a complaint subsequent to—

“(1) an adverse determination on the merits with respect to such complaint against the contractor or subcontractor by the Director of the Department of Energy’s Office of Hearings and Appeals pursuant to part 708 of title 10, Code of Federal Regulations, or by a Department of Labor Administrative Law Judge pursuant to section 211 of this Act; or

“(2) an adverse final judgment by any State or Federal court with respect to such complaint against the contractor or subcontractor for wrongful termination or retaliation due to the making of disclosures protected under chapter 12 of title 5,

United States Code, section 211 of this Act, or any comparable State law, unless the adverse determination or final judgment is reversed upon further administrative or judicial review.”.

SEC. 628. DECOMMISSIONING PILOT PROGRAM.

(a) PILOT PROGRAM.—The Secretary shall establish a decommissioning pilot program under which the Secretary shall decommission and decontaminate the sodium-cooled fast breeder experimental test-site reactor located in northwest Arkansas, in accordance with the decommissioning activities contained in the report of the Department relating to the reactor, dated August 31, 1998.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$16,000,000.

SEC. 629. WHISTLEBLOWER PROTECTION.

(a) DEFINITION OF EMPLOYER.—Section 211(a)(2) of the Energy Reorganization Act of 1974 (42 U.S.C. 5851(a)(2)) is amended—

- (1) in subparagraph (C), by striking “and” at the end;
- (2) in subparagraph (D), by striking the period at the end and inserting a semicolon; and
- (3) by adding at the end the following:
 - “(E) a contractor or subcontractor of the Commission;
 - “(F) the Commission; and
 - “(G) the Department of Energy.”.

(b) DE NOVO REVIEW.—Subsection (b) of such section 211 is amended by adding at the end the following new paragraph:

- “(4) If the Secretary has not issued a final decision within 1 year after the filing of a complaint under paragraph (1), and there is no showing that such delay is due to the bad faith of the person seeking relief under this paragraph, such person may bring an action at law or equity for de novo review in the appropriate district court of the United States, which shall have jurisdiction over such an action without regard to the amount in controversy.”.

SEC. 630. MEDICAL ISOTOPE PRODUCTION.

Section 134 of the Atomic Energy Act of 1954 (42 U.S.C. 2160d) is amended—

- (1) in subsection a., by striking “a. The Commission” and inserting “a. IN GENERAL.—Except as provided in subsection b., the Commission”;
- (2) by redesignating subsection b. as subsection c.; and
- (3) by inserting after subsection a. the following:

“b. MEDICAL ISOTOPE PRODUCTION.—

“(1) DEFINITIONS.—In this subsection:

“(A) HIGHLY ENRICHED URANIUM.—The term ‘highly enriched uranium’ means uranium enriched to include concentration of U-235 above 20 percent.

“(B) MEDICAL ISOTOPE.—The term ‘medical isotope’ includes Molybdenum 99, Iodine 131, Xenon 133, and other radioactive materials used to produce a radiopharmaceutical for diagnostic, therapeutic procedures or for research and development.

“(C) **RADIOPHARMACEUTICAL.**—The term ‘radiopharmaceutical’ means a radioactive isotope that—

“(i) contains byproduct material combined with chemical or biological material; and

“(ii) is designed to accumulate temporarily in a part of the body for therapeutic purposes or for enabling the production of a useful image for use in a diagnosis of a medical condition.

“(D) **RECIPIENT COUNTRY.**—The term ‘recipient country’ means Canada, Belgium, France, Germany, and the Netherlands.

“(2) **LICENSES.**—The Commission may issue a license authorizing the export (including shipment to and use at intermediate and ultimate consignees specified in the license) to a recipient country of highly enriched uranium for medical isotope production if, in addition to any other requirements of this Act (except subsection a.), the Commission determines that—

“(A) a recipient country that supplies an assurance letter to the United States Government in connection with the consideration by the Commission of the export license application has informed the United States Government that any intermediate consignees and the ultimate consignee specified in the application are required to use the highly enriched uranium solely to produce medical isotopes; and

“(B) the highly enriched uranium for medical isotope production will be irradiated only in a reactor in a recipient country that—

“(i) uses an alternative nuclear reactor fuel; or

“(ii) is the subject of an agreement with the United States Government to convert to an alternative nuclear reactor fuel when alternative nuclear reactor fuel can be used in the reactor.

“(3) **REVIEW OF PHYSICAL PROTECTION REQUIREMENTS.**—

“(A) **IN GENERAL.**—The Commission shall review the adequacy of physical protection requirements that, as of the date of an application under paragraph (2), are applicable to the transportation and storage of highly enriched uranium for medical isotope production or control of residual material after irradiation and extraction of medical isotopes.

“(B) **IMPOSITION OF ADDITIONAL REQUIREMENTS.**—If the Commission determines that additional physical protection requirements are necessary (including a limit on the quantity of highly enriched uranium that may be contained in a single shipment), the Commission shall impose such requirements as license conditions or through other appropriate means.

“(4) **FIRST REPORT TO CONGRESS.**—

“(A) **NAS STUDY.**—The Secretary shall enter into an arrangement with the National Academy of Sciences to conduct a study to determine—

“(i) the feasibility of procuring supplies of medical isotopes from commercial sources that do not use highly enriched uranium;

“(ii) the current and projected demand and availability of medical isotopes in regular current domestic use;

“(iii) the progress that is being made by the Department of Energy and others to eliminate all use of highly enriched uranium in reactor fuel, reactor targets, and medical isotope production facilities; and

“(iv) the potential cost differential in medical isotope production in the reactors and target processing facilities if the products were derived from production systems that do not involve fuels and targets with highly enriched uranium.

“(B) FEASIBILITY.—For the purpose of this subsection, the use of low enriched uranium to produce medical isotopes shall be determined to be feasible if—

“(i) low enriched uranium targets have been developed and demonstrated for use in the reactors and target processing facilities that produce significant quantities of medical isotopes to serve United States needs for such isotopes;

“(ii) sufficient quantities of medical isotopes are available from low enriched uranium targets and fuel to meet United States domestic needs; and

“(iii) the average anticipated total cost increase from production of medical isotopes in such facilities without use of highly enriched uranium is less than 10 percent.

“(C) REPORT BY THE SECRETARY.—Not later than 5 years after the date of enactment of the Energy Policy Act of 2005, the Secretary shall submit to Congress a report that—

“(i) contains the findings of the National Academy of Sciences made in the study under subparagraph (A); and

“(ii) discloses the existence of any commitments from commercial producers to provide domestic requirements for medical isotopes without use of highly enriched uranium consistent with the feasibility criteria described in subparagraph (B) not later than the date that is 4 years after the date of submission of the report.

“(5) SECOND REPORT TO CONGRESS.—If the study of the National Academy of Sciences determines under paragraph (4)(A)(i) that the procurement of supplies of medical isotopes from commercial sources that do not use highly enriched uranium is feasible, but the Secretary is unable to report the existence of commitments under paragraph (4)(C)(ii), not later than the date that is 6 years after the date of enactment of the Energy Policy Act of 2005, the Secretary shall submit to Congress a report that describes options for developing domestic supplies of medical isotopes in quantities that are adequate to

meet domestic demand without the use of highly enriched uranium consistent with the cost increase described in paragraph (4)(B)(iii).

“(6) CERTIFICATION.—At such time as commercial facilities that do not use highly enriched uranium are capable of meeting domestic requirements for medical isotopes, within the cost increase described in paragraph (4)(B)(iii) and without impairing the reliable supply of medical isotopes for domestic utilization, the Secretary shall submit to Congress a certification to that effect.

“(7) SUNSET PROVISION.—After the Secretary submits a certification under paragraph (6), the Commission shall, by rule, terminate its review of export license applications under this subsection.”.

SEC. 631. SAFE DISPOSAL OF GREATER-THAN-CLASS C RADIOACTIVE WASTE.

(a) RESPONSIBILITY FOR ACTIVITIES TO PROVIDE STORAGE FACILITY.—The Secretary shall provide to Congress official notification of the final designation of an entity within the Department to have the responsibility of completing activities needed to provide a facility for safely disposing of all greater-than-Class C low-level radioactive waste.

(b) REPORTS AND PLANS.—

(1) REPORT ON PERMANENT DISPOSAL FACILITY.—

(A) PLAN REGARDING COST AND SCHEDULE FOR COMPLETION OF EIS AND ROD.—Not later than 1 year after the date of enactment of this Act, the Secretary, in consultation with Congress, shall submit to Congress a report containing an estimate of the cost and a proposed schedule to complete an environmental impact statement and record of decision for a permanent disposal facility for greater-than-Class C radioactive waste.

(B) ANALYSIS OF ALTERNATIVES.—Before the Secretary makes a final decision on the disposal alternative or alternatives to be implemented, the Secretary shall—

(i) submit to Congress a report that describes all alternatives under consideration, including all information required in the comprehensive report making recommendations for ensuring the safe disposal of all greater-than-Class C low-level radioactive waste that was submitted by the Secretary to Congress in February 1987; and

(ii) await action by Congress.

(2) SHORT-TERM PLAN FOR RECOVERY AND STORAGE.—

(A) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a plan to ensure the continued recovery and storage of greater-than-Class C low-level radioactive sealed sources that pose a security threat until a permanent disposal facility is available.

(B) CONTENTS.—The plan shall address estimated cost, resource, and facility needs.

SEC. 632. PROHIBITION ON NUCLEAR EXPORTS TO COUNTRIES THAT SPONSOR TERRORISM.

(a) **IN GENERAL.**—Section 129 of the Atomic Energy Act of 1954 (42 U.S.C. 2158) is amended—

(1) by inserting “a.” before “No nuclear materials and equipment”; and

(2) by adding at the end the following new subsection:

“b.(1) Notwithstanding any other provision of law, including specifically section 121 of this Act, and except as provided in paragraphs (2) and (3), no nuclear materials and equipment or sensitive nuclear technology, including items and assistance authorized by section 57 b. of this Act and regulated under part 810 of title 10, Code of Federal Regulations, and nuclear-related items on the Commerce Control List maintained under part 774 of title 15 of the Code of Federal Regulations, shall be exported or reexported, or transferred or retransferred whether directly or indirectly, and no Federal agency shall issue any license, approval, or authorization for the export or reexport, or transfer, or retransfer, whether directly or indirectly, of these items or assistance (as defined in this paragraph) to any country whose government has been identified by the Secretary of State as engaged in state sponsorship of terrorist activities (specifically including any country the government of which has been determined by the Secretary of State under section 620A(a) of the Foreign Assistance Act of 1961 (22 U.S.C. 2371(a)), section 6(j)(1) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(1)), or section 40(d) of the Arms Export Control Act (22 U.S.C. 2780(d)) to have repeatedly provided support for acts of international terrorism).

“(2) This subsection shall not apply to exports, reexports, transfers, or retransfers of radiation monitoring technologies, surveillance equipment, seals, cameras, tamper-indication devices, nuclear detectors, monitoring systems, or equipment necessary to safely store, transport, or remove hazardous materials, whether such items, services, or information are regulated by the Department of Energy, the Department of Commerce, or the Commission, except to the extent that such technologies, equipment, seals, cameras, devices, detectors, or systems are available for use in the design or construction of nuclear reactors or nuclear weapons.

“(3) The President may waive the application of paragraph (1) to a country if the President determines and certifies to Congress that the waiver will not result in any increased risk that the country receiving the waiver will acquire nuclear weapons, nuclear reactors, or any materials or components of nuclear weapons and—

“(A) the government of such country has not within the preceding 12-month period willfully aided or abetted the international proliferation of nuclear explosive devices to individuals or groups or willfully aided and abetted an individual or groups in acquiring unsafeguarded nuclear materials;

“(B) in the judgment of the President, the government of such country has provided adequate, verifiable assurances that it will cease its support for acts of international terrorism;

“(C) the waiver of that paragraph is in the vital national security interest of the United States; or

“(D) such a waiver is essential to prevent or respond to a serious radiological hazard in the country receiving the waiver that may or does threaten public health and safety.”.

(b) **APPLICABILITY TO EXPORTS APPROVED FOR TRANSFER BUT NOT TRANSFERRED.**—Subsection b. of section 129 of Atomic Energy Act of 1954, as added by subsection (a) of this section, shall apply with respect to exports that have been approved for transfer as of the date of the enactment of this Act but have not yet been transferred as of that date.

SEC. 633. EMPLOYEE BENEFITS.

Section 3110(a) of the USEC Privatization Act (42 U.S.C. 2297h–8(a)) is amended by adding at the end the following new paragraph:

“(8) **CONTINUITY OF BENEFITS.**—To the extent appropriations are provided in advance for this purpose or are otherwise available, not later than 30 days after the date of enactment of this paragraph, the Secretary shall implement such actions as are necessary to ensure that any employee who—

“(A) is involved in providing infrastructure or environmental remediation services at the Portsmouth, Ohio, or the Paducah, Kentucky, Gaseous Diffusion Plant;

“(B) has been an employee of the Department of Energy’s predecessor management and integrating contractor (or its first or second tier subcontractors), or of the Corporation, at the Portsmouth, Ohio, or the Paducah, Kentucky, facility; and

“(C) was eligible as of April 1, 2005, to participate in or transfer into the Multiple Employer Pension Plan or the associated multiple employer retiree health care benefit plans, as defined in those plans,

shall continue to be eligible to participate in or transfer into such pension or health care benefit plans.”.

SEC. 634. [42 U.S.C. 16011] DEMONSTRATION HYDROGEN PRODUCTION AT EXISTING NUCLEAR POWER PLANTS.

(a) **DEMONSTRATION PROJECTS.**—The Secretary shall provide for the establishment of 2 projects in geographic areas that are regionally and climatically diverse to demonstrate the commercial production of hydrogen at existing nuclear power plants.

(b) **ECONOMIC ANALYSIS.**—Prior to making an award under subsection (a), the Secretary shall determine whether the use of existing nuclear power plants is a cost-effective means of producing hydrogen.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary for the purposes of carrying out this section not more than \$100,000,000.

SEC. 635. [42 U.S.C. 16012] PROHIBITION ON ASSUMPTION BY UNITED STATES GOVERNMENT OF LIABILITY FOR CERTAIN FOREIGN INCIDENTS.

(a) **IN GENERAL.**—Notwithstanding any other provision of law, no officer of the United States or of any department, agency, or instrumentality of the United States Government may enter into any contract or other arrangement, or into any amendment or modification of a contract or other arrangement, the purpose or effect of which would be to directly or indirectly impose liability on the

United States Government, or any department, agency, or instrumentality of the United States Government, or to otherwise directly or indirectly require an indemnity by the United States Government, for nuclear incidents occurring in connection with the design, construction, or operation of a production facility or utilization facility in any country whose government has been identified by the Secretary of State as engaged in state sponsorship of terrorist activities (specifically including any country the government of which, as of September 11, 2001, had been determined by the Secretary of State under section 620A(a) of the Foreign Assistance Act of 1961 (22 U.S.C. 2371(a)), section 6(j)(1) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(1)), or section 40(d) of the Arms Export Control Act (22 U.S.C. 2780(d)) to have repeatedly provided support for acts of international terrorism). This section shall not apply to nuclear incidents occurring as a result of missions, carried out under the direction of the Secretary, the Secretary of Defense, or the Secretary of State, that are necessary to safely secure, store, transport, or remove nuclear materials for nuclear safety or nonproliferation purposes.

(b) **DEFINITIONS.**—The terms used in this section shall have the same meaning as those terms have under section 11 of the Atomic Energy Act of 1954 (42 U.S.C. 2014), unless otherwise expressly provided in this section.

SEC. 636. [42 U.S.C. 16013] AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as are necessary to carry out this subtitle and the amendments made by this subtitle.

SEC. 637. NUCLEAR REGULATORY COMMISSION USER FEES AND ANNUAL CHARGES.

(a) **IN GENERAL.**—Section 6101 of the Omnibus Budget Reconciliation Act of 1990 (42 U.S.C. 2214) is amended—

(1) in subsection (a)—

(A) by striking “Except as provided in paragraph (3), the” and inserting “The” in paragraph (1); and

(B) by striking paragraph (3); and

(2) in subsection (c)—

(A) by striking “and” at the end of paragraph (2)(A)(i);

(B) by striking the period at the end of paragraph (2)(A)(ii) and inserting a semicolon;

(C) by adding at the end of paragraph (2)(A) the following new clauses:

“(iii) amounts appropriated to the Commission for the fiscal year for implementation of section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005; and

“(iv) amounts appropriated to the Commission for homeland security activities of the Commission for the fiscal year, except for the costs of fingerprinting and background checks required by section 149 of the Atomic Energy Act of 1954 (42 U.S.C. 2169) and the costs of conducting security inspections.”; and

(D) by amending paragraph (2)(B)(v) to read as follows:

“(v) 90 percent for fiscal year 2005 and each fiscal year thereafter.”.

(b) REPEAL.—Section 7601 of the Consolidated Omnibus Budget Reconciliation Act of 1985 (42 U.S.C. 2213) is repealed.

(c) EFFECTIVE DATE.—The amendments made by this section take effect on October 1, 2006.

SEC. 638. [42 U.S.C. 16014] STANDBY SUPPORT FOR CERTAIN NUCLEAR PLANT DELAYS.

(a) DEFINITIONS.—In this section:

(1) ADVANCED NUCLEAR FACILITY.—The term “advanced nuclear facility” means any nuclear facility the reactor design for which is approved after December 31, 1993, by the Commission (and such design or a substantially similar design of comparable capacity was not approved on or before that date).

(2) COMBINED LICENSE.—The term “combined license” means a combined construction and operating license for an advanced nuclear facility issued by the Commission.

(3) COMMISSION.—The term “Commission” means the Nuclear Regulatory Commission.

(4) SPONSOR.—The term “sponsor” means a person who has applied for or been granted a combined license.

(b) CONTRACT AUTHORITY.—

(1) IN GENERAL.—The Secretary may enter into contracts under this section with sponsors of an advanced nuclear facility that cover a total of 6 reactors, with the 6 reactors consisting of not more than 3 different reactor designs, in accordance with paragraph (2).

(2) REQUIREMENT FOR CONTRACTS.—

(A) DEFINITION OF LOAN COST.—In this paragraph, the term “loan cost” has the meaning given the term “cost of a loan guarantee” under section 502(5)(C) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(C)).

(B) ESTABLISHMENT OF ACCOUNTS.—There is established in the Department 2 separate accounts, which shall be known as the—

(i) “Standby Support Program Account”; and

(ii) “Standby Support Grant Account”.

(C) REQUIREMENT.—The Secretary shall not enter into a contract under this section unless the Secretary deposits—

(i) in the Standby Support Program Account established under subparagraph (B), funds appropriated to the Secretary in advance of the contract or a combination of appropriated funds and loan guarantee fees that are in an amount sufficient to cover the loan costs described in subsection (d)(5)(A); and

(ii) in the Standby Support Grant Account established under subparagraph (B), funds appropriated to the Secretary in advance of the contract, paid to the Secretary by the sponsor of the advanced nuclear facility, or a combination of appropriations and payments that are in an amount sufficient cover the costs described in subparagraphs (B), (C), and (D) of subsection (d)(5).

(c) COVERED DELAYS.—

(1) INCLUSIONS.—Under each contract authorized by this section, the Secretary shall pay the costs specified in subsection (d), using funds appropriated or collected for the covered costs, if full power operation of the advanced nuclear facility is delayed by—

(A) the failure of the Commission to comply with schedules for review and approval of inspections, tests, analyses, and acceptance criteria established under the combined license or the conduct of preoperational hearings by the Commission for the advanced nuclear facility; or

(B) litigation that delays the commencement of full-power operations of the advanced nuclear facility.

(2) EXCLUSIONS.—The Secretary may not enter into any contract under this section that would obligate the Secretary to pay any costs resulting from—

(A) the failure of the sponsor to take any action required by law or regulation;

(B) events within the control of the sponsor; or

(C) normal business risks.

(d) COVERED COSTS.—

(1) IN GENERAL.—Subject to paragraphs (2), (3), and (4), the costs that shall be paid by the Secretary pursuant to a contract entered into under this section are the costs that result from a delay covered by the contract.

(2) INITIAL 2 REACTORS.—In the case of the first 2 reactors that receive combined licenses and on which construction is commenced, the Secretary shall pay—

(A) 100 percent of the covered costs of delay; but

(B) not more than \$500,000,000 per contract.

(3) SUBSEQUENT 4 REACTORS.—In the case of the next 4 reactors that receive a combined license and on which construction is commenced, the Secretary shall pay—

(A) 50 percent of the covered costs of delay that occur after the initial 180-day period of covered delay; but

(B) not more than \$250,000,000 per contract.

(4) CONDITIONS ON PAYMENT OF CERTAIN COVERED COSTS.—

(A) IN GENERAL.—The obligation of the Secretary to pay the covered costs described in subparagraph (B) of paragraph (5) is subject to the Secretary receiving from appropriations or payments from other non-Federal sources amounts sufficient to pay the covered costs.

(B) NON-FEDERAL SOURCES.—The Secretary may receive and accept payments from any non-Federal source, which shall be made available without further appropriation for the payment of the covered costs.

(5) TYPES OF COVERED COSTS.—Subject to paragraphs (2), (3), and (4), the contract entered into under this section for an advanced nuclear facility shall include as covered costs those costs that result from a delay during construction and in gaining approval for fuel loading and full-power operation, including—

- (A) principal or interest on any debt obligation of an advanced nuclear facility owned by a non-Federal entity; and
- (B) the incremental difference between—
 - (i) the fair market price of power purchased to meet the contractual supply agreements that would have been met by the advanced nuclear facility but for the delay; and
 - (ii) the contractual price of power from the advanced nuclear facility subject to the delay.
- (e) REQUIREMENTS.—Any contract between a sponsor and the Secretary covering an advanced nuclear facility under this section shall require the sponsor to use due diligence to shorten, and to end, the delay covered by the contract.
- (f) REPORTS.—For each advanced nuclear facility that is covered by a contract under this section, the Commission shall submit to Congress and the Secretary quarterly reports summarizing the status of licensing actions associated with the advanced nuclear facility.
- (g) REGULATIONS.—
 - (1) IN GENERAL.—Subject to paragraphs (2) and (3), the Secretary shall issue such regulations as are necessary to carry out this section.
 - (2) INTERIM FINAL RULEMAKING.—Not later than 270 days after the date of enactment of this Act, the Secretary shall issue for public comment an interim final rule regulating contracts authorized by this section.
 - (3) NOTICE OF FINAL RULEMAKING.—Not later than 1 year after the date of enactment of this Act, the Secretary shall issue a notice of final rulemaking regulating the contracts.
- (h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

SEC. 639. CONFLICTS OF INTEREST RELATING TO CONTRACTS AND OTHER ARRANGEMENTS.

Section 170A b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210a(b)) is amended—

- (1) by redesignating paragraphs (1) and (2) as subparagraphs (A) and (B), respectively, and indenting appropriately;
- (2) by striking “b. The Commission” and inserting the following:

“b. EVALUATION.—

“(1) IN GENERAL.—Except as provided in paragraph (2), the Nuclear Regulatory Commission”; and

(3) by adding at the end the following:

“(2) NUCLEAR REGULATORY COMMISSION.—Notwithstanding any conflict of interest, the Nuclear Regulatory Commission may enter into a contract, agreement, or arrangement with the Department of Energy or the operator of a Department of Energy facility, if the Nuclear Regulatory Commission determines that—

“(A) the conflict of interest cannot be mitigated; and

“(B) adequate justification exists to proceed without mitigation of the conflict of interest.”

Subtitle C—Next Generation Nuclear Plant Project

SEC. 641. [42 U.S.C. 16021] PROJECT ESTABLISHMENT.

(a) ESTABLISHMENT.—The Secretary shall establish a project to be known as the “Next Generation Nuclear Plant Project” (referred to in this subtitle as the “Project”).

(b) CONTENT.—The Project shall consist of the research, development, design, construction, and operation of a prototype plant, including a nuclear reactor that—

(1) is based on research and development activities supported by the Generation IV Nuclear Energy Systems Initiative under section 952(c); and

(2) shall be used—

(A) to generate electricity;

(B) to produce hydrogen; or

(C) both to generate electricity and to produce hydrogen.

SEC. 642. [42 U.S.C. 16022] PROJECT MANAGEMENT.

(a) DEPARTMENTAL MANAGEMENT.—

(1) IN GENERAL.—The Project shall be managed in the Department by the Office of Nuclear Energy, Science, and Technology.

(2) GENERATION IV NUCLEAR ENERGY SYSTEMS PROGRAM.—The Secretary may combine the Project with the Generation IV Nuclear Energy Systems Initiative.

(3) EXISTING DOE PROJECT MANAGEMENT EXPERTISE.—The Secretary may utilize capabilities for review of construction projects for advanced scientific facilities within the Office of Science to track the progress of the Project.

(b) LABORATORY MANAGEMENT.—

(1) LEAD LABORATORY.—The Idaho National Laboratory shall be the lead National Laboratory for the Project and shall collaborate with other National Laboratories, institutions of higher education, other research institutes, industrial researchers, and international researchers to carry out the Project.

(2) INDUSTRIAL PARTNERSHIPS.—

(A) IN GENERAL.—The Idaho National Laboratory shall organize a consortium of appropriate industrial partners that will carry out cost-shared research, development, design, and construction activities, and operate research facilities, on behalf of the Project.

(B) COST-SHARING.—Activities of industrial partners funded by the Project shall be cost-shared in accordance with section 988.

(C) PREFERENCE.—Preference in determining the final structure of the consortium or any partnerships under this subtitle shall be given to a structure (including designating as a lead industrial partner an entity incorporated in the United States) that retains United States technological leadership in the Project while maximizing cost

sharing opportunities and minimizing Federal funding responsibilities.

(3) **PROTOTYPE PLANT SITING.**—The prototype nuclear reactor and associated plant shall be sited at the Idaho National Laboratory in Idaho.

(4) **REACTOR TEST CAPABILITIES.**—The Project shall use, if appropriate, reactor test capabilities at the Idaho National Laboratory.

(5) **OTHER LABORATORY CAPABILITIES.**—The Project may use, if appropriate, facilities at other National Laboratories.

SEC. 643. [42 U.S.C. 16023] PROJECT ORGANIZATION.

(a) **MAJOR PROJECT ELEMENTS.**—The Project shall consist of the following major program elements:

(1) High-temperature hydrogen production technology development and validation.

(2) Energy conversion technology development and validation.

(3) Nuclear fuel development, characterization, and qualification.

(4) Materials selection, development, testing, and qualification.

(5) Reactor and balance-of-plant design, engineering, safety analysis, and qualification.

(b) **PROJECT PHASES.**—The Project shall be conducted in the following phases:

(1) **FIRST PROJECT PHASE.**—A first project phase shall be conducted to—

(A) select and validate the appropriate technology under subsection (a)(1);

(B) carry out enabling research, development, and demonstration activities on technologies and components under paragraphs (2) through (4) of subsection (a);

(C) determine whether it is appropriate to combine electricity generation and hydrogen production in a single prototype nuclear reactor and plant; and

(D) carry out initial design activities for a prototype nuclear reactor and plant, including development of design methods and safety analytical methods and studies under subsection (a)(5).

(2) **SECOND PROJECT PHASE.**—A second project phase shall be conducted to—

(A) continue appropriate activities under paragraphs (1) through (5) of subsection (a);

(B) develop, through a competitive process, a final design for the prototype nuclear reactor and plant;

(C) apply for licenses to construct and operate the prototype nuclear reactor from the Nuclear Regulatory Commission; and

(D) construct and start up operations of the prototype nuclear reactor and its associated hydrogen or electricity production facilities.

(c) **PROJECT REQUIREMENTS.**—

(1) IN GENERAL.—The Secretary shall ensure that the Project is structured so as to maximize the technical interchange and transfer of technologies and ideas into the Project from other sources of relevant expertise, including—

(A) the nuclear power industry, including nuclear powerplant construction firms, particularly with respect to issues associated with plant design, construction, and operational and safety issues;

(B) the chemical processing industry, particularly with respect to issues relating to—

(i) the use of process energy for production of hydrogen; and

(ii) the integration of technologies developed by the Project into chemical processing environments; and

(C) international efforts in areas related to the Project, particularly with respect to hydrogen production technologies.

(2) INTERNATIONAL COLLABORATION.—

(A) IN GENERAL.—The Secretary shall seek international cooperation, participation, and financial contributions for the Project.

(B) ASSISTANCE FROM INTERNATIONAL PARTNERS.—The Secretary, through the Idaho National Laboratory, may contract for assistance from specialists or facilities from member countries of the Generation IV International Forum, the Russian Federation, or other international partners if the specialists or facilities provide access to cost-effective and relevant skills or test capabilities.

(C) PARTNER NATIONS.—The Project may involve demonstration of selected project objectives in a partner country.

(D) GENERATION IV INTERNATIONAL FORUM.—The Secretary shall ensure that international activities of the Project are coordinated with the Generation IV International Forum.

(3) REVIEW BY NUCLEAR ENERGY RESEARCH ADVISORY COMMITTEE.—

(A) IN GENERAL.—The Nuclear Energy Research Advisory Committee of the Department (referred to in this paragraph as the “NERAC”) shall—

(i) review all program plans for the Project and all progress under the Project on an ongoing basis; and

(ii) ensure that important scientific, technical, safety, and program management issues receive attention in the Project and by the Secretary.

(B) ADDITIONAL EXPERTISE.—The NERAC shall supplement the expertise of the NERAC or appoint subpanels to incorporate into the review by the NERAC the relevant sources of expertise described under paragraph (1).

(C) INITIAL REVIEW.—Not later than 180 days after the date of enactment of this Act, the NERAC shall—

(i) review existing program plans for the Project in light of the recommendations of the document entitled

“Design Features and Technology Uncertainties for the Next Generation Nuclear Plant,” dated June 30, 2004; and

(ii) address any recommendations of the document not incorporated in program plans for the Project.

(D) FIRST PROJECT PHASE REVIEW.—On a determination by the Secretary that the appropriate activities under the first project phase under subsection (b)(1) are nearly complete, the Secretary shall request the NERAC to conduct a comprehensive review of the Project and to report to the Secretary the recommendation of the NERAC concerning whether the Project is ready to proceed to the second project phase under subsection (b)(2).

(E) TRANSMITTAL OF REPORTS TO CONGRESS.—Not later than 60 days after receiving any report from the NERAC related to the Project, the Secretary shall submit to the appropriate committees of the Senate and the House of Representatives a copy of the report, along with any additional views of the Secretary that the Secretary may consider appropriate.

SEC. 644. [42 U.S.C. 16024] NUCLEAR REGULATORY COMMISSION.

(a) IN GENERAL.—In accordance with section 202 of the Energy Reorganization Act of 1974 (42 U.S.C. 5842), the Nuclear Regulatory Commission shall have licensing and regulatory authority for any reactor authorized under this subtitle.

(b) LICENSING STRATEGY.—Not later than 3 years after the date of enactment of this Act, the Secretary and the Chairman of the Nuclear Regulatory Commission shall jointly submit to the appropriate committees of the Senate and the House of Representatives a licensing strategy for the prototype nuclear reactor, including—

(1) a description of ways in which current licensing requirements relating to light-water reactors need to be adapted for the types of prototype nuclear reactor being considered by the Project;

(2) a description of analytical tools that the Nuclear Regulatory Commission will have to develop to independently verify designs and performance characteristics of components, equipment, systems, or structures associated with the prototype nuclear reactor;

(3) other research or development activities that may be required on the part of the Nuclear Regulatory Commission in order to review a license application for the prototype nuclear reactor; and

(4) an estimate of the budgetary requirements associated with the licensing strategy.

(c) ONGOING INTERACTION.—The Secretary shall seek the active participation of the Nuclear Regulatory Commission throughout the duration of the Project to—

(1) avoid design decisions that will compromise adequate safety margins in the design of the reactor or impair the accessibility of nuclear safety-related components of the prototype reactor for inspection and maintenance;

(2) develop tools to facilitate inspection and maintenance needed for safety purposes; and

(3) develop risk-based criteria for any future commercial development of a similar reactor architectures.

SEC. 645. [42 U.S.C. 16025] PROJECT TIMELINES AND AUTHORIZATION OF APPROPRIATIONS.

(a) **TARGET DATE TO COMPLETE THE FIRST PROJECT PHASE.**—Not later than September 30, 2011, the Secretary shall—

(1) select the technology to be used by the Project for high-temperature hydrogen production and the initial design parameters for the prototype nuclear plant; or

(2) submit to Congress a report establishing an alternative date for making the selection.

(b) **DESIGN COMPETITION FOR SECOND PROJECT PHASE.**—

(1) **IN GENERAL.**—The Secretary, acting through the Idaho National Laboratory, shall fund not more than 4 teams for not more than 2 years to develop detailed proposals for competitive evaluation and selection of a single proposal for a final design of the prototype nuclear reactor.

(2) **SYSTEMS INTEGRATION.**—The Secretary may structure Project activities in the second project phase to use the lead industrial partner of the competitively selected design under paragraph (1) in a systems integration role for final design and construction of the Project.

(c) **TARGET DATE TO COMPLETE PROJECT CONSTRUCTION.**—Not later than September 30, 2021, the Secretary shall—

(1) complete construction and begin operations of the prototype nuclear reactor and associated energy or hydrogen facilities; or

(2) submit to Congress a report establishing an alternative date for completion.

(d) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to the Secretary for research and construction activities under this subtitle (including for transfer to the Nuclear Regulatory Commission for activities under section 644 as appropriate)—

(1) \$1,250,000,000 for the period of fiscal years 2006 through 2015; and

(2) such sums as are necessary for each of fiscal years 2016 through 2021.

Subtitle D—Nuclear Security

SEC. 651. [42 U.S.C. 16041] NUCLEAR FACILITY AND MATERIALS SECURITY.

(a) **SECURITY EVALUATIONS; DESIGN BASIS THREAT RULE-MAKING.**—

(1) **IN GENERAL.**—Chapter 14 of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.) (as amended by section 624(a)) is amended by adding at the end the following:

“SEC. 170D. SECURITY EVALUATIONS.

“a. **SECURITY RESPONSE EVALUATIONS.**—Not less often than once every 3 years, the Commission shall conduct security evalua-

tions at each licensed facility that is part of a class of licensed facilities, as the Commission considers to be appropriate, to assess the ability of a private security force of a licensed facility to defend against any applicable design basis threat.

“b. FORCE-ON-FORCE EXERCISES.—(1) The security evaluations shall include force-on-force exercises.

“(2) The force-on-force exercises shall, to the maximum extent practicable, simulate security threats in accordance with any design basis threat applicable to a facility.

“(3) In conducting a security evaluation, the Commission shall mitigate any potential conflict of interest that could influence the results of a force-on-force exercise, as the Commission determines to be necessary and appropriate.

“c. ACTION BY LICENSEES.—The Commission shall ensure that an affected licensee corrects those material defects in performance that adversely affect the ability of a private security force at that facility to defend against any applicable design basis threat.

“d. FACILITIES UNDER HEIGHTENED THREAT LEVELS.—The Commission may suspend a security evaluation under this section if the Commission determines that the evaluation would compromise security at a nuclear facility under a heightened threat level.

“e. REPORT.—Not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report, in classified form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year.

“SEC. 170E. DESIGN BASIS THREAT RULEMAKING.

“a. RULEMAKING.—The Commission shall—

“(1) not later than 90 days after the date of enactment of this section, initiate a rulemaking proceeding, including notice and opportunity for public comment, to be completed not later than 18 months after that date, to revise the design basis threats of the Commission; or

“(2) not later than 18 months after the date of enactment of this section, complete any ongoing rulemaking to revise the design basis threats.

“b. FACTORS.—When conducting its rulemaking, the Commission shall consider the following, but not be limited to—

“(1) the events of September 11, 2001;

“(2) an assessment of physical, cyber, biochemical, and other terrorist threats;

“(3) the potential for attack on facilities by multiple coordinated teams of a large number of individuals;

“(4) the potential for assistance in an attack from several persons employed at the facility;

“(5) the potential for suicide attacks;

“(6) the potential for water-based and air-based threats;

“(7) the potential use of explosive devices of considerable size and other modern weaponry;

“(8) the potential for attacks by persons with a sophisticated knowledge of facility operations;

“(9) the potential for fires, especially fires of long duration;

“(10) the potential for attacks on spent fuel shipments by multiple coordinated teams of a large number of individuals;

“(11) the adequacy of planning to protect the public health and safety at and around nuclear facilities, as appropriate, in the event of a terrorist attack against a nuclear facility; and

“(12) the potential for theft and diversion of nuclear materials from such facilities.”.

(2) CONFORMING AMENDMENT.—The table of sections of the Atomic Energy Act of 1954 (42 U.S.C. prec. 2011) (as amended by section 624(b)) is amended by adding at the end of the items relating to chapter 14 the following:

“Sec. 170D. Security evaluations.

“Sec. 170E. Design basis threat rulemaking.”.

(3) FEDERAL SECURITY COORDINATORS.—

(A) REGIONAL OFFICES.—Not later than 18 months after the date of enactment of this Act, the Nuclear Regulatory Commission (referred to in this section as the “Commission”) shall assign a Federal security coordinator, under the employment of the Commission, to each region of the Commission.

(B) RESPONSIBILITIES.—The Federal security coordinator shall be responsible for—

(i) communicating with the Commission and other Federal, State, and local authorities concerning threats, including threats against such classes of facilities as the Commission determines to be appropriate;

(ii) monitoring such classes of facilities as the Commission determines to be appropriate to ensure that they maintain security consistent with the security plan in accordance with the appropriate threat level; and

(iii) assisting in the coordination of security measures among the private security forces at such classes of facilities as the Commission determines to be appropriate and Federal, State, and local authorities, as appropriate.

(b) BACKUP POWER FOR CERTAIN EMERGENCY NOTIFICATION SYSTEMS.—For any licensed nuclear power plants located where there is a permanent population, as determined by the 2000 decennial census, in excess of 15,000,000 within a 50-mile radius of the power plant, not later than 18 months after enactment of this Act, the Commission shall require that backup power to be available for the emergency notification system of the power plant, including the emergency siren warning system, if the alternating current supply within the 10-mile emergency planning zone of the power plant is lost.

(c) ADDITIONAL PROVISIONS.—

(1) PROVISION OF SUPPORT TO UNIVERSITY NUCLEAR SAFETY, SECURITY, AND ENVIRONMENTAL PROTECTION PROGRAMS.—Sec-

tion 31 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2051(b)) is amended—

(A) by striking “b. The Commission is further authorized to make” and inserting the following:
 “b. GRANTS AND CONTRIBUTIONS.—The Commission is authorized—

“(1) to make”;

(B) in paragraph (1) (as designated by subparagraph (A)) by striking the period at the end and inserting “; and”;
 and

(C) by adding at the end the following:

“(2) to provide grants, loans, cooperative agreements, contracts, and equipment to institutions of higher education (as defined in section 102 of the Higher Education Act of 1965 (20 U.S.C. 1002)) to support courses, studies, training, curricula, and disciplines pertaining to nuclear safety, security, or environmental protection, or any other field that the Commission determines to be critical to the regulatory mission of the Commission.”.

(2) RECRUITMENT TOOLS.—Chapter 14 of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.) (as amended by subsection (a)(1)) is amended by adding at the end the following:

“SEC. 170F. RECRUITMENT TOOLS.

“The Commission may purchase promotional items of nominal value for use in the recruitment of individuals for employment.”.

(3) EXPENSES AUTHORIZED TO BE PAID BY THE COMMISSION.—Chapter 14 of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.) (as amended by paragraph (2)) is amended by adding at the end the following:

“SEC. 170G. EXPENSES AUTHORIZED TO BE PAID BY THE COMMISSION.

“The Commission may—

“(1) pay transportation, lodging, and subsistence expenses of employees who—

“(A) assist scientific, professional, administrative, or technical employees of the Commission; and

“(B) are students in good standing at an institution of higher education (as defined in section 102 of the Higher Education Act of 1965 (20 U.S.C. 1002)) pursuing courses related to the field in which the students are employed by the Commission; and

“(2) pay the costs of health and medical services furnished, pursuant to an agreement between the Commission and the Department of State, to employees of the Commission and dependents of the employees serving in foreign countries.”.

(4) PARTNERSHIP PROGRAM WITH INSTITUTIONS OF HIGHER EDUCATION.—

(A) IN GENERAL.—Chapter 19 of the Atomic Energy Act of 1954 (42 U.S.C. 2015 et seq.) (as amended by section 622(a)) is amended by inserting after section 243 the following:

“SEC. 244. PARTNERSHIP PROGRAM WITH INSTITUTIONS OF HIGHER EDUCATION.

“a. DEFINITIONS.—In this section:

“(1) HISPANIC-SERVING INSTITUTION.—The term ‘Hispanic-serving institution’ has the meaning given the term in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)).

“(2) HISTORICALLY BLACK COLLEGE AND UNIVERSITY.—The term ‘historically Black college or university’ has the meaning given the term ‘part B institution’ in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

“(3) TRIBAL COLLEGE.—The term ‘Tribal college’ has the meaning given the term ‘tribally controlled college or university’ in section 2(a) of the Tribally Controlled College or University Assistance Act of 1978 (25 U.S.C. 1801(a)).

“b. PARTNERSHIP PROGRAM.—The Commission may establish and participate in activities relating to research, mentoring, instruction, and training with institutions of higher education, including Hispanic-serving institutions, historically Black colleges or universities, and Tribal colleges, to strengthen the capacity of the institutions—

“(1) to educate and train students (including present or potential employees of the Commission); and

“(2) to conduct research in the field of science, engineering, or law, or any other field that the Commission determines is important to the work of the Commission.”.

(5) CONFORMING AMENDMENTS.—The table of sections of the Atomic Energy Act of 1954 (42 U.S.C. prec. 2011) (as amended by subsection (a)(2)) is amended—

(A) by adding at the end of the items relating to chapter 14 the following:

“Sec. 170F. Recruitment tools.

“Sec. 170G. Expenses authorized to be paid by the Commission.”;

and

(B) by inserting after the item relating to section 243 the following:

“Sec. 244. Partnership program with institutions of higher education.”.

(d) RADIATION SOURCE PROTECTION.—

(1) AMENDMENT.—Chapter 14 of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.) (as amended by subsection (c)(3)) is amended by adding at the end the following:

“SEC. 170H. RADIATION SOURCE PROTECTION.

“a. DEFINITIONS.—In this section:

“(1) CODE OF CONDUCT.—The term ‘Code of Conduct’ means the code entitled the ‘Code of Conduct on the Safety and Security of Radioactive Sources’, approved by the Board of Governors of the International Atomic Energy Agency and dated September 8, 2003.

“(2) RADIATION SOURCE.—The term ‘radiation source’ means—

“(A) a Category 1 Source or a Category 2 Source, as defined in the Code of Conduct; and

“(B) any other material that poses a threat such that the material is subject to this section, as determined by the Commission, by regulation, other than spent nuclear fuel and special nuclear materials.

“b. COMMISSION APPROVAL.—Not later than 180 days after the date of enactment of this section, the Commission shall issue regulations prohibiting a person from—

“(1) exporting a radiation source, unless the Commission has specifically determined under section 57 or 82, consistent with the Code of Conduct, with respect to the exportation, that—

“(A) the recipient of the radiation source may receive and possess the radiation source under the laws and regulations of the country of the recipient;

“(B) the recipient country has the appropriate technical and administrative capability, resources, and regulatory structure to ensure that the radiation source will be managed in a safe and secure manner; and

“(C) before the date on which the radiation source is shipped—

“(i) a notification has been provided to the recipient country; and

“(ii) a notification has been received from the recipient country;

as the Commission determines to be appropriate;

“(2) importing a radiation source, unless the Commission has determined, with respect to the importation, that—

“(A) the proposed recipient is authorized by law to receive the radiation source; and

“(B) the shipment will be made in accordance with any applicable Federal or State law or regulation; and

“(3) selling or otherwise transferring ownership of a radiation source, unless the Commission—

“(A) has determined that the licensee has verified that the proposed recipient is authorized under law to receive the radiation source; and

“(B) has required that the transfer shall be made in accordance with any applicable Federal or State law or regulation.

“c. TRACKING SYSTEM.—(1)(A) Not later than 1 year after the date of enactment of this section, the Commission shall issue regulations establishing a mandatory tracking system for radiation sources in the United States.

“(B) In establishing the tracking system under subparagraph (A), the Commission shall coordinate with the Secretary of Transportation to ensure compatibility, to the maximum extent practicable, between the tracking system and any system established by the Secretary of Transportation to track the shipment of radiation sources.

“(2) The tracking system under paragraph (1) shall—

“(A) enable the identification of each radiation source by serial number or other unique identifier;

“(B) require reporting within 7 days of any change of possession of a radiation source;

“(C) require reporting within 24 hours of any loss of control of, or accountability for, a radiation source; and

“(D) provide for reporting under subparagraphs (B) and (C) through a secure Internet connection.

“d. PENALTY.—A violation of a regulation issued under subsection a. or b. shall be punishable by a civil penalty not to exceed \$1,000,000.

“e. NATIONAL ACADEMY OF SCIENCES STUDY.—(1) Not later than 60 days after the date of enactment of this section, the Commission shall enter into an arrangement with the National Academy of Sciences under which the National Academy of Sciences shall conduct a study of industrial, research, and commercial uses for radiation sources.

“(2) The study under paragraph (1) shall include a review of uses of radiation sources in existence on the date on which the study is conducted, including an identification of any industrial or other process that—

“(A) uses a radiation source that could be replaced with an economically and technically equivalent (or improved) process that does not require the use of a radiation source; or

“(B) may be used with a radiation source that would pose a lower risk to public health and safety in the event of an accident or attack involving the radiation source.

“(3) Not later than 2 years after the date of enactment of this section, the Commission shall submit to Congress the results of the study under paragraph (1).

“f. TASK FORCE ON RADIATION SOURCE PROTECTION AND SECURITY.—(1) There is established a task force on radiation source protection and security (referred to in this section as the ‘task force’).

“(2)(A) The chairperson of the task force shall be the Chairperson of the Commission (or a designee).

“(B) The membership of the task force shall consist of the following:

“(i) The Secretary of Homeland Security (or a designee).

“(ii) The Secretary of Defense (or a designee).

“(iii) The Secretary of Energy (or a designee).

“(iv) The Secretary of Transportation (or a designee).

“(v) The Attorney General (or a designee).

“(vi) The Secretary of State (or a designee).

“(vii) The Director of National Intelligence (or a designee).

“(viii) The Director of the Central Intelligence Agency (or a designee).

“(ix) The Director of the Federal Emergency Management Agency (or a designee).

“(x) The Director of the Federal Bureau of Investigation (or a designee).

“(xi) The Administrator of the Environmental Protection Agency (or a designee).

“(3)(A) The task force, in consultation with Federal, State, and local agencies, the Conference of Radiation Control Program Directors, and the Organization of Agreement States, and after public notice and an opportunity for comment, shall evaluate, and provide recommendations relating to, the security of radiation sources in the United States from potential terrorist threats, including acts of sabotage, theft, or use of a radiation source in a radiological dispersal device.

“(B) Not later than 1 year after the date of enactment of this section, and not less than once every 4 years thereafter, the task

force shall submit to Congress and the President a report, in unclassified form with a classified annex if necessary, providing recommendations, including recommendations for appropriate regulatory and legislative changes, for—

“(i) a list of additional radiation sources that should be required to be secured under this Act, based on the potential attractiveness of the sources to terrorists and the extent of the threat to public health and safety of the sources, taking into consideration—

“(I) radiation source radioactivity levels;

“(II) radioactive half-life of a radiation source;

“(III) dispersability;

“(IV) chemical and material form;

“(V) for radioactive materials with a medical use, the availability of the sources to physicians and patients for medical treatment; and

“(VI) any other factor that the Chairperson of the Commission determines to be appropriate;

“(ii) the establishment of, or modifications to, a national system for recovery of lost or stolen radiation sources;

“(iii) the storage of radiation sources that are not used in a safe and secure manner as of the date on which the report is submitted;

“(iv) modifications to the national tracking system for radiation sources;

“(v) the establishment of, or modifications to, a national system (including user fees and other methods) to provide for the proper disposal of radiation sources secured under this Act;

“(vi) modifications to export controls on radiation sources to ensure that foreign recipients of radiation sources are able and willing to adequately control radiation sources from the United States;

“(vii)(I) any alternative technologies available as of the date on which the report is submitted that may perform some or all of the functions performed by devices or processes that employ radiation sources; and

“(II) the establishment of appropriate regulations and incentives for the replacement of the devices and processes described in subclause (I)—

“(aa) with alternative technologies in order to reduce the number of radiation sources in the United States; or

“(bb) with radiation sources that would pose a lower risk to public health and safety in the event of an accident or attack involving the radiation source; and

“(viii) the creation of, or modifications to, procedures for improving the security of use, transportation, and storage of radiation sources, including—

“(I) periodic audits or inspections by the Commission to ensure that radiation sources are properly secured and can be fully accounted for;

“(II) evaluation of the security measures by the Commission;

“(III) increased fines for violations of Commission regulations relating to security and safety measures applicable to licensees that possess radiation sources;

“(IV) criminal and security background checks for certain individuals with access to radiation sources (including individuals involved with transporting radiation sources);

“(V) requirements for effective and timely exchanges of information relating to the results of criminal and security background checks between the Commission and any State with which the Commission has entered into an agreement under section 274 b.;

“(VI) assurances of the physical security of facilities that contain radiation sources (including facilities used to temporarily store radiation sources being transported); and

“(VII) the screening of shipments to facilities that the Commission determines to be particularly at risk for sabotage of radiation sources to ensure that the shipments do not contain explosives.

“g. ACTION BY COMMISSION.—Not later than 60 days after the date of receipt by Congress and the President of a report under subsection f.(3)(B), the Commission, in accordance with the recommendations of the task force, shall—

“(1) take any action the Commission determines to be appropriate, including revising the system of the Commission for licensing radiation sources; and

“(2) ensure that States that have entered into agreements with the Commission under section 274 b. take similar action in a timely manner.”.

(2) CONFORMING AMENDMENT.—The table of sections of the Atomic Energy Act of 1954 (42 U.S.C. prec. 2011) (as amended by subsection (c)(5)(A)) is amended by adding at the end of the items relating to chapter 14 the following:

“Sec. 170H. Radiation source protection.”.

(e) TREATMENT OF ACCELERATOR-PRODUCED AND OTHER RADIOACTIVE MATERIAL AS BYPRODUCT MATERIAL.—

(1) DEFINITION OF BYPRODUCT MATERIAL.—Section 11 e. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)) is amended—

(A) by striking “means (1) any radioactive” and inserting the following: “means—

“(1) any radioactive”.

(B) by striking “material, and (2) the tailings” and inserting the following: “material;

“(2) the tailings”.

(C) by striking “content.” and inserting the following: “content;

“(3)(A) any discrete source of radium-226 that is produced, extracted, or converted after extraction, before, on, or after the date of enactment of this paragraph for use for a commercial, medical, or research activity; or

“(B) any material that—

“(i) has been made radioactive by use of a particle accelerator; and

“(ii) is produced, extracted, or converted after extraction, before, on, or after the date of enactment of this paragraph for use for a commercial, medical, or research activity; and

“(4) any discrete source of naturally occurring radioactive material, other than source material, that—

“(A) the Commission, in consultation with the Administrator of the Environmental Protection Agency, the Secretary of Energy, the Secretary of Homeland Security, and the head of any other appropriate Federal agency, determines would pose a threat similar to the threat posed by a discrete source of radium-226 to the public health and safety or the common defense and security; and

“(B) before, on, or after the date of enactment of this paragraph is extracted or converted after extraction for use in a commercial, medical, or research activity.”.

(2) AGREEMENTS WITH GOVERNORS.—Section 274 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2021(b)) is amended by striking “State—” and all that follows through paragraph (4) and inserting the following: “State:

“(1) Byproduct materials (as defined in section 11 e.).

“(2) Source materials.

“(3) Special nuclear materials in quantities not sufficient to form a critical mass.”.

(3) WASTE DISPOSAL.—

(A) DOMESTIC DISTRIBUTION.—Section 81 of the Atomic Energy Act of 1954 (42 U.S.C. 2111) is amended—

(i) by striking “No person may” and inserting the following:

“a. IN GENERAL.—No person may”.

(ii) by adding at the end the following:

“b. REQUIREMENTS.—

“(1) IN GENERAL.—Except as provided in paragraph (2), byproduct material, as defined in paragraphs (3) and (4) of section 11 e., may only be transferred to and disposed of in a disposal facility that—

“(A) is adequate to protect public health and safety;

and

“(B)(i) is licensed by the Commission; or

“(ii) is licensed by a State that has entered into an agreement with the Commission under section 274 b., if the licensing requirements of the State are compatible with the licensing requirements of the Commission.

“(2) EFFECT OF SUBSECTION.—Nothing in this subsection affects the authority of any entity to dispose of byproduct material, as defined in paragraphs (3) and (4) of section 11 e., at a disposal facility in accordance with any Federal or State solid or hazardous waste law, including the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.).

“c. TREATMENT AS LOW-LEVEL RADIOACTIVE WASTE.—Byproduct material, as defined in paragraphs (3) and (4) of section 11 e., disposed of under this section shall not be considered to be low-level radioactive waste for the purposes of—

“(1) section 2 of the Low-Level Radioactive Waste Policy Act (42 U.S.C. 2021b); or

“(2) carrying out a compact that is—

“(A) entered into in accordance with that Act (42 U.S.C. 2021b et seq.); and

“(B) approved by Congress.”.

(B) DEFINITION OF LOW-LEVEL RADIOACTIVE WASTE.—Section 2(9) of the Low-Level Radioactive Waste Policy Act (42 U.S.C. 2021b(9)) is amended—

(i) by redesignating subparagraphs (A) and (B) as clauses (i) and (ii), respectively, and indenting the clauses appropriately;

(ii) in the matter preceding clause (i) (as redesignated by subparagraph (A)) by striking “The term” and inserting the following:

“(A) IN GENERAL.—The term”; and

(iii) by adding at the end the following:

“(B) EXCLUSION.—The term ‘low-level radioactive waste’ does not include byproduct material (as defined in paragraphs (3) and (4) of section 11 e. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e))).”.

(4) FINAL REGULATIONS.—

(A) REGULATIONS.—

(i) IN GENERAL.—Not later than 18 months after the date of enactment of this Act, the Commission, after consultation with States and other stakeholders, shall issue final regulations establishing such requirements as the Commission determines to be necessary to carry out this section and the amendments made by this section.

(ii) INCLUSIONS.—The regulations shall include a definition of the term “discrete source” for purposes of paragraphs (3) and (4) of section 11 e. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)) (as amended by paragraph (1)).

(B) COOPERATION.—In promulgating regulations under paragraph (1), the Commission shall, to the maximum extent practicable—

(i) cooperate with States; and

(ii) use model State standards in existence on the date of enactment of this Act.

(C) TRANSITION PLAN.—

(i) DEFINITION OF BYPRODUCT MATERIAL.—In this paragraph, the term “byproduct material” has the meaning given the term in paragraphs (3) and (4) of section 11 e. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)) (as amended by paragraph (1)).

(ii) PREPARATION AND PUBLICATION.—To facilitate an orderly transition of regulatory authority with respect to byproduct material, the Commission, in issuing regulations under subparagraph (A), shall prepare and publish a transition plan for—

(I) States that have not, before the date on which the plan is published, entered into an

agreement with the Commission under section 274 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2021(b)); and

(II) States that have entered into an agreement with the Commission under that section before the date on which the plan is published.

(iii) INCLUSIONS.—The transition plan under clause (ii) shall include—

(I) a description of the conditions under which a State may exercise authority over byproduct material; and

(II) a statement of the Commission that any agreement covering byproduct material, as defined in paragraph (1) or (2) of section 11e. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)), entered into between the Commission and a State under section 274 b. of that Act (42 U.S.C. 2021(b)) before the date of publication of the transition plan shall be considered to include byproduct material, as defined in paragraph (3) or (4) of section 11e. of that Act (42 U.S.C. 2014(e)) (as amended by paragraph (1)), if the Governor of the State certifies to the Commission on the date of publication of the transition plan that—

(aa) the State has a program for licensing byproduct material, as defined in paragraph (3) or (4) of section 11e. of the Atomic Energy Act of 1954, that is adequate to protect the public health and safety, as determined by the Commission; and

(bb) the State intends to continue to implement the regulatory responsibility of the State with respect to the byproduct material.

(D) AVAILABILITY OF RADIOPHARMACEUTICALS.—In promulgating regulations under subparagraph (A), the Commission shall consider the impact on the availability of radiopharmaceuticals to—

(i) physicians; and

(ii) patients the medical treatment of which relies on radiopharmaceuticals.

(5) WAIVERS.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the Commission may grant a waiver to any entity of any requirement under this section or an amendment made by this section with respect to a matter relating to byproduct material (as defined in paragraphs (3) and (4) of section 11 e. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)) (as amended by paragraph (1))) if the Commission determines that the waiver is in accordance with the protection of the public health and safety and the promotion of the common defense and security.

(B) EXCEPTIONS.—

(i) IN GENERAL.—The Commission may not grant a waiver under subparagraph (A) with respect to—

(I) any requirement under the amendments made by subsection (c)(1);

(II) a matter relating to an importation into, or exportation from, the United States for a period ending after the date that is 1 year after the date of enactment of this Act; or

(III) any other matter for a period ending after the date that is 4 years after the date of enactment of this Act.

(ii) **WAIVERS TO STATES.**—The Commission shall terminate any waiver granted to a State under subparagraph (A) if the Commission determines that—

(I) the State has entered into an agreement with the Commission under section 274 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2021(b));

(II) the agreement described in subclause (I) covers byproduct material (as described in paragraph (3) or (4) of section 11 e. of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)) (as amended by paragraph (1))); and

(III) the program of the State for licensing such byproduct material is adequate to protect the public health and safety.

(C) **PUBLICATION.**—The Commission shall publish in the Federal Register a notice of any waiver granted under this subsection.

SEC. 652. FINGERPRINTING AND CRIMINAL HISTORY RECORD CHECKS.

Section 149 of the Atomic Energy Act of 1954 (42 U.S.C. 2169) is amended—

(1) in subsection a.—

(A) by striking “a. The Nuclear” and all that follows through “section 147.” and inserting the following:

“a.(1)(A)(i) The Commission shall require each individual or entity described in clause (ii) to fingerprint each individual described in subparagraph (B) before the individual described in subparagraph (B) is permitted access under subparagraph (B).

“(ii) The individuals and entities referred to in clause (i) are individuals and entities that, on or before the date on which an individual is permitted access under subparagraph (B)—

“(I) are licensed or certified to engage in an activity subject to regulation by the Commission;

“(II) have filed an application for a license or certificate to engage in an activity subject to regulation by the Commission; or

“(III) have notified the Commission in writing of an intent to file an application for licensing, certification, permitting, or approval of a product or activity subject to regulation by the Commission.

“(B) The Commission shall require to be fingerprinted any individual who—

“(i) is permitted unescorted access to—

- “(I) a utilization facility; or
 “(II) radioactive material or other property subject to regulation by the Commission that the Commission determines to be of such significance to the public health and safety or the common defense and security as to warrant fingerprinting and background checks; or
 “(ii) is permitted access to safeguards information under section 147.”;
- (B) by striking “All fingerprints obtained by a licensee or applicant as required in the preceding sentence” and inserting the following:
- “(2) All fingerprints obtained by an individual or entity as required in paragraph (1)”;
- (C) by striking “The costs of any identification and records check conducted pursuant to the preceding sentence shall be paid by the licensee or applicant.” and inserting the following:
- “(3) The costs of an identification or records check under paragraph (2) shall be paid by the individual or entity required to conduct the fingerprinting under paragraph (1)(A).”; and
- (D) by striking “Notwithstanding any other provision of law, the Attorney General may provide all the results of the search to the Commission, and, in accordance with regulations prescribed under this section, the Commission may provide such results to licensee or applicant submitting such fingerprints.” and inserting the following:
- “(4) Notwithstanding any other provision of law—
 “(A) the Attorney General may provide any result of an identification or records check under paragraph (2) to the Commission; and
 “(B) the Commission, in accordance with regulations prescribed under this section, may provide the results to the individual or entity required to conduct the fingerprinting under paragraph (1)(A).”;
- (2) in subsection c.—
- (A) by striking “, subject to public notice and comment, regulations—” and inserting “requirements—”; and
- (B) in paragraph (2)(B), by striking “unescorted access to the facility of a licensee or applicant” and inserting “unescorted access to a utilization facility, radioactive material, or other property described in subsection a.(1)(B)”;
- (3) by redesignating subsection d. as subsection e.; and
- (4) by inserting after subsection c. the following:
- “d. The Commission may require a person or individual to conduct fingerprinting under subsection a.(1) by authorizing or requiring the use of any alternative biometric method for identification that has been approved by—
 “(1) the Attorney General; and
 “(2) the Commission, by regulation.”.

SEC. 653. USE OF FIREARMS BY SECURITY PERSONNEL.

The Atomic Energy Act of 1954 is amended by inserting after section 161 (42 U.S.C. 2201) the following:

“SEC. 161A. USE OF FIREARMS BY SECURITY PERSONNEL.

“a. **DEFINITIONS.**—In this section, the terms ‘handgun’, ‘rifle’, ‘shotgun’, ‘firearm’, ‘ammunition’, ‘machinegun’, ‘short-barreled shotgun’, and ‘short-barreled rifle’ have the meanings given the terms in section 921(a) of title 18, United States Code.

“b. **AUTHORIZATION.**—Notwithstanding subsections (a)(4), (a)(5), (b)(2), (b)(4), and (o) of section 922 of title 18, United States Code, section 925(d)(3) of title 18, United States Code, section 5844 of the Internal Revenue Code of 1986, and any law (including regulations) of a State or a political subdivision of a State that prohibits the transfer, receipt, possession, transportation, importation, or use of a handgun, a rifle, a shotgun, a short-barreled shotgun, a short-barreled rifle, a machinegun, a semiautomatic assault weapon, ammunition for any such gun or weapon, or a large capacity ammunition feeding device, in carrying out the duties of the Commission, the Commission may authorize the security personnel of any licensee or certificate holder of the Commission (including an employee of a contractor of such a licensee or certificate holder) to transfer, receive, possess, transport, import, and use 1 or more such guns, weapons, ammunition, or devices, if the Commission determines that—

“(1) the authorization is necessary to the discharge of the official duties of the security personnel; and

“(2) the security personnel—

“(A) are not otherwise prohibited from possessing or receiving a firearm under Federal or State laws relating to possession of firearms by a certain category of persons;

“(B) have successfully completed any requirement under this section for training in the use of firearms and tactical maneuvers;

“(C) are engaged in the protection of—

“(i) a facility owned or operated by a licensee or certificate holder of the Commission that is designated by the Commission; or

“(ii) radioactive material or other property owned or possessed by a licensee or certificate holder of the Commission, or that is being transported to or from a facility owned or operated by such a licensee or certificate holder, and that has been determined by the Commission to be of significance to the common defense and security or public health and safety; and

“(D) are discharging the official duties of the security personnel in transferring, receiving, possessing, transporting, or importing the weapons, ammunition, or devices.

“c. **BACKGROUND CHECKS.**—A person that receives, possesses, transports, imports, or uses a weapon, ammunition, or a device under subsection (b) shall be subject to a background check by the Attorney General, based on fingerprints and including a background check under section 103(b) of the Brady Handgun Violence Prevention Act (Public Law 103–159; 18 U.S.C. 922 note) to determine whether the person is prohibited from possessing or receiving a firearm under Federal or State law.

“d. EFFECTIVE DATE.—This section takes effect on the date on which guidelines are issued by the Commission, with the approval of the Attorney General, to carry out this section.”.

SEC. 654. UNAUTHORIZED INTRODUCTION OF DANGEROUS WEAPONS.

Section 229 of the Atomic Energy Act of 1954 (42 U.S.C. 2278a) is amended—

(1) by striking “SEC. 229, TRESPASS UPON COMMISSION INSTALLATIONS.—” and inserting the following:

“SEC. 229. TRESPASS ON COMMISSION INSTALLATIONS.”;

(2) by adjusting the indentations of subsections a., b., and c. so as to reflect proper subsection indentations; and

(3) in subsection a.—

(A) in the first sentence, by striking “a. The” and inserting the following:

“a.(1) The”;

(B) in the second sentence, by striking “Every” and inserting the following:

“(2) Every”;

(C) in paragraph (1) (as designated by subparagraph (A))—

(i) by striking “or in the custody” and inserting “in the custody”; and

(ii) by inserting “, or subject to the licensing authority of the Commission or certification by the Commission under this Act or any other Act” before the period.

SEC. 655. SABOTAGE OF NUCLEAR FACILITIES, FUEL, OR DESIGNATED MATERIAL.

(a) IN GENERAL.—Section 236a. of the Atomic Energy Act of 1954 (42 U.S.C. 2284(a)) is amended—

(1) in paragraph (2), by striking “storage facility” and inserting “treatment, storage, or disposal facility”;

(2) in paragraph (3)—

(A) by striking “such a utilization facility” and inserting “a utilization facility licensed under this Act”; and

(B) by striking “or” at the end;

(3) in paragraph (4)—

(A) by striking “facility licensed” and inserting “, uranium conversion, or nuclear fuel fabrication facility licensed or certified”; and

(B) by striking the comma at the end and inserting a semicolon; and

(4) by inserting after paragraph (4) the following:

“(5) any production, utilization, waste storage, waste treatment, waste disposal, uranium enrichment, uranium conversion, or nuclear fuel fabrication facility subject to licensing or certification under this Act during construction of the facility, if the destruction or damage caused or attempted to be caused could adversely affect public health and safety during the operation of the facility;

“(6) any primary facility or backup facility from which a radiological emergency preparedness alert and warning system is activated; or

“(7) any radioactive material or other property subject to regulation by the Commission that, before the date of the offense, the Commission determines, by order or regulation published in the Federal Register, is of significance to the public health and safety or to common defense and security;”.

(b) CONFORMING AMENDMENT.—Section 236 of the Atomic Energy Act of 1954 (42 U.S.C. 2284) is amended by striking “intentionally and willfully” each place it appears and inserting “knowingly”.

SEC. 656. SECURE TRANSFER OF NUCLEAR MATERIALS.

(a) AMENDMENT.—Chapter 14 of the Atomic Energy Act of 1954 (42 U.S.C. 2201–2210b) (as amended by section 651(d)(1)) is amended by adding at the end the following new section:

“SEC. 170I. SECURE TRANSFER OF NUCLEAR MATERIALS.

“a. The Commission shall establish a system to ensure that materials described in subsection b., when transferred or received in the United States by any party pursuant to an import or export license issued pursuant to this Act, are accompanied by a manifest describing the type and amount of materials being transferred or received. Each individual receiving or accompanying the transfer of such materials shall be subject to a security background check conducted by appropriate Federal entities.

“b. Except as otherwise provided by the Commission by regulation, the materials referred to in subsection a. are byproduct materials, source materials, special nuclear materials, high-level radioactive waste, spent nuclear fuel, transuranic waste, and low-level radioactive waste (as defined in section 2(16) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101(16))).”.

(b) REGULATIONS.—Not later than 1 year after the date of the enactment of this Act, and from time to time thereafter as it considers necessary, the Nuclear Regulatory Commission shall issue regulations identifying radioactive materials or classes of individuals that, consistent with the protection of public health and safety and the common defense and security, are appropriate exceptions to the requirements of section 170D of the Atomic Energy Act of 1954, as added by subsection (a) of this section.

(c) EFFECTIVE DATE.—The amendment made by subsection (a) shall take effect upon the issuance of regulations under subsection (b), except that the background check requirement shall become effective on a date established by the Commission.

(d) EFFECT ON OTHER LAW.—Nothing in this section or the amendment made by this section shall waive, modify, or affect the application of chapter 51 of title 49, United States Code, part A of subtitle V of title 49, United States Code, part B of subtitle VI of title 49, United States Code, and title 23, United States Code.

(e) CONFORMING AMENDMENT.—The table of sections of the Atomic Energy Act of 1954 (42 U.S.C. prec. 2011) (as amended by subsection (a)) is amended by adding at the end of the items relating to chapter 14 the following:

“Sec. 170I. Secure transfer of nuclear materials.”.

SEC. 657. [42 U.S.C. 16042] DEPARTMENT OF HOMELAND SECURITY CONSULTATION.

Before issuing a license for a utilization facility, the Nuclear Regulatory Commission shall consult with the Department of Homeland Security concerning the potential vulnerabilities of the location of the proposed facility to terrorist attack.

TITLE VII—VEHICLES AND FUELS

Subtitle A—Existing Programs

SEC. 701. USE OF ALTERNATIVE FUELS BY DUAL FUELED VEHICLES.

Section 400AA(a)(3)(E) of the Energy Policy and Conservation Act (42 U.S.C. 6374(a)(3)(E)) is amended to read as follows:

“(E)(i) Dual fueled vehicles acquired pursuant to this section shall be operated on alternative fuels unless the Secretary determines that an agency qualifies for a waiver of such requirement for vehicles operated by the agency in a particular geographic area in which—

“(I) the alternative fuel otherwise required to be used in the vehicle is not reasonably available to retail purchasers of the fuel, as certified to the Secretary by the head of the agency; or

“(II) the cost of the alternative fuel otherwise required to be used in the vehicle is unreasonably more expensive compared to gasoline, as certified to the Secretary by the head of the agency.

“(ii) The Secretary shall monitor compliance with this subparagraph by all such fleets and shall report annually to Congress on the extent to which the requirements of this subparagraph are being achieved. The report shall include information on annual reductions achieved from the use of petroleum-based fuels and the problems, if any, encountered in acquiring alternative fuels.”.

SEC. 702. INCREMENTAL COST ALLOCATION.

Section 303(c) of the Energy Policy Act of 1992 (42 U.S.C. 13212(c)) is amended by striking “may” and inserting “shall”.

SEC. 703. ALTERNATIVE COMPLIANCE AND FLEXIBILITY.

(a) **ALTERNATIVE COMPLIANCE.**—Title V of the Energy Policy Act of 1992 (42 U.S.C. 13251 et seq.) is amended—

(1) by redesignating section 514 (42 U.S.C. 13264) as section 515; and

(2) by inserting after section 513 (42 U.S.C. 13263) the following:

“SEC. 514. ALTERNATIVE COMPLIANCE.

“(a) **APPLICATION FOR WAIVER.**—Any covered person subject to section 501 and any State subject to section 507(o) may petition the Secretary for a waiver of the applicable requirements of section 501 or 507(o).

“(b) **GRANT OF WAIVER.**—The Secretary shall grant a waiver of the requirements of section 501 or 507(o) on a showing that the fleet owned, operated, leased, or otherwise controlled by the State or covered person—

“(1) will achieve a reduction in the annual consumption of petroleum fuels by the fleet equal to—

“(A) the reduction in consumption of petroleum that would result from 100 percent cumulative compliance with the fuel use requirements of section 501; or

“(B) in the case of an entity covered under section 507(o), a reduction equal to the annual consumption by the State entity of alternative fuels if all of the cumulative alternative fuel vehicles of the State entity given credit under section 508 were to use alternative fuel 100 percent of the time; and

“(2) is in compliance with all applicable vehicle emission standards established by the Administrator of the Environmental Protection Agency under the Clean Air Act (42 U.S.C. 7401 et seq.).

“(c) **REPORTING REQUIREMENT.**—Not later than December 31 of a model year, any State or covered person granted a waiver under this section for the preceding model year shall submit to the Secretary an annual report that—

“(1) certifies the quantity of the petroleum motor fuel reduction of the State or covered person during the preceding model year; and

“(2) projects the baseline quantity of the petroleum motor fuel reduction of the State or covered person during the following model year.

“(d) **REVOCATION OF WAIVER.**—If a State or covered person that receives a waiver under this section fails to comply with this section, the Secretary—

“(1) shall revoke the waiver; and

“(2) may impose on the State or covered person a penalty under section 512.”.

(b) **CONFORMING AMENDMENT.**—Section 511 of the Energy Policy Act of 1992 (42 U.S.C. 13261) is amended by striking “or 507” and inserting “507, or 514”.

(c) **TABLE OF CONTENTS AMENDMENT.**—The table of contents of the Energy Policy Act of 1992 (42 U.S.C. prec. 13201) is amended by striking the item relating to section 514 and inserting the following:

“Sec. 514. Alternative compliance.

“Sec. 515. Authorization of appropriations.”.

SEC. 704. REVIEW OF ENERGY POLICY ACT OF 1992 PROGRAMS.

(a) **IN GENERAL.**—Not later than 180 days after the date of enactment of this section, the Secretary shall complete a study to determine the effect that titles III, IV, and V of the Energy Policy Act of 1992 (42 U.S.C. 13211 et seq.) have had on—

(1) the development of alternative fueled vehicle technology;

(2) the availability of that technology in the market; and

(3) the cost of alternative fueled vehicles.

(b) **TOPICS.**—As part of the study under subsection (a), the Secretary shall specifically identify—

(1) the number of alternative fueled vehicles acquired by fleets or covered persons required to acquire alternative fueled vehicles;

(2) the quantity, by type, of alternative fuel actually used in alternative fueled vehicles acquired by fleets or covered persons;

(3) the quantity of petroleum displaced by the use of alternative fuels in alternative fueled vehicles acquired by fleets or covered persons;

(4) the direct and indirect costs of compliance with requirements under titles III, IV, and V of the Energy Policy Act of 1992 (42 U.S.C. 13211 et seq.), including—

(A) vehicle acquisition requirements imposed on fleets or covered persons;

(B) administrative and recordkeeping expenses;

(C) fuel and fuel infrastructure costs;

(D) associated training and employee expenses; and

(E) any other factors or expenses the Secretary determines to be necessary to compile reliable estimates of the overall costs and benefits of complying with programs under those titles for fleets, covered persons, and the national economy;

(5) the existence of obstacles preventing compliance with vehicle acquisition requirements and increased use of alternative fuel in alternative fueled vehicles acquired by fleets or covered persons; and

(6) the projected impact of amendments to the Energy Policy Act of 1992 made by this title.

(c) REPORT.—Upon completion of the study under this section, the Secretary shall submit to Congress a report that describes the results of the study and includes any recommendations of the Secretary for legislative or administrative changes concerning the alternative fueled vehicle requirements under titles III, IV, and V of the Energy Policy Act of 1992 (42 U.S.C. 13211 et seq.).

SEC. 705. REPORT CONCERNING COMPLIANCE WITH ALTERNATIVE FUELED VEHICLE PURCHASING REQUIREMENTS.

Section 310(b)(1) of the Energy Policy Act of 1992 (42 U.S.C. 13218(b)(1)) is amended by striking “1 year after the date of enactment of this subsection” and inserting “February 15, 2006”.

SEC. 706. [42 U.S.C. 16051] JOINT FLEXIBLE FUEL/HYBRID VEHICLE COMMERCIALIZATION INITIATIVE.

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE ENTITY.—The term “eligible entity” means—

(A) a for-profit corporation;

(B) a nonprofit corporation; or

(C) an institution of higher education.

(2) PROGRAM.—The term “program” means a program established under subsection (b).

(b) ESTABLISHMENT.—The Secretary shall establish a program to improve technologies for the commercialization of—

(1) a combination hybrid/flexible fuel vehicle; or

(2) a plug-in hybrid/flexible fuel vehicle.

(c) GRANTS.—In carrying out the program, the Secretary shall provide grants that give preference to proposals that—

- (1) achieve the greatest reduction in miles per gallon of petroleum fuel consumption;
- (2) achieve not less than 250 miles per gallon of petroleum fuel consumption; and
- (3) have the greatest potential of commercialization to the general public within 5 years.

(d) VERIFICATION.—Not later than 90 days after the date of enactment of this Act, the Secretary shall publish in the Federal Register procedures to verify—

- (1) the hybrid/flexible fuel vehicle technologies to be demonstrated; and
- (2) that grants are administered in accordance with this section.

(e) REPORT.—Not later than 260 days after the date of enactment of this Act, and annually thereafter, the Secretary shall submit to Congress a report that—

- (1) identifies the grant recipients;
- (2) describes the technologies to be funded under the program;
- (3) assesses the feasibility of the technologies described in paragraph (2) in meeting the goals described in subsection (c);
- (4) identifies applications submitted for the program that were not funded; and
- (5) makes recommendations for Federal legislation to achieve commercialization of the technology demonstrated.

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

- (1) \$3,000,000 for fiscal year 2006;
- (2) \$7,000,000 for fiscal year 2007;
- (3) \$10,000,000 for fiscal year 2008; and
- (4) \$20,000,000 for fiscal year 2009.

SEC. 707. EMERGENCY EXEMPTION.

Section 301 of the Energy Policy Act of 1992 (42 U.S.C. 13211) is amended in paragraph (9)(E) by inserting before the semicolon at the end “, including vehicles directly used in the emergency repair of transmission lines and in the restoration of electricity service following power outages, as determined by the Secretary”.

Subtitle B—Hybrid Vehicles, Advanced Vehicles, and Fuel Cell Buses

PART 1—HYBRID VEHICLES

SEC. 711. [42 U.S.C. 16061] HYBRID VEHICLES.

The Secretary shall accelerate efforts directed toward the improvement of batteries and other rechargeable energy storage systems, power electronics, hybrid systems integration, and other technologies for use in hybrid vehicles.

SEC. 712. [42 U.S.C. 16062] DOMESTIC MANUFACTURING CONVERSION GRANT PROGRAM.**(a) PROGRAM.—**

(1) **IN GENERAL.**—The Secretary shall establish a program to encourage domestic production and sales of efficient hybrid and advanced diesel vehicles and components of those vehicles.

(2) **INCLUSIONS.**—The program shall include grants and loan guarantees under section 1703 to automobile manufacturers and suppliers and hybrid component manufacturers to encourage domestic production of efficient hybrid, plug-in electric hybrid, plug-in electric drive, and advanced diesel vehicles.

(3) **PRIORITY.**—Priority shall be given to the refurbishment or retooling of manufacturing facilities that have recently ceased operation or will cease operation in the near future.

(b) **COORDINATION WITH STATE AND LOCAL PROGRAMS.**—The Secretary may coordinate implementation of this section with State and local programs designed to accomplish similar goals, including the retention and retraining of skilled workers from the manufacturing facilities, including by establishing matching grant arrangements.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this section.

PART 2—ADVANCED VEHICLES**SEC. 721. [42 U.S.C. 16071] PILOT PROGRAM.**

(a) **ESTABLISHMENT.**—The Secretary, in consultation with the Secretary of Transportation, shall establish a competitive grant pilot program (referred to in this part as the “pilot program”), to be administered through the Clean Cities Program of the Department, to provide not more than 30 geographically dispersed project grants to State governments, local governments, or metropolitan transportation authorities to carry out a project or projects for the purposes described in subsection (b).

(b) **GRANT PURPOSES.**—A grant under this section may be used for the following purposes:

(1) The acquisition of alternative fueled vehicles or fuel cell vehicles, including—

(A) passenger vehicles (including neighborhood electric vehicles); and

(B) motorized 2-wheel bicycles or other vehicles for use by law enforcement personnel or other State or local government or metropolitan transportation authority employees.

(2) The acquisition of alternative fueled vehicles, hybrid vehicles, or fuel cell vehicles, including—

(A) buses used for public transportation or transportation to and from schools;

(B) delivery vehicles for goods or services; and

(C) ground support vehicles at public airports (including vehicles to carry baggage or push or pull airplanes toward or away from terminal gates).

(3) The acquisition of ultra-low sulfur diesel vehicles.

(4) Installation or acquisition of infrastructure necessary to directly support an alternative fueled vehicle, fuel cell vehicle, or hybrid vehicle project funded by the grant, including fueling and other support equipment.

(5) Operation and maintenance of vehicles, infrastructure, and equipment acquired as part of a project funded by the grant.

(c) APPLICATIONS.—

(1) REQUIREMENTS.—

(A) IN GENERAL.—The Secretary shall issue requirements for applying for grants under the pilot program.

(B) MINIMUM REQUIREMENTS.—At a minimum, the Secretary shall require that an application for a grant—

(i) be submitted by the head of a State or local government or a metropolitan transportation authority, or any combination thereof, and a registered participant in the Clean Cities Program of the Department; and

(ii) include—

(I) a description of the project proposed in the application, including how the project meets the requirements of this part;

(II) an estimate of the ridership or degree of use of the project;

(III) an estimate of the air pollution emissions reduced and fossil fuel displaced as a result of the project, and a plan to collect and disseminate environmental data, related to the project to be funded under the grant, over the life of the project;

(IV) a description of how the project will be sustainable without Federal assistance after the completion of the term of the grant;

(V) a complete description of the costs of the project, including acquisition, construction, operation, and maintenance costs over the expected life of the project;

(VI) a description of which costs of the project will be supported by Federal assistance under this part; and

(VII) documentation to the satisfaction of the Secretary that diesel fuel containing sulfur at not more than 15 parts per million is available for carrying out the project, and a commitment by the applicant to use such fuel in carrying out the project.

(2) PARTNERS.—An applicant under paragraph (1) may carry out a project under the pilot program in partnership with public and private entities.

(d) SELECTION CRITERIA.—In evaluating applications under the pilot program, the Secretary shall—

(1) consider each applicant's previous experience with similar projects; and

(2) give priority consideration to applications that—

(A) are most likely to maximize protection of the environment;

(B) demonstrate the greatest commitment on the part of the applicant to ensure funding for the proposed project and the greatest likelihood that the project will be maintained or expanded after Federal assistance under this part is completed; and

(C) exceed the minimum requirements of subsection (c)(1)(B)(ii).

(e) PILOT PROJECT REQUIREMENTS.—

(1) MAXIMUM AMOUNT.—The Secretary shall not provide more than \$15,000,000 in Federal assistance under the pilot program to any applicant.

(2) COST SHARING.—The Secretary shall not provide more than 50 percent of the cost, incurred during the period of the grant, of any project under the pilot program.

(3) MAXIMUM PERIOD OF GRANTS.—The Secretary shall not fund any applicant under the pilot program for more than 5 years.

(4) DEPLOYMENT AND DISTRIBUTION.—The Secretary shall seek to the maximum extent practicable to ensure a broad geographic distribution of project sites.

(5) TRANSFER OF INFORMATION AND KNOWLEDGE.—The Secretary shall establish mechanisms to ensure that the information and knowledge gained by participants in the pilot program are transferred among the pilot program participants and to other interested parties, including other applicants that submitted applications.

(f) SCHEDULE.—

(1) PUBLICATION.—Not later than 90 days after the date of enactment of this Act, the Secretary shall publish in the Federal Register, Commerce Business Daily, and elsewhere as appropriate, a request for applications to undertake projects under the pilot program. Applications shall be due not later than 180 days after the date of publication of the notice.

(2) SELECTION.—Not later than 180 days after the date by which applications for grants are due, the Secretary shall select by competitive, peer reviewed proposal, all applications for projects to be awarded a grant under the pilot program.

(g) DEFINITIONS.—For purposes of carrying out the pilot program, the Secretary shall issue regulations defining any term, as the Secretary determines to be necessary.

SEC. 722. [42 U.S.C. 16072] REPORTS TO CONGRESS.

(a) INITIAL REPORT.—Not later than 60 days after the date on which grants are awarded under this part, the Secretary shall submit to Congress a report containing—

(1) an identification of the grant recipients and a description of the projects to be funded;

(2) an identification of other applicants that submitted applications for the pilot program; and

(3) a description of the mechanisms used by the Secretary to ensure that the information and knowledge gained by participants in the pilot program are transferred among the pilot

program participants and to other interested parties, including other applicants that submitted applications.

(b) **EVALUATION.**—Not later than 3 years after the date of enactment of this Act, and annually thereafter until the pilot program ends, the Secretary shall submit to Congress a report containing an evaluation of the effectiveness of the pilot program, including—

(1) an assessment of the benefits to the environment derived from the projects included in the pilot program; and

(2) an estimate of the potential benefits to the environment to be derived from widespread application of alternative fueled vehicles and ultra-low sulfur diesel vehicles.

SEC. 723. [42 U.S.C. 16073] AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary to carry out this part \$200,000,000, to remain available until expended.

PART 3—FUEL CELL BUSES

SEC. 731. [42 U.S.C. 16081] FUEL CELL TRANSIT BUS DEMONSTRATION.

(a) **IN GENERAL.**—The Secretary, in consultation with the Secretary of Transportation, shall establish a transit bus demonstration program to make competitive, merit-based awards for 5-year projects to demonstrate not more than 25 fuel cell transit buses (and necessary infrastructure) in 5 geographically dispersed localities.

(b) **PREFERENCE.**—In selecting projects under this section, the Secretary shall give preference to projects that are most likely to mitigate congestion and improve air quality.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary to carry out this section \$10,000,000 for each of fiscal years 2006 through 2010.

Subtitle C—Clean School Buses

SEC. 741. [42 U.S.C. 16091] CLEAN SCHOOL BUS PROGRAM.

(a) **DEFINITIONS.**—In this section:

(1) **ADMINISTRATOR.**—The term “Administrator” means the Administrator of the Environmental Protection Agency.

(2) **ALTERNATIVE FUEL.**—The term “alternative fuel” means liquefied natural gas, compressed natural gas, hydrogen, propane, or biofuels.

(3) **CLEAN SCHOOL BUS.**—The term “clean school bus” means a school bus that—

(A) the Administrator certifies reduces emissions and is operated entirely or in part using an alternative fuel; or

(B) is a zero-emission school bus.

(4) **ELIGIBLE CONTRACTOR.**—The term “eligible contractor” means a contractor that is a for-profit, not-for-profit, or non-profit entity that has the capacity—

(A) to sell, lease, license, or contract for service clean school buses, zero-emission school buses, charging or fuel-

ing infrastructure, or other equipment needed to charge, fuel, or maintain clean school buses or zero-emission school buses, to individuals or entities that own, lease, license, or contract for service a school bus or a fleet of school buses; or

(B) to arrange financing for such a sale, lease, license, or contract for service.

(5) ELIGIBLE RECIPIENT.—

(A) IN GENERAL.—Subject to subparagraph (B), the term “eligible recipient” means—

(i) 1 or more local or State governmental entities responsible for—

(I) providing school bus service to 1 or more public school systems; or

(II) the purchase, lease, license, or contract for service of school buses;

(ii) an eligible contractor;

(iii) a nonprofit school transportation association;

(iv) a charter school (as defined in section 4310 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7221i)) responsible for the purchase, lease, license, or contract for service of school buses for that charter school; or

(v) an Indian Tribe (as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304)), Tribal organization (as defined in that section), or tribally controlled school (as defined in section 5212 of the Tribally Controlled Schools Act of 1988 (25 U.S.C. 2511)) that is responsible for—

(I) providing school bus service to 1 or more Bureau-funded schools (as defined in section 1141 of the Education Amendments of 1978 (25 U.S.C. 2021)); or

(II) the purchase, lease, license, or contract for service of school buses.

(B) SPECIAL REQUIREMENTS.—In the case of eligible recipients identified under clauses (ii) and (iii) of subparagraph (A), the Administrator shall establish timely and appropriate requirements for notice and shall establish timely and appropriate requirements for approval by the public school systems that would be served by buses purchased using award funds made available under this section.

(6) HIGH-NEED LOCAL EDUCATIONAL AGENCY.—The term “high-need local educational agency” means a local educational agency (as defined in section 8101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801)) that is among the local educational agencies in the applicable State with high percentages of children counted under section 1124(c) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6333(c)), on the basis of the most recent satisfactory data available, as determined by the Secretary of Education (or, for a local educational agency for which no such data is available, such other data as the Secretary of Education determines to be satisfactory).

(7) **SCHOOL BUS.**—The term “school bus” has the meaning given the term “schoolbus” in section 30125(a) of title 49, United States Code.

(8) **ZERO-EMISSION SCHOOL BUS.**—The term “zero-emission school bus” means a school bus that is certified by the Administrator to have a drivetrain that produces, under any possible operational mode or condition, zero exhaust emission of—

(A) any air pollutant that is listed pursuant to section 108(a) of the Clean Air Act (42 U.S.C. 7408(a)) (or any precursor to such an air pollutant); and

(B) any greenhouse gas.

(b) **PROGRAM FOR REPLACEMENT OF EXISTING SCHOOL BUSES WITH CLEAN SCHOOL BUSES AND ZERO-EMISSION SCHOOL BUSES.**—

(1) **ESTABLISHMENT.**—The Administrator shall establish a program—

(A) to award grants and rebates on a competitive basis to eligible recipients for the replacement of existing school buses with clean school buses;

(B) to award grants and rebates on a competitive basis to eligible recipients for the replacement of existing school buses with zero-emission school buses;

(C) to award contracts to eligible contractors to provide rebates for the replacement of existing school buses with clean school buses; and

(D) to award contracts to eligible contractors to provide rebates for the replacement of existing school buses with zero-emission school buses.

(2) **ALLOCATION OF FUNDS.**—Of the amounts made available for awards under paragraph (1) in a fiscal year, the Administrator shall award—

(A) 50 percent to replace existing school buses with zero-emission school buses; and

(B) 50 percent to replace existing school buses with clean school buses and zero-emission school buses.

(3) **CONSIDERATIONS.**—In making awards under paragraph (2)(B), the Administrator shall take into account the following criteria and shall not give preference to any individual criterion:

(A) Lowest overall cost of bus replacement.

(B) Local conditions, including the length of bus routes and weather conditions.

(C) Technologies that most reduce emissions.

(D) Whether funds will bring new technologies to scale or promote cost parity between old technology and new technology.

(4) **PRIORITY OF APPLICATIONS.**—In making awards under paragraph (1), the Administrator may prioritize applicants that—

(A) propose to replace school buses that serve—

(i) a high-need local educational agency;

(ii) a Bureau-funded school (as defined in section 1141 of the Education Amendments of 1978 (25 U.S.C. 2021)); or

(iii) a local educational agency that receives a basic support payment under section 7003(b)(1) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7703(b)(1)) for children who reside on Indian land;

(B) serve rural or low-income areas; or

(C) propose to complement the assistance received through the award by securing additional sources of funding for the activities supported through the award, such as through—

(i) public-private partnerships;

(ii) grants from other entities; or

(iii) issuance of school bonds.

(5) **USE OF SCHOOL BUS FLEET.**—All clean school buses and zero-emission school buses acquired with funds provided under this section shall—

(A) be operated as part of the school bus fleet for which the award was made for not less than 5 years, except that, if the award is to an eligible contractor and the contract with the local educational agency (including charter schools operating as local educational agencies under State law) ends before the end of the 5-year period, those school buses may be operated as part of another local educational agency eligible for the same or higher priority consideration under paragraph (4), subject to the limitations under paragraph (7);

(B) be maintained, operated, and charged or fueled according to manufacturer recommendations or State requirements; and

(C) not be manufactured or retrofitted with, or otherwise have installed, a power unit or other technology that creates air pollution within the school bus, such as an unvented diesel passenger heater.

(6) **AWARDS.**—

(A) **IN GENERAL.**—In making awards under paragraph (1), the Administrator may make awards for up to 100 percent of the costs for replacement of existing school buses with clean school buses, zero-emission school buses, and charging or fueling infrastructure.

(B) **STRUCTURING AWARDS.**—In making an award under paragraph (1)(A), the Administrator shall decide whether to award a grant or rebate, or a combination thereof, based primarily on how best to facilitate replacing existing school buses with clean school buses or zero-emission school buses, as applicable.

(7) **DEPLOYMENT AND DISTRIBUTION.**—

(A) **IN GENERAL.**—The Administrator shall—

(i) to the maximum extent practicable, achieve nationwide deployment of clean school buses and zero-emission school buses through the program under this section; and

(ii) ensure a broad geographic distribution of awards.

- (B) LIMITATION.—The Administrator shall ensure that the amount received by all eligible entities in a State from grants and rebates under this section does not exceed 10 percent of the amounts made available to carry out this section during a fiscal year.
- (8) ANNUAL REPORT.—Not later than January 31 of each year, the Administrator shall submit to Congress a report that evaluates the implementation of this section and describes—
- (A) the total number of applications received;
 - (B) the quantity and amount of grants and rebates awarded and the location of the recipients of the grants and rebates;
 - (C) the criteria used to select the recipients; and
 - (D) any other information the Administrator considers appropriate.
- (c) EDUCATION AND OUTREACH.—
- (1) IN GENERAL.—Not later than 120 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Administrator shall develop an education and outreach program to promote and explain the award program under this section.
- (2) COORDINATION WITH STAKEHOLDERS.—The education and outreach program under paragraph (1) shall be designed and conducted in conjunction with interested stakeholders.
- (3) COMPONENTS.—The education and outreach program under paragraph (1) shall—
- (A) inform potential award recipients on the process of applying for awards and fulfilling the requirements of awards;
 - (B) describe the available technologies and the benefits of using the technologies;
 - (C) explain the benefits and costs incurred by participating in the award program;
 - (D) make available information regarding best practices, lessons learned, and technical and other information regarding—
 - (i) clean school bus and zero-emission school bus acquisition and deployment;
 - (ii) the build-out of associated infrastructure and advance planning with the local electricity supplier;
 - (iii) workforce development, training, and Registered Apprenticeships that meet the requirements under parts 29 and 30 of title 29, Code of Federal Regulations (as in effect on December 1, 2019); and
 - (iv) any other information that is necessary, as determined by the Administrator; and
 - (E) include, as appropriate, information from the annual report required under subsection (b)(7).
- (d) ADMINISTRATIVE COSTS.—The Administrator may use, for the administrative costs of carrying out this section, not more than 3 percent of the amounts made available to carry out this section for any fiscal year.
- (e) REGULATIONS.—The Administrator shall have the authority to issue such regulations or other guidance, forms, instructions,

and publications as may be necessary or appropriate to carry out the programs, projects, or activities authorized under this section, including to ensure that such programs, projects, or activities are completed in a timely and effective manner, result in emissions reductions, and maximize public health benefits.

(f) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to the Administrator to carry out this section, to remain available until expended, \$1,000,000,000 for each of fiscal years 2022 through 2026, of which—

(1) \$500,000,000 shall be made available for the adoption of clean school buses and zero-emission school buses; and

(2) \$500,000,000 shall be made available for the adoption of zero-emission school buses.

SEC. 742. [42 U.S.C. 16092] DIESEL TRUCK RETROFIT AND FLEET MODERNIZATION PROGRAM.

(a) **ESTABLISHMENT.**—The Administrator, in consultation with the Secretary, shall establish a program for awarding grants on a competitive basis to public agencies and entities for fleet modernization programs including installation of retrofit technologies for diesel trucks.

(b) **ELIGIBLE RECIPIENTS.**—A grant shall be awarded under this section only to a State or local government or an agency or instrumentality of a State or local government or of two or more State or local governments who will allocate funds, with preference to ports and other major hauling operations.

(c) **AWARDS.**—

(1) **IN GENERAL.**—The Administrator shall seek, to the maximum extent practicable, to ensure a broad geographic distribution of grants under this section.

(2) **PREFERENCES.**—In making awards of grants under this section, the Administrator shall give preference to proposals that—

(A) will achieve the greatest reductions in emissions of nonmethane hydrocarbons, oxides of nitrogen, and/or particulate matter per proposal or per truck; or

(B) involve the use of Environmental Protection Agency or California Air Resources Board verified emissions control retrofit technology on diesel trucks that operate solely on ultra-low sulfur diesel fuel after September 2006.

(d) **CONDITIONS OF GRANT.**—A grant shall be provided under this section on the conditions that—

(1) trucks which are replacing scrapped trucks and on which retrofit emissions-control technology are to be demonstrated—

(A) will operate on ultra-low sulfur diesel fuel where such fuel is reasonably available or required for sale by State or local law or regulation;

(B) were manufactured in model year 1998 and before; and

(C) will be used for the transportation of cargo goods especially in port areas or used in goods movement and major hauling operations;

(2) grant funds will be used for the purchase of emission control retrofit technology, including State taxes and contract fees; and

(3) grant recipients will provide at least 50 percent of the total cost of the retrofit, including the purchase of emission control retrofit technology and all necessary labor for installation of the retrofit, from any source other than this section.

(e) VERIFICATION.—Not later than 90 days after the date of enactment of this Act, the Administrator shall publish in the Federal Register procedures to—

(1) make grants pursuant to this section;

(2) verify that trucks powered by ultra-low sulfur diesel fuel on which retrofit emissions-control technology are to be demonstrated will operate on diesel fuel containing not more than 15 parts per million of sulfur after September 2006; and

(3) verify that grants are administered in accordance with this section.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator to carry out this section, to remain available until expended the following sums:

(1) \$20,000,000 for fiscal year 2006.

(2) \$35,000,000 for fiscal year 2007.

(3) \$45,000,000 for fiscal year 2008.

(4) Such sums as are necessary for each of fiscal years 2009 and 2010.

SEC. 743. [42 U.S.C. 16093] FUEL CELL SCHOOL BUSES.

(a) ESTABLISHMENT.—The Secretary shall establish a program for entering into cooperative agreements—

(1) with private sector fuel cell bus developers for the development of fuel cell-powered school buses; and

(2) subsequently, with not less than 2 units of local government using natural gas-powered school buses and such private sector fuel cell bus developers to demonstrate the use of fuel cell-powered school buses.

(b) COST SHARING.—The non-Federal contribution for activities funded under this section shall be not less than—

(1) 20 percent for fuel infrastructure development activities; and

(2) 50 percent for demonstration activities and for development activities not described in paragraph (1).

(c) REPORTS TO CONGRESS.—Not later than 3 years after the date of enactment of this Act, the Secretary shall transmit to Congress a report that—

(1) evaluates the process of converting natural gas infrastructure to accommodate fuel cell-powered school buses; and

(2) assesses the results of the development and demonstration program under this section.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section \$25,000,000 for the period of fiscal years 2006 through 2009.

Subtitle D—Miscellaneous

SEC. 751. [42 U.S.C. 16101] RAILROAD EFFICIENCY.

(a) ESTABLISHMENT.—The Secretary shall (in cooperation with the Secretary of Transportation and the Administrator of the Environmental Protection Agency) establish a cost-shared, public-private research partnership involving the Federal Government, railroad carriers, locomotive manufacturers and equipment suppliers, and the Association of American Railroads, to develop and demonstrate railroad locomotive technologies that increase fuel economy, reduce emissions, and lower costs of operation.

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

- (1) \$15,000,000 for fiscal year 2006;
- (2) \$20,000,000 for fiscal year 2007; and
- (3) \$30,000,000 for fiscal year 2008.

SEC. 752. MOBILE EMISSION REDUCTIONS TRADING AND CREDITING.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Administrator of the Environmental Protection Agency shall submit to Congress a report on the experience of the Administrator with the trading of mobile source emission reduction credits for use by owners and operators of stationary source emission sources to meet emission offset requirements within a nonattainment area.

(b) CONTENTS.—The report shall describe—

(1) projects approved by the Administrator that include the trading of mobile source emission reduction credits for use by stationary sources in complying with offset requirements, including a description of—

- (A) project and stationary sources location;
- (B) volumes of emissions offset and traded;
- (C) the sources of mobile emission reduction credits;

and

(D) if available, the cost of the credits;

(2) the significant issues identified by the Administrator in consideration and approval of trading in the projects;

(3) the requirements for monitoring and assessing the air quality benefits of any approved project;

(4) the statutory authority on which the Administrator has based approval of the projects;

(5) an evaluation of how the resolution of issues in approved projects could be used in other projects and whether the emission reduction credits may be considered to be additional in relation to other requirements;

(6) the potential, for attainment purposes, of emission reduction credits relating to transit and land use policies; and

(7) any other issues that the Administrator considers relevant to the trading and generation of mobile source emission reduction credits for use by stationary sources or for other purposes.

SEC. 753. AVIATION FUEL CONSERVATION AND EMISSIONS.

(a) **IN GENERAL.**—Not later than 60 days after the date of enactment of this Act, the Administrator of the Federal Aviation Administration and the Administrator of the Environmental Protection Agency shall jointly initiate a study to identify—

(1) the impact of aircraft emissions on air quality in non-attainment areas;

(2) ways to promote fuel conservation measures for aviation to enhance fuel efficiency and reduce emissions; and

(3) opportunities to reduce air traffic inefficiencies that increase fuel burn and emissions.

(b) **FOCUS.**—The study under subsection (a) shall focus on how air traffic management inefficiencies, such as aircraft idling at airports, result in unnecessary fuel burn and air emissions.

(c) **REPORT.**—Not later than 1 year after the date of the initiation of the study under subsection (a), the Administrator of the Federal Aviation Administration and the Administrator of the Environmental Protection Agency shall jointly submit to the Committee on Energy and Commerce and the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works and the Committee on Commerce, Science, and Transportation of the Senate a report that—

(1) describes the results of the study; and

(2) includes any recommendations on ways in which unnecessary fuel use and emissions affecting air quality may be reduced—

(A) without adversely affecting safety and security and increasing individual aircraft noise; and

(B) while taking into account all aircraft emissions and the impact of those emissions on the human health.

(d) **RISK ASSESSMENTS.**—Any assessment of risk to human health and the environment prepared by the Administrator of the Federal Aviation Administration or the Administrator of the Environmental Protection Agency to support the report in this section shall be based on sound and objective scientific practices, shall consider the best available science, and shall present the weight of the scientific evidence concerning such risks.

SEC. 754. [42 U.S.C. 16102] DIESEL FUELED VEHICLES.

(a) **DEFINITION OF TIER 2 EMISSION STANDARDS.**—In this section, the term “tier 2 emission standards” means the motor vehicle emission standards that apply to passenger cars, light trucks, and larger passenger vehicles manufactured after the 2003 model year, as issued on February 10, 2000, by the Administrator of the Environmental Protection Agency under sections 202 and 211 of the Clean Air Act (42 U.S.C. 7521, 7545).

(b) **DIESEL COMBUSTION AND AFTER-TREATMENT TECHNOLOGIES.**—The Secretary shall accelerate efforts to improve diesel combustion and after-treatment technologies for use in diesel fueled motor vehicles.

(c) **GOALS.**—The Secretary shall carry out subsection (b) with a view toward achieving the following goals:

(1) Developing and demonstrating diesel technologies that, not later than 2010, meet the following standards:

(A) Tier 2 emission standards.

(B) The heavy-duty emissions standards of 2007 that are applicable to heavy-duty vehicles under regulations issued by the Administrator of the Environmental Protection Agency as of the date of enactment of this Act.

(2) Developing the next generation of low-emission, high efficiency diesel engine technologies, including homogeneous charge compression ignition technology.

SEC. 755. [42 U.S.C. 16103] CONSERVE BY BICYCLING PROGRAM.

(a) DEFINITIONS.—In this section:

(1) PROGRAM.—The term “program” means the Conserve by Bicycling Program established by subsection (b).

(2) SECRETARY.—The term “Secretary” means the Secretary of Transportation.

(b) ESTABLISHMENT.—There is established within the Department of Transportation a program to be known as the “Conserve by Bicycling Program”.

(c) PROJECTS.—

(1) IN GENERAL.—In carrying out the program, the Secretary shall establish not more than 10 pilot projects that are—

(A) dispersed geographically throughout the United States; and

(B) designed to conserve energy resources by encouraging the use of bicycles in place of motor vehicles.

(2) REQUIREMENTS.—A pilot project described in paragraph (1) shall—

(A) use education and marketing to convert motor vehicle trips to bicycle trips;

(B) document project results and energy savings (in estimated units of energy conserved);

(C) facilitate partnerships among interested parties in at least 2 of the fields of—

(i) transportation;

(ii) law enforcement;

(iii) education;

(iv) public health;

(v) environment; and

(vi) energy;

(D) maximize bicycle facility investments;

(E) demonstrate methods that may be used in other regions of the United States; and

(F) facilitate the continuation of ongoing programs that are sustained by local resources.

(3) COST SHARING.—At least 20 percent of the cost of each pilot project described in paragraph (1) shall be provided from non-Federal sources.

(d) ENERGY AND BICYCLING RESEARCH STUDY.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Secretary shall enter into a contract with the National Academy of Sciences for, and the National Academy of Sciences shall conduct and submit to Congress a

report on, a study on the feasibility of converting motor vehicle trips to bicycle trips.

(2) COMPONENTS.—The study shall—

(A) document the results or progress of the pilot projects under subsection (c);

(B) determine the type and duration of motor vehicle trips that people in the United States may feasibly make by bicycle, taking into consideration factors such as—

(i) weather;

(ii) land use and traffic patterns;

(iii) the carrying capacity of bicycles; and

(iv) bicycle infrastructure;

(C) determine any energy savings that would result from the conversion of motor vehicle trips to bicycle trips;

(D) include a cost-benefit analysis of bicycle infrastructure investments; and

(E) include a description of any factors that would encourage more motor vehicle trips to be replaced with bicycle trips.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$6,200,000, to remain available until expended, of which—

(1) \$5,150,000 shall be used to carry out pilot projects described in subsection (c);

(2) \$300,000 shall be used by the Secretary to coordinate, publicize, and disseminate the results of the program; and

(3) \$750,000 shall be used to carry out subsection (d).

SEC. 756. [42 U.S.C. 16104] REDUCTION OF ENGINE IDLING.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term “Administrator” means the Administrator of the Environmental Protection Agency.

(2) ADVANCED TRUCK STOP ELECTRIFICATION SYSTEM.—The term “advanced truck stop electrification system” means a stationary system that delivers heat, air conditioning, electricity, or communications, and is capable of providing verifiable and auditable evidence of use of those services, to a heavy-duty vehicle and any occupants of the heavy-duty vehicle with or without relying on components mounted onboard the heavy-duty vehicle for delivery of those services.

(3) AUXILIARY POWER UNIT.—The term “auxiliary power unit” means an integrated system that—

(A) provides heat, air conditioning, engine warming, or electricity to components on a heavy-duty vehicle; and

(B) is certified by the Administrator under part 89 of title 40, Code of Federal Regulations (or any successor regulation), as meeting applicable emission standards.

(4) HEAVY-DUTY VEHICLE.—The term “heavy-duty vehicle” means a vehicle that—

(A) has a gross vehicle weight rating greater than 8,500 pounds; and

(B) is powered by a diesel engine.

(5) **IDLE REDUCTION TECHNOLOGY.**—The term “idle reduction technology” means an advanced truck stop electrification system, auxiliary power unit, or other technology that—

(A) is used to reduce long-duration idling; and

(B) allows for the main drive engine or auxiliary refrigeration engine to be shut down.

(6) **ENERGY CONSERVATION TECHNOLOGY.**—the term “energy conservation technology” means any device, system of devices, or equipment that improves the fuel economy.

(7) **LONG-DURATION IDLING.**—

(A) **IN GENERAL.**—The term “long-duration idling” means the operation of a main drive engine or auxiliary refrigeration engine, for a period greater than 15 consecutive minutes, at a time at which the main drive engine is not engaged in gear.

(B) **EXCLUSIONS.**—The term “long-duration idling” does not include the operation of a main drive engine or auxiliary refrigeration engine during a routine stoppage associated with traffic movement or congestion.

(b) **IDLE REDUCTION TECHNOLOGY BENEFITS, PROGRAMS, AND STUDIES.**—

(1) **IN GENERAL.**—Not later than 90 days after the date of enactment of this Act, the Administrator shall—

(A)(i) commence a review of the mobile source air emission models of the Environmental Protection Agency used under the Clean Air Act (42 U.S.C. 7401 et seq.) to determine whether the models accurately reflect the emissions resulting from long-duration idling of heavy-duty vehicles and other vehicles and engines; and

(ii) update those models as the Administrator determines to be appropriate; and

(B)(i) commence a review of the emission reductions achieved by the use of idle reduction technology; and

(ii) complete such revisions of the regulations and guidance of the Environmental Protection Agency as the Administrator determines to be appropriate.

(2) **DEADLINE FOR COMPLETION.**—Not later than 180 days after the date of enactment of this Act, the Administrator shall—

(A) complete the reviews under subparagraphs (A)(i) and (B)(i) of paragraph (1); and

(B) prepare and make publicly available one or more reports on the results of the reviews.

(3) **DISCRETIONARY INCLUSIONS.**—The reviews under subparagraphs (A)(i) and (B)(i) of paragraph (1) and the reports under paragraph (2)(B) may address the potential fuel savings resulting from use of idle reduction technology.

(4) **IDLE REDUCTION AND ENERGY CONSERVATION DEPLOYMENT PROGRAM.**—

(A) **ESTABLISHMENT.**—

(i) **IN GENERAL.**—Not later than 90 days after the date of enactment of this Act, the Administrator, in consultation with the Secretary of Transportation shall, through the Environmental Protection Agency’s

SmartWay Transport Partnership, establish a program to support deployment of idle reduction and energy conservation technologies.

(ii) **PRIORITY.**—The Administrator shall give priority to the deployment of idle reduction and energy conservation technologies based on the costs and beneficial effects on air quality and ability to lessen the emission of criteria air pollutants.

(B) **FUNDING.**—

(i) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Administrator to carry out subparagraph (A) for the purpose of reducing extended idling from heavy-duty vehicles \$19,500,000 for fiscal year 2006, \$30,000,000 for fiscal year 2007, and \$45,000,000 for fiscal year 2008.

(ii) **LOCOMOTIVES.**—There are authorized to be appropriated to the administrator to carry out subparagraph (A) for the purpose of reducing extended idling from locomotives \$10,000,000 for fiscal year 2006, \$15,000,000 for fiscal year 2007, and \$20,000,000 for fiscal year 2008.

(iii) **COST SHARING.**—Subject to clause (iv), the Administrator shall require at least 50 percent of the costs directly and specifically related to any project under this section to be provided from non-Federal sources.

(iv) **NECESSARY AND APPROPRIATE REDUCTIONS.**—The Administrator may reduce the non-Federal requirement under clause (iii) if the Administrator determines that the reduction is necessary and appropriate to meet the objectives of this section.

(5) **IDLING LOCATION STUDY.**—

(A) **IN GENERAL.**—Not later than 90 days after the date of enactment of this Act, the Administrator, in consultation with the Secretary of Transportation, shall commence a study to analyze all locations at which heavy-duty vehicles stop for long-duration idling, including—

- (i) truck stops;
- (ii) rest areas;
- (iii) border crossings;
- (iv) ports;
- (v) transfer facilities; and
- (vi) private terminals.

(B) **DEADLINE FOR COMPLETION.**—Not later than 180 days after the date of enactment of this Act, the Administrator shall—

- (i) complete the study under subparagraph (A); and
- (ii) prepare and make publicly available one or more reports of the results of the study.

(c) **VEHICLE WEIGHT EXEMPTION.**—Section 127(a) of title 23, United States Code, is amended—

- (1) by designating the first through eleventh sentences as paragraphs (1) through (11), respectively; and

(2) by adding at the end the following:

“(12) HEAVY DUTY VEHICLES.—

“(A) IN GENERAL.—Subject to subparagraphs (B) and (C), in order to promote reduction of fuel use and emissions because of engine idling, the maximum gross vehicle weight limit and the axle weight limit for any heavy-duty vehicle equipped with an idle reduction technology shall be increased by a quantity necessary to compensate for the additional weight of the idle reduction system.

“(B) MAXIMUM WEIGHT INCREASE.—The weight increase under subparagraph (A) shall be not greater than 400 pounds.

“(C) PROOF.—On request by a regulatory agency or law enforcement agency, the vehicle operator shall provide proof (through demonstration or certification) that—

“(i) the idle reduction technology is fully functional at all times; and

“(ii) the 400-pound gross weight increase is not used for any purpose other than the use of idle reduction technology described in subparagraph (A).”.

(d) REPORT.—Not later than 60 days after the date on which funds are initially awarded under this section, and on an annual basis thereafter, the Administrator shall submit to Congress a report containing—

(1) an identification of the grant recipients, a description of the projects to be funded and the amount of funding provided; and

(2) an identification of all other applicants that submitted applications under the program.

SEC. 757. [42 U.S.C. 16105] BIODIESEL ENGINE TESTING PROGRAM.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall initiate a partnership with diesel engine, diesel fuel injection system, and diesel vehicle manufacturers and diesel and biodiesel fuel providers, to include biodiesel testing in advanced diesel engine and fuel system technology.

(b) SCOPE.—The program shall provide for testing to determine the impact of biodiesel from different sources on current and future emission control technologies, with emphasis on—

(1) the impact of biodiesel on emissions warranty, in-use liability, and antitampering provisions;

(2) the impact of long-term use of biodiesel on engine operations;

(3) the options for optimizing these technologies for both emissions and performance when switching between biodiesel and diesel fuel; and

(4) the impact of using biodiesel in these fueling systems and engines when used as a blend with 2006 Environmental Protection Agency-mandated diesel fuel containing a maximum of 15-parts-per-million sulfur content.

(c) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary shall provide an interim report to Congress on the findings of the program, including a comprehensive

sive analysis of impacts from biodiesel on engine operation for both existing and expected future diesel technologies, and recommendations for ensuring optimal emissions reductions and engine performance with biodiesel.

(d) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated \$5,000,000 for each of fiscal years 2006 through 2010 to carry out this section.

(e) **DEFINITION.**—For purposes of this section, 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) and that meets the American Society for Testing and Materials D6751–02a Standard Specification for Biodiesel Fuel (B100) Blend Stock for Distillate Fuels.

SEC. 758. [42 U.S.C. 16106] ULTRA-EFFICIENT ENGINE TECHNOLOGY FOR AIRCRAFT.

(a) **ULTRA-EFFICIENT ENGINE TECHNOLOGY PARTNERSHIP.**—The Secretary shall enter into a cooperative agreement with the National Aeronautics and Space Administration for the development of ultra-efficient engine technology for aircraft.

(b) **PERFORMANCE OBJECTIVE.**—The Secretary shall establish the following performance objectives for the program set forth in subsection (a):

- (1) A fuel efficiency increase of at least 10 percent.
- (2) A reduction in the impact of landing and takeoff nitrogen oxides emissions on local air quality of 70 percent.
- (3) Exploring advanced concepts, alternate propulsion, and power configurations, including hybrid fuel cell powered systems.
- (4) Exploring 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 for carrying out this section \$50,000,000 for each of the fiscal years 2006, 2007, 2008, 2009, and 2010.

SEC. 759. FUEL ECONOMY INCENTIVE REQUIREMENTS.

Section 32905 of title 49, United States Code, is amended by adding the following new subsection at the end thereof:

“(h) **FUEL ECONOMY INCENTIVE REQUIREMENTS.**—In order for any model of dual fueled automobile to be eligible to receive the fuel economy incentives included in section 32906(a) and (b), a label shall be attached to the fuel compartment of each dual fueled automobile of that model, notifying that the vehicle can be operated on an alternative fuel and on gasoline or diesel, with the form of alternative fuel stated on the notice. This requirement applies to dual fueled automobiles manufactured on or after September 1, 2006.”.

Subtitle E—Automobile Efficiency

SEC. 771. AUTHORIZATION OF APPROPRIATIONS FOR IMPLEMENTATION AND ENFORCEMENT OF FUEL ECONOMY STANDARDS.

In addition to any other funds authorized by law, there are authorized to be appropriated to the National Highway Traffic Safety Administration to carry out its obligations with respect to average fuel economy standards \$3,500,000 for each of the fiscal years 2006 through 2010.

SEC. 772. EXTENSION OF MAXIMUM FUEL ECONOMY INCREASE FOR ALTERNATIVE FUELED VEHICLES.

(a) MANUFACTURING INCENTIVES.—Section 32905 of title 49, United States Code, is amended—

(1) in each of subsections (b) and (d), by striking “1993–2004” and inserting “1993–2010”;

(2) in subsection (f), by striking “2001” and inserting “2007”; and

(3) in subsection (f)(1), by striking “2004” and inserting “2010”.

(b) MAXIMUM FUEL ECONOMY INCREASE.—Subsection (a)(1) of section 32906 of title 49, United States Code, is amended—

(1) in subparagraph (A), by striking “the model years 1993–2004” and inserting “model years 1993–2010”; and

(2) in subparagraph (B), by striking “the model years 2005–2008” and inserting “model years 2011–2014”.

SEC. 773. STUDY OF FEASIBILITY AND EFFECTS OF REDUCING USE OF FUEL FOR AUTOMOBILES.

(a) IN GENERAL.—Not later than 30 days after the date of the enactment of this Act, the Administrator of the National Highway Traffic Safety Administration shall initiate a study of the feasibility and effects of reducing by model year 2014, by a significant percentage, the amount of fuel consumed by automobiles.

(b) SUBJECTS OF STUDY.—The study under this section shall include—

(1) examination of, and recommendation of alternatives to, the policy under current Federal law of establishing average fuel economy standards for automobiles and requiring each automobile manufacturer to comply with average fuel economy standards that apply to the automobiles it manufactures;

(2) examination of how automobile manufacturers could contribute toward achieving the reduction referred to in subsection (a);

(3) examination of the potential of fuel cell technology in motor vehicles in order to determine the extent to which such technology may contribute to achieving the reduction referred to in subsection (a); and

(4) examination of the effects of the reduction referred to in subsection (a) on—

(A) gasoline supplies;

(B) the automobile industry, including sales of automobiles manufactured in the United States;

(C) motor vehicle safety; and

(D) air quality.

(c) **REPORT.**—The Administrator shall submit to Congress a report on the findings, conclusion, and recommendations of the study under this section by not later than 1 year after the date of the enactment of this Act.

SEC. 774. UPDATE TESTING PROCEDURES.

The Administrator of the Environmental Protection Agency shall update or revise the adjustment factors in sections 600.209–85 and 600.209–95, of the Code of Federal Regulations, CFR Part 600 (1995) Fuel Economy Regulations for 1977 and Later Model Year Automobiles to take into consideration higher speed limits, faster acceleration rates, variations in temperature, use of air conditioning, shorter city test cycle lengths, current reference fuels, and the use of other fuel depleting features.

Subtitle F—Federal and State Procurement

SEC. 781. [42 U.S.C. 16121] DEFINITIONS.

In this subtitle:

(1) **FUEL CELL.**—The term “fuel cell” means a device that directly converts the chemical energy of a fuel and an oxidant into electricity by electrochemical processes occurring at separate electrodes in the device.

(2) **LIGHT-DUTY OR HEAVY-DUTY VEHICLE FLEET.**—The term “light-duty or heavy-duty vehicle fleet” does not include any vehicle designed or procured for combat or combat-related missions.

(3) **STATIONARY; PORTABLE.**—The terms “stationary” and “portable”, when used in reference to a fuel cell, include—

- (A) continuous electric power; and
- (B) backup electric power.

(4) **TASK FORCE.**—The term “Task Force” means the Hydrogen and Fuel Cell Technical Task Force established under section 806 of this Act.

(5) **TECHNICAL ADVISORY COMMITTEE.**—The term “Technical Advisory Committee” means the independent Technical Advisory Committee selected under section 807 of this Act.

SEC. 782. [42 U.S.C. 16122] FEDERAL AND STATE PROCUREMENT OF FUEL CELL VEHICLES AND HYDROGEN ENERGY SYSTEMS.

(a) **PURPOSES.**—The purposes of this section are—

- (1) to stimulate acceptance by the market of fuel cell vehicles and hydrogen energy systems;
- (2) to support development of technologies relating to fuel cell vehicles, public refueling stations, and hydrogen energy systems; and
- (3) to require the Federal government, which is the largest single user of energy in the United States, to adopt those technologies as soon as practicable after the technologies are developed, in conjunction with private industry partners.

(b) **FEDERAL LEASES AND PURCHASES.**—

- (1) **REQUIREMENT.**—

(A) IN GENERAL.—Not later than January 1, 2010, the head of any Federal agency that uses a light-duty or heavy-duty vehicle fleet shall lease or purchase fuel cell vehicles and hydrogen energy systems to meet any applicable energy savings goal described in subsection (c).

(B) LEARNING DEMONSTRATION VEHICLES.—The Secretary may lease or purchase appropriate vehicles developed under subsections (a)(10) and (b)(1)(A) of section 808 to meet the requirement in subparagraph (A).

(2) COSTS OF LEASES AND PURCHASES.—

(A) IN GENERAL.—The Secretary, in cooperation with the Task Force and the Technical Advisory Committee, shall pay to Federal agencies (or share the cost under interagency agreements) the difference in cost between—

(i) the cost to the agencies of leasing or purchasing fuel cell vehicles and hydrogen energy systems under paragraph (1); and

(ii) the cost to the agencies of a feasible alternative to leasing or purchasing fuel cell vehicles and hydrogen energy systems, as determined by the Secretary.

(B) COMPETITIVE COSTS AND MANAGEMENT STRUCTURES.—In carrying out subparagraph (A), the Secretary, in consultation with the agency, may use the General Services Administration or any commercial vendor to ensure—

(i) a cost-effective purchase of a fuel cell vehicle or hydrogen energy system; or

(ii) a cost-effective management structure of the lease of a fuel cell vehicle or hydrogen energy system.

(3) EXCEPTION.—

(A) IN GENERAL.—If the Secretary determines that the head of an agency described in paragraph (1) cannot find an appropriately efficient and reliable fuel cell vehicle or hydrogen energy system in accordance with paragraph (1), that agency shall be excepted from compliance with paragraph (1).

(B) CONSIDERATION.—In making a determination under subparagraph (A), the Secretary shall consider—

(i) the needs of the agency; and

(ii) an evaluation performed by—

(I) the Task Force; or

(II) the Technical Advisory Committee.

(c) ENERGY SAVINGS GOALS.—

(1) IN GENERAL.—

(A) REGULATIONS.—Not later than December 31, 2006, the Secretary shall—

(i) in cooperation with the Task Force, promulgate regulations for the period of 2008 through 2010 that extend and augment energy savings goals for each Federal agency, in accordance with any Executive order issued after March 2000; and

(ii) promulgate regulations to expand the minimum Federal fleet requirement and credit allowances

for fuel cell vehicle systems under section 303 of the Energy Policy Act of 1992 (42 U.S.C. 13212).

(B) REVIEW, EVALUATION, AND NEW REGULATIONS.—Not later than December 31, 2010, the Secretary shall—

(i) review the regulations promulgated under subparagraph (A);

(ii) evaluate any progress made toward achieving energy savings by Federal agencies; and

(iii) promulgate new regulations for the period of 2011 through 2015 to achieve additional energy savings by Federal agencies relating to technical and cost-performance standards.

(2) OFFSETTING ENERGY SAVINGS GOALS.—An agency that leases or purchases a fuel cell vehicle or hydrogen energy system in accordance with subsection (b)(1) may use that lease or purchase to count toward an energy savings goal of the agency.

(d) COOPERATIVE PROGRAM WITH STATE AGENCIES.—

(1) IN GENERAL.—The Secretary may establish a cooperative program with State agencies managing motor vehicle fleets to encourage purchase of fuel cell vehicles by the agencies.

(2) INCENTIVES.—In carrying out the cooperative program, the Secretary may offer incentive payments to a State agency to assist with the cost of planning, differential purchases, and administration.

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

(1) \$15,000,000 for fiscal year 2008;

(2) \$25,000,000 for fiscal year 2009;

(3) \$65,000,000 for fiscal year 2010; and

(4) such sums as are necessary for each of fiscal years 2011 through 2015.

SEC. 783. [42 U.S.C. 16123] FEDERAL PROCUREMENT OF STATIONARY, PORTABLE, AND MICRO FUEL CELLS.

(a) PURPOSES.—The purposes of this section are—

(1) to stimulate acceptance by the market of stationary, portable, and micro fuel cells; and

(2) to support development of technologies relating to stationary, portable, and micro fuel cells.

(b) FEDERAL LEASES AND PURCHASES.—

(1) IN GENERAL.—Not later than January 1, 2006, the head of any Federal agency that uses electrical power from stationary, portable, or microportable devices shall lease or purchase a stationary, portable, or micro fuel cell to meet any applicable energy savings goal described in subsection (c).

(2) COSTS OF LEASES AND PURCHASES.—

(A) IN GENERAL.—The Secretary, in cooperation with the Task Force and the Technical Advisory Committee, shall pay the cost to Federal agencies (or share the cost under interagency agreements) of leasing or purchasing stationary, portable, and micro fuel cells under paragraph (1).

(B) COMPETITIVE COSTS AND MANAGEMENT STRUCTURES.—In carrying out subparagraph (A), the Secretary,

in consultation with the agency, may use the General Services Administration or any commercial vendor to ensure—

- (i) a cost-effective purchase of a stationary, portable, or micro fuel cell; or
- (ii) a cost-effective management structure of the lease of a stationary, portable, or micro fuel cell.

(3) EXCEPTION.—

(A) IN GENERAL.—If the Secretary determines that the head of an agency described in paragraph (1) cannot find an appropriately efficient and reliable stationary, portable, or micro fuel cell in accordance with paragraph (1), that agency shall be excepted from compliance with paragraph (1).

(B) CONSIDERATION.—In making a determination under subparagraph (A), the Secretary shall consider—

- (i) the needs of the agency; and
- (ii) an evaluation performed by—
 - (I) the Task Force; or
 - (II) the Technical Advisory Committee of the Task Force.

(c) ENERGY SAVINGS GOALS.—An agency that leases or purchases a stationary, portable, or micro fuel cell in accordance with subsection (b)(1) may use that lease or purchase to count toward an energy savings goal described in section 808 of this Act that is applicable to the agency.

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

- (1) \$20,000,000 for fiscal year 2006;
- (2) \$50,000,000 for fiscal year 2007;
- (3) \$75,000,000 for fiscal year 2008;
- (4) \$100,000,000 for fiscal year 2009;
- (5) \$100,000,000 for fiscal year 2010; and
- (6) such sums as are necessary for each of fiscal years 2011 through 2015.

Subtitle G—Diesel Emissions Reduction

SEC. 791. [42 U.S.C. 16131] DEFINITIONS.

In this subtitle:

(1) ADMINISTRATOR.—The term “Administrator” means the Administrator of the Environmental Protection Agency.

(2) CERTIFIED ENGINE CONFIGURATION.—The term “certified engine configuration” means a new, rebuilt, or remanufactured engine configuration—

(A) that has been certified or verified by—

- (i) the Administrator; or
- (ii) the California Air Resources Board;

(B) that meets or is rebuilt or remanufactured to a more stringent set of engine emission standards, as determined by the Administrator; and

(C) in the case of a certified engine configuration involving the replacement of an existing engine or vehicle,

an engine configuration that replaced an engine that was—

- (i) removed from the vehicle; and
- (ii) returned to the supplier for remanufacturing to a more stringent set of engine emissions standards or for scrappage.

(3) **ELIGIBLE ENTITY.**—The term “eligible entity” means—

- (A) a regional, State, local, or tribal agency or port authority with jurisdiction over transportation or air quality;
- (B) a nonprofit organization or institution that—

- (i) represents or provides pollution reduction or educational services to persons or organizations that own or operate diesel fleets; or

- (ii) has, as its principal purpose, the promotion of transportation or air quality; and

- (C) any private individual or entity that—

- (i) is the owner of record of a diesel vehicle or fleet operated pursuant to a contract, license, or lease with a Federal department or agency or an entity described in subparagraph (A); and

- (ii) meets such timely and appropriate requirements as the Administrator may establish for vehicle use and for notice to and approval by the Federal department or agency or entity described in subparagraph (A) with respect to which the owner has entered into a contract, license, or lease as described in clause (i).

(4) **EMERGING TECHNOLOGY.**—The term “emerging technology” means a technology that is not currently, or has not been previously, certified or verified by the Administrator or the California Air Resources Board but for which an approvable application and test plan has been submitted for verification to the Administrator or the California Air Resources Board.

(5) **FLEET.**—The term “fleet” means one or more diesel vehicles or mobile or stationary diesel engines.

(6) **HEAVY-DUTY TRUCK.**—The term “heavy-duty truck” has the meaning given the term “heavy duty vehicle” in section 202 of the Clean Air Act (42 U.S.C. 7521).

(7) **MEDIUM-DUTY TRUCK.**—The term “medium-duty truck” has such meaning as shall be determined by the Administrator, by regulation.

(8) **STATE.**—The term “State” means the several States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the United States Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(9) **VERIFIED TECHNOLOGY.**—The term “verified technology” means a pollution control technology, including a retrofit technology or auxiliary power unit, that has been verified by—

- (A) the Administrator; or
- (B) the California Air Resources Board.

SEC. 792. [42 U.S.C. 16132] NATIONAL GRANT, REBATE, AND LOAN PROGRAMS.

(a) **IN GENERAL.**—The Administrator shall use 70 percent of the funds made available to carry out this subtitle for each fiscal year to provide grants, rebates, or low-cost revolving loans, as determined by the Administrator, on a competitive basis, to eligible entities, including through contracts entered into under subsection (e) of this section, to achieve significant reductions in diesel emissions in terms of—

- (1) pollution produced; and
- (2) diesel emissions exposure, particularly from fleets operating in areas designated by the Administrator as poor air quality areas.

(b) **DISTRIBUTION.**—

(1) **IN GENERAL.**—The Administrator shall distribute funds made available for a fiscal year under this subtitle in accordance with this section.

(2) **ENGINE CONFIGURATIONS AND TECHNOLOGIES.**—

(A) **CERTIFIED ENGINE CONFIGURATIONS AND VERIFIED TECHNOLOGIES.**—The Administrator shall provide not less than 95 percent of funds available for a fiscal year under this section to eligible entities for projects using—

- (i) a certified engine configuration; or
- (ii) a verified technology.

(B) **EMERGING TECHNOLOGIES.**—

(i) **IN GENERAL.**—The Administrator shall provide not more than 5 percent of funds available for a fiscal year under this section to eligible entities for the development and commercialization of emerging technologies.

(ii) **APPLICATION AND TEST PLAN.**—To receive funds under clause (i), a manufacturer, in consultation with an eligible entity, shall submit for verification to the Administrator or the California Air Resources Board a test plan for the emerging technology, together with a verification application.

(c) **APPLICATIONS.**—

(1) **EXPEDITED PROCESS.**—

(A) **IN GENERAL.**—The Administrator shall develop a simplified application process for all applicants under this section to expedite the provision of funds.

(B) **REQUIREMENTS.**—In developing the expedited process under subparagraph (A), the Administrator—

- (i) shall take into consideration the special circumstances affecting small fleet owners; and
- (ii) to avoid duplicative procedures, may require applicants to include in an application under this section the results of a competitive bidding process for equipment and installation.

(2) **ELIGIBILITY.**—

(A) **GRANTS.**—To be eligible to receive a grant under this section, an eligible entity shall submit to the Administrator an application at such time, in such manner, and

containing such information as the Administrator may require.

(B) REBATES AND LOW-COST LOANS.—To be eligible to receive a rebate or a low-cost loan under this section, an eligible entity shall submit an application in accordance with such guidance as the Administrator may establish—

(i) to the Administrator; or

(ii) to an entity that has entered into a contract under subsection (e).

(3) INCLUSIONS.—An application under this subsection shall include—

(A) a description of the air quality of the area served by the eligible entity;

(B) the quantity of air pollution produced by the diesel fleets in the area served by the eligible entity;

(C) a description of the project proposed by the eligible entity, including—

(i) any certified engine configuration, verified technology, or emerging technology to be used or funded by the eligible entity; and

(ii) the means by which the project will achieve a significant reduction in diesel emissions;

(D) an evaluation (using methodology approved by the Administrator or the National Academy of Sciences) of the quantifiable and unquantifiable benefits of the emissions reductions of the proposed project;

(E) an estimate of the cost of the proposed project;

(F) a description of the age and expected lifetime control of the equipment used or funded by the eligible entity;

(G) in the case of an application relating to nonroad engines or vehicles, a description of the diesel fuel available in the areas to be served by the eligible entity, including the sulfur content of the fuel; and

(H) provisions for the monitoring and verification of the project.

(4) PRIORITY.—In providing a grant, rebate, or loan under this section, the Administrator shall give highest priority to proposed projects that, as determined by the Administrator—

(A) maximize public health benefits;

(B) are the most cost-effective;

(C) serve areas—

(i) with the highest population density;

(ii) that are poor air quality areas, including areas identified by the Administrator as—

(I) in nonattainment or maintenance of national ambient air quality standards for a criteria pollutant;

(II) Federal Class I areas; or

(III) areas with toxic air pollutant concerns;

(iii) that receive a disproportionate quantity of air pollution from diesel fleets, including truckstops, ports, rail yards, terminals, construction sites, schools, and distribution centers; or

- (iv) that use a community-based multistakeholder collaborative process to reduce toxic emissions;
 - (D) include a certified engine configuration, verified technology, or emerging technology that has a long expected useful life;
 - (E) will maximize the useful life of any certified engine configuration, verified technology, or emerging technology used or funded by the eligible entity; and
 - (F) conserve diesel fuel.
- (d) USE OF FUNDS.—
 - (1) IN GENERAL.—An eligible entity may use a grant, rebate, or loan provided under this section to fund the costs of—
 - (A) a retrofit technology (including any incremental costs of a repowered or new diesel engine) that significantly reduces emissions through development and implementation of a certified engine configuration, verified technology, or emerging technology for—
 - (i) a bus;
 - (ii) a medium-duty truck or a heavy-duty truck;
 - (iii) a marine engine;
 - (iv) a locomotive; or
 - (v) a nonroad engine or vehicle used in—
 - (I) construction;
 - (II) handling of cargo (including at a port or airport);
 - (III) agriculture;
 - (IV) mining; or
 - (V) energy production; or
 - (B) programs or projects to reduce long-duration idling using verified technology involving a vehicle or equipment described in subparagraph (A).
 - (2) REGULATORY PROGRAMS.—
 - (A) IN GENERAL.—Notwithstanding paragraph (1), no grant, rebate, or loan provided, or contract entered into, under this section shall be used to fund the costs of emissions reductions that are mandated under any Federal law, except that this subparagraph shall not apply to a mandate in a State implementation plan approved by the Administrator under the Clean Air Act.
 - (B) MANDATED.—For purposes of subparagraph (A), voluntary or elective emission reduction measures shall not be considered “mandated”, regardless of whether the reductions are included in the State implementation plan of a State.
- (e) CONTRACT PROGRAMS.—
 - (1) AUTHORITY.—In addition to the use of contracting authority otherwise available to the Administrator, the Administrator may enter into contracts with eligible contractors described in paragraph (2) for the administration of programs for providing rebates or loans, subject to the requirements of this subtitle.
 - (2) ELIGIBLE CONTRACTORS.—The Administrator may enter into a contract under this subsection with a for-profit or non-profit entity that has the capacity—

(A) to sell diesel vehicles or equipment to, or to arrange financing for, individuals or entities that own a diesel vehicle or fleet; or

(B) to upgrade diesel vehicles or equipment with verified or Environmental Protection Agency-certified engines or technologies, or to arrange financing for such upgrades.

(f) **PUBLIC NOTIFICATION.**—Not later than 60 days after the date of the award of a grant, rebate, or loan, the Administrator shall publish on the website of the Environmental Protection Agency—

(1) for rebates and loans provided to the owner of a diesel vehicle or fleet, the total number and dollar amount of rebates or loans provided, as well as a breakdown of the technologies funded through the rebates or loans; and

(2) for other rebates and loans, and for grants, a description of each application for which the grant, rebate, or loan is provided.

SEC. 793. [42 U.S.C. 16133] STATE GRANT, REBATE, AND LOAN PROGRAMS.

(a) **IN GENERAL.**—Subject to the availability of adequate appropriations, the Administrator shall use 30 percent of the funds made available for a fiscal year under this subtitle to support grant, rebate, and loan programs administered by States that are designed to achieve significant reductions in diesel emissions.

(b) **APPLICATIONS.**—The Administrator shall—

(1) provide to States guidance for use in applying for grant, rebate, or loan funds under this section, including information regarding—

(A) the process and forms for applications;

(B) permissible uses of funds received; and

(C) the cost-effectiveness of various emission reduction technologies eligible to be carried out using funds provided under this section; and

(2) establish, for applications described in paragraph (1)—

(A) an annual deadline for submission of the applications;

(B) a process by which the Administrator shall approve or disapprove each application; and

(C) a streamlined process by which a State may renew an application described in paragraph (1) for subsequent fiscal years.

(c) **ALLOCATION OF FUNDS.**—

(1) **IN GENERAL.**—For each fiscal year, the Administrator shall allocate among States for which applications are approved by the Administrator under subsection (b)(2)(B) funds made available to carry out this section for the fiscal year.

(2) **ALLOCATION.**—

(A) **IN GENERAL.**—Except as provided in subparagraphs (B) and (C), using not more than 20 percent of the funds made available to carry out this subtitle for a fiscal year, the Administrator shall provide to each State qualified for an allocation for the fiscal year an allocation equal

to $\frac{1}{53}$ of the funds made available for that fiscal year for distribution to States under this paragraph.

(B) CERTAIN TERRITORIES.—

(i) IN GENERAL.—Except as provided in clause (ii), Guam, the United States Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands shall collectively receive an allocation equal to $\frac{1}{53}$ of the funds made available for that fiscal year for distribution to States under this subsection, divided equally among those 4 States.

(ii) EXCEPTION.—If any State described in clause (i) does not qualify for an allocation under this paragraph, the share of funds otherwise allocated for that State under clause (i) shall be reallocated pursuant to subparagraph (C).

(C) REALLOCATION.—If any State does not qualify for an allocation under this paragraph, the share of funds otherwise allocated for that State under this paragraph shall be reallocated to each remaining qualified State in an amount equal to the product obtained by multiplying—

(i) the proportion that the population of the State bears to the population of all States described in paragraph (1); by

(ii) the amount otherwise allocatable to the non-qualifying State under this paragraph.

(3) STATE MATCHING INCENTIVE.—

(A) IN GENERAL.—If a State agrees to match the allocation provided to the State under paragraph (2) for a fiscal year, the Administrator shall provide to the State for the fiscal year an additional amount equal to 50 percent of the allocation of the State under paragraph (2).

(B) REQUIREMENTS.—A State—

(i) may not use funds received under this subtitle to pay a matching share required under this subsection; and

(ii) shall not be required to provide a matching share for any additional amount received under subparagraph (A).

(4) UNCLAIMED FUNDS.—Any funds that are not claimed by a State for a fiscal year under this subsection shall be used to carry out section 792.

(d) ADMINISTRATION.—

(1) IN GENERAL.—Subject to paragraphs (2) and (3) and, to the extent practicable, the priority areas listed in section 792(c)(3), a State shall use any funds provided under this section to develop and implement such grant, rebate, and low-cost revolving loan programs in the State as are appropriate to meet State needs and goals relating to the reduction of diesel emissions.

(2) APPORTIONMENT OF FUNDS.—The chief executive of a State that receives funding under this section may determine the portion of funds to be provided as grants, rebates, or loans.

(3) USE OF FUNDS.—A grant, rebate, or loan provided under this section shall be used for a project relating to—

- (A) a certified engine configuration; or
- (B) a verified technology.

(4) **PRIORITY.**—In providing grants, rebates, and loans under this section, a State shall use the priorities in section 792(c)(4).

(5) **PUBLIC NOTIFICATION.**—Not later than 60 days after the date of the award of a grant, rebate, or loan by a State, the State shall publish on the Web site of the State—

(A) for rebates, grants, and loans provided to the owner of a diesel vehicle or fleet, the total number and dollar amount of rebates, grants, or loans provided, as well as a breakdown of the technologies funded through the rebates, grants, or loans; and

(B) for other rebates, grants, and loans, a description of each application for which the grant, rebate, or loan is provided.

SEC. 794. [42 U.S.C. 16134] EVALUATION AND REPORT.

(a) **IN GENERAL.**—Not later than 1 year after the date on which funds are made available under this subtitle, and biennially thereafter, the Administrator shall submit to Congress a report evaluating the implementation of the programs under this subtitle.

(b) **INCLUSIONS.**—The report shall include a description of—

- (1) the total number of grant applications received;
- (2) each grant, rebate, or loan made under this subtitle, including the amount of the grant, rebate, or loan;
- (3) each project for which a grant, rebate, or loan is provided under this subtitle, including the criteria used to select the grant, rebate, or loan recipients;
- (4) the actual and estimated air quality and diesel fuel conservation benefits, cost-effectiveness, and cost-benefits of the grant, rebate, and loan programs under this subtitle;
- (5) the problems encountered by projects for which a grant, rebate, or loan is provided under this subtitle;
- (6) any other information the Administrator considers to be appropriate; and
- (7) in the last report sent to Congress before January 1, 2016, an analysis of the need to continue the program, including an assessment of the size of the vehicle and engine fleet that could provide benefits from being retrofit under this program and a description of the number and types of applications that were not granted in the preceding year.

SEC. 795. [42 U.S.C. 16135] OUTREACH AND INCENTIVES.

(a) **DEFINITION OF ELIGIBLE TECHNOLOGY.**—In this section, the term “eligible technology” means—

- (1) a verified technology; or
- (2) an emerging technology.

(b) **TECHNOLOGY TRANSFER PROGRAM.**—

(1) **IN GENERAL.**—The Administrator shall establish a program under which the Administrator—

(A) informs stakeholders of the benefits of eligible technologies; and

(B) develops nonfinancial incentives to promote the use of eligible technologies.

(2) ELIGIBLE STAKEHOLDERS.—Eligible stakeholders under this section include—

- (A) equipment owners and operators;
- (B) emission and pollution control technology manufacturers;
- (C) engine and equipment manufacturers;
- (D) State and local officials responsible for air quality management;
- (E) community organizations; and
- (F) public health, educational, and environmental organizations.

(c) STATE IMPLEMENTATION PLANS.—The Administrator shall develop appropriate guidance to provide credit to a State for emission reductions in the State created by the use of eligible technologies through a State implementation plan under section 110 of the Clean Air Act (42 U.S.C. 7410).

(d) INTERNATIONAL MARKETS.—The Administrator, in coordination with the Department of Commerce and industry stakeholders, shall inform foreign countries with air quality problems of the potential of technology developed or used in the United States to provide emission reductions in those countries.

SEC. 796. [42 U.S.C. 16136] EFFECT OF SUBTITLE.

Nothing in this subtitle affects any authority under the Clean Air Act (42 U.S.C. 7401 et seq.) in existence on the day before the date of enactment of this Act.

SEC. 797. [42 U.S.C. 16137] AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—There is authorized to be appropriated to carry out this subtitle \$100,000,000 for each of fiscal years 2012 through 2024, to remain available until expended.

(b) MANAGEMENT AND OVERSIGHT.—The Administrator may use not more than 1 percent of the amounts made available under subsection (a) for each fiscal year for management and oversight purposes.

TITLE VIII—HYDROGEN

SEC. 801. [42 U.S.C. 15801 note] HYDROGEN AND FUEL CELL PROGRAM.

This title may be cited as the “Spark M. Matsunaga Hydrogen Act of 2005”.

SEC. 802. [42 U.S.C. 16151] PURPOSES.

The purposes of this title are—

- (1) to enable and promote comprehensive development, demonstration, and commercialization of hydrogen and fuel cell technology in partnership with industry;
- (2) to make critical public investments in building strong links to private industry, institutions of higher education, National Laboratories, and research institutions to expand innovation and industrial growth;
- (3) to build a mature hydrogen economy that creates fuel diversity in the massive transportation sector of the United States;

(4) to sharply decrease the dependency of the United States on imported oil, eliminate most emissions from the transportation sector, and greatly enhance our energy security; and

(5) to create, strengthen, and protect a sustainable national energy economy.

SEC. 803. [42 U.S.C. 16152] DEFINITIONS.

In this title:

(1) **CLEAN HYDROGEN; HYDROGEN.**—The terms “clean hydrogen” and “hydrogen” mean hydrogen produced in compliance with the greenhouse gas emissions standard established under section 822(a), including production from any fuel source.

(2) **FUEL CELL.**—The term “fuel cell” means a device that directly converts the chemical energy of a fuel, which is supplied from an external source, and an oxidant into electricity by electrochemical processes occurring at separate electrodes in the device.

(3) **HEAVY-DUTY VEHICLE.**—The term “heavy-duty vehicle” means a motor vehicle that—

(A) is rated at more than 8,500 pounds gross vehicle weight;

(B) has a curb weight of more than 6,000 pounds; or

(C) has a basic vehicle frontal area in excess of 45 square feet.

(4) **INFRASTRUCTURE.**—The term “infrastructure” means the equipment, systems, or facilities used to produce, distribute, deliver, or store hydrogen (except for onboard storage).

(5) **LIGHT-DUTY VEHICLE.**—The term “light-duty vehicle” means a motor vehicle that is rated at 8,500 or less pounds gross vehicle weight.

(6) **PORTABLE; STORAGE.**—The terms “portable” and “storage”, when used in reference to a fuel cell, include—

(A) continuous electric power; and

(B) backup electric power.

(7) **TASK FORCE.**—The term “Task Force” means the Hydrogen and Fuel Cell Technical Task Force established under section 806.

(8) **TECHNICAL ADVISORY COMMITTEE.**—The term “Technical Advisory Committee” means the independent Technical Advisory Committee established under section 807.

SEC. 804. [42 U.S.C. 16153] PLAN.

Not later than 6 months after the date of enactment of this Act, the Secretary shall transmit to Congress a coordinated plan for the programs described in this title and any other programs of the Department that are directly related to fuel cells or hydrogen. The plan shall describe, at a minimum—

(1) the agenda for the next 5 years for the programs authorized under this title, including the agenda for each activity enumerated in section 805(e);

(2) the types of entities that will carry out the activities under this title and what role each entity is expected to play;

(3) the milestones that will be used to evaluate the programs for the next 5 years;

(4) the most significant technical and nontechnical hurdles that stand in the way of achieving the goals described in section 805, and how the programs will address those hurdles; and

(5) the policy assumptions that are implicit in the plan, including any assumptions that would affect the sources of hydrogen or the marketability of hydrogen-related products.

SEC. 805. [42 U.S.C. 16154] CLEAN HYDROGEN RESEARCH AND DEVELOPMENT PROGRAM.

(a) **IN GENERAL.**—The Secretary, in consultation with other Federal agencies and the private sector, shall conduct a cross-cutting research and development program (referred to in this section as the “program”) on technologies relating to the production, processing, purification, distribution, storage, and use of hydrogen energy, fuel cells, and related infrastructure.

(b) **GOALS.**—The goals of the program shall be—

(1) to advance research and development to demonstrate and commercialize the use of clean hydrogen in the transportation, utility, industrial, commercial, and residential sectors; and

(2) to demonstrate a standard of clean hydrogen production in the transportation, utility, industrial, commercial, and residential sectors by 2040.

(c) **FOCUS.**—In carrying out activities under this section, the Secretary shall focus on factors that are common to the development of hydrogen infrastructure and the supply of vehicle and electric power for critical consumer and commercial applications, and that achieve continuous technical evolution and cost reduction, particularly for hydrogen production, the supply of hydrogen, storage of hydrogen, and end uses of hydrogen that—

(1) steadily increase production, distribution, and end use efficiency and reduce life-cycle emissions;

(2) resolve critical problems relating to catalysts, membranes, storage, lightweight materials, electronic controls, manufacturability, and other problems that emerge from the program;

(3) enhance sources of fossil fuels with carbon capture, utilization, and sequestration, renewable fuels, biofuels, and nuclear energy for hydrogen production; and

(4) enable widespread use of distributed electricity generation and storage.

(d) **PUBLIC EDUCATION AND RESEARCH.**—In carrying out this section, the Secretary shall support enhanced public education and research conducted at institutions of higher education in fundamental sciences, application design, and systems concepts (including education and research relating to materials, subsystems, manufacturability, maintenance, and safety) relating to hydrogen and fuel cells.

(e) **ACTIVITIES.**—In carrying out the program, the Secretary, in partnership with the private sector, shall conduct activities to advance and support—

- (1) the establishment of a series of technology cost goals oriented toward achieving the standard of clean hydrogen production developed under section 822(a);
- (2) the production of clean hydrogen from diverse energy sources, including—
 - (A) fossil fuels with carbon capture, utilization, and sequestration;
 - (B) hydrogen-carrier fuels (including ethanol and methanol);
 - (C) renewable energy resources, including biomass;
 - (D) nuclear energy; and
 - (E) any other methods the Secretary determines to be appropriate;
- (3) the use of clean hydrogen for commercial, industrial, and residential electric power generation;
- (4) the use of clean hydrogen in industrial applications, including steelmaking, cement, chemical feedstocks, and process heat;
- (5) the use of clean hydrogen for use as a fuel source for both residential and commercial comfort heating and hot water requirements;
- (6) the safe and efficient delivery of hydrogen or hydrogen-carrier fuels, including—
 - (A) transmission by pipelines, including retrofitting the existing natural gas transportation infrastructure system to enable a transition to transport and deliver increasing levels of clean hydrogen, clean hydrogen blends, or clean hydrogen carriers;
 - (B) tanks and other distribution methods; and
 - (C) convenient and economic refueling of vehicles, locomotives, maritime vessels, or planes—
 - (i) at central refueling stations; or
 - (ii) through distributed onsite generation;
- (7) advanced vehicle, locomotive, maritime vessel, or plane technologies, including—
 - (A) engine and emission control systems;
 - (B) energy storage, electric propulsion, and hybrid systems;
 - (C) automotive, locomotive, maritime vessel, or plane materials; and
 - (D) other advanced vehicle, locomotive, maritime vessel, or plane technologies;
- (8) storage of hydrogen or hydrogen-carrier fuels, including the development of materials for safe and economic storage in gaseous, liquid, or solid form;
- (9) the development of safe, durable, affordable, and efficient fuel cells, including fuel-flexible fuel cell power systems, improved manufacturing processes, high-temperature membranes, cost-effective fuel processing for natural gas, fuel cell stack and system reliability, low-temperature operation, and cold start capability;
- (10) the ability of domestic clean hydrogen equipment manufacturers to manufacture commercially available competitive technologies in the United States;

(11) the use of clean hydrogen in the transportation sector, including in light-, medium-, and heavy-duty vehicles, rail transport, aviation, and maritime applications; and

(12) in coordination with relevant agencies, the development of appropriate, uniform codes and standards for the safe and consistent deployment and commercialization of clean hydrogen production, processing, delivery, and end-use technologies.

(f) PROGRAM GOALS.—

(1) VEHICLES.—For vehicles, the goals of the program are—

(A) to enable a commitment by automakers no later than year 2015 to offer safe, affordable, and technically viable hydrogen fuel cell vehicles in the mass consumer market; and

(B) to enable production, delivery, and acceptance by consumers of model year 2020 hydrogen fuel cell and other hydrogen-powered vehicles that will have, when compared to light duty vehicles in model year 2005—

(i) fuel economy that is substantially higher;

(ii) substantially lower emissions of air pollutants;

and

(iii) equivalent or improved vehicle fuel system crash integrity and occupant protection.

(2) HYDROGEN ENERGY AND ENERGY INFRASTRUCTURE.—For hydrogen energy and energy infrastructure, the goals of the program are to enable a commitment not later than 2015 that will lead to infrastructure by 2020 that will provide—

(A) safe and convenient refueling;

(B) improved overall efficiency;

(C) widespread availability of hydrogen from domestic energy sources through—

(i) production, with consideration of emissions levels;

(ii) delivery, including transmission by pipeline and other distribution methods for hydrogen; and

(iii) storage, including storage in surface transportation vehicles;

(D) hydrogen for fuel cells, internal combustion engines, and other energy conversion devices for portable, stationary, micro, critical needs facilities, and transportation applications; and

(E) other technologies consistent with the Department's plan.

(3) FUEL CELLS.—The goals for fuel cells and their portable, stationary, and transportation applications are to enable—

(A) safe, economical, and environmentally sound hydrogen fuel cells;

(B) fuel cells for light duty and other vehicles; and

(C) other technologies consistent with the Department's plan.

(g) FUNDING.—

(1) IN GENERAL.—The Secretary shall carry out the programs under this section using a competitive, merit-based review process and consistent with the generally applicable Federal laws and regulations governing awards of financial assistance, contracts, or other agreements.

(2) RESEARCH CENTERS.—Activities under this section may be carried out by funding nationally recognized university-based or Federal laboratory research centers.

(h) HYDROGEN SUPPLY.—There are authorized to be appropriated to carry out projects and activities relating to hydrogen production, storage, distribution and dispensing, transport, education and coordination, and technology transfer under this section—

- (1) \$160,000,000 for fiscal year 2006;
- (2) \$200,000,000 for fiscal year 2007;
- (3) \$220,000,000 for fiscal year 2008;
- (4) \$230,000,000 for fiscal year 2009;
- (5) \$250,000,000 for fiscal year 2010; and
- (6) such sums as are necessary for each of fiscal years 2011 through 2020.

(i) FUEL CELL TECHNOLOGIES.—There are authorized to be appropriated to carry out projects and activities relating to fuel cell technologies under this section—

- (1) \$150,000,000 for fiscal year 2006;
- (2) \$160,000,000 for fiscal year 2007;
- (3) \$170,000,000 for fiscal year 2008;
- (4) \$180,000,000 for fiscal year 2009;
- (5) \$200,000,000 for fiscal year 2010; and
- (6) such sums as are necessary for each of fiscal years 2011 through 2020.

(j) TARGETS.—Not later than 180 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall establish targets for the program to address near-term (up to 2 years), mid-term (up to 7 years), and long-term (up to 15 years) challenges to the advancement of clean hydrogen systems and technologies.

SEC. 806. [42 U.S.C. 16155] HYDROGEN AND FUEL CELL TECHNICAL TASK FORCE.

(a) ESTABLISHMENT.—Not later than 120 days after the date of enactment of this Act, the President shall establish an interagency task force chaired by the Secretary with representatives from each of the following:

- (1) The Office of Science and Technology Policy within the Executive Office of the President.
- (2) The Department of Transportation.
- (3) The Department of Defense.
- (4) The Department of Commerce (including the National Institute of Standards and Technology).
- (5) The Department of State.
- (6) The Environmental Protection Agency.
- (7) The National Aeronautics and Space Administration.
- (8) Other Federal agencies as the Secretary determines appropriate.

(b) DUTIES.—

- (1) PLANNING.—The Task Force shall work toward—

(A) a safe, economical, and environmentally sound fuel infrastructure for hydrogen and hydrogen-carrier fuels, including an infrastructure that supports buses and other fleet transportation;

(B) fuel cells in government and other applications, including portable, stationary, and transportation applications;

(C) distributed power generation, including the generation of combined heat, power, and clean fuels including hydrogen;

(D) uniform hydrogen codes, standards, and safety protocols; and

(E) vehicle hydrogen fuel system integrity safety performance.

(2) ACTIVITIES.—The Task Force may organize workshops and conferences, may issue publications, and may create databases to carry out its duties. The Task Force shall—

(A) foster the exchange of generic, nonproprietary information and technology among industry, academia, and government;

(B) develop and maintain an inventory and assessment of hydrogen, fuel cells, and other advanced technologies, including the commercial capability of each technology for the economic and environmentally safe production, distribution, delivery, storage, and use of hydrogen;

(C) integrate technical and other information made available as a result of the programs and activities under this title;

(D) promote the marketplace introduction of infrastructure for hydrogen fuel vehicles; and

(E) conduct an education program to provide hydrogen and fuel cell information to potential end-users.

(c) AGENCY COOPERATION.—The heads of all agencies, including those whose agencies are not represented on the Task Force, shall cooperate with and furnish information to the Task Force, the Technical Advisory Committee, and the Department.

SEC. 807. [42 U.S.C. 16156] TECHNICAL ADVISORY COMMITTEE.

(a) ESTABLISHMENT.—The Hydrogen Technical and Fuel Cell Advisory Committee is established to advise the Secretary on the programs and activities under this title.

(b) MEMBERSHIP.—

(1) MEMBERS.—The Technical Advisory Committee shall be comprised of not fewer than 12 nor more than 25 members. The members shall be appointed by the Secretary to represent domestic industry, academia, professional societies, government agencies, Federal laboratories, previous advisory panels, and financial, environmental, and other appropriate organizations based on the Department's assessment of the technical and other qualifications of Technical Advisory Committee members and the needs of the Technical Advisory Committee.

(2) TERMS.—The term of a member of the Technical Advisory Committee shall not be more than 3 years. The Secretary may appoint members of the Technical Advisory Committee in

a manner that allows the terms of the members serving at any time to expire at spaced intervals so as to ensure continuity in the functioning of the Technical Advisory Committee. A member of the Technical Advisory Committee whose term is expiring may be reappointed.

(3) CHAIRPERSON.—The Technical Advisory Committee shall have a chairperson, who shall be elected by the members from among their number.

(c) REVIEW.—The Technical Advisory Committee shall review and make recommendations to the Secretary on—

(1) the implementation of programs and activities under this title;

(2) the safety, economical, and environmental consequences of technologies for the production, distribution, delivery, storage, or use of hydrogen energy and fuel cells; and

(3) the plan under section 804.

(d) RESPONSE.—

(1) CONSIDERATION OF RECOMMENDATIONS.—The Secretary shall consider, but need not adopt, any recommendations of the Technical Advisory Committee under subsection (c).

(2) BIENNIAL REPORT.—The Secretary shall transmit a biennial report to Congress describing any recommendations made by the Technical Advisory Committee since the previous report. The report shall include a description of how the Secretary has implemented or plans to implement the recommendations, or an explanation of the reasons that a recommendation will not be implemented. The report shall be transmitted along with the President's budget proposal.

(e) SUPPORT.—The Secretary shall provide resources necessary in the judgment of the Secretary for the Technical Advisory Committee to carry out its responsibilities under this title.

SEC. 808. [42 U.S.C. 16157] DEMONSTRATION.

(a) IN GENERAL.—In carrying out the programs under this section, the Secretary shall fund a limited number of demonstration projects, consistent with this title and a determination of the maturity, cost-effectiveness, and environmental impacts of technologies supporting each project. In selecting projects under this subsection, the Secretary shall, to the extent practicable and in the public interest, select projects that—

(1) involve using hydrogen and related products at existing facilities or installations, such as existing office buildings, military bases, vehicle fleet centers, transit bus authorities, or units of the National Park System;

(2) depend on reliable power from hydrogen to carry out essential activities;

(3) lead to the replication of hydrogen technologies and draw such technologies into the marketplace;

(4) include vehicle, portable, and stationary demonstrations of fuel cell and hydrogen-based energy technologies;

(5) address the interdependency of demand for hydrogen fuel cell applications and hydrogen fuel infrastructure;

(6) raise awareness of hydrogen technology among the public;

(7) facilitate identification of an optimum technology among competing alternatives;

(8) address distributed generation using renewable sources;

(9) carry out demonstrations of evolving hydrogen and fuel cell technologies in national parks, remote island areas, and on Indian tribal land, as selected by the Secretary;

(10) carry out a program to demonstrate developmental hydrogen and fuel cell systems for mobile, portable, and stationary uses, using improved versions of the learning demonstrations program concept of the Department including demonstrations involving—

(A) light-duty vehicles;

(B) heavy-duty vehicles;

(C) fleet vehicles;

(D) specialty industrial and farm vehicles; and

(E) commercial and residential portable, continuous, and backup electric power generation;

(11) in accordance with any code or standards developed in a region, fund prototype, pilot fleet, and infrastructure regional hydrogen supply corridors along the interstate highway system in varied climates across the United States; and

(12) fund demonstration programs that explore the use of hydrogen blends, hybrid hydrogen, and hydrogen reformed from renewable agricultural fuels, including the use of hydrogen in hybrid electric, heavier duty, and advanced internal combustion-powered vehicles.

The Secretary shall give preference to projects which address multiple elements contained in paragraphs (1) through (12).

(b) SYSTEM DEMONSTRATIONS.—

(1) IN GENERAL.—As a component of the demonstration program under this section, the Secretary shall provide grants, on a cost share basis as appropriate, to eligible entities (as determined by the Secretary) for use in—

(A) devising system design concepts that provide for the use of advanced composite vehicles in programs under section 782 that—

(i) have as a primary goal the reduction of drive energy requirements;

(ii) after 2010, add another research and development phase, as defined in subsection (c), including the vehicle and infrastructure partnerships developed under the learning demonstrations program concept of the Department; and

(iii) are managed through an enhanced FreedomCAR program within the Department that encourages involvement in cost-shared projects by manufacturers and governments; and

(B) designing a local distributed energy system that—

(i) incorporates renewable hydrogen production, off-grid electricity production, and fleet applications in industrial or commercial service;

(ii) integrates energy or applications described in clause (i), such as stationary, portable, micro, and mo-

bile fuel cells, into a high-density commercial or residential building complex or agricultural community; and

(iii) is managed in cooperation with industry, State, tribal, and local governments, agricultural organizations, and nonprofit generators and distributors of electricity.

(c) IDENTIFICATION OF NEW PROGRAM REQUIREMENTS.—In carrying out the demonstrations under subsection (a), the Secretary, in consultation with the Task Force and the Technical Advisory Committee, shall—

(1) after 2008 for stationary and portable applications, and after 2010 for vehicles, identify new requirements that refine technological concepts, planning, and applications; and

(2) during the second phase of the learning demonstrations under subsection (b)(1)(A)(ii), redesign subsequent program work to incorporate those requirements.

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

(1) \$185,000,000 for fiscal year 2006;

(2) \$200,000,000 for fiscal year 2007;

(3) \$250,000,000 for fiscal year 2008;

(4) \$300,000,000 for fiscal year 2009;

(5) \$375,000,000 for fiscal year 2010; and

(6) such sums as are necessary for each of fiscal years 2011 through 2020.

SEC. 809. [42 U.S.C. 16158] CODES AND STANDARDS.

(a) IN GENERAL.—The Secretary, in cooperation with the Task Force, shall provide grants to, or offer to enter into contracts with, such professional organizations, public service organizations, and government agencies as the Secretary determines appropriate to support timely and extensive development of safety codes and standards relating to fuel cell vehicles, hydrogen energy systems, and stationary, portable, and micro fuel cells.

(b) EDUCATIONAL EFFORTS.—The Secretary shall support educational efforts by organizations and agencies described in subsection (a) to share information, including information relating to best practices, among those organizations and agencies.

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

(1) \$4,000,000 for fiscal year 2006;

(2) \$7,000,000 for fiscal year 2007;

(3) \$8,000,000 for fiscal year 2008;

(4) \$10,000,000 for fiscal year 2009;

(5) \$9,000,000 for fiscal year 2010; and

(6) such sums as are necessary for each of fiscal years 2011 through 2020.

SEC. 810. [42 U.S.C. 16159] DISCLOSURE.

Section 623 of the Energy Policy Act of 1992 (42 U.S.C. 13293) shall apply to any project carried out through a grant, cooperative agreement, or contract under this title.

SEC. 811. [42 U.S.C. 16160] REPORTS.

(a) SECRETARY.—Subject to subsection (c), not later than 2 years after the date of enactment of this Act, and triennially thereafter, the Secretary shall submit to Congress a report describing—

(1) activities carried out by the Department under this title, for hydrogen and fuel cell technology;

(2) measures the Secretary has taken during the preceding 3 years to support the transition of primary industry (or a related industry) to a fully commercialized hydrogen economy;

(3) any change made to the strategy relating to hydrogen and fuel cell technology to reflect the results of a learning demonstrations;

(4) progress, including progress in infrastructure, made toward achieving the goal of producing and deploying not less than—

(A) 100,000 hydrogen-fueled vehicles in the United States by 2010; and

(B) 2,500,000 hydrogen-fueled vehicles in the United States by 2020;

(5) progress made toward achieving the goal of supplying hydrogen at a sufficient number of fueling stations in the United States by 2010 including by integrating—

(A) hydrogen activities; and

(B) associated targets and timetables for the development of hydrogen technologies;

(6) any problem relating to the design, execution, or funding of a program under this title;

(7) progress made toward and goals achieved in carrying out this title and updates to the developmental roadmap, including the results of the reviews conducted by the National Academy of Sciences under subsection (b) for the fiscal years covered by the report; and

(8) any updates to strategic plans that are necessary to meet the goals described in paragraph (4).

(b) EXTERNAL REVIEW.—The Secretary shall enter into an arrangement with the National Academy of Sciences under which the Academy will review the programs under sections 805 and 808 every fourth year following the date of enactment of this Act. The Academy's review shall include the program priorities and technical milestones, and evaluate the progress toward achieving them. The first review shall be completed not later than 5 years after the date of enactment of this Act. Not later than 45 days after receiving the review, the Secretary shall transmit the review to Congress along with a plan to implement the review's recommendations or an explanation for the reasons that a recommendation will not be implemented.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$1,500,000 for each of fiscal years 2006 through 2020.

SEC. 812. [42 U.S.C. 16161] SOLAR AND WIND TECHNOLOGIES.

(a) SOLAR ENERGY TECHNOLOGIES.—The Secretary shall—

(1) prepare a detailed roadmap for carrying out the provisions in this title related to solar energy technologies and for implementing the recommendations related to solar energy

technologies that are included in the report transmitted under subsection (e);

(2) provide for the establishment of 5 projects in geographic areas that are regionally and climatically diverse to demonstrate the production of hydrogen at solar energy facilities, including one demonstration project at a National Laboratory or institution of higher education;

(3) establish a program—

(A) to develop optimized concentrating solar power devices that may be used for the production of both electricity and hydrogen; and

(B) to evaluate the use of thermochemical cycles for hydrogen production at the temperatures attainable with concentrating solar power devices;

(4) coordinate with activities sponsored by the Department's Office of Nuclear Energy, Science, and Technology on high-temperature materials, thermochemical cycles, and economic issues related to solar energy;

(5) provide for the construction and operation of new concentrating solar power devices or solar power cogeneration facilities that produce hydrogen either concurrently with, or independently of, the production of electricity;

(6) support existing facilities and programs of study related to concentrating solar power devices; and

(7) establish a program—

(A) to develop methods that use electricity from photovoltaic devices for the onsite production of hydrogen, such that no intermediate transmission or distribution infrastructure is required or used and future demand growth may be accommodated;

(B) to evaluate the economics of small-scale electrolysis for hydrogen production; and

(C) to study the potential of modular photovoltaic devices for the development of a hydrogen infrastructure, the security implications of a hydrogen infrastructure, and the benefits potentially derived from a hydrogen infrastructure.

(b) WIND ENERGY TECHNOLOGIES.—The Secretary shall—

(1) prepare a detailed roadmap for carrying out the provisions in this title related to wind energy technologies and for implementing the recommendations related to wind energy technologies that are included in the report transmitted under subsection (e); and

(2) provide for the establishment of 5 projects in geographic areas that are regionally and climatically diverse to demonstrate the production of hydrogen at existing wind energy facilities, including one demonstration project at a National Laboratory or institution of higher education.

(c) PROGRAM SUPPORT.—The Secretary shall support programs at institutions of higher education for the development of solar energy technologies and wind energy technologies for the production of hydrogen. The programs supported under this subsection shall—

(1) enhance fellowship and faculty assistance programs;

(2) provide support for fundamental research;

(3) encourage collaborative research among industry, National Laboratories, and institutions of higher education;

(4) support communication and outreach; and

(5) to the greatest extent possible—

(A) be located in geographic areas that are regionally and climatically diverse; and

(B) be located at part B institutions, minority institutions, and institutions of higher education located in States participating in the Experimental Program to Stimulate Competitive Research of the Department.

(d) INSTITUTIONS OF HIGHER EDUCATION AND NATIONAL LABORATORY INTERACTIONS.—In conjunction with the programs supported under this section, the Secretary shall develop sabbatical, fellowship, and visiting scientist programs to encourage National Laboratories and institutions of higher education to share and exchange personnel.

(e) REPORT.—The Secretary shall transmit to the Congress not later than 120 days after the date of enactment of this Act a report containing detailed summaries of the roadmaps prepared under subsections (a)(1) and (b)(1), descriptions of the Secretary's progress in establishing the projects and other programs required under this section, and recommendations for promoting the availability of advanced solar and wind energy technologies for the production of hydrogen.

(f) DEFINITIONS.—For purposes of this section—

(1) the term “concentrating solar power devices” means devices that concentrate the power of the sun by reflection or refraction to improve the efficiency of a photovoltaic or thermal generation process;

(2) the term “minority institution” has the meaning given to that term in section 365 of the Higher Education Act of 1965 (20 U.S.C. 1067k);

(3) the term “part B institution” has the meaning given to that term in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061); and

(4) the term “photovoltaic devices” means devices that convert light directly into electricity through a solid-state, semiconductor process.

(g) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated such sums as are necessary for carrying out the activities under this section for each of fiscal years 2006 through 2020.

SEC. 813. [42 U.S.C. 16161a] REGIONAL CLEAN HYDROGEN HUBS.

(a) DEFINITION OF REGIONAL CLEAN HYDROGEN HUB.—In this section, the term “regional clean hydrogen hub” means a network of clean hydrogen producers, potential clean hydrogen consumers, and connective infrastructure located in close proximity.

(b) ESTABLISHMENT OF PROGRAM.—The Secretary shall establish a program to support the development of at least 4 regional clean hydrogen hubs that—

(1) demonstrably aid the achievement of the clean hydrogen production standard developed under section 822(a);

(2) demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen; and

(3) can be developed into a national clean hydrogen network to facilitate a clean hydrogen economy.

(c) SELECTION OF REGIONAL CLEAN HYDROGEN HUBS.—

(1) SOLICITATION OF PROPOSALS.—Not later than 180 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall solicit proposals for regional clean hydrogen hubs.

(2) SELECTION OF HUBS.—Not later than 1 year after the deadline for the submission of proposals under paragraph (1), the Secretary shall select at least 4 regional clean hydrogen hubs to be developed under subsection (b).

(3) CRITERIA.—The Secretary shall select regional clean hydrogen hubs under paragraph (2) using the following criteria:

(A) FEEDSTOCK DIVERSITY.—To the maximum extent practicable—

(i) at least 1 regional clean hydrogen hub shall demonstrate the production of clean hydrogen from fossil fuels;

(ii) at least 1 regional clean hydrogen hub shall demonstrate the production of clean hydrogen from renewable energy; and

(iii) at least 1 regional clean hydrogen hub shall demonstrate the production of clean hydrogen from nuclear energy.

(B) END-USE DIVERSITY.—To the maximum extent practicable—

(i) at least 1 regional clean hydrogen hub shall demonstrate the end-use of clean hydrogen in the electric power generation sector;

(ii) at least 1 regional clean hydrogen hub shall demonstrate the end-use of clean hydrogen in the industrial sector;

(iii) at least 1 regional clean hydrogen hub shall demonstrate the end-use of clean hydrogen in the residential and commercial heating sector; and

(iv) at least 1 regional clean hydrogen hub shall demonstrate the end-use of clean hydrogen in the transportation sector.

(C) GEOGRAPHIC DIVERSITY.—To the maximum extent practicable, each regional clean hydrogen hub—

(i) shall be located in a different region of the United States; and

(ii) shall use energy resources that are abundant in that region.

(D) HUBS IN NATURAL GAS-PRODUCING REGIONS.—To the maximum extent practicable, at least 2 regional clean hydrogen hubs shall be located in the regions of the United States with the greatest natural gas resources.

(E) EMPLOYMENT.—The Secretary shall give priority to regional clean hydrogen hubs that are likely to create op-

portunities for skilled training and long-term employment to the greatest number of residents of the region.

(F) **ADDITIONAL CRITERIA.**—The Secretary may take into consideration other criteria that, in the judgment of the Secretary, are necessary or appropriate to carry out this title

(4) **FUNDING OF REGIONAL CLEAN HYDROGEN HUBS.**—The Secretary may make grants to each regional clean hydrogen hub selected under paragraph (2) to accelerate commercialization of, and demonstrate the production, processing, delivery, storage, and end-use of, clean hydrogen.

(d) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to the Secretary to carry out this section \$8,000,000,000 for the period of fiscal years 2022 through 2026.

SEC. 814. [42 U.S.C. 16161b] NATIONAL CLEAN HYDROGEN STRATEGY AND ROADMAP.

(a) **DEVELOPMENT.**—

(1) **IN GENERAL.**—In carrying out the programs established under sections 805 and 813, the Secretary, in consultation with the heads of relevant offices of the Department, shall develop a technologically and economically feasible national strategy and roadmap to facilitate widescale production, processing, delivery, storage, and use of clean hydrogen.

(2) **INCLUSIONS.**—The national clean hydrogen strategy and roadmap developed under paragraph (1) shall focus on—

(A) establishing a standard of hydrogen production that achieves the standard developed under section 822(a), including interim goals towards meeting that standard;

(B)(i) clean hydrogen production and use from natural gas, coal, renewable energy sources, nuclear energy, and biomass; and

(ii) identifying potential barriers, pathways, and opportunities, including Federal policy needs, to transition to a clean hydrogen economy;

(C) identifying—

(i) economic opportunities for the production, processing, transport, storage, and use of clean hydrogen that exist in the major shale natural gas-producing regions of the United States;

(ii) economic opportunities for the production, processing, transport, storage, and use of clean hydrogen that exist for merchant nuclear power plants operating in deregulated markets; and

(iii) environmental risks associated with potential deployment of clean hydrogen technologies in those regions, and ways to mitigate those risks;

(D) approaches, including substrategies, that reflect geographic diversity across the country, to advance clean hydrogen based on resources, industry sectors, environmental benefits, and economic impacts in regional economies;

(E) identifying opportunities to use, and barriers to using, existing infrastructure, including all components of the natural gas infrastructure system, the carbon dioxide

pipeline infrastructure system, end-use local distribution networks, end-use power generators, LNG terminals, industrial users of natural gas, and residential and commercial consumers of natural gas, for clean hydrogen deployment;

(F) identifying the needs for and barriers and pathways to developing clean hydrogen hubs (including, where appropriate, clean hydrogen hubs coupled with carbon capture, utilization, and storage hubs) that—

(i) are regionally dispersed across the United States and can leverage natural gas to the maximum extent practicable;

(ii) can demonstrate the efficient production, processing, delivery, and use of clean hydrogen;

(iii) include transportation corridors and modes of transportation, including transportation of clean hydrogen by pipeline and rail and through ports; and

(iv) where appropriate, could serve as joint clean hydrogen and carbon capture, utilization, and storage hubs;

(G) prioritizing activities that improve the ability of the Department to develop tools to model, analyze, and optimize single-input, multiple-output integrated hybrid energy systems and multiple-input, multiple-output integrated hybrid energy systems that maximize efficiency in providing hydrogen, high-value heat, electricity, and chemical synthesis services;

(H) identifying the appropriate points of interaction between and among Federal agencies involved in the production, processing, delivery, storage, and use of clean hydrogen and clarifying the responsibilities of those Federal agencies, and potential regulatory obstacles and recommendations for modifications, in order to support the deployment of clean hydrogen; and

(I) identifying geographic zones or regions in which clean hydrogen technologies could efficiently and economically be introduced in order to transition existing infrastructure to rely on clean hydrogen, in support of decarbonizing all relevant sectors of the economy.

(b) REPORTS TO CONGRESS.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall submit to Congress the clean hydrogen strategy and roadmap developed under subsection (a).

(2) UPDATES.—The Secretary shall submit to Congress updates to the clean hydrogen strategy and roadmap under paragraph (1) not less frequently than once every 3 years after the date on which the Secretary initially submits the report and roadmap.

SEC. 815. [42 U.S.C. 16161c] CLEAN HYDROGEN MANUFACTURING AND RECYCLING.

(a) CLEAN HYDROGEN MANUFACTURING INITIATIVE.—

(1) IN GENERAL.—In carrying out the programs established under sections 805 and 813, the Secretary shall award

multiyear grants to, and enter into contracts, cooperative agreements, or any other agreements authorized under this Act or other Federal law with, eligible entities (as determined by the Secretary) for research, development, and demonstration projects to advance new clean hydrogen production, processing, delivery, storage, and use equipment manufacturing technologies and techniques.

(2) **PRIORITY.**—In awarding grants or entering into contracts, cooperative agreements, or other agreements under paragraph (1), the Secretary, to the maximum extent practicable, shall give priority to clean hydrogen equipment manufacturing projects that—

(A) increase efficiency and cost-effectiveness in—

(i) the manufacturing process; and

(ii) the use of resources, including existing energy infrastructure;

(B) support domestic supply chains for materials and components;

(C) identify and incorporate nonhazardous alternative materials for components and devices;

(D) operate in partnership with tribal energy development organizations, Indian Tribes, Tribal organizations, Native Hawaiian community-based organizations, or territories or freely associated States; or

(E) are located in economically distressed areas of the major natural gas-producing regions of the United States.

(3) **EVALUATION.**—Not later than 3 years after the date of enactment of the Infrastructure Investment and Jobs Act, and not less frequently than once every 4 years thereafter, the Secretary shall conduct, and make available to the public and the relevant committees of Congress, an independent review of the progress of the projects carried out through grants awarded, or contracts, cooperative agreements, or other agreements entered into, under paragraph (1).

(b) **CLEAN HYDROGEN TECHNOLOGY RECYCLING RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.**—

(1) **IN GENERAL.**—In carrying out the programs established under sections 805 and 813, the Secretary shall award multiyear grants to, and enter into contracts, cooperative agreements, or any other agreements authorized under this Act or other Federal law with, eligible entities for research, development, and demonstration projects to create innovative and practical approaches to increase the reuse and recycling of clean hydrogen technologies, including by—

(A) increasing the efficiency and cost-effectiveness of the recovery of raw materials from clean hydrogen technology components and systems, including enabling technologies such as electrolyzers and fuel cells;

(B) minimizing environmental impacts from the recovery and disposal processes;

(C) addressing any barriers to the research, development, demonstration, and commercialization of technologies and processes for the disassembly and recycling of

devices used for clean hydrogen production, processing, delivery, storage, and use;

(D) developing alternative materials, designs, manufacturing processes, and other aspects of clean hydrogen technologies;

(E) developing alternative disassembly and resource recovery processes that enable efficient, cost-effective, and environmentally responsible disassembly of, and resource recovery from, clean hydrogen technologies; and

(F) developing strategies to increase consumer acceptance of, and participation in, the recycling of fuel cells.

(2) DISSEMINATION OF RESULTS.—The Secretary shall make available to the public and the relevant committees of Congress the results of the projects carried out through grants awarded, or contracts, cooperative agreements, or other agreements entered into, under paragraph (1), including any educational and outreach materials developed by the projects.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$500,000,000 for the period of fiscal years 2022 through 2026.

SEC. 816. [42 U.S.C. 16161d] CLEAN HYDROGEN ELECTROLYSIS PROGRAM.

(a) DEFINITIONS.—In this section:

(1) ELECTROLYSIS.—The term “electrolysis” means a process that uses electricity to split water into hydrogen and oxygen.

(2) ELECTROLYZER.—The term “electrolyzer” means a system that produces hydrogen using electrolysis.

(3) PROGRAM.—The term “program” means the program established under subsection (b).

(b) ESTABLISHMENT.—Not later than 90 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall establish a research, development, demonstration, commercialization, and deployment program for purposes of commercialization to improve the efficiency, increase the durability, and reduce the cost of producing clean hydrogen using electrolyzers.

(c) GOALS.—The goals of the program are—

(1) to reduce the cost of hydrogen produced using electrolyzers to less than \$2 per kilogram of hydrogen by 2026; and

(2) any other goals the Secretary determines are appropriate.

(d) DEMONSTRATION PROJECTS.—In carrying out the program, the Secretary shall fund demonstration projects—

(1) to demonstrate technologies that produce clean hydrogen using electrolyzers; and

(2) to validate information on the cost, efficiency, durability, and feasibility of commercial deployment of the technologies described in paragraph (1).

(e) FOCUS.—The program shall focus on research relating to, and the development, demonstration, and deployment of—

(1) low-temperature electrolyzers, including liquid-alkaline electrolyzers, membrane-based electrolyzers, and other advanced electrolyzers, capable of converting intermittent sources

of electric power to clean hydrogen with enhanced efficiency and durability;

(2) high-temperature electrolyzers that combine electricity and heat to improve the efficiency of clean hydrogen production;

(3) advanced reversible fuel cells that combine the functionality of an electrolyzer and a fuel cell;

(4) new highly active, selective, and durable electrolyzer catalysts and electro-catalysts that—

(A) greatly reduce or eliminate the need for platinum group metals; and

(B) enable electrolysis of complex mixtures with impurities, including seawater;

(5) modular electrolyzers for distributed energy systems and the bulk-power system (as defined in section 215(a) of the Federal Power Act (16 U.S.C. 824o(a)));

(6) low-cost membranes or electrolytes and separation materials that are durable in the presence of impurities or seawater;

(7) improved component design and material integration, including with respect to electrodes, porous transport layers and bipolar plates, and balance-of-system components, to allow for scale-up and domestic manufacturing of electrolyzers at a high volume;

(8) clean hydrogen storage technologies;

(9) technologies that integrate hydrogen production with—

(A) clean hydrogen compression and drying technologies;

(B) clean hydrogen storage; and

(C) transportation or stationary systems; and

(10) integrated systems that combine hydrogen production with renewable power or nuclear power generation technologies, including hybrid systems with hydrogen storage.

(f) GRANTS, CONTRACTS, COOPERATIVE AGREEMENTS.—

(1) GRANTS.—In carrying out the program, the Secretary shall award grants, on a competitive basis, to eligible entities for projects that the Secretary determines would provide the greatest progress toward achieving the goal of the program described in subsection (c).

(2) CONTRACTS AND COOPERATIVE AGREEMENTS.—In carrying out the program, the Secretary may enter into contracts and cooperative agreements with eligible entities and Federal agencies for projects that the Secretary determines would further the purpose of the program described in subsection (b).

(3) ELIGIBILITY; APPLICATIONS.—

(A) IN GENERAL.—The eligibility of an entity to receive a grant under paragraph (1), to enter into a contract or cooperative agreement under paragraph (2), or to receive funding for a demonstration project under subsection (d) shall be determined by the Secretary.

(B) APPLICATIONS.—An eligible entity desiring to receive a grant under paragraph (1), to enter into a contract or cooperative agreement under paragraph (2), or to receive funding for a demonstration project under subsection

(d) shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(g) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to the Secretary to carry out the program \$1,000,000,000 for the period of fiscal years 2022 through 2026, to remain available until expended.

SEC. 817. [42 U.S.C. 16161e] LABORATORY MANAGEMENT.

(a) **IN GENERAL.**—The National Energy Technology Laboratory, the Idaho National Laboratory, and the National Renewable Energy Laboratory shall continue to work in a crosscutting manner to carry out the programs established under sections 813 and 815.

(b) **COORDINATION; CLEARINGHOUSE.**—In carrying out subsection (a), the National Energy Technology Laboratory shall—

(1) coordinate with—

(A) the Idaho National Laboratory, the National Renewable Energy Laboratory, and other National Laboratories in a cross-cutting manner;

(B) institutions of higher education;

(C) research institutes;

(D) industrial researchers; and

(E) international researchers; and

(2) act as a clearinghouse to collect information from, and distribute information to, the National Laboratories and other entities described in subparagraphs (B) through (E) of paragraph (1).

SEC. 818. [42 U.S.C. 16162] TECHNOLOGY TRANSFER.

In carrying out this title, the Secretary shall carry out programs that—

(1) provide for the transfer of critical hydrogen and fuel cell technologies to the private sector;

(2) accelerate wider application of those technologies in the global market;

(3) foster the exchange of generic, nonproprietary information; and

(4) assess technical and commercial viability of technologies relating to the production, distribution, storage, and use of hydrogen energy and fuel cells.

SEC. 819. [42 U.S.C. 16163] MISCELLANEOUS PROVISIONS.

(a) **REPRESENTATION.**—The Secretary may represent the United States interests with respect to activities and programs under this title, in coordination with the Department of Transportation, the National Institute of Standards and Technology, and other relevant Federal agencies, before governments and nongovernmental organizations including—

(1) other Federal, State, regional, and local governments and their representatives;

(2) industry and its representatives, including members of the energy and transportation industries; and

(3) in consultation with the Department of State, foreign governments and their representatives including international organizations.

(b) REGULATORY AUTHORITY.—Nothing in this title shall be construed to alter the regulatory authority of the Department.

SEC. 820. [42 U.S.C. 16164] COST SHARING.

The costs of carrying out projects and activities under this title shall be shared in accordance with section 988.

SEC. 821. [42 U.S.C. 16165] SAVINGS CLAUSE.

Nothing in this title shall be construed to affect the authority of the Secretary of Transportation that may exist prior to the date of enactment of this Act with respect to—

(1) research into, and regulation of, hydrogen-powered vehicles fuel systems integrity, standards, and safety under subtitle VI of title 49, United States Code;

(2) regulation of hazardous materials transportation under chapter 51 of title 49, United States Code;

(3) regulation of pipeline safety under chapter 601 of title 49, United States Code;

(4) encouragement and promotion of research, development, and deployment activities relating to advanced vehicle technologies under section 5506 of title 49, United States Code;

(5) regulation of motor vehicle safety under chapter 301 of title 49, United States Code;

(6) automobile fuel economy under chapter 329 of title 49, United States Code; or

(7) representation of the interests of the United States with respect to the activities and programs under the authority of title 49, United States Code.

SEC. 822. [42 U.S.C. 16166] CLEAN HYDROGEN PRODUCTION QUALIFICATIONS.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary, in consultation with the Administrator of the Environmental Protection Agency and after taking into account input from industry and other stakeholders, as determined by the Secretary, shall develop an initial standard for the carbon intensity of clean hydrogen production that shall apply to activities carried out under this title.

(b) REQUIREMENTS.—

(1) IN GENERAL.—The standard developed under subsection (a) shall—

(A) support clean hydrogen production from each source described in section 805(e)(2);

(B) define the term “clean hydrogen” to mean hydrogen produced with a carbon intensity equal to or less than 2 kilograms of carbon dioxide-equivalent produced at the site of production per kilogram of hydrogen produced; and

(C) take into consideration technological and economic feasibility.

(2) ADJUSTMENT.—Not later than the date that is 5 years after the date on which the Secretary develops the standard under subsection (a), the Secretary, in consultation with the Administrator of the Environmental Protection Agency and after taking into account input from industry and other stakeholders, as determined by the Secretary, shall—

(A) determine whether the definition of clean hydrogen required under paragraph (1)(B) should be adjusted below the standard described in that paragraph; and

(B) if the Secretary determines the adjustment described in subparagraph (A) is appropriate, carry out the adjustment.

(c) APPLICATION.—The standard developed under subsection (a) shall apply to clean hydrogen production from renewable, fossil fuel with carbon capture, utilization, and sequestration technologies, nuclear, and other fuel sources using any applicable production technology.

TITLE IX—RESEARCH AND DEVELOPMENT

SEC. 901. [42 U.S.C. 15801 note] SHORT TITLE.

This title may be cited as the “Energy Research, Development, Demonstration, and Commercial Application Act of 2005”.

SEC. 902. [42 U.S.C. 16181] GOALS.

(a) IN GENERAL.—In order to achieve the purposes of this title, the Secretary shall conduct a balanced set of programs of energy research, development, demonstration, and commercial application with the general goals of—

- (1) increasing the efficiency of all energy intensive sectors through conservation and improved technologies;
- (2) promoting diversity of energy supply;
- (3) decreasing the dependence of the United States on foreign energy supplies;
- (4) improving the energy security of the United States; and
- (5) decreasing the environmental impact of energy-related activities.

(b) GOALS.—The Secretary shall publish measurable cost and performance-based goals, comparable over time, with each annual budget submission in at least the following areas:

- (1) Energy efficiency for buildings, energy-consuming industries, and vehicles.
- (2) Electric energy generation (including distributed generation), transmission, and storage.
- (3) Renewable energy technologies, including wind power, photovoltaics, solar thermal systems, geothermal energy, hydrogen-fueled systems, biomass-based systems, biofuels, and hydropower.
- (4) Fossil energy, including power generation, onshore and offshore oil and gas resource recovery, and transportation fuels.
- (5) Nuclear energy, including programs for existing and advanced reactors, and education of future specialists.

(c) PUBLIC COMMENT.—The Secretary shall provide mechanisms for input on the annually published goals from industry, institutions of higher education, and other public sources.

(d) EFFECT OF GOALS.—Nothing in subsection (a) or the annually published goals creates any new authority for any Federal

agency, or may be used by any Federal agency, to support the establishment of regulatory standards or regulatory requirements.

SEC. 903. [42 U.S.C. 16182] DEFINITIONS.

In this title:

(1) **DEPARTMENTAL MISSION.**—The term “departmental mission” means any of the functions vested in the Secretary by the Department of Energy Organization Act (42 U.S.C. 7101 et seq.) or other law.

(2) **HISPANIC-SERVING INSTITUTION.**—The term “Hispanic-serving institution” has the meaning given the term in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)).

(3) **NONMILITARY ENERGY LABORATORY.**—The term “non-military energy laboratory” means a National Laboratory other than a National Laboratory listed in subparagraph (G), (H), or (N) of section 2(3).

(4) **PART B INSTITUTION.**—The term “part B institution” has the meaning given the term in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

(5) **SINGLE-PURPOSE RESEARCH FACILITY.**—The term “single-purpose research facility” means—

(A) any of the primarily single-purpose entities owned by the Department; or

(B) any other organization of the Department designated by the Secretary.

(6) **UNIVERSITY.**—The term “university” has the meaning given the term “institution of higher education” in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001).

Subtitle A—Energy Efficiency

SEC. 911. [42 U.S.C. 16191] ENERGY EFFICIENCY.

(a) **IN GENERAL.**—

(1) **OBJECTIVES.**—The Secretary shall conduct programs of energy efficiency research, development, demonstration, and commercial application, including activities described in this subtitle. Such programs shall take into consideration the following objectives:

(A) Increasing the energy efficiency of vehicles, buildings, and industrial processes.

(B) Reducing the demand of the United States for energy, especially energy from foreign sources.

(C) Reducing the cost of energy and making the economy more efficient and competitive.

(D) Improving the energy security of the United States.

(E) Reducing the environmental impact of energy-related activities.

(2) **PROGRAMS.**—Programs under this subtitle shall include research, development, demonstration, and commercial application of—

(A) advanced, cost-effective technologies to improve the energy efficiency and environmental performance of vehicles, including—

- (i) hybrid and electric propulsion systems;
- (ii) plug-in hybrid systems;
- (iii) advanced combustion engines;
- (iv) weight and drag reduction technologies;
- (v) whole-vehicle design optimization; and
- (vi) advanced drive trains;

(B) cost-effective technologies, for new construction and retrofit, to improve the energy efficiency and environmental performance of buildings, using a whole-buildings approach, including onsite renewable energy generation;

(C) advanced technologies to improve the energy efficiency, environmental performance, and process efficiency of energy-intensive and waste-intensive industries;

(D) advanced control devices to improve the energy efficiency of electric motors, including those used in industrial processes, heating, ventilation, and cooling; and

(E) technologies to improve the energy efficiency of appliances and mechanical systems for buildings in cold climates, including combined heat and power units and increased use of renewable resources, including fuel.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out energy efficiency and conservation research, development, demonstration, and commercial application activities, including activities authorized under this subtitle—

- (1) \$783,000,000 for fiscal year 2007;
- (2) \$865,000,000 for fiscal year 2008; and
- (3) \$952,000,000 for fiscal year 2009.

(c) ALLOCATIONS.—From amounts authorized under subsection (b), the following sums are authorized:

- (1) For activities under section 912, \$50,000,000 for each of fiscal years 2007 through 2009.
- (2) For activities under section 915, \$7,000,000 for each of fiscal years 2007 through 2009.
- (3) For activities under subsection (a)(2)(A)—
 - (A) \$200,000,000 for fiscal year 2007;
 - (B) \$270,000,000 for fiscal year 2008; and
 - (C) \$310,000,000 for fiscal year 2009.

(4) For activities under subsection (a)(2)(D), \$2,000,000 for each of fiscal years 2007 and 2008.

(d) EXTENDED AUTHORIZATION.—There are authorized to be appropriated to the Secretary to carry out section 912 \$50,000,000 for each of fiscal years 2010 through 2013.

(e) LIMITATIONS.—None of the funds authorized to be appropriated under this section may be used for—

- (1) the issuance or implementation of energy efficiency regulations;
- (2) the weatherization program established under part A of title IV of the Energy Conservation and Production Act (42 U.S.C. 6861 et seq.);

(3) a State energy conservation plan established under part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.); or

(4) a Federal energy management measure carried out under part 3 of title V of the National Energy Conservation Policy Act (42 U.S.C. 8251 et seq.).

SEC. 912. [42 U.S.C. 16192] NEXT GENERATION LIGHTING INITIATIVE.

(a) **DEFINITIONS.**—In this section:

(1) **ADVANCED SOLID-STATE LIGHTING.**—The term “advanced solid-state lighting” means a semiconducting device package and delivery system that produces white light using externally applied voltage.

(2) **INDUSTRY ALLIANCE.**—The term “Industry Alliance” means an entity selected by the Secretary under subsection (d).

(3) **INITIATIVE.**—The term “Initiative” means the Next Generation Lighting Initiative carried out under this section.

(4) **RESEARCH.**—The term “research” includes research on the technologies, materials, and manufacturing processes required for white light emitting diodes.

(5) **WHITE LIGHT EMITTING DIODE.**—The term “white light emitting diode” means a semiconducting package, using either organic or inorganic materials, that produces white light using externally applied voltage.

(b) **INITIATIVE.**—The Secretary shall carry out a Next Generation Lighting Initiative in accordance with this section to support research, development, demonstration, and commercial application activities related to advanced solid-state lighting technologies based on white light emitting diodes.

(c) **OBJECTIVES.**—The objectives of the Initiative shall be to develop advanced solid-state organic and inorganic lighting technologies based on white light emitting diodes that, compared to incandescent and fluorescent lighting technologies, are longer lasting, are more energy-efficient and cost-competitive, and have less environmental impact.

(d) **INDUSTRY ALLIANCE.**—Not later than 90 days after the date of enactment of this Act, the Secretary shall competitively select an Industry Alliance to represent participants who are private, for-profit firms, open to large and small businesses, that, as a group, are broadly representative of United States solid-state lighting research, development, infrastructure, and manufacturing expertise as a whole.

(e) **RESEARCH.**—

(1) **GRANTS.**—The Secretary shall carry out the research activities of the Initiative through competitively awarded grants to—

(A) researchers, including Industry Alliance participants;

(B) small businesses;

(C) National Laboratories; and

(D) institutions of higher education.

(2) **INDUSTRY ALLIANCE.**—The Secretary shall annually solicit from the Industry Alliance—

(A) comments to identify solid-state lighting technology needs;

(B) an assessment of the progress of the research activities of the Initiative; and

(C) assistance in annually updating solid-state lighting technology roadmaps.

(3) AVAILABILITY TO PUBLIC.—The information and roadmaps under paragraph (2) shall be available to the public.

(f) DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION.—

(1) IN GENERAL.—The Secretary shall carry out a development, demonstration, and commercial application program for the Initiative through competitively selected awards.

(2) PREFERENCE.—In making the awards, the Secretary may give preference to participants in the Industry Alliance.

(g) COST SHARING.—In carrying out this section, the Secretary shall require cost sharing in accordance with section 988.

(h) INTELLECTUAL PROPERTY.—The Secretary may require (in accordance with section 202(a)(ii) of title 35, United States Code, section 152 of the Atomic Energy Act of 1954 (42 U.S.C. 2182), and section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908)) that for any new invention developed under subsection (e)—

(1) that the Industry Alliance participants who are active participants in research, development, and demonstration activities related to the advanced solid-state lighting technologies that are covered by this section shall be granted the first option to negotiate with the invention owner, at least in the field of solid-state lighting, nonexclusive licenses and royalties on terms that are reasonable under the circumstances;

(2)(A) that, for 1 year after a United States patent is issued for the invention, the patent holder shall not negotiate any license or royalty with any entity that is not a participant in the Industry Alliance described in paragraph (1); and

(B) that, during the year described in subparagraph (A), the patent holder shall negotiate nonexclusive licenses and royalties in good faith with any interested participant in the Industry Alliance described in paragraph (1); and

(3) such other terms as the Secretary determines are required to promote accelerated commercialization of inventions made under the Initiative.

(i) NATIONAL ACADEMY REVIEW.—The Secretary shall enter into an arrangement with the National Academy of Sciences to conduct periodic reviews of the Initiative.

SEC. 913. [42 U.S.C. 16193] NATIONAL BUILDING PERFORMANCE INITIATIVE.

(a) INTERAGENCY GROUP.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Director of the Office of Science and Technology Policy shall establish an interagency group to develop, in coordination with the advisory committee established under subsection (e), a National Building Performance Initiative (referred to in this section as the “Initiative”).

(2) COCHAIRS.—The interagency group shall be co-chaired by appropriate officials of the Department and the Department of Commerce, who shall jointly arrange for the provision of necessary administrative support to the group.

(b) INTEGRATION OF EFFORTS.—The Initiative shall integrate Federal, State, and voluntary private sector efforts to reduce the costs of construction, operation, maintenance, and renovation of commercial, industrial, institutional, and residential buildings.

(c) PLAN.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the interagency group shall submit to Congress a plan for carrying out the appropriate Federal role in the Initiative.

(2) INCLUSIONS.—The plan shall include—

(A) research, development, demonstration, and commercial application of energy technology systems and materials for new construction and retrofit relating to the building envelope and building system components;

(B) research, development, demonstration, and commercial application of energy technology and infrastructure enabling the energy efficient, automated operation of buildings and building equipment; and

(C) the collection, analysis, and dissemination of research results and other pertinent information on enhancing building performance to industry, government entities, and the public.

(d) DEPARTMENT OF ENERGY ROLE.—Within the Federal portion of the Initiative, the Department shall be the lead agency for all aspects of building performance related to use and conservation of energy.

(e) ADVISORY COMMITTEE.—The Director of the Office of Science and Technology Policy shall establish an advisory committee to—

(1) analyze and provide recommendations on potential private sector roles and participation in the Initiative; and

(2) review and provide recommendations on the plan described in subsection (c).

(f) ADMINISTRATION.—Nothing in this section provides any Federal agency with new authority to regulate building performance.

SEC. 914. [42 U.S.C. 16194] BUILDING STANDARDS.

(a) DEFINITION OF HIGH PERFORMANCE BUILDING.—In this section, the term “high performance building” means a building that integrates and optimizes all major high-performance building attributes, including energy efficiency, durability, life-cycle performance, and occupant productivity.

(b) ASSESSMENT.—Not later than 120 days after the date of enactment of this Act, the Secretary shall enter into an agreement with the National Institute of Building Sciences to—

(1) conduct an assessment (in cooperation with industry, standards development organizations, and other entities, as appropriate) of whether the current voluntary consensus standards and rating systems for high performance buildings are consistent with the current technological state of the art, in-

cluding relevant results from the research, development and demonstration activities of the Department;

(2) determine if additional research is required, based on the findings of the assessment; and

(3) recommend steps for the Secretary to accelerate the development of voluntary consensus-based standards for high performance buildings that are based on the findings of the assessment.

(c) **GRANT AND TECHNICAL ASSISTANCE PROGRAM.**—Consistent with subsection (b) and section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note), the Secretary shall establish a grant and technical assistance program to support the development of voluntary consensus-based standards for high performance buildings.

SEC. 915. [42 U.S.C. 16195] SECONDARY ELECTRIC VEHICLE BATTERY USE PROGRAM.

(a) **DEFINITIONS.**—In this section:

(1) **BATTERY.**—The term “battery” means an energy storage device that previously has been used to provide motive power in a vehicle powered in whole or in part by electricity.

(2) **ASSOCIATED EQUIPMENT.**—The term “associated equipment” means equipment located where the batteries will be used that is necessary to enable the use of the energy stored in the batteries.

(b) **PROGRAM.**—

(1) **IN GENERAL.**—The Secretary shall establish and conduct a program of research, development, demonstration, and commercial application of energy technology for the secondary use of batteries, if the Secretary finds that there are sufficient numbers of batteries to support the program.

(2) **ADMINISTRATION.**—The program shall be—

(A) designed to demonstrate the use of batteries in secondary applications, including utility and commercial power storage and power quality;

(B) structured to evaluate the performance, including useful service life and costs, of such batteries in field operations, and the necessary supporting infrastructure, including reuse and disposal of batteries; and

(C) coordinated with ongoing secondary battery use programs at the National Laboratories and in industry.

(c) **SOLICITATION.**—

(1) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act, the Secretary shall solicit proposals to demonstrate the secondary use of batteries and associated equipment and supporting infrastructure in geographic locations throughout the United States.

(2) **ADDITIONAL SOLICITATIONS.**—The Secretary may make additional solicitations for proposals if the Secretary determines that the solicitations are necessary to carry out this section.

(d) **SELECTION OF PROPOSALS.**—

(1) **IN GENERAL.**—Not later than 90 days after the closing date established by the Secretary for receipt of proposals under subsection (c), the Secretary shall select up to five proposals

that may receive financial assistance under this section once the Department receives appropriated funds to carry out this section.

(2) **FACTORS.**—In selecting proposals, the Secretary shall consider—

- (A) the diversity of battery type;
- (B) geographic and climatic diversity; and
- (C) life-cycle environmental effects of the approaches.

(3) **LIMITATION.**—No one project selected under this section shall receive more than 25 percent of the funds made available to carry out the program under this section.

(4) **NON-FEDERAL INVOLVEMENT.**—In selecting proposals, the Secretary shall consider the extent of involvement of State or local government and other persons in each demonstration project to optimize use of Federal resources.

(5) **OTHER CRITERIA.**—In selecting proposals, the Secretary may consider such other criteria as the Secretary considers appropriate.

(e) **CONDITIONS.**—In carrying out this section, the Secretary shall require that—

(1) relevant information be provided to—

- (A) the Department;
- (B) the users of the batteries;
- (C) the proposers of a project under this section; and
- (D) the battery manufacturers; and

(2) the costs of carrying out projects and activities under this section are shared in accordance with section 988.

SEC. 916. [42 U.S.C. 16196] ENERGY EFFICIENCY SCIENCE INITIATIVE.

(a) **ESTABLISHMENT.**—The Secretary shall establish an Energy Efficiency Science Initiative to be managed by the Assistant Secretary in the Department with responsibility for energy conservation under section 203(a)(9) of the Department of Energy Organization Act (42 U.S.C. 7133(a)(9)), in consultation with the Director of the Office of Science, for grants to be competitively awarded and subject to peer review for research relating to energy efficiency.

(b) **REPORT.**—The Secretary shall submit to Congress, along with the annual budget request of the President submitted to Congress, a report on the activities of the Energy Efficiency Science Initiative, including a description of the process used to award the funds and an explanation of how the research relates to energy efficiency.

SEC. 917. [42 U.S.C. 16197] ADVANCED ENERGY TECHNOLOGY TRANSFER CENTERS.

(a) **GRANTS.**—Not later than 18 months after the date of enactment of the National Forests, Parks, Public Land, and Reclamation Projects Authorization Act of 2008, the Secretary shall make grants to nonprofit institutions, State and local governments, cooperative extension services, or institutions of higher education (or consortia thereof), to establish a geographically dispersed network of Advanced Energy Technology Transfer Centers, to be located in areas the Secretary determines have the greatest need of the services of such Centers. In making awards under this section, the Secretary shall—

(1) give priority to applicants already operating or partnered with an outreach program capable of transferring knowledge and information about advanced energy efficiency methods and technologies;

(2) ensure that, to the extent practicable, the program enables the transfer of knowledge and information—

(A) about a variety of technologies; and

(B) in a variety of geographic areas;

(3) give preference to applicants that would significantly expand on or fill a gap in existing programs in a geographical region; and

(4) consider the special needs and opportunities for increased energy efficiency for manufactured and site-built housing, including construction, renovation, and retrofit.

(b) ACTIVITIES.—Each Center shall operate a program to encourage demonstration and commercial application of advanced energy methods and technologies through education and outreach to building and industrial professionals, and to other individuals and organizations with an interest in efficient energy use. Funds awarded under this section may be used for the following activities:

(1) Developing and distributing informational materials on technologies that could use energy more efficiently.

(2) Carrying out demonstrations of advanced energy methods and technologies.

(3) Developing and conducting seminars, workshops, long-distance learning sessions, and other activities to aid in the dissemination of knowledge and information on technologies that could use energy more efficiently.

(4) Providing or coordinating onsite energy evaluations, including instruction on the commissioning of building heating and cooling systems, for a wide range of energy end-users.

(5) Examining the energy efficiency needs of energy end-users to develop recommended research projects for the Department.

(6) Hiring experts in energy efficient technologies to carry out activities described in paragraphs (1) through (5).

(c) APPLICATION.—A person seeking a grant under this section shall submit to the Secretary an application in such form and containing such information as the Secretary may require. The Secretary may award a grant under this section to an entity already in existence if the entity is otherwise eligible under this section. The application shall include, at a minimum—

(1) a description of the applicant's outreach program, and the geographic region it would serve, and of why the program would be capable of transferring knowledge and information about advanced energy technologies that increase efficiency of energy use;

(2) a description of the activities the applicant would carry out, of the technologies that would be transferred, and of any other organizations that will help facilitate a regional approach to carrying out those activities;

(3) a description of how the proposed activities would be appropriate to the specific energy needs of the geographic region to be served;

(4) an estimate of the number and types of energy end-users expected to be reached through such activities; and

(5) a description of how the applicant will assess the success of the program.

(d) **SELECTION CRITERIA.**—The Secretary shall award grants under this section on the basis of the following criteria, at a minimum:

(1) The ability of the applicant to carry out the proposed activities.

(2) The extent to which the applicant will coordinate the activities of the Center with other entities as appropriate, such as State and local governments, utilities, institutions of higher education, and National Laboratories.

(3) The appropriateness of the applicant's outreach program for carrying out the program described in this section.

(4) The likelihood that proposed activities could be expanded or used as a model for other areas.

(e) **COST-SHARING.**—In carrying out this section, the Secretary shall require cost-sharing in accordance with the requirements of section 988 for commercial application activities.

(f) **DURATION.**—

(1) **INITIAL GRANT PERIOD.**—A grant awarded under this section shall be for a period of 5 years.

(2) **INITIAL EVALUATION.**—Each grantee under this section shall be evaluated during its third year of operation under procedures established by the Secretary to determine if the grantee is accomplishing the purposes of this section described in subsection (a). The Secretary shall terminate any grant that does not receive a positive evaluation. If an evaluation is positive, the Secretary may extend the grant for 3 additional years beyond the original term of the grant.

(3) **ADDITIONAL EXTENSION.**—If a grantee receives an extension under paragraph (2), the grantee shall be evaluated again during the second year of the extension. The Secretary shall terminate any grant that does not receive a positive evaluation. If an evaluation is positive, the Secretary may extend the grant for a final additional period of 3 additional years beyond the original extension.

(4) **LIMITATION.**—No grantee may receive more than 11 years of support under this section without reapplying for support and competing against all other applicants seeking a grant at that time.

(g) **PROHIBITION.**—None of the funds awarded under this section may be used for the construction of facilities.

(h) **DEFINITIONS.**—For purposes of this section:

(1) **ADVANCED ENERGY METHODS AND TECHNOLOGIES.**—The term “advanced energy methods and technologies” means all methods and technologies that promote energy efficiency and conservation, including distributed generation technologies, and life-cycle analysis of energy use.

(2) **CENTER.**—The term “Center” means an Advanced Energy Technology Transfer Center established pursuant to this section.

(3) **DISTRIBUTED GENERATION.**—The term “distributed generation” means an electric power generation technology, including photovoltaic, small wind, and micro-combined heat and power, that serves electric consumers at or near the site of production.

(4) **COOPERATIVE EXTENSION.**—The term “Cooperative Extension” means the extension services established at the land-grant colleges and universities under the Smith-Lever Act of May 8, 1914.

(5) **LAND-GRANT COLLEGES AND UNIVERSITIES.**—The term “land-grant colleges and universities” means—

(A) 1862 Institutions (as defined in section 2 of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7601));

(B) 1890 Institutions (as defined in section 2 of that Act); and

(C) 1994 Institutions (as defined in section 2 of that Act).

(i) **AUTHORIZATION OF APPROPRIATIONS.**—In addition to amounts otherwise authorized to be appropriated in section 911, there are authorized to be appropriated for the program under this section such sums as may be appropriated.

SEC. 918. [42 U.S.C. 16198] SMART ENERGY AND WATER EFFICIENCY PILOT PROGRAM.

(a) **DEFINITIONS.**—In this section:

(1) **ELIGIBLE ENTITY.**—The term “eligible entity” means—

(A) a utility;

(B) a municipality;

(C) a water district;

(D) an Indian Tribe or Alaska Native village; and

(E) any other authority that provides water, wastewater, or water reuse services.

(2) **SMART ENERGY AND WATER EFFICIENCY PILOT PROGRAM.**—The term “smart energy and water efficiency pilot program” or “pilot program” means the pilot program established under subsection (b).

(b) **SMART ENERGY AND WATER EFFICIENCY PILOT PROGRAM.**—

(1) **IN GENERAL.**—The Secretary shall establish and carry out a smart energy and water efficiency pilot program in accordance with this section.

(2) **PURPOSE.**—The purpose of the smart energy and water efficiency pilot program is to award grants to eligible entities to demonstrate unique, advanced, or innovative technology-based solutions that will—

(A) improve the net energy balance of water, wastewater, and water reuse systems;

(B) improve the net energy balance of water, wastewater, and water reuse systems to help communities across the United States make measurable progress in conserving water, saving energy, and reducing costs;

(C) support the implementation of innovative and unique processes and the installation of established advanced automated systems that provide real-time data on energy and water; and

(D) improve energy-water conservation and quality and predictive maintenance through technologies that utilize internet connected technologies, including sensors, intelligent gateways, and security embedded in hardware.

(3) PROJECT SELECTION.—

(A) IN GENERAL.—The Secretary shall make competitive, merit-reviewed grants under the pilot program to not less than 3, but not more than 5, eligible entities.

(B) SELECTION CRITERIA.—In selecting an eligible entity to receive a grant under the pilot program, the Secretary shall consider—

- (i) energy and cost savings;
- (ii) the uniqueness, commercial viability, and reliability of the technology to be used;
- (iii) the degree to which the project integrates next-generation sensors software, analytics, and management tools;
- (iv) the anticipated cost-effectiveness of the pilot project through measurable energy savings, water savings or reuse, and infrastructure costs averted;
- (v) whether the technology can be deployed in a variety of geographic regions and the degree to which the technology can be implemented in a wide range of applications ranging in scale from small towns to large cities, including Tribal communities;
- (vi) whether the technology has been successfully deployed elsewhere;
- (vii) whether the technology was sourced from a manufacturer based in the United States; and
- (viii) whether the project will be completed in 5 years or less.

(C) APPLICATIONS.—

(i) IN GENERAL.—Subject to clause (ii), an eligible entity seeking a grant under the pilot program shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be necessary.

(ii) CONTENTS.—An application under clause (i) shall, at a minimum, include—

- (I) a description of the project;
- (II) a description of the technology to be used in the project;
- (III) the anticipated results, including energy and water savings, of the project;
- (IV) a comprehensive budget for the project;
- (V) the names of the project lead organization and any partners;
- (VI) the number of users to be served by the project;
- (VII) a description of the ways in which the proposal would meet performance measures established by the Secretary; and

(VIII) any other information that the Secretary determines to be necessary to complete the review and selection of a grant recipient.

(4) ADMINISTRATION.—

(A) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Secretary shall select grant recipients under this section.

(B) EVALUATIONS.—

(i) ANNUAL EVALUATIONS.—The Secretary shall annually carry out an evaluation of each project for which a grant is provided under this section that meets performance measures and benchmarks developed by the Secretary, consistent with the purposes of this section.

(ii) REQUIREMENTS.—Consistent with the performance measures and benchmarks developed under clause (i), in carrying out an evaluation under that clause, the Secretary shall—

(I) evaluate the progress and impact of the project; and

(II) assess the degree to which the project is meeting the goals of the pilot program.

(C) TECHNICAL AND POLICY ASSISTANCE.—On the request of a grant recipient, the Secretary shall provide technical and policy assistance.

(D) BEST PRACTICES.—The Secretary shall make available to the public through the Internet and other means the Secretary considers to be appropriate—

(i) a copy of each evaluation carried out under subparagraph (B); and

(ii) a description of any best practices identified by the Secretary as a result of those evaluations.

(E) REPORT TO CONGRESS.—The Secretary shall submit to Congress a report containing the results of each evaluation carried out under subparagraph (B).

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$15,000,000, to remain available until expended.

Subtitle B—Distributed Energy and Electric Energy Systems

SEC. 921. [42 U.S.C. 16211] DISTRIBUTED ENERGY AND ELECTRIC ENERGY SYSTEMS.

(a) IN GENERAL.—The Secretary shall carry out programs of research, development, demonstration, and commercial application on distributed energy resources and systems reliability and efficiency, to improve the reliability and efficiency of distributed energy resources and systems, integrating advanced energy technologies with grid connectivity, including activities described in this subtitle. The programs shall address advanced energy technologies and systems and advanced grid reliability technologies.

(b) AUTHORIZATION OF APPROPRIATIONS.—

(1) **DISTRIBUTED ENERGY AND ELECTRIC ENERGY SYSTEMS ACTIVITIES.**—There are authorized to be appropriated to the Secretary to carry out distributed energy and electric energy systems activities, including activities authorized under this subtitle—

- (A) \$240,000,000 for fiscal year 2007;
- (B) \$255,000,000 for fiscal year 2008; and
- (C) \$273,000,000 for fiscal year 2009.

(2) **POWER DELIVERY RESEARCH INITIATIVE.**—There are authorized to be appropriated to the Secretary to carry out the Power Delivery Research Initiative under subsection 925(e) such sums as may be necessary for each of fiscal years 2007 through 2009.

(c) **MICRO-COGENERATION ENERGY TECHNOLOGY.**—From amounts authorized under subsection (b), \$20,000,000 for each of fiscal years 2007 and 2008 shall be available to carry out activities under section 923.

(d) **HIGH-VOLTAGE TRANSMISSION LINES.**—From amounts authorized under subsection (b), \$2,000,000 for fiscal year 2007 shall be available to carry out activities under section 925(g).

SEC. 922. [42 U.S.C. 16212] HIGH POWER DENSITY INDUSTRY PROGRAM.

(a) **IN GENERAL.**—The Secretary shall establish a comprehensive research, development, demonstration, and commercial application to improve the energy efficiency of high power density facilities, including data centers, server farms, and telecommunications facilities.

(b) **TECHNOLOGIES.**—The program shall consider technologies that provide significant improvement in thermal controls, metering, load management, peak load reduction, or the efficient cooling of electronics.

SEC. 923. [42 U.S.C. 16213] MICRO-COGENERATION ENERGY TECHNOLOGY.

(a) **IN GENERAL.**—The Secretary shall make competitive, merit-based grants to consortia for the development of micro-cogeneration energy technology.

(b) **USES.**—The consortia shall explore—

- (1) the use of small-scale combined heat and power in residential heating appliances;
- (2) the use of excess power to operate other appliances within the residence; and
- (3) the supply of excess generated power to the power grid.

SEC. 924. [42 U.S.C. 16214] DISTRIBUTED ENERGY TECHNOLOGY DEMONSTRATION PROGRAMS.

(a) **COORDINATING CONSORTIA PROGRAM.**—The Secretary may provide financial assistance to coordinating consortia of interdisciplinary participants for demonstrations designed to accelerate the use of distributed energy technologies (such as fuel cells, micro-turbines, reciprocating engines, thermally activated technologies, and combined heat and power systems) in high-energy intensive commercial applications.

(b) **SMALL-SCALE PORTABLE POWER PROGRAM.**—

(1) **IN GENERAL.**—The Secretary shall—

(A) establish a research, development, and demonstration program to develop working models of small scale portable power devices; and

(B) to the fullest extent practicable, identify and utilize the resources of universities that have shown expertise with respect to advanced portable power devices for either civilian or military use.

(2) ORGANIZATION.—The universities identified and utilized under paragraph (1)(B) are authorized to establish an organization to promote small scale portable power devices.

(3) DEFINITION.—For purposes of this subsection, the term “small scale portable power device” means a field-deployable portable mechanical or electromechanical device that can be used for applications such as communications, computation, mobility enhancement, weapons systems, optical devices, cooling, sensors, medical devices, and active biological agent detection systems.

SEC. 925. [42 U.S.C. 16215] ELECTRIC TRANSMISSION AND DISTRIBUTION PROGRAMS.

(a) PROGRAM.—The Secretary shall establish a comprehensive research, development, and demonstration program to ensure the reliability, efficiency, and environmental integrity of electrical transmission and distribution systems, which shall include—

(1) advanced energy delivery technologies, energy storage technologies, materials, and systems, giving priority to new transmission technologies, including composite conductor materials and other technologies that enhance reliability, operational flexibility, or power-carrying capability;

(2) advanced grid reliability and efficiency technology development;

(3) technologies contributing to significant load reductions;

(4) advanced metering, load management, and control technologies;

(5) technologies to enhance existing grid components;

(6) the development and use of high-temperature superconductors to—

(A) enhance the reliability, operational flexibility, or power-carrying capability of electric transmission or distribution systems; or

(B) increase the efficiency of electric energy generation, transmission, distribution, or storage systems;

(7) integration of power systems, including systems to deliver high-quality electric power, electric power reliability, and combined heat and power;

(8) supply of electricity to the power grid by small scale, distributed and residential-based power generators;

(9) the development and use of advanced grid design, operation, and planning tools;

(10) the development of cost-effective technologies that enable two-way information and power flow between distributed energy resources and the electric grid;

(11) the development of technologies and concepts that enable interoperability between distributed energy resources and other behind-the-meter devices and the electric grid;

(12) any other infrastructure technologies, as appropriate; and

(13) technology transfer and education.

(b) PROGRAM PLAN.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary, in consultation with other appropriate Federal agencies, shall prepare and submit to Congress a 5-year program plan to guide activities under this section.

(2) CONSULTATION.—In preparing the program plan, the Secretary shall consult with—

- (A) utilities;
- (B) energy service providers;
- (C) manufacturers;
- (D) institutions of higher education;
- (E) other appropriate State and local agencies;
- (F) environmental organizations;
- (G) professional and technical societies; and
- (H) any other persons the Secretary considers appropriate.

(c) IMPLEMENTATION.—The Secretary shall consider implementing the program under this section using a consortium of participants from industry, institutions of higher education, and National Laboratories.

(d) REPORT.—Not later than 2 years after the submission of the plan under subsection (b), the Secretary shall submit to Congress a report—

- (1) describing the progress made under this section; and
- (2) identifying any additional resources needed to continue the development and commercial application of transmission and distribution of infrastructure technologies.

(e) POWER DELIVERY RESEARCH INITIATIVE.—

(1) IN GENERAL.—The Secretary shall establish a research, development, and demonstration initiative specifically focused on power delivery using components incorporating high temperature superconductivity.

(2) GOALS.—The goals of the Initiative shall be—

- (A) to establish world-class facilities to develop high temperature superconductivity power applications in partnership with manufacturers and utilities;
- (B) to provide technical leadership for establishing reliability for high temperature superconductivity power applications, including suitable modeling and analysis;
- (C) to facilitate the commercial transition toward direct current power transmission, storage, and use for high power systems using high temperature superconductivity; and

(D) to facilitate the integration of very low impedance high temperature superconducting wires and cables in existing electric networks to improve system performance, power flow control, and reliability.

(3) INCLUSIONS.—The Initiative shall include—

- (A) feasibility analysis, planning, research, and design to construct demonstrations of superconducting links in

high power, direct current, and controllable alternating current transmission systems;

(B) public-private partnerships to demonstrate deployment of high temperature superconducting cable into testbeds simulating a realistic transmission grid and under varying transmission conditions, including actual grid insertions; and

(C) testbeds developed in cooperation with National Laboratories, industries, and institutions of higher education to—

- (i) demonstrate those technologies;
- (ii) prepare the technologies for commercial introduction; and
- (iii) address cost or performance roadblocks to successful commercial use.

(f) TRANSMISSION AND DISTRIBUTION GRID PLANNING AND OPERATIONS INITIATIVE.—

(1) IN GENERAL.—The Secretary shall establish a research, development, and demonstration initiative specifically focused on tools needed to plan, operate, and expand the transmission and distribution grids in the presence of competitive market mechanisms for energy, load demand, customer response, and ancillary services.

(2) GOALS.—The goals of the Initiative shall be—

(A)(i) to develop and use a geographically distributed center, consisting of institutions of higher education, and National Laboratories, with expertise and facilities to develop the underlying theory and software for power system application; and

(ii) to ensure commercial development in partnership with software vendors and utilities;

(B) to provide technical leadership in engineering and economic analysis for the reliability and efficiency of power systems planning and operations in the presence of competitive markets for electricity;

(C) to model, simulate, and experiment with new market mechanisms and operating practices to understand and optimize those new methods before actual use; and

(D) to provide technical support and technology transfer to electric utilities and other participants in the domestic electric industry and marketplace.

(g) HIGH-VOLTAGE TRANSMISSION LINES.—As part of the program described in subsection (a), the Secretary shall award a grant to a university research program to design and test, in consultation with the Tennessee Valley Authority, state-of-the-art optimization techniques for power flow through existing high voltage transmission lines.

Subtitle C—Renewable Energy

SEC. 931. [42 U.S.C. 16231] RENEWABLE ENERGY.

(a) IN GENERAL.—

(1) OBJECTIVES.—The Secretary shall conduct programs of renewable energy research, development, demonstration, and commercial application, including activities described in this subtitle. Such programs shall take into consideration the following objectives:

(A) Increasing the conversion efficiency of all forms of renewable energy through improved technologies.

(B) Decreasing the cost of renewable energy generation and delivery.

(C) Promoting the diversity of the energy supply.

(D) Decreasing the dependence of the United States on foreign energy supplies.

(E) Improving United States energy security.

(F) Decreasing the environmental impact of energy-related activities.

(G) Increasing the export of renewable generation equipment from the United States.

(2) PROGRAMS.—

(A) GEOTHERMAL.—The Secretary shall conduct a program of research, development, demonstration, and commercial application for geothermal energy. The program shall focus on developing improved technologies for reducing the costs of geothermal energy installations, including technologies for—

(i) improving detection of geothermal resources;

(ii) decreasing drilling costs;

(iii) decreasing maintenance costs through improved materials;

(iv) increasing the potential for other revenue sources, such as mineral production; and

(v) increasing the understanding of reservoir life cycle and management.

(B) HYDROPOWER.—The Secretary shall conduct a program of research, development, demonstration, and commercial application for cost competitive technologies that enable the development of new and incremental hydropower capacity, adding to the diversity of the energy supply of the United States, including:

(i) Fish-friendly large turbines.

(ii) Advanced technologies to enhance environmental performance and yield greater energy efficiencies.

(C) MISCELLANEOUS PROJECTS.—The Secretary shall conduct research, development, demonstration, and commercial application programs for—

(i) marine energy (as defined in section 632 of the Energy Independence and Security Act of 2007);

(ii) the combined use of renewable energy technologies with one another and with other energy technologies, including the combined use of wind power and coal gasification technologies;

(iii) renewable energy technologies for cogeneration of hydrogen and electricity; and

(iv) kinetic hydro turbines.

(b) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary to carry out renewable energy research, development, demonstration, and commercial application activities, including activities authorized under this subtitle—

- (1) \$632,000,000 for fiscal year 2007;
- (2) \$743,000,000 for fiscal year 2008;
- (3) \$852,000,000 for fiscal year 2009; and
- (4) \$963,000,000 for fiscal year 2010.

(c) **BIOENERGY.**—From the amounts authorized under subsection (b), there are authorized to be appropriated to carry out section 932—

- (1) \$213,000,000 for fiscal year 2007, of which \$100,000,000 shall be for section 932(d);
- (2) \$377,000,000 for fiscal year 2008, of which \$125,000,000 shall be for section 932(d);
- (3) \$398,000,000 for fiscal year 2009, of which \$150,000,000 shall be for section 932(d); and
- (4) \$419,000,000 for fiscal year 2010, of which \$150,000,000 shall be for section 932(d).

(d) **ADMINISTRATION.**—Of the funds authorized under subsection (c), not less than \$5,000,000 for each fiscal year shall be made available for grants to—

- (1) part B institutions;
- (2) Tribal Colleges or Universities (as defined in section 316(b) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b))); and
- (3) Hispanic-serving institutions.

(e) **RURAL DEMONSTRATION PROJECTS.**—In carrying out this section, the Secretary, in consultation with the Secretary of Agriculture, shall demonstrate the use of renewable energy technologies to assist in delivering electricity to rural and remote locations including —

- (1) advanced wind power technology, including combined use with coal gasification;
- (2) biomass; and
- (3) geothermal energy systems.

(f) **ANALYSIS AND EVALUATION.**—

(1) **IN GENERAL.**—The Secretary shall conduct analysis and evaluation in support of the renewable energy programs under this subtitle. These activities shall be used to guide budget and program decisions, and shall include—

- (A) economic and technical analysis of renewable energy potential, including resource assessment;
- (B) analysis of past program performance, both in terms of technical advances and in market introduction of renewable energy; and
- (C) any other analysis or evaluation that the Secretary considers appropriate.

(2) **FUNDING.**—The Secretary may designate up to 1 percent of the funds appropriated for carrying out this subtitle for analysis and evaluation activities under this subsection.

SEC. 932. [42 U.S.C. 16232] BIOENERGY PROGRAM.

(a) **DEFINITIONS.**—In this section:

- (1) **BIOMASS.**—The term “biomass” means—
- (A) any organic material grown for the purpose of being converted to energy;
 - (B) any organic byproduct of agriculture (including wastes from food production and processing) that can be converted into energy; or
 - (C) any waste material that can be converted to energy, is segregated from other waste materials, and is derived from—
 - (i) any of the following forest-related resources: mill residues, precommercial thinnings, slash, brush, or otherwise nonmerchantable material; or
 - (ii) wood waste materials, including waste pallets, crates, dunnage, manufacturing and construction wood wastes (other than pressure-treated, chemically-treated, or painted wood wastes), and landscape or right-of-way tree trimmings, but not including municipal solid waste, gas derived from the biodegradation of municipal solid waste, or paper that is commonly recycled.
- (2) **LIGNOCELLULOSIC FEEDSTOCK.**—The term “lignocellulosic feedstock” means any portion of a plant or co-product from conversion, including crops, trees, forest residues, and agricultural residues not specifically grown for food, including from barley grain, rapeseed, rice bran, rice hulls, rice straw, soybean matter, and sugarcane bagasse.
- (b) **PROGRAM.**—The Secretary shall conduct a program of research, development, demonstration, and commercial application for bioenergy, including—
- (1) biopower energy systems;
 - (2) biofuels;
 - (3) bioproducts;
 - (4) integrated biorefineries that may produce biopower, biofuels, and bioproducts;
 - (5) cross-cutting research and development in feedstocks; and
 - (6) economic analysis.
- (c) **BIOFUELS AND BIOPRODUCTS.**—The goals of the biofuels and bioproducts programs shall be to develop, in partnership with industry and institutions of higher education—
- (1) advanced biochemical and thermochemical conversion technologies capable of making fuels from lignocellulosic feedstocks that are price-competitive with gasoline or diesel in either internal combustion engines or fuel cell-powered vehicles;
 - (2) advanced biotechnology processes capable of making biofuels and bioproducts with emphasis on development of biorefinery technologies using enzyme-based processing systems;
 - (3) advanced biotechnology processes capable of increasing energy production from lignocellulosic feedstocks, with emphasis on reducing the dependence of industry on fossil fuels in manufacturing facilities; and
 - (4) other advanced processes that will enable the development of cost-effective bioproducts, including biofuels.
- (d) **INTEGRATED BIOREFINERY DEMONSTRATION PROJECTS.**—

(1) IN GENERAL.—The Secretary shall carry out a program to demonstrate the commercial application of integrated biorefineries. The Secretary shall ensure geographical distribution of biorefinery demonstrations under this subsection. The Secretary shall not provide more than \$100,000,000 under this subsection for any single biorefinery demonstration. In making awards under this subsection, the Secretary shall encourage—

(A) the demonstration of a wide variety of lignocellulosic feedstocks;

(B) the commercial application of biomass technologies for a variety of uses, including—

(i) liquid transportation fuels;

(ii) high-value biobased chemicals;

(iii) substitutes for petroleum-based feedstocks and products; and

(iv) energy in the form of electricity or useful heat;

and

(C) the demonstration of the collection and treatment of a variety of biomass feedstocks.

(2) PROPOSALS.—Not later than 6 months after the date of enactment of this Act, the Secretary shall solicit proposals for demonstration of advanced biorefineries. The Secretary shall select only proposals that—

(A) demonstrate that the project will be able to operate profitably without direct Federal subsidy after initial construction costs are paid; and

(B) enable the biorefinery to be easily replicated.

(e) UNIVERSITY BIODIESEL PROGRAM.—The Secretary shall establish a demonstration program to determine the feasibility of the operation of diesel electric power generators, using biodiesel fuels with ratings as high as B100, at electric generation facilities owned by institutions of higher education. The program shall examine—

(1) heat rates of diesel fuels with large quantities of cellulosic content;

(2) the reliability of operation of various fuel blends;

(3) performance in cold or freezing weather;

(4) stability of fuel after extended storage; and

(5) other criteria, as determined by the Secretary.

(g)⁴ BIOREFINERY ENERGY EFFICIENCY.—The Secretary shall establish a program of research, development, demonstration, and commercial application for increasing energy efficiency and reducing energy consumption in the operation of biorefinery facilities.

(h) RETROFIT TECHNOLOGIES FOR THE DEVELOPMENT OF ETHANOL FROM CELLULOSIC MATERIALS.—The Secretary shall establish a program of research, development, demonstration, and commercial application on technologies and processes to enable biorefineries that exclusively use corn grain or corn starch as a feedstock to produce ethanol to be retrofitted to accept a range of biomass, including lignocellulosic feedstocks.

SEC. 933. [42 U.S.C. 16233] LOW-COST RENEWABLE HYDROGEN AND INFRASTRUCTURE FOR VEHICLE PROPULSION.

The Secretary shall—

⁴ So in law. There is no subsection (f).

(1) establish a research, development, and demonstration program to determine the feasibility of using hydrogen propulsion in light-weight vehicles and the integration of the associated hydrogen production infrastructure using off-the-shelf components; and

(2) identify universities and institutions that—

(A) have expertise in researching and testing vehicles fueled by hydrogen, methane, and other fuels;

(B) have expertise in integrating off-the-shelf components to minimize cost; and

(C) within 2 years can test a vehicle based on an existing commercially available platform with a curb weight of not less than 2,000 pounds before modifications, that—

(i) operates solely on hydrogen;

(ii) qualifies as a light-duty passenger vehicle; and

(iii) uses hydrogen produced from water using only solar energy.

SEC. 934. [42 U.S.C. 16234] CONCENTRATING SOLAR POWER RESEARCH PROGRAM.

(a) IN GENERAL.—The Secretary shall conduct a program of research and development to evaluate the potential for concentrating solar power for hydrogen production, including cogeneration approaches for both hydrogen and electricity.

(b) ADMINISTRATION.—The program shall take advantage of existing facilities to the extent practicable and shall include—

(1) development of optimized technologies that are common to both electricity and hydrogen production;

(2) evaluation of thermochemical cycles for hydrogen production at the temperatures attainable with concentrating solar power;

(3) evaluation of materials issues for the thermochemical cycles described in paragraph (2);

(4) cogeneration of solar thermal electric power and photo-synthetic-based hydrogen production;

(5) system architectures and economics studies; and

(6) coordination with activities under the Next Generation Nuclear Plant Project established under subtitle C of title VI on high temperature materials, thermochemical cycles, and economic issues.

(c) ASSESSMENT.—In carrying out the program under this section, the Secretary shall—

(1) assess conflicting guidance on the economic potential of concentrating solar power for electricity production received from the National Research Council in the report entitled “Renewable Power Pathways: A Review of the U.S. Department of Energy’s Renewable Energy Programs” and dated 2000 and subsequent reviews of that report funded by the Department; and

(2) provide an assessment of the potential impact of technology used to concentrate solar power for electricity before, or concurrent with, submission of the budget for fiscal year 2008.

(d) REPORT.—Not later than 5 years after the date of enactment of this Act, the Secretary shall provide to Congress a report on the economic and technical potential for electricity or hydrogen

production, with or without cogeneration, with concentrating solar power, including the economic and technical feasibility of potential construction of a pilot demonstration facility suitable for commercial production of electricity or hydrogen from concentrating solar power.

SEC. 935. [42 U.S.C. 16235] RENEWABLE ENERGY IN PUBLIC BUILDINGS.

(a) **DEMONSTRATION AND TECHNOLOGY TRANSFER PROGRAM.**—The Secretary shall establish a program for the demonstration of innovative technologies for solar and other renewable energy sources in buildings owned or operated by a State or local government, and for the dissemination of information resulting from such demonstration to interested parties.

(b) **LIMIT ON FEDERAL FUNDING.**—Notwithstanding section 988, the Secretary shall provide under this section no more than 40 percent of the incremental costs of the solar or other renewable energy source project funded.

(c) **REQUIREMENTS.**—As part of the application for awards under this section, the Secretary shall require all applicants—

(1) to demonstrate a continuing commitment to the use of solar and other renewable energy sources in buildings they own or operate; and

(2) to state how they expect any award to further their transition to the significant use of renewable energy.

SEC. 936. [42 U.S.C. 16236] RESEARCH AND DEVELOPMENT INTO INTEGRATING RENEWABLE ENERGY ONTO THE ELECTRIC GRID.

(a) **IN GENERAL.**—Not later than 180 days after the enactment of this section, the Secretary shall establish a research, development, and demonstration program on technologies that enable integration of renewable energy generation sources onto the electric grid across multiple program offices of the Department. The program shall include—

(1) forecasting for predicting generation from variable renewable energy sources;

(2) development of cost-effective low-loss, long-distance transmission lines; and

(3) development of cost-effective advanced technologies for variable renewable generation sources to provide grid services.

(b) **COORDINATION.**—In carrying out this program, the Secretary shall coordinate across all relevant program offices at the Department to achieve the goals established in this section, including the Office of Electricity.

(c) **ADOPTION OF TECHNOLOGIES.**—In carrying out this section, the Secretary shall consider barriers to adoption and commercial application of technologies that enable integration of renewable energy sources onto the electric grid, including cost and other economic barriers, and shall coordinate with relevant entities to reduce these barriers.

Subtitle D—Agricultural Biomass Research and Development Programs

SEC. 941. [7 U.S.C. 8101 note] AMENDMENTS TO THE BIOMASS RESEARCH AND DEVELOPMENT ACT OF 2000.

(a) DEFINITIONS.—Section 303 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

- (1) by striking paragraphs (2), (9), and (10);
- (2) by redesignating paragraphs (3), (4), (5), (6), (7), and (8) as paragraphs (4), (5), (7), (8), (9), and (10), respectively;
- (3) by inserting after paragraph (1) the following:

“(2) BIOBASED FUEL.—The term ‘biobased fuel’ means any transportation fuel produced from biomass.

“(3) BIOBASED PRODUCT.—The term ‘biobased product’ means an industrial product (including chemicals, materials, and polymers) produced from biomass, or a commercial or industrial product (including animal feed and electric power) derived in connection with the conversion of biomass to fuel.”;
- (4) by inserting after paragraph (5) (as redesignated by paragraph (2)) the following:

“(6) DEMONSTRATION.—The term ‘demonstration’ means demonstration of technology in a pilot plant or semi-works scale facility.”; and
- (5) by striking paragraph (9) (as redesignated by paragraph (2)) and inserting the following:

“(9) NATIONAL LABORATORY.—The term ‘National Laboratory’ has the meaning given that term in section 2 of the Energy Policy Act of 2005.”

(b) COOPERATION AND COORDINATION IN BIOMASS RESEARCH AND DEVELOPMENT.—Section 304 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

- (1) in subsections (a) and (d), by striking “industrial products” each place it appears and inserting “fuels and biobased products”;
- (2) by striking subsections (b) and (c); and
- (3) by redesignating subsection (d) as subsection (b).

(c) BIOMASS RESEARCH AND DEVELOPMENT BOARD.—Section 305 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

- (1) in subsections (a) and (c), by striking “industrial products” each place it appears and inserting “fuels and biobased products”;
- (2) in subsection (b)—
 - (A) in paragraph (1), by striking “304(d)(1)(B)” and inserting “304(b)(1)(B)”; and
 - (B) in paragraph (2), by striking “304(d)(1)(A)” and inserting “304(b)(1)(A)”; and
- (3) in subsection (c)—
 - (A) in paragraph (1)(B), by striking “and” at the end;
 - (B) in paragraph (2), by striking the period at the end and inserting a semicolon; and

(C) by adding at the end the following:

“(3) ensure that—

“(A) solicitations are open and competitive with awards made annually; and

“(B) objectives and evaluation criteria of the solicitations are clearly stated and minimally prescriptive, with no areas of special interest; and

“(4) ensure that the panel of scientific and technical peers assembled under section 307(g)(1)(C) to review proposals is composed predominantly of independent experts selected from outside the Departments of Agriculture and Energy.”.

(d) BIOMASS RESEARCH AND DEVELOPMENT TECHNICAL ADVISORY COMMITTEE.—Section 306 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

(1) in subsection (b)(1)—

(A) in subparagraph (A), by striking “biobased industrial products” and inserting “biofuels”;

(B) by redesignating subparagraphs (B) through (J) as subparagraphs (C) through (K), respectively;

(C) by inserting after subparagraph (A) the following:

“(B) an individual affiliated with the biobased industrial and commercial products industry;”;

(D) in subparagraph (F) (as redesignated by subparagraph (B)) by striking “an individual has” and inserting “2 individuals have”;

(E) in subparagraphs (C), (D), (G), and (I) (as redesignated by subparagraph (B)) by striking “industrial products” each place it appears and inserting “fuels and biobased products”; and

(F) in subparagraph (H) (as redesignated by subparagraph (B)), by inserting “and environmental” before “analysis”;

(2) in subsection (c)(2)—

(A) in subparagraph (A), by striking “goals” and inserting “objectives, purposes, and considerations”;

(B) by redesignating subparagraphs (B) and (C) as subparagraphs (C) and (D), respectively;

(C) by inserting after subparagraph (A) the following:

“(B) solicitations are open and competitive with awards made annually and that objectives and evaluation criteria of the solicitations are clearly stated and minimally prescriptive, with no areas of special interest;”;

(D) in subparagraph (C) (as redesignated by subparagraph (B)) by inserting “predominantly from outside the Departments of Agriculture and Energy” after “technical peers”.

(e) BIOMASS RESEARCH AND DEVELOPMENT INITIATIVE.—Section 307 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

(1) in subsection (a), by striking “research on biobased industrial products” and inserting “research on, and development and demonstration of, biobased fuels and biobased products,

and the methods, practices and technologies, for their production"; and

(2) by striking subsections (b) through (e) and inserting the following:

"(b) OBJECTIVES.—The objectives of the Initiative are to develop—

"(1) technologies and processes necessary for abundant commercial production of biobased fuels at prices competitive with fossil fuels;

"(2) high-value biobased products—

"(A) to enhance the economic viability of biobased fuels and power; and

"(B) as substitutes for petroleum-based feedstocks and products; and

"(3) a diversity of sustainable domestic sources of biomass for conversion to biobased fuels and biobased products.

"(c) PURPOSES.—The purposes of the Initiative are—

"(1) to increase the energy security of the United States;

"(2) to create jobs and enhance the economic development of the rural economy;

"(3) to enhance the environment and public health; and

"(4) to diversify markets for raw agricultural and forestry products.

"(d) TECHNICAL AREAS.—To advance the objectives and purposes of the Initiative, the Secretary of Agriculture and the Secretary of Energy, in consultation with the Administrator of the Environmental Protection Agency and heads of other appropriate departments and agencies (referred to in this section as the 'Secretaries'), shall direct research and development toward—

"(1) feedstock production through the development of crops and cropping systems relevant to production of raw materials for conversion to biobased fuels and biobased products, including—

"(A) development of advanced and dedicated crops with desired features, including enhanced productivity, broader site range, low requirements for chemical inputs, and enhanced processing;

"(B) advanced crop production methods to achieve the features described in subparagraph (A);

"(C) feedstock harvest, handling, transport, and storage; and

"(D) strategies for integrating feedstock production into existing managed land;

"(2) overcoming recalcitrance of cellulosic biomass through developing technologies for converting cellulosic biomass into intermediates that can subsequently be converted into biobased fuels and biobased products, including—

"(A) pretreatment in combination with enzymatic or microbial hydrolysis; and

"(B) thermochemical approaches, including gasification and pyrolysis;

"(3) product diversification through technologies relevant to production of a range of biobased products (including chemicals, animal feeds, and cogenerated power) that eventually can

increase the feasibility of fuel production in a biorefinery, including—

- “(A) catalytic processing, including thermochemical fuel production;
- “(B) metabolic engineering, enzyme engineering, and fermentation systems for biological production of desired products or cogeneration of power;
- “(C) product recovery;
- “(D) power production technologies; and
- “(E) integration into existing biomass processing facilities, including starch ethanol plants, paper mills, and power plants; and
- “(4) analysis that provides strategic guidance for the application of biomass technologies in accordance with realization of improved sustainability and environmental quality, cost effectiveness, security, and rural economic development, usually featuring system-wide approaches.

“(e) ADDITIONAL CONSIDERATIONS.—Within the technical areas described in subsection (d), and in addition to advancing the purposes described in subsection (c) and the objectives described in subsection (b), the Secretaries shall support research and development—

- “(1) to create continuously expanding opportunities for participants in existing biofuels production by seeking synergies and continuity with current technologies and practices, such as the use of dried distillers grains as a bridge feedstock;
- “(2) to maximize the environmental, economic, and social benefits of production of biobased fuels and biobased products on a large scale through life-cycle economic and environmental analysis and other means; and
- “(3) to assess the potential of Federal land and land management programs as feedstock resources for biobased fuels and biobased products, consistent with the integrity of soil and water resources and with other environmental considerations.

“(f) ELIGIBLE ENTITIES.—To be eligible for a grant, contract, or assistance under this section, an applicant shall be—

- “(1) an institution of higher education;
- “(2) a National Laboratory;
- “(3) a Federal research agency;
- “(4) a State research agency;
- “(5) a private sector entity;
- “(6) a nonprofit organization; or
- “(7) a consortium of two or more entities described in paragraphs (1) through (6).

“(g) ADMINISTRATION.—

“(1) IN GENERAL.—After consultation with the Board, the points of contact shall—

- “(A) publish annually one or more joint requests for proposals for grants, contracts, and assistance under this section;
- “(B) require that grants, contracts, and assistance under this section be awarded competitively, on the basis of merit, after the establishment of procedures that pro-

vide for scientific peer review by an independent panel of scientific and technical peers; and

“(C) give some preference to applications that—

“(i) involve a consortia of experts from multiple institutions;

“(ii) encourage the integration of disciplines and application of the best technical resources; and

“(iii) increase the geographic diversity of demonstration projects.

“(2) DISTRIBUTION OF FUNDING BY TECHNICAL AREA.—Of the funds authorized to be appropriated for activities described in this section, funds shall be distributed for each of fiscal years 2007 through 2010 so as to achieve an approximate distribution of—

“(A) 20 percent of the funds to carry out activities for feedstock production under subsection (d)(1);

“(B) 45 percent of the funds to carry out activities for overcoming recalcitrance of cellulosic biomass under subsection (d)(2);

“(C) 30 percent of the funds to carry out activities for product diversification under subsection (d)(3); and

“(D) 5 percent of the funds to carry out activities for strategic guidance under subsection (d)(4).

“(3) DISTRIBUTION OF FUNDING WITHIN EACH TECHNICAL AREA.—Within each technical area described in paragraphs (1) through (3) of subsection (d), funds shall be distributed for each of fiscal years 2007 through 2010 so as to achieve an approximate distribution of—

“(A) 15 percent of the funds for applied fundamentals;

“(B) 35 percent of the funds for innovation; and

“(C) 50 percent of the funds for demonstration.

“(4) MATCHING FUNDS.—

“(A) IN GENERAL.—A minimum 20 percent funding match shall be required for demonstration projects under this title.

“(B) COMMERCIAL APPLICATIONS.—A minimum of 50 percent funding match shall be required for commercial application projects under this title.

“(5) TECHNOLOGY AND INFORMATION TRANSFER TO AGRICULTURAL USERS.—The Administrator of the Cooperative State Research, Education, and Extension Service and the Chief of the Natural Resources Conservation Service shall ensure that applicable research results and technologies from the Initiative are adapted, made available, and disseminated through those services, as appropriate.”.

(f) ANNUAL REPORTS.—Section 309 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

(1) in subsection (b)—

(A) in paragraph (1)—

(i) in subparagraph (A), by striking “purposes described in section 307(b)” and inserting “objectives, purposes, and additional considerations described in subsections (b) through (e) of section 307”;

(ii) in subparagraph (B), by striking “and” at the end;

(iii) by redesignating subparagraph (C) as subparagraph (D); and

(iv) by inserting after subparagraph (B) the following:

“(C) achieves the distribution of funds described in paragraphs (2) and (3) of section 307(g); and”; and

(B) in paragraph (2), by striking “industrial products” and inserting “fuels and biobased products”; and

(2) by adding at the end the following:

“(c) UPDATES.—The Secretary and the Secretary of Energy shall update the Vision and Roadmap documents prepared for Federal biomass research and development activities.”.

(g) AUTHORIZATION OF APPROPRIATIONS.—Section 310(b) of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended by striking “title \$54,000,000 for each of fiscal years 2002 through 2007” and inserting “title \$200,000,000 for each of fiscal years 2006 through 2015”.

(h) REPEAL OF SUNSET PROVISION.—Section 311 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is repealed.

SEC. 942. [42 U.S.C. 16251] PRODUCTION INCENTIVES FOR CELLULOSIC BIOFUELS.

(a) PURPOSE.—The purpose of this section is to—

(1) accelerate deployment and commercialization of biofuels;

(2) deliver the first 1,000,000,000 gallons in annual cellulosic biofuels production by 2015;

(3) ensure biofuels produced after 2015 are cost competitive with gasoline and diesel; and

(4) ensure that small feedstock producers and rural small businesses are full participants in the development of the cellulosic biofuels industry.

(b) DEFINITIONS.—In this section:

(1) CELLULOSIC BIOFUELS.—The term “cellulosic biofuels” means any fuel that is produced from cellulosic feedstocks.

(2) ELIGIBLE ENTITY.—The term “eligible entity” means a producer of fuel from cellulosic biofuels the production facility of which—

(A) is located in the United States;

(B) meets all applicable Federal and State permitting requirements; and

(C) meets any financial criteria established by the Secretary.

(c) PROGRAM.—

(1) ESTABLISHMENT.—The Secretary, in consultation with the Secretary of Agriculture, the Secretary of Defense, and the Administrator of the Environmental Protection Agency, shall establish an incentive program for the production of cellulosic biofuels.

(2) BASIS OF INCENTIVES.—Under the program, the Secretary shall award production incentives on a per gallon basis of cellulosic biofuels from eligible entities, through—

- (A) set payments per gallon of cellulosic biofuels produced in an amount determined by the Secretary, until initiation of the first reverse auction; and
- (B) reverse auction thereafter.
- (3) FIRST REVERSE AUCTION.—The first reverse auction shall be held on the earlier of—
 - (A) not later than 1 year after the first year of annual production in the United States of 100,000,000 gallons of cellulosic biofuels, as determined by the Secretary; or
 - (B) not later than 3 years after the date of enactment of this Act.
- (4) REVERSE AUCTION PROCEDURE.—
 - (A) IN GENERAL.—On initiation of the first reverse auction, and each year thereafter until the earlier of the first year of annual production in the United States of 1,000,000,000 gallons of cellulosic biofuels, as determined by the Secretary, or 10 years after the date of enactment of this Act, the Secretary shall conduct a reverse auction at which—
 - (i) the Secretary shall solicit bids from eligible entities;
 - (ii) eligible entities shall submit—
 - (I) a desired level of production incentive on a per gallon basis; and
 - (II) an estimated annual production amount in gallons; and
 - (iii) the Secretary shall issue awards for the production amount submitted, beginning with the eligible entity submitting the bid for the lowest level of production incentive on a per gallon basis and meeting such other criteria as are established by the Secretary, until the amount of funds available for the reverse auction is committed.
 - (B) AMOUNT OF INCENTIVE RECEIVED.—An eligible entity selected by the Secretary through a reverse auction shall receive the amount of performance incentive requested in the auction for each gallon produced and sold by the entity during the first 6 years of operation.
 - (C) COMMENCEMENT OF PRODUCTION OF CELLULOSIC BIOFUELS.—As a condition of the receipt of an award under this section, an eligible entity shall enter into an agreement with the Secretary under which the eligible entity agrees to begin production of cellulosic biofuels not later than 3 years after the date of the reverse auction in which the eligible entity participates.
 - (d) LIMITATIONS.—Awards under this section shall be limited to—
 - (1) a per gallon amount determined by the Secretary during the first 4 years of the program;
 - (2) a declining per gallon cap over the remaining lifetime of the program, to be established by the Secretary so that cellulosic biofuels produced after the first year of annual cellulosic biofuels production in the United States in excess of

1,000,000,000 gallons are cost competitive with gasoline and diesel;

(3) not more than 25 percent of the funds committed within each reverse auction to any 1 project;

(4) not more than \$100,000,000 in any 1 year; and

(5) not more than \$1,000,000,000 over the lifetime of the program.

(e) **PRIORITY.**—In selecting a project under the program, the Secretary shall give priority to projects that—

(1) demonstrate outstanding potential for local and regional economic development;

(2) include agricultural producers or cooperatives of agricultural producers as equity partners in the ventures; and

(3) have a strategic agreement in place to fairly reward feedstock suppliers.

(f) **AUTHORIZATIONS OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this section \$250,000,000.

SEC. 943. PROCUREMENT OF BIOBASED PRODUCTS.

(a) **FEDERAL PROCUREMENT.**—

(1) **DEFINITION OF PROCURING AGENCY.**—Section 9001 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101) is amended—

(A) by redesignating paragraphs (4), (5), and (6) as paragraphs (5), (6), and (7), respectively; and

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

“(4) **PROCURING AGENCY.**—The term ‘procuring agency’ means—

“(A) any Federal agency that is using Federal funds for procurement; or

“(B) any person contracting with any Federal agency with respect to work performed under the contract.”.

(2) **PROCUREMENT.**—Section 9002 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8102) is amended—

(A) by striking “Federal agency” each place it appears (other than in subsections (f) and (g)) and inserting “procuring agency”;

(B) in subsection (c)(2)—

(i) by striking “(2)” and all that follows through “Notwithstanding” and inserting the following:

“(2) **FLEXIBILITY.**—Notwithstanding”;

(ii) by striking “an agency” and inserting “a procuring agency”; and

(iii) by striking “the agency” and inserting “the procuring agency”;

(C) in subsection (d), by striking “procured by Federal agencies” and inserting “procured by procuring agencies”; and

(D) in subsection (f), by striking “Federal agencies” and inserting “procuring agencies”.

(b) **CAPITOL COMPLEX PROCUREMENT.**—Section 9002 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8102) (as amended by subsection (a)(2)) is amended—

(1) by redesignating subsection (j) as subsection (k); and

(2) by inserting after subsection (i) the following:

“(j) INCLUSION.—Not later than 90 days after the date of enactment of the Energy Policy Act of 2005, the Architect of the Capitol, the Sergeant at Arms of the Senate, and the Chief Administrative Officer of the House of Representatives shall establish procedures that apply the requirements of this section to procurement for the Capitol Complex.”.

(c) EDUCATION.—

(1) IN GENERAL.—The Architect of the Capitol shall establish in the Capitol Complex a program of public education regarding use by the Architect of the Capitol of biobased products.

(2) PURPOSES.—The purposes of the program shall be—

(A) to establish the Capitol Complex as a showcase for the existence and benefits of biobased products; and

(B) to provide access to further information on biobased products to occupants and visitors.

(d) PROCEDURE.—Requirements issued under the amendments made by subsection (b) shall be made in accordance with directives issued by the Committee on Rules and Administration of the Senate and the Committee on House Administration of the House of Representatives.

SEC. 944. [42 U.S.C. 16253] SMALL BUSINESS BIOPRODUCT MARKETING AND CERTIFICATION GRANTS.

(a) IN GENERAL.—Using amounts made available under subsection (g), the Secretary of Agriculture (referred to in this section as the “Secretary”) shall make available on a competitive basis grants to eligible entities described in subsection (b) for the biobased product marketing and certification purposes described in subsection (c).

(b) ELIGIBLE ENTITIES.—

(1) IN GENERAL.—An entity eligible for a grant under this section is any manufacturer of biobased products that—

(A) proposes to use the grant for the biobased product marketing and certification purposes described in subsection (c); and

(B) has not previously received a grant under this section.

(2) PREFERENCE.—In making grants under this section, the Secretary shall provide a preference to an eligible entity that has fewer than 50 employees.

(c) BIODEBASED PRODUCT MARKETING AND CERTIFICATION GRANT PURPOSES.—A grant made under this section shall be used—

(1) to provide working capital for marketing of biobased products; and

(2) to provide for the certification of biobased products to—

(A) qualify for the label described in section 9002(h)(1) of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8102(h)(1)); or

(B) meet other biobased standards determined appropriate by the Secretary.

(d) MATCHING FUNDS.—

(1) IN GENERAL.—Grant recipients shall provide matching non-Federal funds equal to the amount of the grant received.

(2) EXPENDITURE.—Matching funds shall be expended in advance of grant funding, so that for every dollar of grant that is advanced, an equal amount of matching funds shall have been funded prior to submitting the request for reimbursement.

(e) AMOUNT.—A grant made under this section shall not exceed \$100,000.

(f) ADMINISTRATION.—The Secretary shall establish such administrative requirements for grants under this section, including requirements for applications for the grants, as the Secretary considers appropriate.

(g) AUTHORIZATIONS OF APPROPRIATIONS.—There are authorized to be appropriated to make grants under this section—

(1) \$1,000,000 for fiscal year 2006; and

(2) such sums as are necessary for each of fiscal years 2007 through 2015.

SEC. 945. [42 U.S.C. 16254] REGIONAL BIOECONOMY DEVELOPMENT GRANTS.

(a) IN GENERAL.—Using amounts made available under subsection (g), the Secretary of Agriculture (referred to in this section as the “Secretary”) shall make available on a competitive basis grants to eligible entities described in subsection (b) for the purposes described in subsection (c).

(b) ELIGIBLE ENTITIES.—An entity eligible for a grant under this section is any regional bioeconomy development association, agricultural or energy trade association, or Land Grant institution that—

(1) proposes to use the grant for the purposes described in subsection (c); and

(2) has not previously received a grant under this section.

(c) REGIONAL BIOECONOMY DEVELOPMENT ASSOCIATION GRANT PURPOSES.—A grant made under this section shall be used to support and promote the growth and development of the bioeconomy within the region served by the eligible entity, through coordination, education, outreach, and other endeavors by the eligible entity.

(d) MATCHING FUNDS.—

(1) IN GENERAL.—Grant recipients shall provide matching non-Federal funds equal to the amount of the grant received.

(2) EXPENDITURE.—Matching funds shall be expended in advance of grant funding, so that for every dollar of grant that is advanced, an equal amount of matching funds shall have been funded prior to submitting the request for reimbursement.

(e) ADMINISTRATION.—The Secretary shall establish such administrative requirements for grants under this section, including requirements for applications for the grants, as the Secretary considers appropriate.

(f) AMOUNT.—A grant made under this section shall not exceed \$500,000.

(g) AUTHORIZATIONS OF APPROPRIATIONS.—There are authorized to be appropriated to make grants under this section—

(1) \$1,000,000 for fiscal year 2006; and

(2) such sums as are necessary for each of fiscal years 2007 through 2015.

SEC. 946. [42 U.S.C. 16255] PREPROCESSING AND HARVESTING DEMONSTRATION GRANTS.

(a) **IN GENERAL.**—The Secretary of Agriculture (referred to in this section as the “Secretary”) shall make grants available on a competitive basis to enterprises owned by agricultural producers, for the purposes of demonstrating cost-effective, cellulosic biomass innovations in—

(1) preprocessing of feedstocks, including cleaning, separating and sorting, mixing or blending, and chemical or biochemical treatments, to add value and lower the cost of feedstock processing at a biorefinery; or

(2) 1-pass or other efficient, multiple crop harvesting techniques.

(b) **LIMITATIONS ON GRANTS.**—

(1) **NUMBER OF GRANTS.**—Not more than 5 demonstration projects per fiscal year shall be funded under this section.

(2) **NON-FEDERAL COST SHARE.**—The non-Federal cost share of a project under this section shall be not less than 20 percent, as determined by the Secretary.

(c) **CONDITION OF GRANT.**—To be eligible for a grant for a project under this section, a recipient of a grant or a participating entity shall agree to use the material harvested under the project—

(1) to produce ethanol; or

(2) for another energy purpose, such as the generation of heat or electricity.

(d) **AUTHORIZATION FOR APPROPRIATIONS.**—There is authorized to be appropriated to carry out this section \$5,000,000 for each of fiscal years 2006 through 2010.

SEC. 947. [42 U.S.C. 16256] EDUCATION AND OUTREACH.

(a) **IN GENERAL.**—The Secretary of Agriculture shall establish, within the Department of Agriculture or through an independent contracting entity, a program of education and outreach on biobased fuels and biobased products consisting of—

(1) training and technical assistance programs for feedstock producers to promote producer ownership, investment, and participation in the operation of processing facilities; and

(2) public education and outreach to familiarize consumers with the biobased fuels and biobased products.

(b) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this section \$1,000,000 for each of fiscal years 2006 through 2010.

SEC. 948. REPORTS.

(a) **BIOBASED PRODUCT POTENTIAL.**—Not later than 1 year after the date of enactment of this Act, the Secretary of Agriculture (referred to in this section as the “Secretary”) shall submit to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate a report that—

(1) describes the economic potential for the United States of the widespread production and use of commercial and industrial biobased products through calendar year 2025; and

(2) as the maximum extent practicable, identifies the economic potential by product area.

(b) ANALYSIS OF ECONOMIC INDICATORS.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress an analysis of economic indicators of the biobased economy.

Subtitle E—Nuclear Energy

SEC. 951. [42 U.S.C. 16271] NUCLEAR ENERGY.

(a) MISSION.—

(1) IN GENERAL.—The Secretary shall carry out programs of civilian nuclear research, development, demonstration, and commercial application, including activities under this subtitle.

(2) CONSIDERATIONS.—The programs carried out under paragraph (1) shall take into consideration the following objectives:

(A) Providing research infrastructure to promote scientific progress and enable users from academia, the National Laboratories, and the private sector to make scientific discoveries relevant for nuclear, chemical, and materials science engineering.

(B) Maintaining nuclear energy research and development programs at the National Laboratories and institutions of higher education, including infrastructure at the National Laboratories and institutions of higher education.

(C) Providing the technical means to reduce the likelihood of nuclear proliferation.

(D) Increasing confidence margins for public safety of nuclear energy systems.

(E) Reducing the environmental impact of activities relating to nuclear energy.

(F) Supporting technology transfer from the National Laboratories to the private sector.

(G) Enabling the private sector to partner with the National Laboratories to demonstrate novel reactor concepts for the purpose of resolving technical uncertainty associated with the objectives described in subparagraphs (A) through (F).

(b) DEFINITIONS.—In this subtitle:

(1) ADVANCED NUCLEAR REACTOR.—The term “advanced nuclear reactor” means—

(A) a nuclear fission reactor, including a prototype plant (as defined in sections 50.2 and 52.1 of title 10, Code of Federal Regulations (or successor regulations)), with significant improvements compared to reactors operating on the date of enactment of the Energy Act of 2020, including improvements such as—

- (i) additional inherent safety features;
- (ii) lower waste yields;
- (iii) improved fuel and material performance;
- (iv) increased tolerance to loss of fuel cooling;
- (v) enhanced reliability or improved resilience;

- (vi) increased proliferation resistance;
- (vii) increased thermal efficiency;
- (viii) reduced consumption of cooling water and other environmental impacts;
- (ix) the ability to integrate into electric applications and nonelectric applications;
- (x) modular sizes to allow for deployment that corresponds with the demand for electricity or process heat; and
- (xi) operational flexibility to respond to changes in demand for electricity or process heat and to complement integration with intermittent renewable energy or energy storage;

(B) a fusion reactor; and

(C) a radioisotope power system that utilizes heat from radioactive decay to generate energy.

(2) COMMISSION.—The term “Commission” means the Nuclear Regulatory Commission.

(3) FAST NEUTRON.—The term “fast neutron” means a neutron with kinetic energy above 100 kiloelectron volts.

(4) NATIONAL LABORATORY.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the term “National Laboratory” has the meaning given the term in section 2.

(B) LIMITATION.—With respect to the Lawrence Livermore National Laboratory, the Los Alamos National Laboratory, and the Sandia National Laboratories, the term “National Laboratory” means only the civilian activities of the laboratory.

(5) NEUTRON FLUX.—The term “neutron flux” means the intensity of neutron radiation measured as a rate of flow of neutrons applied over an area.

(6) NEUTRON SOURCE.—The term “neutron source” means a research machine that provides neutron irradiation services for—

(A) research on materials sciences and nuclear physics; and

(B) testing of advanced materials, nuclear fuels, and other related components for reactor systems.

SEC. 952. [42 U.S.C 16272] REACTOR CONCEPTS RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION.

(a) SUSTAINABILITY PROGRAM FOR LIGHT WATER REACTORS.—

(1) IN GENERAL.—The Secretary shall carry out a program of research, development, demonstration, and commercial application, including through the use of modeling and simulation, to support existing operating nuclear power plants which shall address technologies to modernize and improve, with respect to such plants—

(A) reliability;

(B) capacity;

(C) component aging;

(D) safety;

(E) physical security and security costs;

- (F) plant lifetime;
- (G) operations and maintenance costs, including by utilizing risk-informed systems analysis;
- (H) the ability for plants to operate flexibly;
- (I) nuclear integrated energy system applications described in subsection (c);
- (J) efficiency;
- (K) environmental impacts; and
- (L) resilience.

(2) ISOTOPE DEMONSTRATION EVALUATION.—

(A) IN GENERAL.—Not later than 1 year after the date of enactment of the Research and Development, Competition, and Innovation Act, the Secretary, acting through the Assistant Secretary for Nuclear Energy, shall evaluate the technical and economic feasibility of establishing and, if feasible, is authorized to establish an isotope demonstration subprogram of the program established under paragraph (1) to support the development and commercial demonstration of critical radioactive and stable isotope production in existing commercial nuclear power plants.

(B) CONSULTATION.—The Secretary, acting through the Assistant Secretary for Nuclear Energy, shall consult with the Director of the Office of Science in carrying out the evaluation under subparagraph (A).

(C) DEFINITION OF CRITICAL RADIOACTIVE AND STABLE ISOTOPE.—In this paragraph, the term “critical radioactive and stable isotope” has the meaning given the term in section 311(a) of the Department of Energy Research and Innovation Act.

(3) REPORT.—The Secretary shall submit annually a public report to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate documenting funds spent under the program that describes program activities, objectives, and outcomes, including those that could benefit the entirety of the existing reactor fleet, such as with respect to aging management and related sustainability concerns, and identifying funds awarded to private entities.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the program under this subsection \$55,000,000 for each of fiscal years 2021 through 2025.

(b) ADVANCED REACTOR TECHNOLOGIES.—

(1) IN GENERAL.—The Secretary shall carry out a program of research, development, demonstration, and commercial application to support advanced reactor technologies.

(2) REQUIREMENTS.—In carrying out the program under this subsection, the Secretary shall—

(A) prioritize designs for advanced nuclear reactors that are proliferation resistant and passively safe, including designs that, compared to reactors operating on the date of enactment of the Energy Act of 2020—

- (i) are economically competitive with other electric power generation plants;

(ii) have higher efficiency, lower cost, less environmental impacts, increased resilience, and improved safety;

(iii) use fuels that are proliferation resistant and have reduced production of high-level waste per unit of output; and

(iv) use advanced instrumentation and monitoring systems;

(B) consult with the Nuclear Regulatory Commission on appropriate metrics to consider for the criteria specified in subparagraph (A);

(C) support research and development to resolve materials challenges relating to extreme environments, including environments that contain high levels of—

(i) radiation fluence;

(ii) temperature;

(iii) pressure; and

(iv) corrosion;

(D) support research and development to aid in the qualification of advanced fuels, including fabrication techniques;

(E) support activities that address near-term challenges in modeling and simulation to enable accelerated design of and licensing of advanced nuclear reactors, including the identification of tools and methodologies for validating such modeling and simulation efforts;

(F) develop technologies, including technologies to manage, reduce, or reuse nuclear waste;

(G) ensure that nuclear research infrastructure is maintained or constructed, including—

(i) currently operational research reactors at the National Laboratories and institutions of higher education;

(ii) hot cell research facilities;

(iii) a versatile fast neutron source; and

(iv) advanced coolant testing facilities, including coolants such as lead, sodium, gas, and molten salt;

(H) improve scientific understanding of nonlight water coolant physics and chemistry;

(I) develop advanced sensors and control systems, including the identification of tools and methodologies for validating such sensors and systems;

(J) investigate advanced manufacturing and advanced construction techniques and materials to reduce the cost of advanced nuclear reactors, including the use of digital twins and of strategies to implement project and construction management best practices, and study the effects of radiation and corrosion on materials created with these techniques;

(K) consult with the Administrator of the National Nuclear Security Administration to integrate reactor safeguards and security into design;

(L) support efforts to reduce any technical barriers that would prevent commercial application of advanced nuclear energy systems; and

(M) develop various safety analyses and emergency preparedness and response methodologies.

(3) COORDINATION.—The Secretary shall coordinate with individuals engaged in the private sector and individuals who are experts in nuclear nonproliferation, environmental and public health and safety, and economics to advance the development of various designs of advanced nuclear reactors. In carrying out this paragraph, the Secretary shall convene an advisory committee of such individuals and such committee shall submit annually a report to the relevant committees of Congress with respect to the progress of the program.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the program under this subsection \$55,000,000 for each of fiscal years 2021 through 2025.

(c) NUCLEAR INTEGRATED ENERGY SYSTEMS RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION PROGRAM.—

(1) IN GENERAL.—The Secretary shall carry out a program of research, development, demonstration, and commercial application to develop nuclear integrated energy systems, composed of 2 or more co-located or jointly operated subsystems of energy generation, energy storage, or other technologies and in which not less than 1 such subsystem is a nuclear energy system, to—

(A) reduce greenhouse gas emissions in both the power and nonpower sectors; and

(B) maximize energy production and efficiency.

(2) COORDINATION.—In carrying out the program under paragraph (1), the Secretary shall coordinate with—

(A) relevant program offices within the Department of Energy;

(B) National Laboratories;

(C) institutions of higher education; and

(D) the private sector.

(3) FOCUS AREAS.—The program under paragraph (1) may include research, development, demonstration, or commercial application of nuclear integrated energy systems with respect to—

(A) desalination technologies and processes;

(B) hydrogen or other liquid and gaseous fuel or chemical production;

(C) heat for industrial processes;

(D) district heating;

(E) heat or electricity generation and storage;

(F) carbon capture, use, utilization, and storage;

(G) microgrid or island applications;

(H) integrated systems modeling, analysis, and optimization, inclusive of different configurations of integrated energy systems; and

(I) integrated design, planning, building, and operation of systems with existing infrastructure, including interconnection requirements with the electric grid, as appropriate.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the program under this subsection—

- (A) \$20,000,000 for fiscal year 2021;
- (B) \$30,000,000 for fiscal year 2022;
- (C) \$30,000,000 for fiscal year 2023;
- (D) \$40,000,000 for fiscal year 2024; and
- (E) \$40,000,000 for fiscal year 2025.

SEC. 953. [42 U.S.C 16273] FUEL CYCLE RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION.

(a) USED NUCLEAR FUEL RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION.—

(1) IN GENERAL.—The Secretary shall conduct an advanced fuel cycle research, development, demonstration, and commercial application program to improve fuel cycle performance, minimize environmental and public health and safety impacts, and support a variety of options for used nuclear fuel storage, use, and disposal, including advanced nuclear reactor and non-reactor concepts (such as radioisotope power systems), which may include—

- (A) dry cask storage;
- (B) consolidated interim storage;
- (C) deep geological storage and disposal, including mined repository, and other technologies;
- (D) used nuclear fuel transportation;
- (E) integrated waste management systems;
- (F) vitrification;
- (G) fuel recycling and transmutation technologies, including advanced reprocessing technologies such as electrochemical and molten salt technologies, and advanced redox extraction technologies;
- (H) advanced materials to be used in subparagraphs (A) through (G); and
- (I) other areas as determined by the Secretary.

(2) REQUIREMENTS.—In carrying out the program under this subsection, the Secretary shall—

- (A) ensure all activities and designs incorporate state of the art safeguards technologies and techniques to reduce risk of proliferation;
- (B) consult with the Administrator of the National Nuclear Security Administration to integrate safeguards and security by design;
- (C) consider the potential benefits and other impacts of those activities for civilian nuclear applications, environmental health and safety, and national security, including consideration of public consent; and
- (D) consider the economic viability of all activities and designs.

(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the pro-

gram under this subsection \$60,000,000 for each of fiscal years 2021 through 2025.

(b) **ADVANCED FUELS.**—

(1) **IN GENERAL.**—The Secretary shall conduct an advanced fuels research, development, demonstration, and commercial application program on next-generation light water reactor and advanced reactor fuels that demonstrate the potential for improved—

- (A) performance;
- (B) accident tolerance;
- (C) proliferation resistance;
- (D) use of resources;
- (E) environmental impact; and
- (F) economics.

(2) **REQUIREMENTS.**—In carrying out the program under this subsection, the Secretary shall focus on the development of advanced technology fuels, including fabrication techniques, that offer improved accident-tolerance and economic performance with the goal of initial commercial application by December 31, 2025.

(3) **REPORT.**—Not later than 180 days after the date of enactment of this section, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report that describes how the technologies and concepts studied under this program would impact reactor economics, the fuel cycle, operations, safety, proliferation, and the environment.

(4) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary to carry out the program under this subsection \$125,000,000 for each of fiscal years 2021 through 2025.

SEC. 954. [42 U.S.C. 16274] NUCLEAR SCIENCE AND ENGINEERING SUPPORT.

(a) **UNIVERSITY NUCLEAR SCIENCE AND ENGINEERING SUPPORT.**—

(1) **IN GENERAL.**—The Secretary shall conduct a program to invest in human resources and infrastructure in the nuclear sciences and related fields, including health physics, nuclear engineering, and radiochemistry, consistent with missions of the Department related to civilian nuclear research, development, demonstration, and commercial application.

(2) **REQUIREMENTS.**—In carrying out the program under this subsection, the Secretary shall—

(A) conduct a graduate and undergraduate fellowship program to attract new and talented students, which may include fellowships for students to spend time at National Laboratories in the areas of nuclear science, engineering, and health physics with a member of the National Laboratory staff acting as a mentor;

(B) conduct a junior faculty research initiation grant program to assist universities in recruiting and retaining new faculty in the nuclear sciences and engineering by

awarding grants to junior faculty for research on issues related to nuclear energy engineering and science;

(C) support fundamental nuclear sciences, engineering, and health physics research through a nuclear engineering education and research program;

(D) promote collaborations, partnerships, and knowledge sharing between institutions of higher education, National Laboratories, other Federal agencies, industry, and associated labor unions; and

(E) support communication and outreach related to nuclear science, engineering, and health physics.

(3) UNIVERSITY-NATIONAL LABORATORY INTERACTIONS.—
The Secretary shall conduct—

(A) a fellowship program for professors at universities to spend sabbaticals at National Laboratories in the areas of nuclear science and technology; and

(B) a visiting scientist program in which National Laboratory staff can spend time in academic nuclear science and engineering departments.

(4) STRENGTHENING UNIVERSITY RESEARCH AND TRAINING REACTORS AND ASSOCIATED INFRASTRUCTURE.—

(A) IN GENERAL.—In carrying out the program under this subsection, the Secretary may support—

(i) converting research reactors from high-enrichment fuels to low-enrichment fuels and upgrading operational instrumentation;

(ii) revitalizing and upgrading existing nuclear science and engineering infrastructure that support the development of advanced nuclear technologies and applications;

(iii) regional or subregional university-led consortia to—

(I) broaden access to university research reactors;

(II) enhance existing university-based nuclear science and engineering infrastructure; and

(III) provide project management, technical support, quality engineering and inspections, manufacturing, and nuclear material support;

(iv) student training programs, in collaboration with the United States nuclear industry, in relicensing and upgrading reactors, including through the provision of technical assistance; and

(v) reactor improvements that emphasize research, training, and education, including through the Innovations in Nuclear Infrastructure and Education Program or any similar program.

(B) Of any amounts appropriated to carry out the program under this subsection, there is authorized to be appropriated to the Secretary to carry out clauses (ii) and (iii) of subparagraph (A) \$55,000,000 for each of fiscal years 2023 through 2027.

(5) ADVANCED NUCLEAR RESEARCH INFRASTRUCTURE ENHANCEMENT.—

(A) IN GENERAL.—The Secretary shall carry out a subprogram to be known as the Advanced Nuclear Research Infrastructure Enhancement Subprogram in order to—

- (i) demonstrate various advanced nuclear reactor and nuclear microreactor concepts;
- (ii) establish medical isotope production reactors or other specialized applications; and
- (iii) advance other research infrastructure that, in the determination of the Secretary, is consistent with the mission of the Department.

(B) NEW NUCLEAR SCIENCE AND ENGINEERING FACILITIES.—In carrying out the subprogram, the Secretary shall establish—

- (i) not more than 4 new research reactors; and
- (ii) new nuclear science and engineering facilities, as required to address research demand and identified infrastructure gaps.

(C) LOCATIONS.—New research reactors and facilities established under subparagraph (B) shall be established in a manner that—

- (i) supports the regional or subregional consortia described in paragraph (4)(C); and
- (ii) encourages the participation of—
 - (I) historically Black colleges and universities;
 - (II) Tribal colleges or universities;
 - (III) minority-serving institutions;
 - (IV) EPSCoR universities; and
 - (V) junior or community colleges.

(D) FUEL REQUIREMENTS.—New research reactors established under subparagraph (B) shall not use high-enriched uranium, as defined in section 2001 of division Z of the Consolidated Appropriations Act of 2021.

(E) FUEL SERVICES.—The Research Reactor Infrastructure subprogram within the Radiological Facilities Management program of the Department, as authorized by paragraph (6), shall be expanded to provide fuel services to research reactors established by this paragraph.

(F) AUTHORIZATION OF APPROPRIATIONS.—Of any amounts appropriated to carry out the program under this section, there are authorized to be appropriated to the Secretary to carry out the subprogram under this paragraph—

- (i) \$45,000,000 for fiscal year 2023;
- (ii) \$60,000,000 for fiscal year 2024;
- (iii) \$65,000,000 for fiscal year 2025;
- (iv) \$80,000,000 for fiscal year 2026; and
- (v) \$140,000,000 for fiscal year 2027.

(6) RADIOLOGICAL FACILITIES MANAGEMENT.—

(A) IN GENERAL.—The Secretary shall carry out a program under which the Secretary shall provide project management, technical support, quality engineering and inspection, and nuclear material handling support to research reactors located at universities.

(B) AUTHORIZATION OF APPROPRIATIONS.—Of any amounts appropriated to carry out the program under this

subsection, there are authorized to be appropriated to the Secretary to carry out the program under this paragraph \$20,000,000 for each of fiscal years 2021 through 2025.

(7) NUCLEAR ENERGY UNIVERSITY PROGRAM.—In carrying out the programs under this section, the Department shall, to the maximum extent practicable, allocate 20 percent of funds appropriated to nuclear energy research and development programs annually, excluding funds appropriated for the Advanced Reactor Demonstration Program of the Department, to fund university-led research and university infrastructure projects through an open, competitive solicitation process.

(8) OPERATIONS AND MAINTENANCE.—Funding for a project provided under this subsection may be used for a portion of the operating and maintenance costs of a research reactor at a university used in the project.

(9) DEFINITIONS.—In this subsection:

(A) JUNIOR FACULTY.—The term “junior faculty” means a faculty member who was awarded a doctorate less than 10 years before receipt of an award from the grant program described in paragraph (2)(B).

(B) JUNIOR OR COMMUNITY COLLEGE.—The term “junior or community college” means—

(i) a public institution of high education, including additional locations, at which the highest awarded degree, or the predominantly awarded degree, is an associate degree; or

(ii) any Tribal college or university (as defined in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c)).

(C) EPSCoR UNIVERSITY.—The term “EPSCoR university” means an institution of higher education located in a State eligible to participate in the program defined in section 502 of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 1862p note).

(D) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term “historically Black college or university” has the meaning given the term “part B institution” in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

(E) MINORITY-SERVING INSTITUTION.—The term “minority-serving institution” means a Hispanic-serving institution, an Alaska Native-serving institution, a Native Hawaiian-serving institution, a Predominantly Black Institution, an Asian American and Native American Pacific Islander-serving institution, or a Native American-serving nontribal institution as described in section 371 of the Higher Education Act of 1965 (20 U.S.C. 1067q(a)).

(F) TRIBAL COLLEGE OR UNIVERSITY.—The term “Tribal College or University” has the meaning given such term in section 316 of the Higher Education Act of 1965 (20 U.S.C. 1059c).

(b) NUCLEAR ENERGY TRAINEESHIP SUBPROGRAM.—

(1) ESTABLISHMENT.—In carrying out the program under subsection (a), the Secretary shall establish a nuclear energy traineeship subprogram under which the Secretary shall com-

petitively award traineeships in coordination with universities to provide focused, advanced training to meet critical mission needs of the Department, including in industries that are represented by skilled labor unions.

(2) REQUIREMENTS.—In carrying out the subprogram under this subsection, the Secretary shall—

(A) encourage appropriate partnerships among National Laboratories, affected universities, community colleges, trade schools, registered apprenticeship programs, pre-apprenticeship programs, and industry; and

(B) on an annual basis, evaluate the needs of the nuclear energy community to implement traineeships for focused topical areas addressing mission-specific workforce needs.

(A)⁵ FOCUS AREAS.—In carrying out the subprogram under this subsection, the Secretary may implement traineeships in focus areas that, in the determination of the Secretary, are necessary to support the nuclear energy sector in the United States, including—

(i) research and development;

(ii) construction and operation;

(iii) associated supply chains; and

(iv) workforce training and retraining to support transitioning workforces.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the subprogram under this subsection \$5,000,000 for each of fiscal years 2023 through 2027.

SEC. 955. [42 U.S.C. 16275] DEPARTMENT OF ENERGY CIVILIAN NUCLEAR INFRASTRUCTURE AND FACILITIES.

(a) IN GENERAL.—The Secretary shall operate and maintain infrastructure and facilities to support the nuclear energy research, development, demonstration, and commercial application programs, including radiological facilities management, isotope production, and facilities management.

(b) DUTIES.—In carrying out this section, the Secretary shall—

(1) develop an inventory of nuclear science and engineering facilities, equipment, expertise, and other assets at all of the National Laboratories;

(2) develop a prioritized list of nuclear science and engineering plant and equipment improvements needed at each of the National Laboratories;

(3) consider the available facilities and expertise at all National Laboratories and emphasize investments which complement rather than duplicate capabilities; and

(4) develop a timeline and a proposed budget for the completion of deferred maintenance on plant and equipment, with the goal of ensuring that Department programs under this subtitle will be generally recognized to be among the best in the world.

⁵So in law. Subparagraph (A) probably should be a paragraph (3) and clauses (i)-(iv) should be redesignated as subparagraphs (A)-(D). See amendments made by section 3131(p)(2)(E) and (F) of division C of Public Law 118–31.

(c) VERSATILE NEUTRON SOURCE.—

(1) AUTHORIZATION.—

(A) IN GENERAL.—Not later than December 31, 2017, the Secretary shall provide for a versatile reactor-based fast neutron source, which shall operate as a national user facility.

(B) CONSULTATIONS REQUIRED.—In carrying out subparagraph (A), the Secretary shall consult with the private sector, institutions of higher education, the National Laboratories, and relevant Federal agencies to ensure that the user facility described in subparagraph (A) will meet the research needs of the largest practicable majority of prospective users.

(2) ESTABLISHMENT.—As soon as practicable after determining the mission need under paragraph (1)(A), the Secretary shall submit to the appropriate committees of Congress a detailed plan for the establishment of the user facility.

(3) FACILITY REQUIREMENTS.—

(A) CAPABILITIES.—The Secretary shall ensure that the user facility will provide, at a minimum, the following capabilities:

(i) Fast neutron spectrum irradiation capability.

(ii) Capacity for upgrades to accommodate new or expanded research needs.

(B) CONSIDERATIONS.—In carrying out the plan submitted under paragraph (2), the Secretary shall consider the following:

(i) Capabilities that support experimental high-temperature testing.

(ii) Providing a source of fast neutrons at a neutron flux, higher than that at which current research facilities operate, sufficient to enable research for an optimal base of prospective users.

(iii) Maximizing irradiation flexibility and irradiation volume to accommodate as many concurrent users as possible.

(iv) Capabilities for irradiation with neutrons of a lower energy spectrum.

(v) Multiple loops for fuels and materials testing in different coolants.

(vi) Additional pre-irradiation and post-irradiation examination capabilities.

(vii) Lifetime operating costs and lifecycle costs.

(4) DEADLINE FOR ESTABLISHMENT.—The Secretary shall, to the maximum extent practicable, complete construction of, and approve the start of operations for, the user facility by not later than December 31, 2026.

(5) REPORTING.—The Secretary shall include in the annual budget request of the Department an explanation for any delay in the progress of the Department in completing the user facility by the deadline described in paragraph (4).

(6) COORDINATION.—The Secretary shall leverage the best practices for management, construction, and operation of national user facilities from the Office of Science.

(7) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out to completion the construction of the facility under this section—

- (A) \$295,000,000 for fiscal year 2021;
- (B) \$348,000,000 for fiscal year 2022;
- (C) \$525,000,000 for fiscal year 2023;
- (D) \$534,000,000 for fiscal year 2024; and
- (E) \$584,000,000 for fiscal year 2025.

(d) GATEWAY FOR ACCELERATED INNOVATION IN NUCLEAR.—

(1) IN GENERAL.—In carrying out the programs under this subtitle, the Secretary is authorized to establish a new initiative to be known as the Gateway for Accelerated Innovation in Nuclear (GAIN). The initiative shall, to the maximum extent practicable and consistent with national security, provide the nuclear energy industry with access to cutting edge research and development along with the technical, regulatory, and financial support necessary to move innovative nuclear energy technologies toward commercialization in an accelerated and cost-effective fashion. The Secretary shall make available, as a minimum—

- (A) experimental capabilities and testing facilities;
- (B) computational capabilities, modeling, and simulation tools;
- (C) access to existing datasets and data validation tools; and
- (D) technical assistance with guidance or processes as needed.

(2) SELECTION.—

(A) IN GENERAL.—The Secretary shall select industry partners for awards on a competitive merit-reviewed basis.

(B) CONSIDERATIONS.—In selecting industry partners under subparagraph (A), the Secretary shall consider—

- (i) the information disclosed by the Department as described in paragraph (1); and
- (ii) any existing facilities the Department will provide for public private partnership activities.

SEC. 956. [42 U.S.C. 16276] SECURITY OF NUCLEAR FACILITIES.

The Secretary shall conduct a research and development program on cost-effective technologies for increasing—

- (1) the safety of nuclear facilities from natural phenomena; and
- (2) the security of nuclear facilities from deliberate attacks.

SEC. 957. [42 U.S.C. 16277] HIGH-PERFORMANCE COMPUTATION AND SUPPORTIVE RESEARCH.

(a) MODELING AND SIMULATION.—The Secretary shall carry out a program to enhance the capabilities of the United States to develop new reactor technologies through high-performance computation modeling and simulation techniques.

(b) COORDINATION.—In carrying out the program under subsection (a), the Secretary shall coordinate with relevant Federal agencies as described by the National Strategic Computing Initia-

tive established by Executive Order 13702 (80 Fed. Reg. 46177 (July 29, 2015)), while taking into account the following objectives:

(1) Using expertise from the private sector, institutions of higher education, and the National Laboratories to develop computational software and capabilities that prospective users may access to accelerate research and development of advanced nuclear reactor systems and reactor systems for space exploration.

(2) Developing computational tools to simulate and predict nuclear phenomena that may be validated through physical experimentation.

(3) Increasing the utility of the research infrastructure of the Department by coordinating with the Advanced Scientific Computing Research program within the Office of Science.

(4) Leveraging experience from the Energy Innovation Hub for Modeling and Simulation.

(5) Ensuring that new experimental and computational tools are accessible to relevant research communities, including private sector entities engaged in nuclear energy technology development.

(c) **SUPPORTIVE RESEARCH ACTIVITIES.**—The Secretary shall consider support for additional research activities to maximize the utility of the research facilities of the Department, including physical processes—

(1) to simulate degradation of materials and behavior of fuel forms; and

(2) for validation of computational tools.

(d) **DUPLICATION.**—The Secretary shall ensure the coordination of, and avoid unnecessary duplication of, the activities of the program under subsection (a) with the activities of—

(1) other research entities of the Department, including the National Laboratories, the Advanced Research Projects Agency–Energy, and the Advanced Scientific Computing Research program; and

(2) industry.

SEC. 958. [42 U.S.C. 16278] ENABLING NUCLEAR ENERGY INNOVATION.

(a) **NATIONAL REACTOR INNOVATION CENTER.**—There is authorized a program to enable the testing and demonstration of reactor concepts to be proposed and funded, in whole or in part, by the private sector.

(b) **TECHNICAL EXPERTISE.**—In carrying out the program under subsection (a), the Secretary shall leverage the technical expertise of relevant Federal agencies and the National Laboratories in order to minimize the time required to enable construction and operation of privately funded experimental reactors at National Laboratories or other Department-owned sites.

(c) **OBJECTIVES.**—The reactors described in subsection (b) shall operate to meet the following objectives:

(1) Enabling physical validation of advanced nuclear reactor concepts.

(2) Resolving technical uncertainty and increasing practical knowledge relevant to safety, resilience, security, and functionality of advanced nuclear reactor concepts.

(3) General research and development to improve nascent technologies.

(d) SHARING TECHNICAL EXPERTISE.—In carrying out the program under subsection (a), the Secretary may enter into a memorandum of understanding with the Chairman of the Commission in order to share technical expertise and knowledge through—

(1) enabling the testing and demonstration of advanced nuclear reactor concepts to be proposed and funded, in whole or in part, by the private sector;

(2) operating a database to store and share data and knowledge relevant to nuclear science and engineering between Federal agencies and the private sector;

(3) developing and testing electric and nonelectric integration and energy conversion systems relevant to advanced nuclear reactors;

(4) leveraging expertise from the Commission with respect to safety analysis; and

(5) enabling technical staff of the Commission to actively observe and learn about technologies developed under the program.

(e) AGENCY COORDINATION.—The Chairman of the Commission and the Secretary shall enter into a memorandum of understanding regarding the following:

(1) Ensuring that—

(A) the Department has sufficient technical expertise to support the timely research, development, demonstration, and commercial application by the civilian nuclear industry of safe and innovative advanced nuclear reactor technology; and

(B) the Commission has sufficient technical expertise to support the evaluation of applications for licenses, permits, and design certifications and other requests for regulatory approval for advanced nuclear reactors.

(2) The use of computers and software codes to calculate the behavior and performance of advanced nuclear reactors based on mathematical models of the physical behavior of advanced nuclear reactors.

(3) Ensuring that—

(A) the Department maintains and develops the facilities necessary to enable the timely research, development, demonstration, and commercial application by the civilian nuclear industry of safe and innovative reactor technology; and

(B) the Commission has access to the facilities described in subparagraph (A), as needed.

(f) REPORTING REQUIREMENTS.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of the Nuclear Energy Innovation Capabilities Act of 2017, the Secretary, in consultation with the National Laboratories, relevant Federal agencies, and other stakeholders, shall submit to the appropriate committees of Congress a report assessing the capabilities of the Department to authorize, host, and oversee privately funded experimental advanced nuclear reactors as described in subsection (b).

(2) CONTENTS.—The report submitted under paragraph (1) shall address—

(A) the safety review and oversight capabilities of the Department, including options to leverage expertise from the Commission and the National Laboratories;

(B) options to regulate privately proposed and funded experimental reactors hosted by the Department;

(C) potential sites capable of hosting privately funded experimental advanced nuclear reactors;

(D) the efficacy of the available contractual mechanisms of the Department to partner with the private sector and Federal agencies, including cooperative research and development agreements, strategic partnership projects, and agreements for commercializing technology;

(E) the liability of the Federal Government with respect to the disposal of low-level radioactive waste, spent nuclear fuel, or high-level radioactive waste (as those terms are defined in section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101));

(F) the impact on the aggregate inventory in the United States of low-level radioactive waste, spent nuclear fuel, or high-level radioactive waste (as those terms are defined in section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101));

(G) potential cost structures relating to physical security, decommissioning, liability, and other long-term project costs; and

(H) other challenges or considerations identified by the Secretary.

(3) UPDATES.—Once every 2 years, the Secretary shall update relevant provisions of the report submitted under paragraph (1) and submit to the appropriate committees of Congress the update.

(g) SAVINGS CLAUSES.—

(1) LICENSING REQUIREMENT.—Nothing in this section authorizes the Secretary or any person to construct or operate a nuclear reactor for the purpose of demonstrating the suitability for commercial application of the nuclear reactor unless licensed by the Commission in accordance with section 202 of the Energy Reorganization Act of 1974 (42 U.S.C. 5842).

(2) FINANCIAL PROTECTION.—Any activity carried out under this section that involves the risk of public liability shall be subject to the financial protection or indemnification requirements of section 170 of the Atomic Energy Act of 1954 (42 U.S.C. 2210) (commonly known as the “Price-Anderson Act”).

SEC. 959. [42 U.S.C. 16279] BUDGET PLAN.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of the Nuclear Energy Innovation Capabilities Act of 2017, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives 2 alternative 10-year budget plans for civilian nuclear energy research and development by the Secretary, as described in subsections (b) through (d).

(b) BUDGET PLAN ALTERNATIVE 1.—One of the budget plans submitted under subsection (a) shall assume constant annual funding for 10 years at the appropriated level for the current fiscal year for the civilian nuclear energy research and development of the Department.

(c) BUDGET PLAN ALTERNATIVE 2.—One of the budget plans submitted under subsection (a) shall be an unconstrained budget.

(d) INCLUSIONS.—Each alternative budget plan submitted under subsection (a) shall include—

(1) a prioritized list of the programs, projects, and activities of the Department to best support the development of advanced nuclear reactor technologies;

(2) realistic budget requirements for the Department to implement sections 955(c), 957, and 958;

(3) the justification of the Department for continuing or terminating existing civilian nuclear energy research and development programs; and

(4) a description of the progress made under the programs described in section 959A.

(e) UPDATES.—Not less frequently than once every 2 years, the Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate updated 10-year budget plans which shall identify, and provide a justification for, any major deviation from a previous budget plan submitted under this section.

SEC. 959A. [42 U.S.C. 16279a] ADVANCED REACTOR DEMONSTRATION PROGRAM.

(a) DEMONSTRATION PROJECT DEFINED.—For the purposes of this section, the term “demonstration project” means an advanced nuclear reactor operated in any manner, including as part of the power generation facilities of an electric utility system, for the purpose of demonstrating the suitability for commercial application of the advanced nuclear reactor.

(b) ESTABLISHMENT.—The Secretary shall establish a program to advance the research, development, demonstration, and commercial application of domestic advanced, affordable, nuclear energy technologies by—

(1) demonstrating a variety of advanced nuclear reactor technologies, including those that could be used to produce—

(A) safer, emissions-free power at a competitive cost of electricity compared to other new energy generation technologies on the date of enactment of the Energy Act of 2020;

(B) heat for community heating, industrial purposes, heat storage, or synthetic fuel production;

(C) remote or off-grid energy supply; or

(D) backup or mission-critical power supplies;

(2) identifying research areas that the private sector is unable or unwilling to undertake due to the cost of, or risks associated with, the research; and

(3) facilitating the access of the private sector—

(A) to Federal research facilities and personnel; and

- (B) to the results of research relating to civil nuclear technology funded by the Federal Government.
- (c) DEMONSTRATION PROJECTS.—In carrying out demonstration projects under the program established in subsection (b), the Secretary shall—
- (1) include, as an evaluation criterion, diversity in designs for the advanced nuclear reactors demonstrated under this section, including designs using various—
 - (A) primary coolants;
 - (B) fuel types and compositions; and
 - (C) neutron spectra;
 - (2) consider, as evaluation criteria—
 - (A) the likelihood that the operating cost for future commercial units for each design implemented through a demonstration project under this subsection is cost-competitive in the applicable market, including those designs configured as integrated energy systems as described in section 952(c);
 - (B) the technology readiness level of a proposed advanced nuclear reactor technology;
 - (C) the technical abilities and qualifications of teams desiring to demonstrate a proposed advanced nuclear reactor technology; and
 - (D) the capacity to meet cost-share requirements of the Department;
 - (3) ensure that each evaluation of candidate technologies for the demonstration projects is completed through an external review of proposed designs, which review shall—
 - (A) be conducted by a panel that includes not fewer than 1 representative that does not have a conflict of interest of each within the applicable market of the design of—
 - (i) an electric utility;
 - (ii) an entity that uses high-temperature process heat for manufacturing or industrial processing, such as a petrochemical or synthetic fuel company, a manufacturer of metals or chemicals, or a manufacturer of concrete;
 - (iii) an expert from the investment community;
 - (iv) a project management practitioner; and
 - (v) an environmental health and safety expert;
 - and
 - (B) include a review of each demonstration project under this subsection which shall include consideration of cost-competitiveness and other value streams, together with the technology readiness level, the technical abilities and qualifications of teams desiring to demonstrate a proposed advanced nuclear reactor technology, the capacity to meet cost-share requirements of the Department, if Federal funding is provided, and environmental impacts;
 - (4) for federally funded demonstration projects, enter into cost-sharing agreements with private sector partners in accordance with section 988 for the conduct of activities relating to the research, development, and demonstration of advanced nuclear reactor designs under the program;

- (5) consult with—
 - (A) National Laboratories;
 - (B) institutions of higher education;
 - (C) traditional end users (such as electric utilities);
 - (D) potential end users of new technologies (such as users of high-temperature process heat for manufacturing processing, including petrochemical or synthetic fuel companies, manufacturers of metals or chemicals, or manufacturers of concrete);
 - (E) developers of advanced nuclear reactor technology;
 - (F) environmental and public health and safety experts; and
 - (G) non-proliferation experts;
- (6) seek to ensure that the demonstration projects carried out under this section do not cause any delay in the progress of an advanced reactor project by private industry and the Department of Energy that is underway as of the date of enactment of this section;
- (7) establish a streamlined approval process for expedited contracting between awardees and the Department;
- (8) identify technical challenges to candidate technologies;
- (9) support near-term research and development to address the highest risk technical challenges to the successful demonstration of a selected advanced reactor technology, in accordance with—
 - (A) paragraph (8);
 - (B) the research and development activities under section 952(b); and
 - (C) the research and development activities under section 958; and
- (10) establish such technology advisory working groups as the Secretary determines to be appropriate to advise the Secretary regarding the technical challenges identified under paragraph (8) and the scope of research and development programs to address the challenges, in accordance with paragraph (9), to be comprised of—
 - (A) private sector advanced nuclear reactor technology developers;
 - (B) technical experts with respect to the relevant technologies at institutions of higher education;
 - (C) technical experts at the National Laboratories;
 - (D) environmental and public health and safety experts;
 - (E) non-proliferation experts; and
 - (F) any other entities the Secretary determines appropriate.
- (d) MILESTONE-BASED DEMONSTRATION PROJECTS.—The Secretary may carry out demonstration projects under subsection (c) as a milestone-based demonstration project under section 9005 of the Energy Act of 2020.
- (e) NONDUPLICATION.—Entities may not receive funds under this program if receiving funds from another reactor demonstration program at the Department in the same fiscal year.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the program under this subsection—

- (1) \$405,000,000 for fiscal year 2021;
- (2) \$405,000,000 for fiscal year 2022;
- (3) \$420,000,000 for fiscal year 2023;
- (4) \$455,000,000 for fiscal year 2024; and
- (5) \$455,000,000 for fiscal year 2025.

SEC. 959B. [42 U.S.C. 16279b] INTERNATIONAL NUCLEAR ENERGY CO-OPERATION.

The Secretary shall carry out a program—

(1) to collaborate in international efforts with respect to research, development, demonstration, and commercial application of nuclear technology that supports diplomatic, financing, nonproliferation, climate, and international economic objectives for the safe, secure, and peaceful use of such technology; and

(2) to develop collaboration initiatives with respect to such efforts with a variety of countries through—

(A) preparations for research and development agreements;

(B) the development of coordinated action plans; and

(C) new or existing multilateral cooperation commitments including—

(i) the International Framework for Nuclear Energy Cooperation;

(ii) the Generation IV International Forum;

(iii) the International Atomic Energy Agency;

(iv) the Organization for Economic Co-operation and Development Nuclear Energy Agency; and

(v) any other international collaborative effort with respect to advanced nuclear reactor operations and safety.

SEC. 959C. [42 U.S.C. 16279c] ORGANIZATION AND ADMINISTRATION OF PROGRAMS.

(a) COORDINATION.—In carrying out this subtitle, the Secretary shall coordinate activities, and effectively manage crosscutting research priorities across programs of the Department and other relevant Federal agencies, including the National Laboratories.

(b) COLLABORATION.—

(1) IN GENERAL.—In carrying out this subtitle, the Secretary shall collaborate with industry, National Laboratories, other relevant Federal agencies, institutions of higher education, including minority-serving institutions and research reactors, Tribal entities, including Alaska Native Corporations, and international bodies with relevant scientific and technical expertise.

(2) PARTICIPATION.—To the extent practicable, the Secretary shall encourage research projects that promote collaboration between entities specified in paragraph (1).

(c) DISSEMINATION OF RESULTS AND PUBLIC AVAILABILITY.—The Secretary shall, except to the extent protected from disclosure under section 552(b) of title 5, United States Code, publish the results of projects supported under this subtitle through Department

websites, reports, databases, training materials, and industry conferences, including information discovered after the completion of such projects.

(d) **EDUCATION AND OUTREACH.**—In carrying out the activities described in this subtitle, the Secretary shall support education and outreach activities to disseminate information and promote public understanding of nuclear energy.

(e) **TECHNICAL ASSISTANCE.**—In carrying out this subtitle, for the purposes of supporting technical, nonhardware, and information-based advances in nuclear energy development and operations, the Secretary shall also conduct technical assistance and analysis activities, including activities that support commercial application of nuclear energy in rural, Tribal, and low-income communities.

(f) **PROGRAM REVIEW.**—At least annually, all programs in this subtitle shall be subject to an annual review by the Nuclear Energy Advisory Committee of the Department or other independent entity, as appropriate.

(g) **SENSITIVE INFORMATION.**—The Secretary shall not publish any information generated under this subtitle that is detrimental to national security, as determined by the Secretary.

Subtitle F—Fossil Energy

SEC. 961. [42 U.S.C. 16291] FOSSIL ENERGY.

(a) **ESTABLISHMENT.**—

(1) **IN GENERAL.**—The Secretary shall carry out research, development, demonstration, and commercial application programs in fossil energy, including activities under this subtitle, with the goal of improving the efficiency, effectiveness, and environmental performance of fossil energy production, upgrading, conversion, and consumption.

(2) **OBJECTIVES.**—The programs described in paragraph (1) shall take into consideration the following objectives:

(A) Increasing the energy conversion efficiency of all forms of fossil energy through improved technologies.

(B) Decreasing the cost of all fossil energy production, generation, and delivery.

(C) Promoting diversity of energy supply.

(D) Decreasing the dependence of the United States on foreign energy supplies.

(E) Improving United States energy security.

(F) Decreasing the environmental impact of energy-related activities, including technology development to reduce emissions of carbon dioxide and associated emissions of heavy metals within coal combustion residues and gas streams resulting from fossil fuel use and production.

(G) Increasing the export of fossil energy-related equipment, technology, including emissions control technologies, and services from the United States.

(H) Decreasing the cost of emissions control technologies for fossil energy production, generation, and delivery.

(I) Significantly lowering greenhouse gas emissions for all fossil fuel production, generation, delivery, and utilization technologies.

(J) Developing carbon removal and utilization technologies, products, and methods that result in net reductions in greenhouse gas emissions, including direct air capture and storage, and carbon use and reuse for commercial application.

(K) Improving the conversion, use, and storage of carbon oxides produced from fossil fuels.

(L) Reducing water use, improving water reuse, and minimizing surface and subsurface environmental impact in the development of unconventional domestic oil and natural gas resources.

(3) PRIORITY.—In carrying out the objectives described in subparagraphs (F) through (K) of paragraph (2), the Secretary shall prioritize activities and strategies that have the potential to significantly reduce emissions for each technology relevant to the applicable objective and the international commitments of the United States.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out fossil energy research, development, demonstration, and commercial application activities, including activities authorized under this subtitle—

- (1) \$611,000,000 for fiscal year 2007;
- (2) \$626,000,000 for fiscal year 2008; and
- (3) \$641,000,000 for fiscal year 2009.

(c) ALLOCATIONS.—From amounts authorized under subsection (a), the following sums are authorized:

- (1) For activities under section 962—
 - (A) \$367,000,000 for fiscal year 2007;
 - (B) \$376,000,000 for fiscal year 2008; and
 - (C) \$394,000,000 for fiscal year 2009.
- (2) For activities under section 964—
 - (A) \$20,000,000 for fiscal year 2007;
 - (B) \$25,000,000 for fiscal year 2008; and
 - (C) \$30,000,000 for fiscal year 2009.
- (3) For activities under section 966—
 - (A) \$1,500,000 for fiscal year 2007; and
 - (B) \$450,000 for each of fiscal years 2008 and 2009.
- (4) For the Office of Arctic Energy under section 3197 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (42 U.S.C. 7144d) \$25,000,000 for each of fiscal years 2007 through 2009.

(d) EXTENDED AUTHORIZATION.—There are authorized to be appropriated to the Secretary for the Office of Arctic Energy established under section 3197 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (42 U.S.C. 7144d) \$25,000,000 for each of fiscal years 2010 through 2012.

(e) LIMITATIONS.—

(1) USES.—None of the funds authorized under this section may be used for Fossil Energy Environmental Restoration or Import/Export Authorization.

(2) INSTITUTIONS OF HIGHER EDUCATION.—Of the funds authorized under subsection (c)(2), not less than 20 percent of the funds appropriated for each fiscal year shall be dedicated to research and development carried out at institutions of higher education.

SEC. 962. [42 U.S.C. 16292] CARBON CAPTURE TECHNOLOGY PROGRAM.

(a) DEFINITIONS.—In this section:

(1) LARGE-SCALE PILOT PROJECT.—The term “large-scale pilot project” means a pilot project that—

(A) represents the scale of technology development beyond laboratory development and bench scale testing, but not yet advanced to the point of being tested under real operational conditions at commercial scale;

(B) represents the scale of technology necessary to gain the operational data needed to understand the technical and performance risks of the technology before the application of that technology at commercial scale or in commercial-scale demonstration; and

(C) is large enough—

(i) to validate scaling factors; and

(ii) to demonstrate the interaction between major components so that control philosophies for a new process can be developed and enable the technology to advance from large-scale pilot project application to commercial-scale demonstration or application.

(2) NATURAL GAS.—The term “natural gas” means any fuel consisting in whole or in part of—

(A) natural gas;

(B) liquid petroleum gas;

(C) synthetic gas derived from petroleum or natural gas liquids;

(D) any mixture of natural gas and synthetic gas; or

(E) biomethane.

(3) NATURAL GAS ELECTRIC GENERATION FACILITY.—

(A) IN GENERAL.—The term “natural gas electric generation facility” means a facility that generates electric energy using natural gas as the fuel.

(B) INCLUSIONS.—The term “natural gas electric generation facility” includes without limitation a new or existing—

(i) simple cycle plant;

(ii) combined cycle plant;

(iii) combined heat and power plant; or

(iv) steam methane reformer that produces hydrogen from natural gas for use in the production of electric energy.

(4) PROGRAM.—The term “program” means the program established under subsection (b)(1).

(5) TRANSFORMATIONAL TECHNOLOGY.—

(A) IN GENERAL.—The term “transformational technology” means a technology that represents a significant change in the methods used to convert energy that will enable a step change in performance, efficiency, cost of elec-

tricity, and reduction of emissions as compared to the technology in existence on the date of enactment of the Energy Act of 2020.

(B) INCLUSIONS.—The term “transformational technology” includes a broad range of potential technology improvements, including—

(i) thermodynamic improvements in energy conversion and heat transfer, including—

(I) advanced combustion systems, including oxygen combustion systems and chemical looping; and

(II) the replacement of steam cycles with supercritical carbon dioxide cycles;

(ii) improvements in steam or carbon dioxide turbine technology;

(iii) improvements in carbon capture, utilization, and storage systems technology;

(iv) improvements in small-scale and modular coal-fired technologies with reduced carbon output or carbon capture that can support incremental power generation capacity additions;

(v) fuel cell technologies for low-cost, high-efficiency modular power systems;

(vi) advanced gasification systems;

(vii) thermal cycling technologies; and

(viii) any other technology the Secretary recognizes as transformational technology.

(b) CARBON CAPTURE TECHNOLOGY PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a carbon capture technology program for the development of transformational technologies that will significantly improve the efficiency, effectiveness, costs, emissions reductions, and environmental performance of coal and natural gas use, including in manufacturing and industrial facilities.

(2) REQUIREMENTS.—The program shall include—

(A) a research and development program;

(B) large-scale pilot projects;

(C) demonstration projects, in accordance with paragraph (4);

(D) a front-end engineering and design program for carbon capture technologies; and

(E) a front-end engineering and design program for carbon dioxide transport infrastructure necessary to enable deployment of carbon capture, utilization, and storage technologies.

(3) PROGRAM GOALS AND OBJECTIVES.—In consultation with the interested entities described in paragraph (6)(C), the Secretary shall develop goals and objectives for the program to be applied to the transformational technologies developed within the program, taking into consideration the following:

(A) Increasing the performance of coal electric generation facilities and natural gas electric generation facilities, including by—

(i) ensuring reliable, low-cost power from new and existing coal electric generation facilities and natural gas electric generation facilities;

(ii) achieving high conversion efficiencies;

(iii) addressing emissions of carbon dioxide and other air pollutants;

(iv) developing small-scale and modular technologies to support incremental capacity additions and load following generation, in addition to large-scale generation technologies;

(v) supporting dispatchable operations for new and existing applications of coal and natural gas generation; and

(vi) accelerating the development of technologies that have transformational energy conversion characteristics.

(B) Using carbon capture, utilization, and sequestration technologies to decrease the carbon dioxide emissions, and the environmental impact from carbon dioxide emissions, from new and existing coal electric generation facilities and natural gas electric generation facilities, including by—

(i) accelerating the development, deployment, and commercialization of technologies to capture and sequester carbon dioxide emissions from new and existing coal electric generation facilities and natural gas electric generation facilities;

(ii) supporting sites for safe geological storage of large volumes of anthropogenic sources of carbon dioxide and the development of the infrastructure needed to support a carbon dioxide utilization and storage industry;

(iii) improving the conversion, utilization, and storage of carbon dioxide produced from fossil fuels and other anthropogenic sources of carbon dioxide;

(iv) lowering greenhouse gas emissions for all fossil fuel production, generation, delivery, and use, to the maximum extent practicable;

(v) developing carbon utilization technologies, products, and methods, including carbon use and reuse for commercial application;

(vi) developing net-negative carbon dioxide emissions technologies; and

(vii) developing technologies for the capture of carbon dioxide produced during the production of hydrogen from natural gas.

(C) Decreasing the non-carbon dioxide relevant environmental impacts of coal and natural gas production, including by—

(i) further reducing non-carbon dioxide air emissions; and

(ii) reducing the use, and managing the discharge, of water in power plant operations.

(D) Accelerating the development of technologies to significantly decrease emissions from manufacturing and industrial facilities, including—

(i) nontraditional fuel manufacturing facilities, including ethanol or other biofuel production plants or hydrogen production plants; and

(ii) energy-intensive manufacturing facilities that produce carbon dioxide as a byproduct of operations.

(E) Entering into cooperative agreements to carry out and expedite demonstration projects (including pilot projects) to demonstrate the technical and commercial viability of technologies to reduce carbon dioxide emissions released from coal electric generation facilities and natural gas electric generation facilities for commercial deployment.

(F) Identifying any barriers to the commercial deployment of any technologies under development for the capture of carbon dioxide produced by coal electric generation facilities and natural gas electric generation facilities.

(4) DEMONSTRATION PROJECTS.—

(A) IN GENERAL.—In carrying out the program, the Secretary shall establish a demonstration program under which the Secretary, through a competitive, merit-reviewed process, shall enter into cooperative agreements by not later than September 30, 2025, for demonstration projects to demonstrate the construction and operation of 6 facilities to capture carbon dioxide from coal electric generation facilities, natural gas electric generation facilities, and industrial facilities.

(B) TECHNICAL ASSISTANCE.—The Secretary, to the maximum extent practicable, shall provide technical assistance to any eligible entity seeking to enter into a cooperative agreement described in subparagraph (A) for the purpose of obtaining any necessary permits and licenses to demonstrate qualifying technologies.

(C) ELIGIBLE ENTITIES.—The Secretary may enter into cooperative agreements under subparagraph (A) with industry stakeholders, including any industry stakeholder operating in partnership with the National Laboratories, institutions of higher education, multiinstitutional collaborations, and other appropriate entities.

(D) COMMERCIAL-SCALE DEMONSTRATION PROJECTS.—

(i) IN GENERAL.—In carrying out the program, the Secretary shall establish a carbon capture technology commercialization program to demonstrate substantial improvements in the efficiency, effectiveness, cost, and environmental performance of carbon capture technologies for power, industrial, and other commercial applications.

(ii) REQUIREMENT.—The program established under clause (i) shall include funding for commercial-scale carbon capture technology demonstrations of projects supported by the Department, including projects in addition to the projects described in sub-

paragraph (A), including funding for not more than 2 projects to demonstrate substantial improvements in a particular technology type beyond the first of a kind demonstration and to account for considerations described in subparagraph (G).

(E) REQUIREMENT.—Of the demonstration projects carried out under subparagraph (A)—

(i) 2 shall be designed to capture carbon dioxide from a natural gas electric generation facility;

(ii) 2 shall be designed to capture carbon dioxide from a coal electric generation facility; and

(iii) 2 shall be designed to capture carbon dioxide from an industrial facility not purposed for electric generation.

(F) GOALS.—Each demonstration project under the demonstration program under subparagraph (A)—

(i) shall be designed to further the development, deployment, and commercialization of technologies to capture and sequester carbon dioxide emissions from new and existing coal electric generation facilities, natural gas electric generation facilities, and industrial facilities;

(ii) shall be financed in part by the private sector; and

(iii) if necessary, shall secure agreements for the offtake of carbon dioxide emissions captured by qualifying technologies during the project.

(G) APPLICATIONS.—

(i) IN GENERAL.—To be eligible to enter into an agreement with the Secretary for a demonstration project under subparagraphs (A) and (D), an entity shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(ii) REVIEW OF APPLICATIONS.—In reviewing applications submitted under clause (i), the Secretary, to the maximum extent practicable, shall—

(I) ensure a broad geographic distribution of project sites;

(II) ensure that a broad selection of electric generation facilities are represented;

(III) ensure that a broad selection of technologies are represented; and

(IV) leverage existing public-private partnerships and Federal resources.

(H) GAO STUDY AND REPORT.—

(i) STUDY AND REPORT.—

(I) IN GENERAL.—Not later than 1 year after the date of enactment of the Energy Act of 2020, the Comptroller General of the United States shall conduct, and submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on the re-

sults of, a study of the successes, failures, practices, and improvements of the Department in carrying out demonstration projects under this paragraph.

(II) CONSIDERATIONS.—In conducting the study under subclause (I), the Comptroller General of the United States shall consider—

(aa) applicant and contractor qualifications;

(bb) project management practices at the Department;

(cc) economic or market changes and other factors impacting project viability;

(dd) completion of third-party agreements, including power purchase agreements and carbon dioxide offtake agreements;

(ee) regulatory challenges; and

(ff) construction challenges.

(ii) RECOMMENDATIONS.—The Secretary shall—

(I) consider any relevant recommendations, as determined by the Secretary, provided in the report required under clause (i)(I); and

(II) adopt such recommendations as the Secretary considers appropriate.

(I) REPORT.—

(i) IN GENERAL.—Not later than 180 days after the date on which the Secretary solicits applications under subparagraph (G), and annually thereafter, the Secretary shall submit to the appropriate committees of jurisdiction of the Senate and the House of Representatives a report that includes a detailed description of how the applications under the demonstration program established under subparagraph (A) were or will be solicited and how the applications were or will be evaluated, including—

(I) a list of any activities carried out by the Secretary to solicit or evaluate the applications; and

(II) a process for ensuring that any projects carried out under a cooperative agreement entered into under subparagraph (A) are designed to result in the development or demonstration of qualifying technologies.

(ii) INCLUSIONS.—The Secretary shall include—

(I) in the first report required under clause (i), a detailed list of technical milestones for the development and demonstration of each qualifying technology pursued under the demonstration program established under subparagraph (A);

(II) in each subsequent report required under clause (i), a description of the progress made towards achieving the technical milestones described in subclause (I) during the applicable period covered by the report; and

(III) in each report required under clause (i)—

(aa) an estimate of the cost of licensing, permitting, constructing, and operating each carbon capture facility expected to be constructed under the demonstration program established under subparagraph (A);

(bb) a schedule for the planned construction and operation of each demonstration or pilot project under the demonstration program; and

(cc) an estimate of any financial assistance, compensation, or incentives proposed to be paid by the host State, Indian Tribe, or local government with respect to each facility described in item (aa).

(5) INTRAAGENCY COORDINATION FOR CARBON CAPTURE, UTILIZATION, AND SEQUESTRATION ACTIVITIES.—The carbon capture, utilization, and sequestration activities described in paragraph (3)(B) shall be carried out by the Assistant Secretary for Fossil Energy, in coordination with the heads of other relevant offices of the Department and the National Laboratories.

(6) CONSULTATIONS REQUIRED.—In carrying out the program, the Secretary shall—

(A) undertake international collaborations, taking into consideration the recommendations of the National Coal Council and the National Petroleum Council;

(B) use existing authorities to encourage international cooperation; and

(C) consult with interested entities, including—

(i) coal and natural gas producers;

(ii) industries that use coal and natural gas;

(iii) organizations that promote coal, advanced coal, and natural gas technologies;

(iv) environmental organizations;

(v) organizations representing workers; and

(vi) organizations representing consumers.

(c) REPORT.—

(1) IN GENERAL.—Not later than 18 months after the date of enactment of the Energy Act of 2020, the Secretary shall submit to Congress a report describing the program goals and objectives adopted under subsection (b)(3).

(2) UPDATE.—Not less frequently than once every 2 years after the initial report is submitted under paragraph (1), the Secretary shall submit to Congress a report describing the progress made towards achieving the program goals and objectives adopted under subsection (b)(3).

(d) FUNDING.—

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

(A) for activities under the research and development program component described in subsection (b)(2)(A)—

(i) \$230,000,000 for each of fiscal years 2021 and 2022; and

(ii) \$150,000,000 for each of fiscal years 2023 through 2025;

(B) subject to paragraph (2), for activities under the large-scale pilot projects program component described in subsection (b)(2)(B)—

(i) \$225,000,000 for each of fiscal years 2021 and 2022;

(ii) \$200,000,000 for each of fiscal years 2023 and 2024; and

(iii) \$150,000,000 for fiscal year 2025;

(C) for activities under the demonstration projects program component described in subsection (b)(2)(C)—

(i) \$500,000,000 for each of fiscal years 2021 through 2024; and

(ii) \$600,000,000 for fiscal year 2025;

(D) for activities under the front-end engineering and design program described in subsection (b)(2)(D), \$50,000,000 for each of fiscal years 2021 through 2024; and

(E) for activities under the front-end engineering and design program described in subsection (b)(2)(E), \$100,000,000 for the period of fiscal years 2022 through 2026.

(2) COST SHARING FOR LARGE-SCALE PILOT PROJECTS.—Activities under subsection (b)(2)(B) shall be subject to the cost-sharing requirements of section 988(b).

(e) CARBON CAPTURE TEST CENTERS.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of the Energy Act of 2020, the Secretary shall award grants to 1 or more entities for the operation of 1 or more test centers (referred to in this subsection as a “Center”) to provide distinct testing capabilities for innovative carbon capture technologies.

(2) PURPOSE.—Each Center shall—

(A) advance research, development, demonstration, and commercial application of carbon capture technologies;

(B) support large-scale pilot projects and demonstration projects and test carbon capture technologies; and

(C) develop front-end engineering design and economic analysis.

(3) SELECTION.—

(A) IN GENERAL.—The Secretary shall select entities to receive grants under this subsection according to such criteria as the Secretary may develop.

(B) COMPETITIVE BASIS.—The Secretary shall select entities to receive grants under this subsection on a competitive basis.

(C) PRIORITY CRITERIA.—In selecting entities to receive grants under this subsection, the Secretary shall prioritize consideration of applicants that—

(i) have access to existing or planned research facilities for carbon capture technologies;

(ii) are institutions of higher education with established expertise in engineering for carbon capture

technologies, or partnerships with such institutions of higher education; or

(iii) have access to existing research and test facilities for bulk materials design and testing, component design and testing, or professional engineering design.

(D) EXISTING CENTERS.—In selecting entities to receive grants under this subsection, the Secretary shall prioritize carbon capture test centers in existence on the date of enactment of the Energy Act of 2020.

(4) FORMULA FOR AWARDING GRANTS.—The Secretary may develop a formula for awarding grants under this subsection.

(5) SCHEDULE.—

(A) IN GENERAL.—Each grant awarded under this subsection shall be for a term of not more than 5 years, subject to the availability of appropriations.

(B) RENEWAL.—The Secretary may renew a grant for 1 or more additional 5-year terms, subject to a competitive merit review and the availability of appropriations.

(6) TERMINATION.—To the extent otherwise authorized by law, the Secretary may eliminate, and terminate grant funding under this subsection for, a Center during any 5-year term described in paragraph (5) if the Secretary determines that the Center is underperforming.

(7) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection \$25,000,000 for each of fiscal years 2021 through 2025.

SEC. 963. [42 U.S.C. 16293] CARBON STORAGE VALIDATION AND TESTING.

(a) DEFINITIONS.—In this section:

(1) LARGE-SCALE CARBON SEQUESTRATION.—The term “large-scale carbon sequestration” means a scale that—

(A) demonstrates the ability to inject into geologic formations and sequester carbon dioxide; and

(B) has a goal of sequestering not less than 50 million metric tons of carbon dioxide.

(2) PROGRAM.—The term “program” means the program established under subsection (b)(1).

(b) CARBON STORAGE PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a program of research, development, demonstration, and commercialization for carbon storage.

(2) PROGRAM ACTIVITIES.—Activities under the program shall include—

(A) in coordination with relevant Federal agencies, developing and maintaining mapping tools and resources that assess the capacity of geologic storage formation in the United States;

(B) developing monitoring tools, modeling of geologic formations, and analyses—

(i) to predict carbon dioxide containment; and

(ii) to account for sequestered carbon dioxide in geologic storage sites;

(C) researching—

- (i) potential environmental, safety, and health impacts in the event of a leak into the atmosphere or to an aquifer; and
- (ii) any corresponding mitigation actions or responses to limit harmful consequences of such a leak;
- (D) evaluating the interactions of carbon dioxide with formation solids and fluids, including the propensity of injections to induce seismic activity;
- (E) assessing and ensuring the safety of operations relating to geologic sequestration of carbon dioxide;
- (F) determining the fate of carbon dioxide concurrent with and following injection into geologic formations;
- (G) supporting cost and business model assessments to examine the economic viability of technologies and systems developed under the program;
- (H) providing information to the Environmental Protection Agency, States, local governments, Tribal governments, and other appropriate entities, to ensure the protection of human health and the environment; and
- (I)⁶ evaluating the quantity, location, and timing of geologic carbon storage deployment that may be needed, and developing strategies and resources to enable the deployment.

(3) GEOLOGIC SETTINGS.—In carrying out research activities under this subsection, the Secretary shall consider a variety of candidate onshore and offshore geologic settings, including—

- (A) operating oil and gas fields;
 - (B) depleted oil and gas fields;
 - (C) residual oil zones;
 - (D) unconventional reservoirs and rock types;
 - (E) unmineable coal seams;
 - (F) saline formations in both sedimentary and basaltic geologies;
 - (G) geologic systems that may be used as engineered reservoirs to extract economical quantities of brine from geothermal resources of low permeability or porosity; and
 - (H) geologic systems containing in situ carbon dioxide mineralization formations.
- (c) LARGE-SCALE CARBON SEQUESTRATION DEMONSTRATION PROGRAM.—
- (1) IN GENERAL.—The Secretary shall establish a demonstration program under which the Secretary shall provide funding for demonstration projects to collect and validate information on the cost and feasibility of commercial deployment of large-scale carbon sequestration technologies.
- (2) EXISTING REGIONAL CARBON SEQUESTRATION PARTNERSHIPS.—In carrying out paragraph (1), the Secretary may provide additional funding to regional carbon sequestration partnerships that are carrying out or have completed a large-scale carbon sequestration demonstration project under this section

⁶Margin so in law. See amendment made by section 40305(2)(B)(iii) of Division D of Public Law 117-58.

(as in effect on the day before the date of enactment of the Energy Act of 2020) for additional work on that project.

(3) DEMONSTRATION COMPONENTS.—Each demonstration project carried out under this subsection shall include longitudinal tests involving carbon dioxide injection and monitoring, mitigation, and verification operations.

(4) CLEARINGHOUSE.—The National Energy Technology Laboratory shall act as a clearinghouse of shared information and resources for—

(A) existing or completed demonstration projects receiving additional funding under paragraph (2); and

(B) any new demonstration projects funded under this subsection.

(5) REPORT.—Not later than 1 year after the date of enactment of the Energy Act of 2020, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report that—

(A) assesses the progress of all regional carbon sequestration partnerships carrying out a demonstration project under this subsection;

(B) identifies the remaining challenges in achieving large-scale carbon sequestration that is reliable and safe for the environment and public health; and

(C) creates a roadmap for carbon storage research and development activities of the Department through 2025, with the goal of reducing economic and policy barriers to commercial carbon sequestration.

(d) INTEGRATED STORAGE.—

(1) IN GENERAL.—The Secretary may transition large-scale carbon sequestration demonstration projects under subsection (c) into integrated commercial storage complexes.

(2) GOALS AND OBJECTIVES.—The goals and objectives of the Secretary in seeking to transition large-scale carbon sequestration demonstration projects into integrated commercial storage complexes under paragraph (1) shall be—

(A) to identify geologic storage sites that are able to accept large volumes of carbon dioxide acceptable for commercial contracts;

(B) to understand the technical and commercial viability of carbon dioxide geologic storage sites; and

(C) to carry out any other activities necessary to transition the large-scale carbon sequestration demonstration projects under subsection (c) into integrated commercial storage complexes.

(e) LARGE-SCALE CARBON STORAGE COMMERCIALIZATION PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a commercialization program under which the Secretary shall provide funding for the development of new or expanded commercial large-scale carbon sequestration projects and associated carbon dioxide transport infrastructure, including funding for the feasibility, site characterization, permitting, and construction stages of project development.

(2) APPLICATIONS; SELECTION.—

(A) IN GENERAL.—To be eligible to enter into an agreement with the Secretary for funding under paragraph (1), an entity shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

(B) APPLICATION PROCESS.—The Secretary shall establish an application process that, to the maximum extent practicable—

(i) is open to projects at any stage of development described in paragraph (1); and

(ii) facilitates expeditious development of projects described in that paragraph.

(C) PROJECT SELECTION.—In selecting projects for funding under paragraph (1), the Secretary shall give priority to—

(i) projects with substantial carbon dioxide storage capacity; or

(ii) projects that will store carbon dioxide from multiple carbon capture facilities.

(f) PREFERENCE IN PROJECT SELECTION FROM MERITORIOUS PROPOSALS.—In making competitive awards under this section, subject to the requirements of section 989, the Secretary shall—

(1) with respect to the research, development, demonstration program components described in subsections (b) through (d) give preference to proposals from partnerships among industrial, academic, and government entities; and

(2) require recipients to provide assurances that all laborers and mechanics employed by contractors and subcontractors in the construction, repair, or alteration of new or existing facilities performed in order to carry out a demonstration or commercial application activity authorized under this section shall be paid wages at rates not less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code, and the Secretary of Labor shall, with respect to the labor standards in this paragraph, have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 Fed. Reg. 3176; 5 U.S.C. Appendix) and section 3145 of title 40, United States Code.

(g) COST SHARING.—Activities carried out under this section shall be subject to the cost-sharing requirements of section 988.

(h) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$2,500,000,000 for the period of fiscal years 2022 through 2026.

SEC. 964. [42 U.S.C. 16294] RESEARCH AND DEVELOPMENT FOR COAL MINING TECHNOLOGIES.

(a) ESTABLISHMENT.—The Secretary shall carry out a program for research and development on coal mining technologies.

(b) COOPERATION.—In carrying out the program, the Secretary shall cooperate with appropriate Federal agencies, coal producers, trade associations, equipment manufacturers, institutions of higher education with mining engineering departments, and other relevant entities.

(c) PROGRAM.—The research and development activities carried out under this section shall—

(1) be guided by the mining research and development priorities identified by the Mining Industry of the Future Program and in the recommendations from relevant reports of the National Academy of Sciences on mining technologies;

(2) include activities exploring minimization of contaminants in mined coal that contribute to environmental concerns including development and demonstration of electromagnetic wave imaging ahead of mining operations;

(3) develop and demonstrate coal bed electromagnetic wave imaging, spectroscopic reservoir analysis technology, and techniques for horizontal drilling in order to—

(A) identify areas of high coal gas content;

(B) increase methane recovery efficiency;

(C) prevent spoilage of domestic coal reserves; and

(D) minimize water disposal associated with methane extraction; and

(4) expand mining research capabilities at institutions of higher education.

SEC. 965. [42 U.S.C. 16295] OIL AND GAS RESEARCH PROGRAMS.

(a) IN GENERAL.—The Secretary shall conduct a program of research, development, demonstration, and commercial application of oil and gas, including—

(1) exploration and production;

(2) gas hydrates;

(3) reservoir life and extension;

(4) transportation and distribution infrastructure;

(5) ultraclean fuels;

(6) heavy oil, oil shale, and tar sands; and

(7) related environmental research.

(b) OBJECTIVES.—The objectives of this program shall include advancing the science and technology available to domestic petroleum producers, particularly independent operators, to minimize the economic dislocation caused by the decline of domestic supplies of oil and natural gas resources.

(c) NATURAL GAS AND OIL DEPOSITS REPORT.—Not later than 2 years after the date of enactment of this Act and every 2 years thereafter, the Secretary of the Interior, in consultation with other appropriate Federal agencies, shall submit to Congress a report on the latest estimates of natural gas and oil reserves, reserves growth, and undiscovered resources in Federal and State waters off the coast of Louisiana, Texas, Alabama, and Mississippi.

(d) INTEGRATED CLEAN POWER AND ENERGY RESEARCH.—

(1) ESTABLISHMENT OF CENTER.—The Secretary shall establish a national center or consortium of excellence in clean energy and power generation, using the resources of the Clean Power and Energy Research Consortium in existence on the date of enactment of this Act, to address the critical dependence of the United States on energy and the need to reduce emissions.

(2) FOCUS AREAS.—The center or consortium shall conduct a program of research, development, demonstration, and commercial application on integrating the following 6 focus areas:

(A) Efficiency and reliability of gas turbines for power generation.

(B) Reduction in emissions from power generation.

(C) Promotion of energy conservation issues.

(D) Effectively using alternative fuels and renewable energy.

(E) Development of advanced materials technology for oil and gas exploration and use in harsh environments.

(F) Education on energy and power generation issues.

SEC. 966. [42 U.S.C. 16296] LOW-VOLUME OIL AND GAS RESERVOIR RESEARCH PROGRAM.

(a) DEFINITION OF GIS.—In this section, the term “GIS” means geographic information systems technology that facilitates the organization and management of data with a geographic component.

(b) PROGRAM.—The Secretary shall establish a program of research, development, demonstration, and commercial application to maximize the productive capacity of marginal wells and reservoirs.

(c) DATA COLLECTION.—Under the program, the Secretary shall collect data on—

(1) the status and location of marginal wells and oil and gas reservoirs;

(2) the production capacity of marginal wells and oil and gas reservoirs;

(3) the location of low-pressure gathering facilities and pipelines; and

(4) the quantity of natural gas vented or flared in association with crude oil production.

(d) ANALYSIS.—Under the program, the Secretary shall—

(1) estimate the remaining producible reserves based on variable pipeline pressures; and

(2) recommend measures that will enable the continued production of those resources.

(e) STUDY.—

(1) IN GENERAL.—The Secretary may award a grant to an organization of States that contain significant numbers of marginal oil and natural gas wells to conduct an annual study of low-volume natural gas reservoirs.

(2) ORGANIZATION WITH NO GIS CAPABILITIES.—If an organization receiving a grant under paragraph (1) does not have GIS capabilities, the organization shall contract with an institution of higher education with GIS capabilities.

(3) STATE GEOLOGISTS.—The organization receiving a grant under paragraph (1) shall collaborate with the State geologist of each State being studied.

(f) PUBLIC INFORMATION.—The Secretary may use the data collected and analyzed under this section to produce maps and literature to disseminate to States to promote conservation of natural gas reserves.

SEC. 967. [42 U.S.C. 16297] COMPLEX WELL TECHNOLOGY TESTING FACILITY.

The Secretary, in coordination with industry leaders in extended research drilling technology, shall establish a Complex Well Technology Testing Facility at the Rocky Mountain Oilfield Testing Center to increase the range of extended drilling technologies.

SEC. 968. [30 U.S.C. 1902 note] METHANE HYDRATE RESEARCH.

(a) IN GENERAL.—The Methane Hydrate Research and Development Act of 2000 (30 U.S.C. 1902 note; Public Law 106–193) is amended to read as follows:

“SECTION 1. SHORT TITLE.

“This Act may be cited as the ‘Methane Hydrate Research and Development Act of 2000’.

“SEC. 2. FINDINGS.

“Congress finds that—

“(1) in order to promote energy independence and meet the increasing demand for energy, the United States will require a diversified portfolio of substantially increased quantities of electricity, natural gas, and transportation fuels;

“(2) according to the report submitted to Congress by the National Research Council entitled ‘Charting the Future of Methane Hydrate Research in the United States’, the total United States resources of gas hydrates have been estimated to be on the order of 200,000 trillion cubic feet;

“(3) according to the report of the National Commission on Energy Policy entitled ‘Ending the Energy Stalemate—A Bipartisan Strategy to Meet America’s Energy Challenge’, and dated December 2004, the United States may be endowed with over one-fourth of the methane hydrate deposits in the world;

“(4) according to the Energy Information Administration, a shortfall in natural gas supply from conventional and unconventional sources is expected to occur in or about 2020; and

“(5) the National Academy of Sciences states that methane hydrate may have the potential to alleviate the projected shortfall in the natural gas supply.

“SEC. 3. DEFINITIONS.

“In this Act:

“(1) CONTRACT.—The term ‘contract’ means a procurement contract within the meaning of section 6303 of title 31, United States Code.

“(2) COOPERATIVE AGREEMENT.—The term ‘cooperative agreement’ means a cooperative agreement within the meaning of section 6305 of title 31, United States Code.

“(3) DIRECTOR.—The term ‘Director’ means the Director of the National Science Foundation.

“(4) GRANT.—The term ‘grant’ means a grant awarded under a grant agreement (within the meaning of section 6304 of title 31, United States Code).

“(5) INDUSTRIAL ENTERPRISE.—The term ‘industrial enterprise’ means a private, nongovernmental enterprise that has an expertise or capability that relates to methane hydrate research and development.

“(6) INSTITUTION OF HIGHER EDUCATION.—The term ‘institution of higher education’ means an institution of higher education (as defined in section 102 of the Higher Education Act of 1965 (20 U.S.C. 1002)).

“(7) SECRETARY.—The term ‘Secretary’ means the Secretary of Energy, acting through the Assistant Secretary for Fossil Energy.

“(8) SECRETARY OF COMMERCE.—The term ‘Secretary of Commerce’ means the Secretary of Commerce, acting through the Administrator of the National Oceanic and Atmospheric Administration.

“(9) SECRETARY OF DEFENSE.—The term ‘Secretary of Defense’ means the Secretary of Defense, acting through the Secretary of the Navy.

“(10) SECRETARY OF THE INTERIOR.—The term ‘Secretary of the Interior’ means the Secretary of the Interior, acting through the Director of the United States Geological Survey, the Director of the Bureau of Land Management, and the Director of the Minerals Management Service.

“SEC. 4. METHANE HYDRATE RESEARCH AND DEVELOPMENT PROGRAM.

“(a) IN GENERAL.—

“(1) COMMENCEMENT OF PROGRAM.—Not later than 90 days after the date of enactment of the Energy Research, Development, Demonstration, and Commercial Application Act of 2005, the Secretary, in consultation with the Secretary of Commerce, the Secretary of Defense, the Secretary of the Interior, and the Director, shall commence a program of methane hydrate research and development in accordance with this section.

“(2) DESIGNATIONS.—The Secretary, the Secretary of Commerce, the Secretary of Defense, the Secretary of the Interior, and the Director shall designate individuals to carry out this section.

“(3) COORDINATION.—The individual designated by the Secretary shall coordinate all activities within the Department of Energy relating to methane hydrate research and development.

“(4) MEETINGS.—The individuals designated under paragraph (2) shall meet not later than 180 days after the date of enactment of the Energy Research, Development, Demonstration, and Commercial Application Act of 2005 and not less frequently than every 180 days thereafter to—

“(A) review the progress of the program under paragraph (1); and

“(B) coordinate interagency research and partnership efforts in carrying out the program.

“(b) GRANTS, CONTRACTS, COOPERATIVE AGREEMENTS, INTER-AGENCY FUNDS TRANSFER AGREEMENTS, AND FIELD WORK PROPOSALS.—

“(1) ASSISTANCE AND COORDINATION.—In carrying out the program of methane hydrate research and development authorized by this section, the Secretary may award grants to, or enter into contracts or cooperative agreements with, institutions of higher education, oceanographic institutions, and industrial enterprises to—

“(A) conduct basic and applied research to identify, explore, assess, and develop methane hydrate as a commercially viable source of energy;

“(B) identify methane hydrate resources through remote sensing;

“(C) acquire and reprocess seismic data suitable for characterizing methane hydrate accumulations;

“(D) assist in developing technologies required for efficient and environmentally sound development of methane hydrate resources;

“(E) promote education and training in methane hydrate resource research and resource development through fellowships or other means for graduate education and training;

“(F) conduct basic and applied research to assess and mitigate the environmental impact of hydrate degassing (including both natural degassing and degassing associated with commercial development);

“(G) develop technologies to reduce the risks of drilling through methane hydrates; and

“(H) conduct exploratory drilling, well testing, and production testing operations on permafrost and non-permafrost gas hydrates in support of the activities authorized by this paragraph, including drilling of one or more full-scale production test wells.

“(2) COMPETITIVE PEER REVIEW.—Funds made available under paragraph (1) shall be made available based on a competitive process using external scientific peer review of proposed research.

“(c) METHANE HYDRATES ADVISORY PANEL.—

“(1) IN GENERAL.—The Secretary shall establish an advisory panel (including the hiring of appropriate staff) consisting of representatives of industrial enterprises, institutions of higher education, oceanographic institutions, State agencies, and environmental organizations with knowledge and expertise in the natural gas hydrates field, to—

“(A) assist in developing recommendations and broad programmatic priorities for the methane hydrate research and development program carried out under subsection (a)(1);

“(B) provide scientific oversight for the methane hydrates program, including assessing progress toward program goals, evaluating program balance, and providing recommendations to enhance the quality of the program over time; and

“(C) not later than 2 years after the date of enactment of the Energy Research, Development, Demonstration, and Commercial Application Act of 2005, and at such later dates as the panel considers advisable, submit to Congress—

“(i) an assessment of the methane hydrate research program; and

“(ii) an assessment of the 5-year research plan of the Department of Energy.

“(2) CONFLICTS OF INTEREST.—In appointing each member of the advisory panel established under paragraph (1), the Secretary shall ensure, to the maximum extent practicable, that the appointment of the member does not pose a conflict of interest with respect to the duties of the member under this Act.

“(3) MEETINGS.—The advisory panel shall—

“(A) hold the initial meeting of the advisory panel not later than 180 days after the date of establishment of the advisory panel; and

“(B) meet biennially thereafter.

“(4) COORDINATION.—The advisory panel shall coordinate activities of the advisory panel with program managers of the Department of Energy at appropriate National Laboratories.

“(d) CONSTRUCTION COSTS.—None of the funds made available to carry out this section may be used for the construction of a new building or the acquisition, expansion, remodeling, or alteration of an existing building (including site grading and improvement and architect fees).

“(e) RESPONSIBILITIES OF THE SECRETARY.—In carrying out subsection (b)(1), the Secretary shall—

“(1) facilitate and develop partnerships among government, industrial enterprises, and institutions of higher education to research, identify, assess, and explore methane hydrate resources;

“(2) undertake programs to develop basic information necessary for promoting long-term interest in methane hydrate resources as an energy source;

“(3) ensure that the data and information developed through the program are accessible and widely disseminated as needed and appropriate;

“(4) promote cooperation among agencies that are developing technologies that may hold promise for methane hydrate resource development;

“(5) report annually to Congress on the results of actions taken to carry out this Act; and

“(6) ensure, to the maximum extent practicable, greater participation by the Department of Energy in international cooperative efforts.

“SEC. 5. NATIONAL RESEARCH COUNCIL STUDY.

“(a) AGREEMENT FOR STUDY.—The Secretary shall offer to enter into an agreement with the National Research Council under which the National Research Council shall—

“(1) conduct a study of the progress made under the methane hydrate research and development program implemented under this Act; and

“(2) make recommendations for future methane hydrate research and development needs.

“(b) REPORT.—Not later than September 30, 2009, the Secretary shall submit to Congress a report containing the findings and recommendations of the National Research Council under this section.

“SEC. 6. REPORTS AND STUDIES FOR CONGRESS.

“The Secretary shall provide to the Committee on Science of the House of Representatives and the Committee on Energy and Natural Resources of the Senate copies of any report or study that the Department of Energy prepares at the direction of any committee of Congress relating to the methane hydrate research and development program implemented under this Act.

“SEC. 7. AUTHORIZATION OF APPROPRIATIONS.

“There are authorized to be appropriated to the Secretary to carry out this Act, to remain available until expended—

- “(1) \$15,000,000 for fiscal year 2006;
- “(2) \$20,000,000 for fiscal year 2007;
- “(3) \$30,000,000 for fiscal year 2008;
- “(4) \$40,000,000 for fiscal year 2009; and
- “(5) \$50,000,000 for fiscal year 2010.”.

(b) RECLASSIFICATION.—The Law Revision Counsel shall reclassify the Methane Hydrate Research and Development Act of 2000 (30 U.S.C. 1902 note; Public Law 106–193) to a new chapter at the end of title 30, United States Code.

SEC. 969. [42 U.S.C. 16298] CARBON UTILIZATION PROGRAM.

(a) IN GENERAL.—The Secretary, in consultation with the Administrator of the Environmental Protection Agency, shall carry out a program of research, development, demonstration, and commercialization relating to carbon utilization.

(b) ACTIVITIES.—Under the program described in subsection (a), the Secretary shall—

- (1) assess and monitor—
 - (A) potential changes in lifecycle carbon dioxide and other greenhouse gas emissions; and
 - (B) other environmental safety indicators of new technologies, practices, processes, or methods used in enhanced hydrocarbon recovery as part of the activities authorized under section 963;
- (2) identify and evaluate novel uses for carbon (including conversion of carbon oxides) that, on a full lifecycle basis, achieve a permanent reduction, or avoidance of a net increase, in carbon dioxide in the atmosphere, for use in commercial and industrial products such as—
 - (A) chemicals;
 - (B) plastics;
 - (C) building materials;
 - (D) fuels;
 - (E) cement;
 - (F) products of coal utilization in power systems or in other applications; and
 - (G) other products with demonstrated market value;
- (3) identify and assess carbon capture technologies for industrial systems; and
- (4) identify and assess alternative uses for coal that result in zero net emissions of carbon dioxide or other pollutants, including products derived from carbon engineering, carbon fiber, and coal conversion methods.

(c) **PRIORITIZATION.**—In supporting demonstration and commercialization research under the program described in subsection (a), the Secretary shall prioritize consideration of projects that—

(1) have access to a carbon dioxide emissions stream generated by a stationary source in the United States that is capable of supplying not less than 250 metric tons per day of carbon dioxide for research;

(2) have access to equipment for testing small-scale carbon dioxide utilization technologies, with onsite access to larger test bays for scale-up; and

(3) have 1 or more existing partnerships with a National Laboratory, an institution of higher education, a private company, or a State or other government entity.

(d) **COORDINATION.**—The Secretary shall coordinate the activities authorized under this section with the activities authorized in section 969A as part of a single consolidated program of the Department.

(e) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to the Secretary to carry out this section \$50,000,000, to remain available until expended.

SEC. 969A. [42 U.S.C. 16298a] CARBON UTILIZATION PROGRAM.

(a) **IN GENERAL.**—The Secretary shall establish a program of research, development, and demonstration for carbon utilization—

(1) to assess and monitor—

(A) potential changes in lifecycle carbon dioxide and other greenhouse gas emissions; and

(B) other environmental safety indicators of new technologies, practices, processes, or methods used in enhanced hydrocarbon recovery as part of the activities authorized under section 963;

(2) to identify and assess novel uses for carbon, including the conversion of carbon and carbon oxides for commercial and industrial products and other products with potential market value;

(3) to develop or obtain, in coordination with other applicable Federal agencies and standard-setting organizations, standards and certifications, as appropriate, to facilitate the commercialization of the products and technologies described in paragraph (2);

(4) to identify and assess carbon capture technologies for industrial systems; and

(5) to identify and assess alternative uses for raw coal and processed coal products in all phases that result in no significant emissions of carbon dioxide or other pollutants, including products derived from carbon engineering, carbon fiber, and coal conversion methods.

(b) **DEMONSTRATION PROGRAMS FOR THE PURPOSE OF COMMERCIALIZATION.**—

(1) **IN GENERAL.**—Not later than 180 days after the date of enactment of the Energy Act of 2020, as part of the program established under subsection (a), the Secretary shall establish a 2-year demonstration program in each of the 2 major coal-producing regions of the United States for the purpose of

partnering with private institutions in coal mining regions to accelerate the commercial deployment of coal-carbon products.

(2) GRANT PROGRAM.—

(A) IN GENERAL.—Not later than 1 year after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall establish a program to provide grants to eligible entities to use in accordance with subparagraph (D).

(B) ELIGIBLE ENTITIES.—To be eligible to receive a grant under this paragraph, an entity shall be—

- (i) a State;
- (ii) a unit of local government; or
- (iii) a public utility or agency.

(C) APPLICATIONS.—Eligible entities desiring a grant under this paragraph shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

(D) USE OF FUNDS.—An eligible entity shall use a grant received under this paragraph to procure and use commercial or industrial products that—

- (i) use or are derived from anthropogenic carbon oxides; and
- (ii) demonstrate significant net reductions in lifecycle greenhouse gas emissions compared to incumbent technologies, processes, and products.

(3) COST SHARING.—Activities under this subsection shall be subject to the cost-sharing requirements of section 988.

(c) CARBON UTILIZATION RESEARCH CENTER.—

(1) IN GENERAL.—In carrying out the program under subsection (a), the Secretary shall establish and operate a national Carbon Utilization Research Center (referred to in this subsection as the “Center”), which shall focus on early stage research and development activities including—

- (A) post-combustion and pre-combustion capture of carbon dioxide;
- (B) advanced compression technologies for new and existing fossil fuel-fired power plants;
- (C) technologies to convert carbon dioxide to valuable products and commodities; and
- (D) advanced carbon dioxide storage technologies that consider a range of storage regimes.

(2) SELECTION.—The Secretary shall—

- (A) select the Center under this subsection on a competitive, merit-reviewed basis; and
- (B) consider applications from the National Laboratories, institutions of higher education, multiinstitutional collaborations, and other appropriate entities.

(3) EXISTING CENTERS.—In selecting the Center under this subsection, the Secretary shall prioritize carbon utilization research centers in existence on the date of enactment of the Energy Act of 2020.

(4) DURATION.—The Center established under this subsection shall receive support for a period of not more than 5 years, subject to the availability of appropriations.

(5) RENEWAL.—On the expiration of any period of support of the Center, the Secretary may renew support for the Center, on a merit-reviewed basis, for a period of not more than 5 years.

(6) TERMINATION.—Consistent with the existing authorities of the Department, the Secretary may terminate the Center for cause during the performance period.

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

- (1) \$41,000,000 for fiscal year 2022;
- (2) \$65,250,000 for fiscal year 2023;
- (3) \$66,562,500 for fiscal year 2024;
- (4) \$67,940,625 for fiscal year 2025; and
- (5) \$69,387,656 for fiscal year 2026.

(e) COORDINATION.—The Secretary shall coordinate the activities authorized in this section with the activities authorized in section 969 as part of one consolidated program at the Department. Nothing in section 969 shall be construed as limiting the authorities provided in this section.

SEC. 969B. [42 U.S.C. 16298b] HIGH EFFICIENCY TURBINES.

(a) IN GENERAL.—The Secretary, acting through the Assistant Secretary for Fossil Energy (referred to in this section as the “Secretary”), shall establish a multiyear, multiphase program (referred to in this section as the “program”) of research, development, and technology demonstration to improve the efficiency of gas turbines used in power generation systems and aviation.

(b) PROGRAM ELEMENTS.—The program shall—

(1) support first-of-a-kind engineering and detailed gas turbine design for small-scale and utility-scale electric power generation, including—

(A) high temperature materials, including superalloys, coatings, and ceramics;

(B) improved heat transfer capability;

(C) manufacturing technology required to construct complex 3-dimensional geometry parts with improved aerodynamic capability;

(D) combustion technology to produce higher firing temperature while lowering nitrogen oxide and carbon monoxide emissions per unit of output;

(E) advanced controls and systems integration;

(F) advanced high performance compressor technology;

and

(G) validation facilities for the testing of components and subsystems;

(2) include technology demonstration through component testing, subscale testing, and full-scale testing in existing fleets;

(3) include field demonstrations of the developed technology elements to demonstrate technical and economic feasibility;

(4) assess overall combined cycle and simple cycle system performance;

(5) increase fuel flexibility by enabling gas turbines to operate with high proportions of, or pure, hydrogen or other renewable gas fuels;

(6) enhance foundational knowledge needed for low-emission combustion systems that can work in high-pressure, high-temperature environments required for high-efficiency cycles;

(7) increase operational flexibility by reducing turbine start-up times and improving the ability to accommodate flexible power demand; and

(8) include any other elements necessary to achieve the goals described in subsection (c), as determined by the Secretary, in consultation with private industry.

(c) PROGRAM GOALS.—

(1) IN GENERAL.—The goals of the program shall be—

(A) in phase I, to develop a conceptual design of, and to develop and demonstrate the technology required for—

(i) advanced high efficiency gas turbines to achieve, on a lower heating value basis—

(I) a combined cycle efficiency of not less than 65 percent; or

(II) a simple cycle efficiency of not less than 47 percent; and

(ii) aviation gas turbines to achieve a 25 percent reduction in fuel burn by improving fuel efficiency to existing best-in-class turbo-fan engines; and

(B) in phase II, to develop a conceptual design of advanced high efficiency gas turbines that can achieve, on a lower heating value basis—

(i) a combined cycle efficiency of not less than 67 percent; or

(ii) a simple cycle efficiency of not less than 50 percent.

(2) ADDITIONAL GOALS.—If a goal described in paragraph (1) has been achieved, the Secretary, in consultation with private industry and the National Academy of Sciences, may develop additional goals or phases for advanced gas turbine research and development.

(d) FINANCIAL ASSISTANCE.—

(1) IN GENERAL.—The Secretary may provide financial assistance, including grants, to carry out the program.

(2) PROPOSALS.—Not later than 180 days after the date of enactment of the Energy Act of 2020, the Secretary shall solicit proposals from industry, small businesses, universities, and other appropriate parties for conducting activities under this section.

(3) CONSIDERATIONS.—In selecting proposed projects to receive financial assistance under this subsection, the Secretary shall give special consideration to the extent to which the proposed project will—

(A) stimulate the creation or increased retention of jobs in the United States; and

(B) promote and enhance technology leadership in the United States.

(4) COMPETITIVE AWARDS.—The Secretary shall provide financial assistance under this subsection on a competitive basis, with an emphasis on technical merit.

(5) COST SHARING.—Financial assistance provided under this subsection shall be subject to the cost sharing requirements of section 988.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$50,000,000 for each of fiscal years 2021 through 2025.

SEC. 969C. [42 U.S.C. 16298c] NATIONAL ENERGY TECHNOLOGY LABORATORY REFORMS.

(a) SPECIAL HIRING AUTHORITY FOR SCIENTIFIC, ENGINEERING, AND PROJECT MANAGEMENT PERSONNEL.—

(1) IN GENERAL.—The Director of the National Energy Technology Laboratory (referred to in this section as the “Director”) may—

(A) make appointments to positions in the National Energy Technology Laboratory to assist in meeting a specific project or research need, without regard to civil service laws, of individuals who—

(i) have an advanced scientific or engineering background; or

(ii) have a business background and can assist in specific technology-to-market needs;

(B) fix the basic pay of any employee appointed under subparagraph (A) at a rate not to exceed level II of the Executive Schedule under section 5313 of title 5, United States Code; and

(C) pay any employee appointed under subparagraph (A) payments in addition to the basic pay fixed under subparagraph (B), subject to the condition that the total amount of additional payments paid to an employee under this subparagraph for any 12-month period shall not exceed the least of—

(i) \$25,000;

(ii) the amount equal to 25 percent of the annual rate of basic pay of that employee; and

(iii) the amount of the limitation that is applicable for a calendar year under section 5307(a)(1) of title 5, United States Code.

(2) LIMITATIONS.—

(A) IN GENERAL.—The term of any employee appointed under paragraph (1)(A) shall not exceed 3 years.

(B) FULL-TIME EMPLOYEES.—Not more than 10 full-time employees appointed under paragraph (1)(A) may be employed at the National Energy Technology Laboratory at any given time.

(b) LABORATORY-DIRECTED RESEARCH AND DEVELOPMENT.—

(1) IN GENERAL.—Beginning in fiscal year 2021, the National Energy Technology Laboratory shall be eligible for laboratory-directed research and development funding.

(2) AUTHORIZATION OF FUNDING.—

(A) IN GENERAL.—Each fiscal year, of funds made available to the National Energy Technology Laboratory, the Secretary may deposit an amount, not to exceed the rate made available to the National Laboratories for laboratory-directed research and development, in a special fund account.

(B) USE.—Amounts in the account under subparagraph (A) shall only be available for laboratory-directed research and development.

(C) REQUIREMENTS.—The account under subparagraph (A)—

- (i) shall be administered by the Secretary;
- (ii) shall be available without fiscal year limitation; and
- (iii) shall not be subject to appropriation.

(3) REQUIREMENT.—The Director shall carry out laboratory-directed research and development activities at the National Energy Technology Laboratory consistent with Department of Energy Order 413.2C, dated August 2, 2018 (or a successor order).

(4) ANNUAL REPORT ON USE OF AUTHORITY.—Annually, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on the use of the authority provided under this subsection during the preceding fiscal year.

(c) LABORATORY OPERATIONS.—The Secretary shall delegate human resources operations of the National Energy Technology Laboratory to the Director to assist in carrying out this section.

(d) REVIEW.—Not later than 2 years after the date of enactment of the Energy Act of 2020, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report assessing the management and research activities of the National Energy Technology Laboratory, which shall include—

- (1) an assessment of the quality of science and research at the National Energy Technology Laboratory, relative to similar work at other National Laboratories;
- (2) a review of the effectiveness of authorities provided in subsections (a) and (b); and
- (3) recommendations for policy changes within the Department and legislative changes to provide the National Energy Technology Laboratory with the necessary tools and resources to advance the research mission of the National Energy Technology Laboratory.

SEC. 969D. [42 U.S.C. 16298d] CARBON REMOVAL.

(a) ESTABLISHMENT.—The Secretary, in coordination with the heads of appropriate Federal agencies, including the Secretary of Agriculture, shall establish a research, development, and demonstration program (referred to in this section as the “program”) to test, validate, or improve technologies and strategies to remove carbon dioxide from the atmosphere on a large scale.

(b) **INTRAGENCY COORDINATION.**—The Secretary shall ensure that the program includes the coordinated participation of the Office of Fossil Energy, the Office of Science, and the Office of Energy Efficiency and Renewable Energy.

(c) **PROGRAM ACTIVITIES.**—The program may include research, development, and demonstration activities relating to—

- (1) direct air capture and storage technologies;
- (2) bioenergy with carbon capture and sequestration;
- (3) enhanced geological weathering;
- (4) agricultural practices;
- (5) forest management and afforestation; and
- (6) planned or managed carbon sinks, including natural and artificial.

(d) **REQUIREMENTS.**—In developing and identifying carbon removal technologies and strategies under the program, the Secretary shall consider—

- (1) land use changes, including impacts on natural and managed ecosystems;
- (2) ocean acidification;
- (3) net greenhouse gas emissions;
- (4) commercial viability;
- (5) potential for near-term impact;
- (6) potential for carbon reductions on a gigaton scale; and
- (7) economic cobenefits.

(e) **AIR CAPTURE PRIZE COMPETITIONS.**—

(1) **DEFINITIONS.**—In this subsection:

(A) **DILUTE MEDIA.**—The term “dilute media” means media in which the concentration of carbon dioxide is less than 1 percent by volume.

(B) **PRIZE COMPETITION.**—The term “prize competition” means the competitive technology prize competition established under paragraph (2).

(C) **QUALIFIED CARBON DIOXIDE.**—

(i) **IN GENERAL.**—The term “qualified carbon dioxide” means any carbon dioxide that—

(I) is captured directly from the ambient air; and

(II) is measured at the source of capture and verified at the point of disposal, injection, or utilization.

(ii) **INCLUSION.**—The term “qualified carbon dioxide” includes the initial deposit of captured carbon dioxide used as a tertiary injectant.

(iii) **EXCLUSION.**—The term “qualified carbon dioxide” does not include carbon dioxide that is recaptured, recycled, and reinjected as part of the enhanced oil and natural gas recovery process.

(D) **QUALIFIED DIRECT AIR CAPTURE FACILITY.**—

(i) **IN GENERAL.**—The term “qualified direct air capture facility” means any facility that—

(I) uses carbon capture equipment to capture carbon dioxide directly from the ambient air; and

(II) captures more than 50,000 metric tons of qualified carbon dioxide annually.

(ii) EXCLUSION.—The term “qualified direct air capture facility” does not include any facility that captures carbon dioxide—

(I) that is deliberately released from naturally occurring subsurface springs; or

(II) using natural photosynthesis.

(2) ESTABLISHMENT.—Not later than 2 years after the date of enactment of the Energy Act of 2020, the Secretary, in consultation with the Administrator of the Environmental Protection Agency, shall establish as part of the program a competitive technology prize competition to award prizes for—

(A) precommercial carbon dioxide capture from dilute media; and

(B) commercial applications of direct air capture technologies.

(3) REQUIREMENTS.—In carrying out this subsection, the Secretary, in accordance with section 24 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3719), shall develop requirements for—

(A) the prize competition process; and

(B) monitoring and verification procedures for projects selected to receive a prize under the prize competition.

(4) ELIGIBLE PROJECTS.—

(A) PRECOMMERCIAL AIR CAPTURE PROJECTS.—With respect to projects described in paragraph (2)(A), to be eligible to be awarded a prize under the prize competition, a project shall—

(i) meet minimum performance standards set by the Secretary;

(ii) meet minimum levels set by the Secretary for the capture of carbon dioxide from dilute media; and

(iii) demonstrate in the application of the project for a prize—

(I) a design for a promising carbon capture technology that will—

(aa) be operated on a demonstration scale; and

(bb) have the potential to achieve significant reduction in the level of carbon dioxide in the atmosphere;

(II) a successful bench-scale demonstration of a carbon capture technology; or

(III) an operational carbon capture technology on a commercial scale.

(B) COMMERCIAL DIRECT AIR CAPTURE PROJECTS.—

(i) IN GENERAL.—With respect to projects described in paragraph (2)(B), the Secretary shall award prizes under the prize competition to qualified direct air capture facilities for metric tons of qualified carbon dioxide captured and verified at the point of disposal, injection, or utilization.

(ii) AMOUNT OF AWARD.—The amount of the award per metric ton under clause (i)—

(I) shall be equal for each qualified direct air capture facility selected for a prize under the prize competition; and

(II) shall be determined by the Secretary and in any case shall not exceed—

(aa) \$180 for qualified carbon dioxide captured and stored in saline storage formations;

(bb) a lesser amount, as determined by the Secretary, for qualified carbon dioxide captured and stored in conjunction with enhanced oil recovery operations; or

(cc) a lesser amount, as determined by the Secretary, for qualified carbon dioxide captured and utilized in any activity consistent with section 45Q(f)(5) of the Internal Revenue Code of 1986.

(iii) REQUIREMENT.—The Secretary shall make awards under this subparagraph until appropriated funds are expended.

(f) DIRECT AIR CAPTURE TEST CENTER.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of the Energy Act of 2020, the Secretary shall award grants to 1 or more entities for the operation of 1 or more test centers (referred to in this subsection as a “Center”) to provide distinct testing capabilities for innovative direct air capture and storage technologies.

(2) PURPOSE.—Each Center shall—

(A) advance research, development, demonstration, and commercial application of direct air capture and storage technologies;

(B) support large-scale pilot and demonstration projects and test direct air capture and storage technologies; and

(C) develop front-end engineering design and economic analysis.

(3) SELECTION.—

(A) IN GENERAL.—The Secretary shall select entities to receive grants under this subsection according to such criteria as the Secretary may develop.

(B) COMPETITIVE BASIS.—The Secretary shall select entities to receive grants under this subsection on a competitive basis.

(C) PRIORITY CRITERIA.—In selecting entities to receive grants under this subsection, the Secretary shall prioritize consideration of applicants that—

(i) have access to existing or planned research facilities for direct air capture and storage technologies;

(ii) are institutions of higher education with established expertise in engineering for direct air capture and storage technologies, or partnerships with such institutions of higher education; or

(iii) have access to existing research and test facilities for bulk materials design and testing, compo-

nent design and testing, or professional engineering design.

(4) FORMULA FOR AWARDING GRANTS.—The Secretary may develop a formula for awarding grants under this subsection.

(5) SCHEDULE.—

(A) IN GENERAL.—Each grant awarded under this subsection shall be for a term of not more than 5 years, subject to the availability of appropriations.

(B) RENEWAL.—The Secretary may renew a grant for 1 or more additional 5-year terms, subject to a competitive merit review and the availability of appropriations.

(6) TERMINATION.—To the extent otherwise authorized by law, the Secretary may eliminate, and terminate grant funding under this subsection for, a Center during any 5-year term described in paragraph (5) if the Secretary determines that the Center is underperforming.

(g) PILOT AND DEMONSTRATION PROJECTS.—In supporting the technology development activities under this section, the Secretary is encouraged to support carbon removal pilot and demonstration projects, including—

(1) pilot projects that test direct air capture systems capable of capturing 10 to 100 tonnes of carbon oxides per year to provide data for demonstration-scale projects; and

(2) direct air capture demonstration projects capable of capturing greater than 1,000 tonnes of carbon oxides per year.

(h) INTRAAGENCY COLLABORATION.—In carrying out the program, the Secretary shall encourage and promote collaborations among relevant offices and agencies within the Department.

(i) ACCOUNTING.—The Secretary shall collaborate with the Administrator of the Environmental Protection Agency and the heads of other relevant Federal agencies to develop and improve accounting frameworks and tools to accurately measure carbon removal and sequestration methods and technologies.

(j) REGIONAL DIRECT AIR CAPTURE HUBS.—

(1) DEFINITIONS.—In this subsection:

(A) ELIGIBLE PROJECT.—The term “eligible project” means a direct air capture project or a component project of a regional direct air capture hub.

(B) REGIONAL DIRECT AIR CAPTURE HUB.—The term “regional direct air capture hub” means a network of direct air capture projects, potential carbon dioxide utilization off-takers, connective carbon dioxide transport infrastructure, subsurface resources, and sequestration infrastructure located within a region.

(2) ESTABLISHMENT OF PROGRAM.—

(A) IN GENERAL.—The Secretary shall establish a program under which the Secretary shall provide funding for eligible projects that contribute to the development of 4 regional direct air capture hubs described in subparagraph (B).

(B) REGIONAL DIRECT AIR CAPTURE HUBS.—Each of the 4 regional direct air capture hubs developed under the program under subparagraph (A) shall be a regional direct air capture hub that—

(i) facilitates the deployment of direct air capture projects;

(ii) has the capacity to capture and sequester, utilize, or sequester and utilize at least 1,000,000 metric tons of carbon dioxide from the atmosphere annually from a single unit or multiple interconnected units;

(iii) demonstrates the capture, processing, delivery, and sequestration or end-use of captured carbon; and

(iv) could be developed into a regional or inter-regional carbon network to facilitate sequestration or carbon utilization.

(3) SELECTION OF PROJECTS.—

(A) SOLICITATION OF PROPOSALS.—

(i) IN GENERAL.—Not later than 180 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall solicit applications for funding for eligible projects.

(ii) ADDITIONAL SOLICITATIONS.—The Secretary shall solicit applications for funding for eligible projects on a recurring basis after the first round of applications is received under clause (i) until all amounts appropriated to carry out this subsection are expended.

(B) SELECTION OF PROJECTS FOR THE DEVELOPMENT OF REGIONAL DIRECT AIR CAPTURE HUBS.—Not later than 3 years after the date of the deadline for the submission of proposals under subparagraph (A)(i), the Secretary shall select eligible projects described in paragraph (2)(A).

(C) CRITERIA.—The Secretary shall select eligible projects under subparagraph (B) using the following criteria:

(i) CARBON INTENSITY OF LOCAL INDUSTRY.—To the maximum extent practicable, each eligible project shall be located in a region with—

(I) existing carbon-intensive fuel production or industrial capacity; or

(II) carbon-intensive fuel production or industrial capacity that has retired or closed in the preceding 10 years.

(ii) GEOGRAPHIC DIVERSITY.—To the maximum extent practicable, eligible projects shall contribute to the development of regional direct air capture hubs located in different regions of the United States.

(iii) CARBON POTENTIAL.—To the maximum extent practicable, eligible projects shall contribute to the development of regional direct air capture hubs located in regions with high potential for carbon sequestration or utilization.

(iv) HUBS IN FOSSIL-PRODUCING REGIONS.—To the maximum extent practicable, eligible projects shall contribute to the development of at least 2 regional direct air capture hubs located in economically distressed communities in the regions of the United

States with high levels of coal, oil, or natural gas resources.

(v) SCALABILITY.—The Secretary shall give priority to eligible projects that, as compared to other eligible projects, will contribute to the development of regional direct air capture hubs with larger initial capacity, greater potential for expansion, and lower levelized cost per ton of carbon dioxide removed from the atmosphere.

(vi) EMPLOYMENT.—The Secretary shall give priority to eligible projects that are likely to create opportunities for skilled training and long-term employment to the greatest number of residents of the region.

(vii) ADDITIONAL CRITERIA.—The Secretary may take into consideration other criteria that, in the judgment of the Secretary, are necessary or appropriate to carry out this subsection.

(D) COORDINATION.—To the maximum extent practicable, in carrying out the program under this subsection, the Secretary shall take into account and coordinate with activities of the carbon capture technology program established under section 962(b)(1), the carbon storage validation and testing program established under section 963(b)(1), and the CIFIA program established under section 999B(a) such that funding from each of the programs is leveraged to contribute toward the development of integrated regional and interregional carbon capture, removal, transport, sequestration, and utilization networks.

(E) FUNDING OF ELIGIBLE PROJECTS.—The Secretary may make grants to, or enter into cooperative agreements or contracts with, each eligible project selected under subparagraph (B) to accelerate commercialization of, and demonstrate the removal, processing, transport, sequestration, and utilization of, carbon dioxide captured from the atmosphere.

(4) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this subsection \$3,500,000,000 for the period of fiscal years 2022 through 2026, to remain available until expended.

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

(1) \$175,000,000 for fiscal year 2021, of which—

(A) \$15,000,000 shall be used to carry out subsection

(e)(2)(A), to remain available until expended; and

(B) \$100,000,000 shall be used to carry out subsection

(e)(2)(B), to remain available until expended;

(2) \$63,500,000 for fiscal year 2022;

(3) \$66,150,000 for fiscal year 2023;

(4) \$69,458,000 for fiscal year 2024; and

(5) \$72,930,000 for fiscal year 2025.

Subtitle G—Science

SEC. 971. [42 U.S.C. 16311] SCIENCE.

(a) IN GENERAL.—The Secretary shall conduct, through the Office of Science, programs of research, development, demonstration, and commercial application in high energy physics, nuclear physics, biological and environmental research, basic energy sciences, advanced scientific computing research, and fusion energy sciences, including activities described in this subtitle. The programs shall include support for facilities and infrastructure, education, outreach, information, analysis, and coordination activities.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out research, development, demonstration, and commercial application activities of the Office of Science, including activities authorized under this subtitle (including the amounts authorized under the amendment made by section 976(b) and including basic energy sciences, advanced scientific and computing research, biological and environmental research, fusion energy sciences, high energy physics, nuclear physics, research analysis, and infrastructure support)—

- (1) \$4,153,000,000 for fiscal year 2007;
- (2) \$4,586,000,000 for fiscal year 2008;
- (3) \$5,200,000,000 for fiscal year 2009;
- (4) \$5,814,000,000 for fiscal year 2010;
- (5) \$5,247,000,000 for fiscal year 2011;
- (6) \$5,614,000,000 for fiscal year 2012; and
- (7) \$6,007,000,000 for fiscal year 2013.

(c) ALLOCATIONS.—From amounts authorized under subsection (b), the following sums are authorized:

(1) For activities under the Fusion Energy Sciences program (including activities under section 972)—

- (A) \$355,500,000 for fiscal year 2007;
- (B) \$369,500,000 for fiscal year 2008;
- (C) \$384,800,000 for fiscal year 2009; and

(D) in addition to the amounts authorized under subparagraphs (A), (B), and (C), such sums as may be necessary for ITER construction, consistent with the limitations of section 972(c)(5).

(2) For activities under the catalysis research program under section 973—

- (A) \$36,500,000 for fiscal year 2007;
- (B) \$38,200,000 for fiscal year 2008; and

(C) such sums as may be necessary for fiscal year 2009.

(3) For activities under the Systems Biology Program under section 977 such sums as may be necessary for each of fiscal years 2007 through 2009.

(4) For activities under the Energy and Water Supplies program under section 979, \$30,000,000 for each of fiscal years 2007 through 2009.

(5) For the energy research fellowships programs under section 984, \$40,000,000 for each of fiscal years 2007 through 2009.

(6) For the advanced scientific computing activities under section 976—

- (A) \$270,000,000 for fiscal year 2007;
- (B) \$350,000,000 for fiscal year 2008; and
- (C) \$375,000,000 for fiscal year 2009.

(7) For the science and engineering education pilot program under section 983—

- (A) \$4,000,000 for each of fiscal years 2007 and 2008; and
- (B) \$8,000,000 for fiscal year 2009.

(d) **INTEGRATED BIOENERGY RESEARCH AND DEVELOPMENT.**—In addition to amounts otherwise authorized by this section, there are authorized to be appropriated to the Secretary for integrated bioenergy research and development programs, projects, and activities, \$49,000,000 for each of the fiscal years 2005 through 2009. Activities funded under this subsection shall be coordinated with ongoing related programs of other Federal agencies, including the Plant Genome Program of the National Science Foundation. Of the funds authorized under this subsection, at least \$5,000,000 for each fiscal year shall be for training and education targeted to minority and socially disadvantaged farmers and ranchers.

SEC. 972. [42 U.S.C. 16312] FUSION ENERGY SCIENCES PROGRAM.

(a) **DECLARATION OF POLICY.**—It shall be the policy of the United States to conduct research, development, demonstration, and commercial applications to provide for the scientific, engineering, and commercial infrastructure necessary to ensure that the United States is competitive with other countries in providing fusion energy for its own needs and the needs of other countries, including by demonstrating electric power or hydrogen production for the United States energy grid using fusion energy at the earliest date.

(b) **PLANNING.**—

(1) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a plan (with proposed cost estimates, budgets, and lists of potential international partners) for the implementation of the policy described in subsection (a) in a manner that ensures that—

(A) existing fusion research facilities are more fully used;

(B) fusion science, technology, theory, advanced computation, modeling, and simulation are strengthened;

(C) new magnetic and inertial fusion research and development facilities are selected based on scientific innovation and cost effectiveness, and the potential of the facilities to advance the goal of practical fusion energy at the earliest date practicable;

(D) facilities that are selected are funded at a cost-effective rate;

(E) communication of scientific results and methods between the fusion energy science community and the broader scientific and technology communities is improved;

(F) inertial confinement fusion facilities are used to the extent practicable for the purpose of inertial fusion energy research and development;

(G) attractive alternative inertial and magnetic fusion energy approaches are more fully explored; and

(H) to the extent practicable, the recommendations of the Fusion Energy Sciences Advisory Committee in the report on workforce planning, dated March 2004, are carried out, including periodic reassessment of program needs.

(2) COSTS AND SCHEDULES.—The plan shall also address the status of and, to the extent practicable, costs and schedules for—

(A) the design and implementation of international or national facilities for the testing of fusion materials; and

(B) the design and implementation of international or national facilities for the testing and development of key fusion technologies.

(c) UNITED STATES PARTICIPATION IN ITER.—

(1) IN GENERAL.—There is authorized United States participation in the construction and operations of the ITER project, as agreed to under the April 25, 2007 “Agreement on the Establishment of the ITER International Fusion Energy Organization for the Joint Implementation of the ITER Project”. The Director shall coordinate and carry out the responsibilities of the United States with respect to this Agreement.

(2) REPORT.—Not later than 1 year after the date of enactment of this section, the Secretary shall submit to Congress a report providing an assessment of the most recent schedule for ITER that has been approved by the ITER Council.

(3) AUTHORIZATION OF APPROPRIATIONS.—Out of funds authorized to be appropriated under section 307(o) of the Department of Energy Research and Innovation Act (42 U.S.C. 18645), there shall be made available to the Secretary to carry out the construction of ITER—

(A) \$374,000,000 for fiscal year 2021;

(B) \$379,700,000 for fiscal year 2023;

(C) \$419,250,000 for fiscal year 2024;

(D) \$415,000,000 for fiscal year 2025;

(E) \$370,500,000 for fiscal year 2026; and

(F) \$411,078,000 for fiscal year 2027.

SEC. 973. [42 U.S.C. 16313] SOLAR FUELS RESEARCH INITIATIVE.

(a) INITIATIVE.—

(1) IN GENERAL.—The Secretary shall carry out a research initiative, to be known as the “Solar Fuels Research Initiative” (referred to in this section as the “Initiative”) to expand theoretical and fundamental knowledge of photochemistry, electrochemistry, biochemistry, and materials science useful for the practical development of experimental systems to convert solar energy to chemical energy.

(2) LEVERAGING.—In carrying out programs and activities under the Initiative, the Secretary shall leverage expertise and resources from—

(A) the Basic Energy Sciences Program and the Biological and Environmental Research Program of the Office of Science; and

(B) the Office of Energy Efficiency and Renewable Energy.

(3) TEAMS.—

(A) IN GENERAL.—In carrying out the Initiative, the Secretary shall organize activities among multidisciplinary teams to leverage, to the maximum extent practicable, expertise from the National Laboratories, institutions of higher education, and the private sector.

(B) GOALS.—The multidisciplinary teams described in subparagraph (A) shall pursue aggressive, milestone-driven, basic research goals.

(C) RESOURCES.—The Secretary shall provide sufficient resources to the multidisciplinary teams described in subparagraph (A) to achieve the goals described in subparagraph (B) over a period of time to be determined by the Secretary.

(4) ADDITIONAL ACTIVITIES.—The Secretary may organize additional activities under this subsection through Energy Frontier Research Centers, Energy Innovation Hubs, or other organizational structures.

(b) ARTIFICIAL PHOTOSYNTHESIS.—

(1) IN GENERAL.—The Secretary shall carry out under the Initiative a program to support research needed to bridge scientific barriers to, and discover knowledge relevant to, artificial photosynthetic systems.

(2) ACTIVITIES.—As part of the program described in paragraph (1)—

(A) the Director of the Office of Basic Energy Sciences shall support basic research to pursue distinct lines of scientific inquiry, including—

(i) photoinduced production of hydrogen and oxygen from water; and

(ii) the sustainable photoinduced reduction of carbon dioxide to fuel products including hydrocarbons, alcohols, carbon monoxide, and natural gas; and

(B) the Assistant Secretary for Energy Efficiency and Renewable Energy shall support translational research, development, and validation of physical concepts developed under the program.

(3) STANDARD OF REVIEW.—The Secretary shall review activities carried out under the program described in paragraph (1) to determine the achievement of technical milestones.

(4) FUNDS.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under this subsection \$50,000,000 for each of fiscal years 2023 through 2027.

(c) BIOCHEMISTRY, REPLICATION OF NATURAL PHOTOSYNTHESIS, AND RELATED PROCESSES.—

(1) IN GENERAL.—The Secretary shall carry out under the Initiative a program to support research needed to replicate

natural photosynthetic processes by use of artificial photosynthetic components and materials.

(2) ACTIVITIES.—As part of the program described in paragraph (1)—

(A) the Director of the Office of Basic Energy Sciences shall support basic research to expand fundamental knowledge to replicate natural synthesis processes, including—

(i) the photoinduced reduction of dinitrogen to ammonia;

(ii) the absorption of carbon dioxide from ambient air;

(iii) molecular-based charge separation and storage;

(iv) photoinitiated electron transfer; and

(v) catalysis in biological or biomimetic systems;

(B) the Associate Director of Biological and Environmental Research shall support systems biology and genomics approaches to understand genetic and physiological pathways connected to photosynthetic mechanisms; and

(C) the Assistant Secretary for Energy Efficiency and Renewable Energy shall support translational research, development, and validation of physical concepts developed under the program.

(3) STANDARD OF REVIEW.—The Secretary shall review activities carried out under the program described in paragraph (1) to determine the achievement of technical milestones.

(4) FUNDS.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under this subsection \$50,000,000 for each of fiscal years 2023 through 2027.

SEC. 974. [42 U.S.C. 16314] HYDROGEN.

(a) IN GENERAL.—The Secretary shall conduct a program of fundamental research and development in support of programs authorized under title VIII.

(b) METHODS.—The program shall include support for methods of generating hydrogen without the use of natural gas.

SEC. 975. [42 U.S.C. 16315] ELECTRICITY STORAGE RESEARCH INITIATIVE.

(a) INITIATIVE.—

(1) IN GENERAL.—The Secretary shall carry out a research initiative, to be known as the “Electricity Storage Research Initiative” (referred to in this section as the “Initiative”)—

(A) to expand theoretical and fundamental knowledge to control, store, and convert—

(i) electrical energy to chemical energy; and

(ii) chemical energy to electrical energy;

(B) to support scientific inquiry into the practical understanding of chemical and physical processes that occur within systems involving crystalline and amorphous solids, polymers, and organic and aqueous liquids; and

(C) to ensure the competitiveness of the United States in energy storage by fostering an ecosystem linking fundamental research and development to deployment of storage solutions while minimizing the environmental impacts of energy storage technologies.

(2) **LEVERAGING.**—In carrying out programs and activities under the Initiative, the Secretary shall leverage expertise and resources from—

(A) the Basic Energy Sciences Program, the Advanced Scientific Computing Research Program, and the Biological and Environmental Research Program of the Office of Science;

(B) the Office of Energy Efficiency and Renewable Energy; and

(C) any other relevant office of the Department.

(3) **TEAMS.**—

(A) **IN GENERAL.**—In carrying out the Initiative, the Secretary shall organize activities among multidisciplinary teams to leverage, to the maximum extent practicable, expertise from the National Laboratories, institutions of higher education, and the private sector.

(B) **GOALS.**—The multidisciplinary teams described in subparagraph (A) shall pursue aggressive, milestone-driven, basic research goals.

(C) **RESOURCES.**—The Secretary shall provide sufficient resources to the multidisciplinary teams described in subparagraph (A) to achieve the goals described in subparagraph (B) over a period of time to be determined by the Secretary.

(4) **ADDITIONAL ACTIVITIES.**—The Secretary may organize additional activities under this subsection through Energy Frontier Research Centers, Energy Innovation Hubs, or other organizational structures.

(b) **MULTIVALENT SYSTEMS.**—

(1) **IN GENERAL.**—The Secretary shall carry out under the Initiative a program to support research needed to bridge scientific barriers to, and discover knowledge relevant to, multivalent ion materials in electric energy storage systems.

(2) **ACTIVITIES.**—As part of the program described in paragraph (1)—

(A) the Director of the Office of Basic Energy Sciences shall investigate electrochemical properties and the dynamics of materials, including charge transfer phenomena and mass transport in materials; and

(B) the Assistant Secretary for Energy Efficiency and Renewable Energy shall support translational research, development, and validation of physical concepts developed under the program.

(3) **STANDARD OF REVIEW.**—The Secretary shall review activities carried out under the program described in paragraph (1) to determine the achievement of technical milestones.

(4) **FUNDING.**—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities

under this subsection \$50,000,000 for each of fiscal years 2023 through 2027.

(c) ELECTROCHEMISTRY MODELING AND SIMULATION.—

(1) IN GENERAL.—The Secretary shall carry out under the Initiative a program to support research to model and simulate organic electrolytes, including the static and dynamic electrochemical behavior and phenomena of organic electrolytes at the molecular and atomic level in monovalent and multivalent systems.

(2) ACTIVITIES.—As part of the program described in paragraph (1)—

(A) the Director of the Office of Basic Energy Sciences, in coordination with the Associate Director of Advanced Scientific Computing Research, shall support the development of high performance computational tools through a joint development process to maximize the effectiveness of current and projected high performance computing systems; and

(B) the Assistant Secretary for Energy Efficiency and Renewable Energy shall support translational research, development, and validation of physical concepts developed under the program.

(3) STANDARD OF REVIEW.—The Secretary shall review activities carried out under the program described in paragraph (1) to determine the achievement of technical milestones.

(4) FUNDING.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under this subsection \$50,000,000 for each of fiscal years 2023 through 2027.

(d) MESOSCALE ELECTROCHEMISTRY.—

(1) IN GENERAL.—The Secretary shall carry out under the Initiative a program to support research needed to reveal electrochemistry in confined mesoscale spaces, including scientific discoveries relevant to—

(A) bio-electrochemistry and electrochemical energy conversion and storage in confined spaces; and

(B) the dynamics of the phenomena described in subparagraph (A).

(2) ACTIVITIES.—As part of the program described in paragraph (1)—

(A) the Director of the Office of Basic Energy Sciences and the Associate Director of Biological and Environmental Research shall investigate phenomena of mesoscale electrochemical confinement for the purpose of replicating and controlling new electrochemical behavior; and

(B) the Assistant Secretary for Energy Efficiency and Renewable Energy shall support translational research, development, and validation of physical concepts developed under the program.

(3) STANDARD OF REVIEW.—The Secretary shall review activities carried out under the program described in paragraph (1) to determine the achievement of technical milestones.

(4) FUNDING.—Of the funds authorized to be appropriated for basic energy sciences in a fiscal year, there is authorized to be appropriated to the Secretary to carry out activities under this subsection \$20,000,000 for each of fiscal years 2023 through 2027.

SEC. 976. [42 U.S.C. 16316] ADVANCED SCIENTIFIC COMPUTING FOR ENERGY MISSIONS.

(a) PROGRAM.—

(1) IN GENERAL.—The Secretary shall conduct an advanced scientific computing research and development program that includes activities related to applied mathematics and activities authorized by the American Super Computing Leadership Act of 2017 (15 U.S.C. 5541 et seq.).

(2) GOAL.—The Secretary shall carry out the program with the goal of supporting departmental missions, and providing the high-performance computational, networking, advanced visualization technologies, and workforce resources, that are required for world leadership in science.

(b) HIGH-PERFORMANCE COMPUTING.—Section 203 of the High-Performance Computing Act of 1991 (15 U.S.C. 5523) is amended to read as follows:

“SEC. 203. DEPARTMENT OF ENERGY ACTIVITIES.

“(a) GENERAL RESPONSIBILITIES.—As part of the Program described in title I, the Secretary of Energy shall—

“(1) conduct and support basic and applied research in high-performance computing and networking to support fundamental research in science and engineering disciplines related to energy applications; and

“(2) provide computing and networking infrastructure support, including—

“(A) the provision of high-performance computing systems that are among the most advanced in the world in terms of performance in solving scientific and engineering problems; and

“(B) support for advanced software and applications development for science and engineering disciplines related to energy applications.

“(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy such sums as are necessary to carry out this section.”.

SEC. 977. [42 U.S.C. 16317] SYSTEMS BIOLOGY PROGRAM.

(a) PROGRAM.—

(1) ESTABLISHMENT.—The Secretary shall establish a research, development, and demonstration program in microbial and plant systems biology, protein science, computational biology, and environmental science to support the energy, national security, and environmental missions of the Department.

(2) GRANTS.—The program shall support individual researchers and multidisciplinary teams of researchers through competitive, merit-reviewed grants.

(3) CONSULTATION.—In carrying out the program, the Secretary shall consult with other Federal agencies that conduct genetic and protein research.

(b) GOALS.—The program shall have the goal of developing technologies and methods based on the biological functions of genomes, microbes, and plants that—

(1) can facilitate the production of fuels, including hydrogen in sustainable production systems that reduce greenhouse gas emissions;

(2) convert carbon dioxide to organic carbon;

(3) detoxify soils and water, including at facilities of the Department, contaminated with heavy metals and radiological materials;

(4) develop cellulosic and other feedstocks that are less resource and land intensive and that promote sustainable use of resources, including soil, water, energy, forests, and land, and ensure protection of air, water, and soil quality; and

(5) address other Department missions as identified by the Secretary.

(c) PLAN.—

(1) DEVELOPMENT OF PLAN.—Not later than 1 year after the date of enactment of this Act, the Secretary shall prepare and transmit to Congress a research plan describing how the program authorized pursuant to this section will be undertaken to accomplish the program goals established in subsection (b).

(2) REVIEW OF PLAN.—The Secretary shall contract with the National Academy of Sciences to review the research plan developed under this subsection. The Secretary shall transmit the review to Congress not later than 18 months after transmittal of the research plan under paragraph (1), along with the Secretary's response to the recommendations contained in the review.

(d) USER FACILITIES AND ANCILLARY EQUIPMENT.—Within the funds authorized to be appropriated pursuant to this subtitle, amounts shall be available for projects to develop, plan, construct, acquire, or operate special equipment, instrumentation, or facilities, including user facilities at National Laboratories, for researchers conducting research, development, demonstration, and commercial application in systems biology and proteomics and associated biological disciplines.

(e) PROHIBITION ON BIOMEDICAL AND HUMAN CELL AND HUMAN SUBJECT RESEARCH.—

(1) NO BIOMEDICAL RESEARCH.—In carrying out the program under this section, the Secretary shall not conduct biomedical research.

(2) LIMITATIONS.—Nothing in this section shall authorize the Secretary to conduct any research or demonstrations—

(A) on human cells or human subjects; or

(B) designed to have direct application with respect to human cells or human subjects.

(f) BIOENERGY RESEARCH CENTERS.—

(1) IN GENERAL.—In carrying out the program under section 306(a) of the Department of Energy Research and Innovation Act (42 U.S.C. 18644(a)), the Director shall support up to 6 bioenergy research centers to conduct fundamental research in plant and microbial systems biology, biological imaging and

analysis, and genomics, and to accelerate advanced research and development of advanced biofuels, bioenergy or biobased materials, chemicals, and products that are produced from a variety of regionally diverse feedstocks, and to facilitate the translation of research results to industry. The activities of the centers authorized under this subsection may include—

(A) accelerating the domestication of bioenergy-relevant plants, microbes, and associated microbial communities to enable high-impact, value-added coproduct development at multiple points in the bioenergy supply chain;

(B) developing the science and technological advances to ensure process sustainability is considered in the creation of advanced biofuels and bioproducts from lignocellulosic biomass; and

(C) using the latest tools in genomics, molecular biology, catalysis science, chemical engineering, systems biology, and computational and robotics technologies to sustainably produce and transform biomass into advanced biofuels and bioproducts.

(2) SELECTION AND DURATION.—

(A) IN GENERAL.—A center established under paragraph (1) shall be selected on a competitive, merit-reviewed basis for a period of not more than 5 years, subject to the availability of appropriations, beginning on the date of establishment of that center.

(B) APPLICATIONS.—The Director shall consider applications from National Laboratories, multi-institutional collaborations, and other appropriate entities.

(C) EXISTING CENTERS.—A center already in existence on the date of enactment of the Research and Development, Competition, and Innovation Act may continue to receive support for a period of not more than 5 years beginning on the date of establishment of that center.

(D) NEW CENTERS.—The Director shall select any new center pursuant to paragraph (1) on a competitive, merit-reviewed basis, with special consideration for applications from an institution of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)) that is located in an eligible jurisdiction (as defined in section 2203(b)(3)(A) of the Energy Policy Act of 1992 (42 U.S.C. 13503(b)(3)(A))).

(3) RENEWAL.—After the end of the applicable period described in paragraph (2), the Director may renew support for a center for a period of not more than 5 years on a merit-reviewed basis. For a center in operation for 10 years after its previous selection on a competitive, merit-reviewed basis, the Director may renew support for the center on a competitive, merit-reviewed basis for a period of not more than 5 years, and may subsequently provide an additional renewal on a merit-reviewed basis for a period of not more than 5 years.

(4) ACTIVITIES.—Centers shall undertake research activities to accelerate the production of advanced biofuels and bioproducts from biomass resources by identifying the most suitable species of plants for use as energy crops; and improving

methods of breeding, propagation, planting, producing, harvesting, storage and processing. Activities may include the following:

(A) Research activities to increase sustainability, including—

(i) advancing knowledge of how bioenergy crop interactions with biotic and abiotic environmental factors influence crop growth, yield, and quality;

(ii) identifying the most impactful research areas that address the economics of advanced biofuels and bioproducts production; and

(iii) utilizing multiscale modeling to advance predictive understanding of advanced biofuel cropping ecosystems.

(B) Research activities to further feedstock development, including lignocellulosic, algal, gaseous wastes including carbon oxides and methane, and direct air capture of single carbon gases via plants and microbes, including—

(i) developing genetic and genomic tools, high-throughput analytical tools, and biosystems design approaches to enhance bioenergy feedstocks and their associated microbiomes;

(ii) conducting field testing of new potential bioenergy feedstock crops under environmentally benign and geographically diverse conditions to assess viability and robustness; and

(iii) developing quantitative models informed by experimentation to predict how bioenergy feedstocks perform under diverse conditions.

(C) Research activities to improve lignocellulosic deconstruction and separation methods, including—

(i) developing feedstock-agnostic deconstruction processes capable of efficiently fractionating biomass into targeted output streams;

(ii) gaining a detailed understanding of plant cell wall biosynthesis, composition, structure, and properties during deconstruction; and

(iii) improving enzymes and approaches for biomass breakdown and cellulose, hemicellulose, and lignin processing.

(D) Research activities to improve the feedstock conversion process for advanced biofuels and bioproducts, including—

(i) developing high-throughput methods to screen or select high-performance microbial strains and communities to improve product formation rates, yields, and selectivity;

(ii) establishing a broad set of platform microorganisms and microbial communities suitable for metabolic engineering to produce advanced biofuels and bioproducts and high-throughput methods for experimental validation of gene function;

(iii) developing techniques to enhance microbial robustness for tolerating toxins to improve advanced

biofuel and bioproduct yields and to gain a better understanding of the cellular and molecular bases of tolerance for major chemical classes of inhibitors found in these processes;

(iv) advancing technologies for the use of batch, continuous, and consolidated bioprocessing;

(v) identifying, creating, and optimizing microbial and chemical pathways to produce promising, atom-economical intermediates and final bioproducts from biomass with considerations given to environmentally benign processes;

(vi) developing high-throughput, real-time, in situ analytical techniques to understand and characterize the pre- and post-bioproduct separation streams in detail;

(vii) creating methodologies for efficiently identifying viable target molecules, identifying high-value bioproducts in existing biomass streams, and utilizing current byproduct streams;

(viii) identifying and improving plant feedstocks with enhanced extractable levels of desired bioproducts or bioproduct precursors, including lignin streams; and

(ix) developing integrated biological and chemical catalytic approaches to valorize and produce a diverse portfolio of advanced biofuels and bioproducts.

(5) **INDUSTRY PARTNERSHIPS.**—Centers shall establish industry partnerships to translate research results to commercial applications.

(6) **COORDINATION.**—In coordination with the Bioenergy Technologies Office of the Department, the Secretary shall support interdisciplinary research activities to improve the capacity, efficiency, resilience, security, reliability, and affordability, of the production and use of advanced biofuels and bioproducts, as well as activities to enable positive impacts and avoid the potential negative impacts that the production and use of advanced biofuels and bioproducts may have on ecosystems, people, and historically marginalized communities.

(7) **FUNDING.**—Of the funds authorized to be appropriated under subsection (k) of section 306 of the Department of Energy Research and Innovation Act (42 U.S.C. 18644) for a fiscal year, there is authorized to be appropriated to the Secretary to carry out this subsection \$30,000,000 per center established under paragraph (1) for each of fiscal years 2023 through 2027.

(8) **DEFINITIONS.**—In this subsection:

(A) **ADVANCED BIOFUEL.**—The term “advanced biofuel” has the meaning given the term in section 9001 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101).

(B) **BIOENERGY.**—The term “bioenergy” means energy derived from biofuels.

(C) **BIOMASS.**—The term “biomass” has the meaning given the term in section 203(b) of the Energy Policy Act of 2005 (42 U.S.C. 15852(b)).

(D) BIOPRODUCT.—The term “bioproduct” has the meaning given the term “biobased product” in section 9001 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101).

SEC. 978. [42 U.S.C. 16318] FISSION AND FUSION ENERGY MATERIALS RESEARCH PROGRAM.

(a) IN GENERAL.—Along with the budget request of the President submitted to Congress for fiscal year 2007, the Secretary shall establish a research and development program on material science issues presented by advanced fission reactors and the fusion energy program of the Department.

(b) ADMINISTRATION.—In carrying out the program, the Secretary shall develop—

- (1) a catalog of material properties required for applications described in subsection (a);
- (2) theoretical models for materials possessing the required properties;
- (3) benchmark models against existing data; and
- (4) a roadmap to guide further research and development in the area covered by the program.

SEC. 979. [42 U.S.C. 16319] ENERGY AND WATER SUPPLIES.

(a) IN GENERAL.—The Secretary shall carry out a program of research, development, demonstration, and commercial application to—

- (1) address energy-related issues associated with provision of adequate water supplies, optimal management, and efficient use of water;
- (2) address water-related issues associated with the provision of adequate supplies, optimal management, and efficient use of energy; and
- (3) assess the effectiveness of existing programs within the Department and other Federal agencies to address these energy and water related issues.

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

- (1) arsenic treatment;
- (2) desalination; and
- (3) planning, analysis, and modeling of energy and water supply and demand.

(c) COLLABORATION.—In carrying out this section, the Secretary shall consult with the Administrator of the Environmental Protection Agency, the Secretary of the Interior, the Chief Engineer of the Army Corps of Engineers, the Secretary of Commerce, the Secretary of Defense, and other Federal agencies as appropriate.

(d) FACILITIES.—The Secretary may utilize all existing facilities within the Department and may design and construct additional facilities as needed to carry out the purposes of this program.

(e) ADVISORY COMMITTEE.—The Secretary shall establish or utilize an advisory committee to provide independent advice and review of the program.

(f) REPORTS.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report

on the assessment described in subsection (b) and recommendations for future actions.

SEC. 980. [42 U.S.C. 16320] SPALLATION NEUTRON SOURCE.

(a) **DEFINITIONS.**—In this section:

(1) **SING.**—The term “SING” means the Spallation Neutron Source Instruments Next Generation major item of equipment.

(2) **SNS POWER UPGRADE.**—The term “SNS power upgrade” means the Spallation Neutron Source power upgrade described in the 20-year facilities plan of the Office of Science of the Department.

(3) **SNS SECOND TARGET STATION.**—The term “SNS second target station” means the Spallation Neutron Source second target station described in the 20-year facilities plan of the Office of Science of the Department.

(4) **SPALLATION NEUTRON SOURCE FACILITY.**—The terms “Spallation Neutron Source Facility” and “Facility” mean the completed Spallation Neutron Source scientific user facility located at Oak Ridge National Laboratory, Oak Ridge, Tennessee.

(5) **SPALLATION NEUTRON SOURCE PROJECT.**—The terms “Spallation Neutron Source Project” and “Project” means Department Project 99-E-334, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

(b) **SPALLATION NEUTRON SOURCE PROJECT.**—

(1) **IN GENERAL.**—The Secretary shall submit to Congress, as part of the annual budget request of the President submitted to Congress, a report on progress on the Spallation Neutron Source Project.

(2) **CONTENTS.**—The report shall include for the Project—

(A) a description of the achievement of milestones;

(B) a comparison of actual costs to estimated costs;

and

(C) any changes in estimated Project costs or schedule.

(c) **SPALLATION NEUTRON SOURCE FACILITY PLAN.**—

(1) **IN GENERAL.**—The Secretary shall develop an operational plan for the Spallation Neutron Source Facility that ensures that the Facility is employed to the full capability of the Facility in support of the study of advanced materials, nanoscience, and other missions of the Office of Science of the Department.

(2) **PLAN.**—The operational plan shall—

(A) include a plan for the operation of an effective scientific user program that—

(i) is based on peer review of proposals submitted for use of the Facility;

(ii) includes scientific and technical support to ensure that external users, including researchers based at institutions of higher education, are able to make full use of a variety of high quality scientific instruments; and

(iii) phases in systems upgrades to ensure that the Facility remains at the forefront of international sci-

entific endeavors in the field of the Facility throughout the operating life of the Facility;

(B) include an ongoing program to develop new instruments that builds on the high performance neutron source and that allows neutron scattering techniques to be applied to a growing range of scientific problems and disciplines; and

(C) address the status of and, to the maximum extent practicable, costs and schedules for—

(i) full user mode operations of the Facility;

(ii) instrumentation built at the Facility during the operating phase through full use of the experimental hall, including the SING;

(iii) the SNS power upgrade; and

(iv) the SNS second target station.

(d) AUTHORIZATION OF APPROPRIATIONS.—

(1) SPALLATION NEUTRON SOURCE PROJECT.—There is authorized to be appropriated to carry out the Spallation Neutron Source Project for the lifetime of the Project \$1,411,700,000 for total project costs, of which—

(A) \$1,192,700,000 shall be used for the costs of construction; and

(B) \$219,000,000 shall be used for other Project costs.

(2) SPALLATION NEUTRON SOURCE FACILITY.—

(A) IN GENERAL.—Except as provided in subparagraph (B), there is authorized to be appropriated for the Spallation Neutron Source Facility for—

(i) the SING, \$75,000,000 for each of fiscal year 2007 through 2009; and

(ii) the SNS power upgrade, \$160,000,000, to remain available until expended.

(B) INSUFFICIENT STOCKPILES OF HEAVY WATER.—If stockpiles of heavy water of the Department are insufficient to meet the needs of the Facility, there is authorized to be appropriated for the Facility \$12,000,000 for fiscal year 2007.

SEC. 981. [42 U.S.C. 16321] FACILITY FOR RARE ISOTOPE BEAMS.

(a) ESTABLISHMENT.—The Secretary shall construct and operate a Facility for Rare Isotope Beams. The Secretary shall commence construction no later than September 30, 2008.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this section. The Secretary shall not spend more than \$1,100,000,000 in Federal funds for all activities associated with the Facility for Rare Isotope Beams, prior to operation of the Accelerator.

SEC. 982. [42 U.S.C. 16322] OFFICE OF SCIENTIFIC AND TECHNICAL INFORMATION.

The Secretary, through the Office of Scientific and Technical Information, shall maintain within the Department publicly available collections of scientific and technical information resulting from research, development, demonstration, and commercial applications activities supported by the Department.

SEC. 983. [42 U.S.C. 16323] SCIENCE AND ENGINEERING EDUCATION PILOT PROGRAM.

(a) **ESTABLISHMENT OF PILOT PROGRAM.**—The Secretary shall award a grant to a Southeastern United States consortium of major research universities that currently advances science and education by partnering with National Laboratories, to establish a regional pilot program of its SEEK-16 program for enhancing scientific, technological, engineering, and mathematical literacy, creativity, and decision-making. The consortium shall include leading research universities, one or more universities that train substantial numbers of elementary and secondary school teachers, and (where appropriate) National Laboratories.

(b) **PROGRAM ELEMENTS.**—The regional pilot program shall include—

(1) expanding strategic, formal partnerships among universities with strength in research, universities that train substantial numbers of elementary and secondary school teachers, and the private sector;

(2) combining Department expertise with one or more National Aeronautics and Space Administration Educator Resource Centers;

(3) developing programs to permit current and future teachers to participate in ongoing research projects at National Laboratories and research universities and to adapt lessons learned to the classroom;

(4) designing and implementing course work;

(5) designing and implementing a strategy for measuring and assessing progress under the program; and

(6) developing models for transferring knowledge gained under the pilot program to other institutions and areas of the United States.

(c) **CATEGORIZATION.**—A grant under this section shall be considered an authorized activity under section 3165 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381b).

SEC. 984. [42 U.S.C. 16324] ENERGY RESEARCH FELLOWSHIPS.

(a) **POSTDOCTORAL FELLOWSHIP PROGRAM.**—The Secretary shall establish a program under which the Secretary provides fellowships to encourage outstanding young scientists and engineers to pursue postdoctoral research appointments in energy research and development at institutions of higher education of their choice.

(b) **SENIOR RESEARCH FELLOWSHIPS.**—

(1) **IN GENERAL.**—The Secretary shall establish a program under which the Secretary provides fellowships to allow outstanding senior researchers and their research groups in energy research and development to explore research and development topics of their choosing for a period of not less than 3 years, to be determined by the Secretary.

(2) **CONSIDERATION.**—In providing a fellowship under the program described in paragraph (1), the Secretary shall consider—

(A) the past scientific or technical accomplishment of a senior researcher; and

(B) the potential for continued accomplishment by the researcher during the period of the fellowship.

SEC. 984A. [42 U.S.C. 16325] SCIENCE AND TECHNOLOGY SCHOLARSHIP PROGRAM.

(a) **IN GENERAL.**—The Secretary is authorized to establish a Science and Technology Scholarship Program to award scholarships to individuals that is designed to recruit and prepare students for careers in the Department and National Laboratories.

(b) **SERVICE REQUIREMENT.**—The Secretary may require that an individual receiving a scholarship under this section serve as a full-time employee of the Department or a National Laboratory for a fixed period in return for receiving the scholarship.

Subtitle H—International Cooperation

SEC. 985. [42 U.S.C. 16341] WESTERN HEMISPHERE ENERGY COOPERATION.

(a) **PROGRAM.**—The Secretary shall carry out a program to promote cooperation on energy issues with countries of the Western Hemisphere.

(b) **ACTIVITIES.**—Under the program, the Secretary shall fund activities to work with countries of the Western Hemisphere to—

- (1) increase the production of energy supplies;
- (2) improve energy efficiency; and
- (3) assist in the development and transfer of energy supply and efficiency technologies that would have a beneficial impact on world energy markets.

(c) **PARTICIPATION BY INSTITUTIONS OF HIGHER EDUCATION.**—To the extent practicable, the Secretary shall carry out the program under this section with the participation of institutions of higher education so as to take advantage of the acceptance of institutions of higher education by countries of the Western Hemisphere as sources of unbiased technical and policy expertise when assisting the Secretary in—

- (1) evaluating new technologies;
- (2) resolving technical issues;
- (3) working with those countries in the development of new policies; and
- (4) training policymakers, particularly in the case of institutions of higher education that involve the participation of minority students, such as—
 - (A) Hispanic-serving institutions; and
 - (B) part B institutions.

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

- (1) \$10,000,000 for fiscal year 2007;
- (2) \$13,000,000 for fiscal year 2008; and
- (3) \$16,000,000 for fiscal year 2009.

SEC. 986. COOPERATION BETWEEN UNITED STATES AND ISRAEL.

(a) **FINDINGS.**—Congress finds that—

- (1) on February 1, 1996, the United States and Israel signed the agreement entitled “Agreement between the Department of Energy of the United States of America and the Min-

istry of Energy and Infrastructure of Israel Concerning Energy Cooperation” (referred to in this section as the “Agreement”), to establish a framework for collaboration between the United States and Israel in energy research and development activities;

(2) the Agreement entered into force in February 2000;

(3) in February 2005, the Agreement was automatically renewed for 1 additional 5-year period pursuant to Article X of the Agreement; and

(4) under the Agreement, the United States and Israel may cooperate in energy research and development in a variety of alternative and advanced energy sectors.

(b) REPORT TO CONGRESS.—Not later than 90 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources and the Committee on Foreign Relations of the Senate and the Committee on Energy and Commerce and the Committee on International Relations of the House of Representatives a report that describes—

(1) the ways in which the United States and Israel have cooperated on energy research and development activities under the Agreement;

(2) projects initiated pursuant to the Agreement; and

(3) plans for future cooperation and joint projects under the Agreement.

(c) SENSE OF CONGRESS.—It is the sense of Congress that energy cooperation between the Governments of the United States and Israel is mutually beneficial in the development of energy technology.

SEC. 986A. [42 U.S.C. 16342] INTERNATIONAL ENERGY TRAINING.

(a) IN GENERAL.—The Secretary, in consultation with the Secretary of Commerce, the Secretary of the Interior, and Secretary of State, and the Federal Energy Regulatory Commission, shall coordinate training and outreach efforts for international commercial energy markets in countries with developing and restructuring economies.

(b) COMPONENTS.—The training and outreach efforts referred to in subsection (a) may include—

(1) production-related fiscal regimes;

(2) grid and network issues;

(3) energy user and demand side response;

(4) international trade of energy; and

(5) international transportation of energy.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$1,500,000 for each of fiscal years 2007 through 2010.

Subtitle I—Research Administration and Operations

SEC. 987. [42 U.S.C. 16351] AVAILABILITY OF FUNDS.

Funds authorized to be appropriated to the Department under this Act or an amendment made by this Act shall remain available until expended.

SEC. 988. [42 U.S.C. 16352] COST SHARING.

(a) **APPLICABILITY.**—Notwithstanding any other provision of law, in carrying out a research, development, demonstration, or commercial application program or activity that is initiated after the date of enactment of this section, the Secretary shall require cost-sharing in accordance with this section.

(b) **RESEARCH AND DEVELOPMENT.**—

(1) **IN GENERAL.**—Except as provided in paragraphs (2), (3), and (4) and subsection (f), the Secretary shall require not less than 20 percent of the cost of a research or development activity described in subsection (a) to be provided by a non-Federal source.

(2) **EXCLUSION.**—Paragraph (1) shall not apply to a research or development activity described in subsection (a) that is of a basic or fundamental nature, as determined by the appropriate officer of the Department.

(3) **REDUCTION.**—The Secretary may reduce or eliminate the requirement of paragraph (1) for a research and development activity of an applied nature if the Secretary determines that the reduction is necessary and appropriate.

(4) **EXEMPTION FOR INSTITUTIONS OF HIGHER EDUCATION AND OTHER NONPROFIT INSTITUTIONS.**—

(A) **IN GENERAL.**—Paragraph (1) shall not apply to a research or development activity performed by an institution of higher education or nonprofit institution (as defined in section 4 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703)).

(B) **TERMINATION DATE.**—The exemption under subparagraph (A) shall apply during the 2-year period beginning on the date of enactment of the Research and Development, Competition, and Innovation Act.

(c) **DEMONSTRATION AND COMMERCIAL APPLICATION.**—

(1) **IN GENERAL.**—Except as provided in paragraph (2) and subsection (f), the Secretary shall require that not less than 50 percent of the cost of a demonstration or commercial application activity described in subsection (a) to be provided by a non-Federal source.

(2) **REDUCTION OF NON-FEDERAL SHARE.**—The Secretary may reduce the non-Federal share required under paragraph (1) if the Secretary determines the reduction to be necessary and appropriate, taking into consideration any technological risk relating to the activity.

(d) **CALCULATION OF AMOUNT.**—In calculating the amount of a non-Federal contribution under this section, the Secretary—

(1) may include allowable costs in accordance with the applicable cost principles, including—

- (A) cash;
 - (B) personnel costs;
 - (C) the value of a service, other resource, or third party in-kind contribution determined in accordance with the applicable circular of the Office of Management and Budget;
 - (D) indirect costs or facilities and administrative costs;
- or

(E) any funds received under the power program of the Tennessee Valley Authority (except to the extent that such funds are made available under an annual appropriation Act); and

(2) shall not include—

- (A) revenues or royalties from the prospective operation of an activity beyond the time considered in the award;
- (B) proceeds from the prospective sale of an asset of an activity; or
- (C) other appropriated Federal funds.

(e) REPAYMENT OF FEDERAL SHARE.—The Secretary shall not require repayment of the Federal share of a cost-shared activity under this section as a condition of making an award.

(f) EXCLUSIONS.—This section shall not apply to—

- (1) a cooperative research and development agreement under the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.);
- (2) a fee charged for the use of a Department facility; or
- (3) an award under—
 - (A) the small business innovation research program under section 9 of the Small Business Act (15 U.S.C. 638); or
 - (B) the small business technology transfer program under that section.

SEC. 989. [42 U.S.C. 16353] MERIT REVIEW OF PROPOSALS.

(a) AWARDS.—Awards of funds authorized under this Act or an amendment made by this Act shall be made only after an impartial review of the scientific and technical merit of the proposals for the awards has been carried out by or for the Department.

(b) COMPETITION.—Competitive awards under this Act shall involve competitions open to all qualified entities within one or more of the following categories:

- (1) Institutions of higher education.
- (2) National Laboratories.
- (3) Nonprofit and for-profit private entities.
- (4) State and local governments.
- (5) Consortia of entities described in paragraphs (1) through (4).

(c) SENSE OF CONGRESS.—It is the sense of Congress that research, development, demonstration, and commercial application activities carried out by the Department should be awarded using competitive procedures, to the maximum extent practicable.

SEC. 990. [42 U.S.C. 16354] EXTERNAL TECHNICAL REVIEW OF DEPARTMENTAL PROGRAMS.

(a) NATIONAL ENERGY RESEARCH AND DEVELOPMENT ADVISORY BOARDS.—

(1) ESTABLISHMENT.—The Secretary shall establish one or more advisory boards to review research, development, demonstration, and commercial application programs of the Department in energy efficiency, renewable energy, nuclear energy, and fossil energy.

(2) ALTERNATIVES.—The Secretary may—

(A) designate an existing advisory board within the Department to fulfill the responsibilities of an advisory board under this section; and

(B) enter into appropriate arrangements with the National Academy of Sciences to establish such an advisory board.

(b) USE OF EXISTING COMMITTEES.—The Secretary shall continue to use the scientific program advisory committees chartered under chapter 10 of title 5, United States Code, by the Office of Science to oversee research and development programs under that Office.

(c) MEMBERSHIP.—Each advisory board under this section shall consist of persons with appropriate expertise representing a diverse range of interests.

(d) MEETINGS AND GOALS.—

(1) MEETINGS.—Each advisory board under this section shall meet at least semiannually to review and advise on the progress made by the respective one or more research, development, demonstration, and commercial application programs.

(2) GOALS.—The advisory board shall review the measurable cost and performance-based goals for the programs as established under section 902, and the progress on meeting the goals.

(e) PERIODIC REVIEWS AND ASSESSMENTS.—

(1) IN GENERAL.—The Secretary shall enter into appropriate arrangements with the National Academy of Sciences to conduct periodic reviews and assessments of—

(A) the research, development, demonstration, and commercial application programs authorized by this Act and amendments made by this Act;

(B) the measurable cost and performance-based goals for the programs as established under section 902, if any; and

(C) the progress on meeting the goals.

(2) TIMING.—The reviews and assessments shall be conducted every 5 years or more often as the Secretary considers necessary.

(3) REPORTS.—The Secretary shall submit to Congress reports describing the results of all the reviews and assessments.

SEC. 991. [42 U.S.C. 16355] NATIONAL LABORATORY DESIGNATION.

After the date of enactment of this Act, the Secretary shall not designate a facility that is not listed in section 2(3) as a National Laboratory.

SEC. 992. [42 U.S.C. 16356] REPORT ON EQUAL EMPLOYMENT OPPORTUNITY PRACTICES.

Not later than 12 months after the date of enactment of this Act, and biennially thereafter, the Secretary shall transmit to Congress a report on the equal employment opportunity practices at National Laboratories. Such report shall include—

(1) a thorough review of each National Laboratory contractor's equal employment opportunity policies, including promotion to management and professional positions and pay raises;

(2) a statistical report on complaints and their disposition in the National Laboratories;

(3) a description of how equal employment opportunity practices at the National Laboratories are treated in the contract and in calculating award fees for each contractor;

(4) a summary of disciplinary actions and their disposition by either the Department or the relevant contractors for each National Laboratory;

(5) a summary of outreach efforts to attract women and minorities to the National Laboratories;

(6) a summary of efforts to retain women and minorities in the National Laboratories; and

(7) a summary of collaboration efforts with the Office of Federal Contract Compliance Programs to improve equal employment opportunity practices at the National Laboratories.

SEC. 993. [42 U.S.C. 16357] STRATEGY FOR FACILITIES AND INFRASTRUCTURE.**(a) FACILITY AND INFRASTRUCTURE POLICY.—**

(1) **IN GENERAL.**—The Secretary shall develop and implement a strategy for facilities and infrastructure supported primarily from the Office of Science, the Office of Energy Efficiency and Renewable Energy, the Office of Fossil Energy, or the Office of Nuclear Energy, Science and Technology Programs at all National Laboratories and single-purpose research facilities.

(2) **STRATEGY.**—The strategy shall provide cost-effective means for—

(A) maintaining existing facilities and infrastructure;

(B) closing unneeded facilities;

(C) making facility modifications; and

(D) building new facilities.

(b) REPORT.—

(1) **IN GENERAL.**—The Secretary shall prepare and submit, along with the budget request of the President submitted to Congress for fiscal year 2018, a report describing the strategy developed under subsection (a).

(2) **CONTENTS.**—For each National Laboratory and single-purpose research facility that is primarily used for science and energy research, the report shall contain—

(A) the current priority list of proposed facilities and infrastructure projects, including cost and schedule requirements;

(B) a current 10-year plan that demonstrates the re-configuration of its facilities and infrastructure to meet its

missions and to address its long-term operational costs and return on investment;

(C) the total current budget for all facilities and infrastructure funding; and

(D) the current status of each facility and infrastructure project compared to the original baseline cost, schedule, and scope.

SEC. 994. [42 U.S.C. 16358] STRATEGIC RESEARCH PORTFOLIO ANALYSIS AND COORDINATION PLAN.

(a) **IN GENERAL.**—The Secretary shall periodically review all of the science and technology activities of the Department in a strategic framework that takes into account—

(1) the frontiers of science to which the Department can contribute;

(2) the national needs relevant to the statutory missions of the Department; and

(3) global energy dynamics.

(b) **COORDINATION ANALYSIS AND PLAN.**—

(1) **IN GENERAL.**—As part of the review under subsection (a), the Secretary shall develop a plan to improve coordination and collaboration in research, development, demonstration, and commercial application activities across organizational boundaries of the Department.

(2) **PLAN CONTENTS.**—The plan developed under paragraph (1) shall describe—

(A) crosscutting scientific and technical issues and research questions that span more than one program or major office of the Department;

(B) ways in which the applied technology programs of the Department are coordinating activities and addressing the questions referred to in subparagraph (A);

(C) ways in which the technical interchange within the Department, particularly between the Office of Science and the applied technology programs, could be enhanced, including ways in which the research agendas of the Office of Science and the applied programs could better interact and assist each other;

(D) ways in which the Secretary would ensure that the overall research agenda of the Department includes, in addition to fundamental, curiosity-driven research, fundamental research related to topics of concern to the applied programs, and applications in Departmental technology programs of research results generated by fundamental, curiosity-driven research;

(E) critical assessments of any ongoing programs that have experienced subpar performance or cost overruns of 10 percent or more over 1 or more years;

(F) any activities that may be more effectively left to the States, industry, nongovernmental organizations, institutions of higher education, or other stakeholders; and

(G) detailed evaluations and proposals for innovation hubs, institutes, and research centers of the Department, including—

(i) an affirmation that the hubs, institutes, and research centers will—

(I) advance the mission of the Department; and

(II) prioritize research, development, and demonstration; and

(ii) an affirmation that any hubs, institutes, or research centers that are established or renewed within the Office of Science are consistent with the mission of the Office of Science described in subsection (c) of section 209 of the Department of Energy Organization Act (42 U.S.C. 7139).

(c) **SUBMISSION TO CONGRESS.**—Every 4 years, the Secretary shall submit to Congress—

(1) the results of the review under subsection (a); and

(2) the coordination plan under subsection (b).

SEC. 995. [42 U.S.C. 16359] COMPETITIVE AWARD OF MANAGEMENT CONTRACTS.

None of the funds authorized to be appropriated to the Secretary by this title may be used to award a management and operating contract for a National Laboratory (excluding those named in subparagraphs (G), (H), (N), and (O) of section 2 (3)), unless such contract is competitively awarded, or the Secretary grants, on a case-by-case basis, a waiver. The Secretary may not delegate the authority to grant such a waiver and shall submit to Congress a report notifying it of the waiver, and setting forth the reasons for the waiver, at least 60 days prior to the date of the award of such contract.

SEC. 996. [42 U.S.C. 16360] WESTERN MICHIGAN DEMONSTRATION PROJECT.

The Administrator of the Environmental Protection Agency, in consultation with the State of Michigan and affected local officials, shall conduct a demonstration project to address the effect of transported ozone and ozone precursors in Southwestern Michigan. The demonstration program shall address projected nonattainment areas in Southwestern Michigan that include counties with design values for ozone of less than .095 based on years 2000 to 2002 or the most current 3-year period of air quality data. The Administrator shall assess any difficulties such areas may experience in meeting the 8-hour national ambient air quality standard for ozone due to the effect of transported ozone or ozone precursors into the areas. The Administrator shall work with State and local officials to determine the extent of ozone and ozone precursor transport, to assess alternatives to achieve compliance with the 8-hour standard apart from local controls, and to determine the timeframe in which such compliance could take place. The Administrator shall complete this demonstration project no later than 2 years after the date of enactment of this section and shall not impose any requirement or sanction under the Clean Air Act (42 U.S.C. 7401 et seq.) that might otherwise apply during the pendency of the demonstration project.

SEC. 997. [42 U.S.C. 16361] ARCTIC ENGINEERING RESEARCH CENTER.

(a) **IN GENERAL.**—The Secretary of Transportation, in consultation with the Secretary and the United States Arctic Research Commission, shall provide annual grants to a university located adjacent to the Arctic Energy Office of the Department of Energy, to establish and operate a university research center to be headquartered in Fairbanks and to be known as the “Arctic Engineering Research Center” (referred to in this section as the “Center”).

(b) **PURPOSE.**—The purpose of the Center shall be to conduct research on, and develop improved methods of, construction and use of materials to improve the overall performance of roads, bridges, residential, commercial, and industrial structures, and other infrastructure in the Arctic region, with an emphasis on developing—

(1) new construction techniques for roads, bridges, rail, and related transportation infrastructure and residential, commercial, and industrial infrastructure that are capable of withstanding the Arctic environment and using limited energy resources as efficiently as practicable;

(2) technologies and procedures for increasing road, bridge, rail, and related transportation infrastructure and residential, commercial, and industrial infrastructure safety, reliability, and integrity in the Arctic region;

(3) new materials and improving the performance and energy efficiency of existing materials for the construction of roads, bridges, rail, and related transportation infrastructure and residential, commercial, and industrial infrastructure in the Arctic region; and

(4) recommendations for new local, regional, and State permitting and building codes to ensure transportation and building safety and efficient energy use when constructing, using, and occupying such infrastructure in the Arctic region.

(c) **OBJECTIVES.**—The Center shall carry out—

(1) basic and applied research in the subjects described in subsection (b), the products of which shall be judged by peers or other experts in the field to advance the body of knowledge in road, bridge, rail, and infrastructure engineering in the Arctic region; and

(2) an ongoing program of technology transfer that makes research results available to potential users in a form that can be implemented.

(d) **AMOUNT OF GRANT.**—For each of fiscal years 2006 through 2011, the Secretary shall provide a grant in the amount of \$3,000,000 to the institution specified in subsection (a) to carry out this section.

(e) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to carry out this section \$3,000,000 for each of fiscal years 2006 through 2011.

SEC. 998. [42 U.S.C. 16362] BARROW GEOPHYSICAL RESEARCH FACILITY.

(a) **ESTABLISHMENT.**—The Secretary of Commerce, in consultation with the Secretaries of Energy and the Interior, the Director of the National Science Foundation, and the Administrator of the

Environmental Protection Agency, shall establish a joint research facility in Barrow, Alaska, to be known as the “Barrow Geophysical Research Facility”, to support scientific research activities in the Arctic.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretaries of Commerce, Energy, and the Interior, the Director of the National Science Foundation, and the Administrator of the Environmental Protection Agency for the planning, design, construction, and support of the Barrow Geophysical Research Facility, \$61,000,000.

Subtitle J—Carbon Dioxide Transportation Infrastructure Finance and Innovation

SEC. 999A. [42 U.S.C. 16371] DEFINITIONS.

In this subtitle:

(1) CIFIA PROGRAM.—The term “CIFIA program” means the carbon dioxide transportation infrastructure finance and innovation program established under section 999B(a).

(2) COMMON CARRIER.—The term “common carrier” means a transportation infrastructure operator or owner that—

(A) publishes a publicly available tariff containing the just and reasonable rates, terms, and conditions of non-discriminatory service; and

(B) holds itself out to provide transportation services to the public for a fee.

(3) CONTINGENT COMMITMENT.—The term “contingent commitment” means a commitment to obligate funds from future available budget authority that is—

(A) contingent on those funds being made available in law at a future date; and

(B) not an obligation of the Federal Government.

(4) ELIGIBLE PROJECT COSTS.—The term “eligible project costs” means amounts substantially all of which are paid by, or for the account of, an obligor in connection with a project, including—

(A) the cost of—

(i) development-phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, permitting, preliminary engineering and design work, and other preconstruction activities;

(ii) construction, reconstruction, rehabilitation, replacement, and acquisition of real property (including land relating to the project and improvements to land), environmental mitigation, construction contingencies, and acquisition and installation of equipment (including labor); and

(iii) capitalized interest necessary to meet market requirements, reasonably required reserve funds, capital issuance expenses, and other carrying costs during construction; and

(B) transaction costs associated with financing the project, including—

(i) the cost of legal counsel and technical consultants; and

(ii) any subsidy amount paid in accordance with section 999B(c)(3)(B)(ii) or section 999C(b)(6)(B)(ii).

(5) **FEDERAL CREDIT INSTRUMENT.**—The term “Federal credit instrument” means a secured loan or loan guarantee authorized to be provided under the CIFIA program with respect to a project.

(6) **LENDER.**—The term “lender” means a qualified institutional buyer (as defined in section 230.144A(a) of title 17, Code of Federal Regulations (or a successor regulation), commonly 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.)), that is not a Federal qualified institutional buyer.

(7) **LETTER OF INTEREST.**—The term “letter of interest” means a letter submitted by a potential applicant prior to an application for credit assistance in a format prescribed by the Secretary on the website of the CIFIA program that—

(A) describes the project and the location, purpose, and cost of the project;

(B) outlines the proposed financial plan, including the requested credit and grant assistance and the proposed obligor;

(C) provides a status of environmental review; and

(D) provides information regarding satisfaction of other eligibility requirements of the CIFIA program.

(8) **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 made to an obligor, or debt obligation issued by an obligor, in each case funded by a lender.

(9) **MASTER CREDIT AGREEMENT.**—The term “master credit agreement” means a conditional agreement that—

(A) is for the purpose of extending credit assistance for—

(i) a project of high priority under section 999B(c)(3)(A); or

(ii) a project covered under section 999B(c)(3)(B);

(B) does not provide for a current obligation of Federal funds; and

(C) would—

(i) make a contingent commitment of a Federal credit instrument or grant at a future date, subject to—

(I) the availability of future funds being made available to carry out the CIFIA program; and

(II) the satisfaction of all conditions for the provision of credit assistance under the CIFIA program, including section 999C(b);

(ii) establish the maximum amounts and general terms and conditions of the Federal credit instruments or grants;

(iii) identify the 1 or more revenue sources that will secure the repayment of the Federal credit instruments;

(iv) provide for the obligation of funds for the Federal credit instruments or grants after all requirements have been met for the projects subject to the agreement, including—

(I) compliance with all applicable requirements specified under the CIFIA program, including sections 999B(d) and 999C(b)(1); and

(II) the availability of funds to carry out the CIFIA program; and

(v) require that contingent commitments shall result in a financial close and obligation of credit or grant assistance by not later than 4 years after the date of entry into the agreement or release of the commitment, as applicable, unless otherwise extended by the Secretary.

(10) OBLIGOR.—The term “obligor” means a corporation, partnership, joint venture, trust, non-Federal governmental entity, agency, or instrumentality, or other entity that is liable for payment of the principal of, or interest on, a Federal credit instrument.

(11) PRODUCED IN THE UNITED STATES.—The term “produced in the United States”, with respect to iron and steel, means that all manufacturing processes for the iron and steel, including the application of any coating, occurs within the United States.

(12) PROJECT.—The term “project” means a project for common carrier carbon dioxide transportation infrastructure or associated equipment, including pipeline, shipping, rail, or other transportation infrastructure and associated equipment, that will transport or handle carbon dioxide captured from anthropogenic sources or ambient air, as the Secretary determines to be appropriate.

(13) 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 a project, other than a Federal credit instrument.

(14) SECURED LOAN.—The term “secured loan” means a direct loan to an obligor or a debt obligation issued by an obligor and purchased by the Secretary, in each case funded by the Secretary in connection with the financing of a project under section 999C.

(15) 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—

(A) calculated on a net present value basis; and

(B) 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.).

(16) **SUBSTANTIAL COMPLETION.**—The term “substantial completion”, with respect to a project, means the date—

(A) on which the project commences transportation of carbon dioxide; or

(B) of a comparable event to the event described in subparagraph (A), as determined by the Secretary and specified in the project credit agreement.

SEC. 999B. [42 U.S.C. 16372] DETERMINATION OF ELIGIBILITY AND PROJECT SELECTION.

(a) **ESTABLISHMENT OF PROGRAM.**—The Secretary shall establish and carry out a carbon dioxide transportation infrastructure finance and innovation program, under which the Secretary shall provide for eligible projects in accordance with this subtitle—

(1) a Federal credit instrument under section 999C;

(2) a grant under section 999D; or

(3) both a Federal credit instrument and a grant.

(b) **ELIGIBILITY.**—

(1) **IN GENERAL.**—A project shall be eligible to receive a Federal credit instrument or a grant under the CIFIA program if—

(A) the entity proposing to carry out the project submits a letter of interest prior to submission of an application under paragraph (3) for the project; and

(B) the project meets the criteria described in this subsection.

(2) **CREDITWORTHINESS.**—

(A) **IN GENERAL.**—Each project and obligor that receives a Federal credit instrument or a grant under the CIFIA program shall be creditworthy, such that there exists a reasonable prospect of repayment of the principal and interest on the Federal credit instrument, as determined by the Secretary under subparagraph (B).

(B) **REASONABLE PROSPECT OF REPAYMENT.**—The Secretary shall base a determination of whether there is a reasonable prospect of repayment under subparagraph (A) on a comprehensive evaluation of whether the obligor has a reasonable prospect of repaying the Federal credit instrument for the eligible project, including evaluation of—

(i) the strength of the contractual terms of an eligible project (if available for the applicable market segment);

(ii) the forecast of noncontractual cash flows supported by market projections from reputable sources, as determined by the Secretary, and cash sweeps or other structural enhancements;

(iii) the projected financial strength of the obligor—

(I) at the time of loan close; and

(II) throughout the loan term, including after the project is completed;

(iv) the financial strength of the investors and strategic partners of the obligor, if applicable; and

(v) other financial metrics and analyses that are relied on by the private lending community and na-

tionally recognized credit rating agencies, as determined appropriate by the Secretary.

(3) APPLICATIONS.—To be eligible for assistance under the CIFIA program, an obligor shall submit to the Secretary a project application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

(4) ELIGIBLE PROJECT COSTS.—A project under the CIFIA program shall have eligible project costs that are reasonably anticipated to equal or exceed \$100,000,000.

(5) REVENUE SOURCES.—The applicable Federal credit instrument shall be repayable, in whole or in part, from—

(A) user fees;

(B) payments owing to the obligor under a public-private partnership; or

(C) other revenue sources that also secure or fund the project obligations.

(6) OBLIGOR WILL BE IDENTIFIED LATER.—A State, local government, agency, or instrumentality of a State or local government, or a public authority, may submit to the Secretary an application under paragraph (3), under which a private party to a public-private partnership will be—

(A) the obligor; and

(B) identified at a later date through completion of a procurement and selection of the private party.

(7) BENEFICIAL EFFECTS.—The Secretary shall determine that financial assistance for each project under the CIFIA program will—

(A) attract public or private investment for the project; or

(B) enable the project to proceed at an earlier date than the project would otherwise be able to proceed or reduce the lifecycle costs (including debt service costs) of the project.

(8) PROJECT READINESS.—To be eligible for assistance under the CIFIA program, the applicant shall demonstrate a reasonable expectation that the contracting process for construction of the project can commence by not later than 90 days after the date on which a Federal credit instrument or grant is obligated for the project under the CIFIA program.

(c) SELECTION AMONG ELIGIBLE PROJECTS.—

(1) ESTABLISHMENT OF APPLICATION PROCESS.—The Secretary shall establish an application process under which projects that are eligible to receive assistance under subsection (b) may—

(A) receive credit assistance on terms acceptable to the Secretary, if adequate funds are available (including any funds provided on behalf of an eligible project under paragraph (3)(B)(ii)) to cover the subsidy amount associated with the Federal credit instrument; and

(B) receive grants under section 999D if—

(i) adequate funds are available to cover the amount of the grant; and

- (ii) the Secretary determines that the project is eligible under subsection (b).
- (2) **PRIORITY.**—In selecting projects to receive credit assistance under subsection (b), the Secretary shall give priority to projects that—
- (A) are large-capacity, common carrier infrastructure;
 - (B) have demonstrated demand for use of the infrastructure by associated projects that capture carbon dioxide from anthropogenic sources or ambient air;
 - (C) enable geographical diversity in associated projects that capture carbon dioxide from anthropogenic sources or ambient air, with the goal of enabling projects in all major carbon dioxide-emitting regions of the United States; and
 - (D) are sited within, or adjacent to, existing pipeline or other linear infrastructure corridors, in a manner that minimizes environmental disturbance and other siting concerns.
- (3) **MASTER CREDIT AGREEMENTS.**—
- (A) **PRIORITY PROJECTS.**—The Secretary may enter into a master credit agreement for a project that the Secretary determines—
- (i) will likely be eligible for credit assistance under subsection (b), on obtaining—
 - (I) additional commitments from associated carbon capture projects to use the project; or
 - (II) all necessary permits and approvals; and
 - (ii) is a project of high priority, as determined in accordance with the criteria described in paragraph (2).
- (B) **ADEQUATE FUNDING NOT AVAILABLE.**—If the Secretary fully obligates funding to eligible projects for a fiscal year and adequate funding is not available to fund a Federal credit instrument, a project sponsor (including a unit of State or local government) of an eligible project may elect—
- (i)(I) to enter into a master credit agreement in lieu of the Federal credit instrument; and
 - (II) to wait to execute a Federal credit instrument until the fiscal year for which additional funds are available to receive credit assistance; or
 - (ii) if the lack of adequate funding is solely with respect to amounts available for the subsidy amount, to pay the subsidy amount to fund the Federal credit instrument.
- (d) **FEDERAL REQUIREMENTS.**—
- (1) **IN GENERAL.**—Nothing in this subtitle supersedes the applicability of any other requirement under Federal law (including regulations).
- (2) **NEPA.**—Federal credit assistance may only be provided under this subtitle for a project that has received an environmental categorical exclusion, a finding of no significant impact, or a record of decision under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(e) USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS.—

(1) IN GENERAL.—Except as provided in paragraph (2), no Federal credit instrument or grant provided under the CIFA program shall be made available for a project unless all iron, steel, and manufactured goods used in the project are produced in the United States.

(2) EXCEPTIONS.—Paragraph (1) shall not apply in any case or category of cases with respect to which the Secretary determines that—

(A) the application would be inconsistent with the public interest;

(B) iron, steel, or a relevant manufactured good is not produced in the United States in sufficient and reasonably available quantity, or of a satisfactory quality; or

(C) the inclusion of iron, steel, or a manufactured good produced in the United States will increase the cost of the overall project by more than 25 percent.

(3) WAIVERS.—If the Secretary receives a request for a waiver under this subsection, the Secretary shall—

(A) make available to the public a copy of the request, together with any information available to the Secretary concerning the request—

(i) on an informal basis; and

(ii) by electronic means, including on the official public website of the Department;

(B) allow for informal public comment relating to the request for not fewer than 15 days before making a determination with respect to the request; and

(C) approve or disapprove the request by not later than the date that is 120 days after the date of receipt of the request.

(4) APPLICABILITY.—This subsection shall be applied in accordance with any applicable obligations of the United States under international agreements.

(f) APPLICATION PROCESSING PROCEDURES.—

(1) NOTICE OF COMPLETE APPLICATION.—Not later than 30 days after the date of receipt of an application under this section, the Secretary shall provide to the applicant a written notice describing whether—

(A) the application is complete; or

(B) additional information or materials are needed to complete the application.

(2) APPROVAL OR DENIAL OF APPLICATION.—Not later than 60 days after the date of issuance of a written notice under paragraph (1), the Secretary shall provide to the applicant a written notice informing the applicant whether the Secretary has approved or disapproved the application.

(g) DEVELOPMENT-PHASE ACTIVITIES.—Any Federal credit instrument provided under the CIFA program may be used to finance up to 100 percent of the cost of development-phase activities, as described in section 999A(4)(A).

SEC. 999C. [42 U.S.C. 16373] SECURED LOANS.**(a) AGREEMENTS.—**

(1) **IN GENERAL.**—Subject to paragraph (2), the Secretary may enter into agreements with 1 or more obligors to make secured loans, the proceeds of which—

(A) shall be used—

(i) to finance eligible project costs of any project selected under section 999B;

(ii) to refinance interim construction financing of eligible project costs of any project selected under section 999B; or

(iii) to refinance long-term project obligations or Federal credit instruments, if the refinancing provides additional funding capacity for the completion, enhancement, or expansion of any project that—

(I) is selected under section 999B; or

(II) otherwise meets the requirements of that section; and

(B) may be used in accordance with subsection (b)(7) to pay any fees collected by the Secretary under subparagraph (B) of that subsection.

(2) **RISK ASSESSMENT.**—Before entering into an agreement under this subsection, the Secretary, in consultation with the Director of the Office of Management and Budget, shall determine an appropriate credit subsidy amount for each secured loan, taking into account all relevant factors, including the creditworthiness factors under section 999B(b)(2).

(b) TERMS AND LIMITATIONS.—

(1) **IN GENERAL.**—A secured loan under this section with respect to a project shall be on such terms and conditions and contain such covenants, representations, warranties, and requirements (including requirements for audits) as the Secretary determines to be appropriate.

(2) **MAXIMUM AMOUNT.**—The amount of a secured loan under this section shall not exceed an amount equal to 80 percent of the reasonably anticipated eligible project costs.

(3) **PAYMENT.**—A secured loan under this section shall be payable, in whole or in part, from—

(A) user fees;

(B) payments owing to the obligor under a public-private partnership; or

(C) other revenue sources that also secure or fund the project obligations.

(4) INTEREST RATE.—

(A) **IN GENERAL.**—Except as provided in subparagraph (B), the interest rate on a secured loan under this section shall be not less than the interest rate reflected in the yield on United States Treasury securities of a similar maturity to the maturity of the secured loan on the date of execution of the loan agreement.

(B) LIMITED BUYDOWNS.—

(i) **IN GENERAL.**—Subject to clause (iii), the Secretary may lower the interest rate of a secured loan under this section to not lower than the interest rate

described in clause (ii), if the interest rate has increased during the period—

(I) beginning on, as applicable—

(aa) the date on which an application acceptable to the Secretary is submitted for the applicable project; or

(bb) the date on which the Secretary entered into a master credit agreement for the applicable project; and

(II) ending on the date on which the Secretary executes the Federal credit instrument for the applicable project that is the subject of the secured loan.

(ii) DESCRIPTION OF INTEREST RATE.—The interest rate referred to in clause (i) is the interest rate reflected in the yield on United States Treasury securities of a similar maturity to the maturity of the secured loan in effect, as applicable to the project that is the subject of the secured loan, on—

(I) the date described in clause (i)(I)(aa); or

(II) the date described in clause (i)(I)(bb).

(iii) LIMITATION.—The interest rate of a secured loan may not be lowered pursuant to clause (i) by more than 1½ percentage points (150 basis points).

(5) MATURITY DATE.—The final maturity date of the secured loan shall be the earlier of—

(A) the date that is 35 years after the date of substantial completion of the project; and

(B) if the useful life of the capital asset being financed is of a lesser period, the date that is the end of the useful life of the asset.

(6) NONSUBORDINATION.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the secured loan shall not be subordinated to the claims of any holder of project obligations in the event of bankruptcy, insolvency, or liquidation of the obligor.

(B) PREEXISTING INDENTURE.—

(i) IN GENERAL.—The Secretary shall waive the requirement under subparagraph (A) for a public agency borrower that is financing ongoing capital programs and has outstanding senior bonds under a preexisting indenture, if—

(I) the secured loan is rated in the A category or higher; and

(II) the secured loan is secured and payable from pledged revenues not affected by project performance, such as a tax-backed revenue pledge or a system-backed pledge of project revenues.

(ii) LIMITATION.—If the Secretary waives the nonsubordination requirement under this subparagraph—

(I) the maximum credit subsidy amount to be paid by the Federal Government shall be not more than 10 percent of the principal amount of the secured loan; and

(II) the obligor shall be responsible for paying the remainder of the subsidy amount, if any.

(7) FEES.—

(A) IN GENERAL.—The Secretary may collect a fee on or after the date of the financial close of a Federal credit instrument under this section in an amount equal to not more than \$3,000,000 to cover all or a portion of the costs to the Federal Government of providing the Federal credit instrument.

(B) AMENDMENT TO ADD COST OF FEES TO SECURED LOAN.—If the Secretary collects a fee from an obligor under subparagraph (A) to cover all or a portion of the costs to the Federal Government of providing a secured loan, the obligor and the Secretary may amend the terms of the secured loan to add to the principal of the secured loan an amount equal to the amount of the fee collected by the Secretary.

(8) MAXIMUM FEDERAL INVOLVEMENT.—The total Federal assistance provided for a project under the CIFIA program, including any grant provided under section 999D, shall not exceed an amount equal to 80 percent of the eligible project costs.

(c) REPAYMENT.—

(1) SCHEDULE.—The Secretary shall establish a repayment schedule for each secured loan under this section based on—

(A) the projected cash flow from project revenues and other repayment sources; and

(B) the useful life of the project.

(2) COMMENCEMENT.—Scheduled loan repayments of principal or interest on a secured loan under this section shall commence not later than 5 years after the date of substantial completion of the project.

(3) DEFERRED PAYMENTS.—

(A) IN GENERAL.—If, at any time after the date of substantial completion of a project, the project is unable to generate sufficient revenues in excess of reasonable and necessary operating expenses to pay the scheduled loan repayments of principal and interest on the secured loan, the Secretary may, subject to subparagraph (C), allow the obligor to add unpaid principal and interest to the outstanding balance of the secured loan.

(B) INTEREST.—Any payment deferred under subparagraph (A) shall—

(i) continue to accrue interest in accordance with subsection (b)(4) until fully repaid; and

(ii) be scheduled to be amortized over the remaining term of the loan.

(C) CRITERIA.—

(i) IN GENERAL.—Any payment deferral under subparagraph (A) shall be contingent on the project meeting criteria established by the Secretary.

(ii) REPAYMENT STANDARDS.—The criteria established pursuant to clause (i) shall include standards for the reasonable prospect of repayment.

(4) PREPAYMENT.—

(A) **USE OF EXCESS REVENUES.**—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.

(B) **USE OF PROCEEDS OF REFINANCING.**—A secured loan may be prepaid at any time without penalty from the proceeds of refinancing from non-Federal funding sources.

(d) **SALE OF SECURED LOANS.**—

(1) **IN GENERAL.**—Subject to paragraph (2), as soon as practicable after substantial completion of a project and after notifying the obligor, the Secretary may sell to another entity or reoffer into the capital markets a secured loan for the project if the Secretary determines that the sale or reoffering can be made on favorable terms.

(2) **CONSENT OF OBLIGOR.**—In making a sale or reoffering under paragraph (1), the Secretary may not change any original term or condition of the secured loan without the written consent of the obligor.

(e) **LOAN GUARANTEES.**—

(1) **IN GENERAL.**—The Secretary may provide a loan guarantee to a lender in lieu of making a secured loan under this section if the Secretary determines that the budgetary cost of the loan guarantee is substantially the same as, or less than, that of a secured loan.

(2) **TERMS.**—The terms of a loan guarantee under paragraph (1) shall be consistent with the terms required under this section for a secured loan, except that the rate on the guaranteed loan and any prepayment features shall be negotiated between the obligor and the lender, with the consent of the Secretary.

SEC. 999D. [42 U.S.C. 16374] FUTURE GROWTH GRANTS.

(a) **ESTABLISHMENT.**—The Secretary may provide grants to pay a portion of the cost differential, with respect to any projected future increase in demand for carbon dioxide transportation by an infrastructure project described in subsection (b), between—

(1) the cost of constructing the infrastructure asset with the capacity to transport an increased flow rate of carbon dioxide, as made practicable under the project; and

(2) the cost of constructing the infrastructure asset with the capacity to transport carbon dioxide at the flow rate initially required, based on commitments for the use of the asset.

(b) **ELIGIBILITY.**—To be eligible to receive a grant under this section, an entity shall—

(1) be eligible to receive credit assistance under the CIFIA program;

(2) carry out, or propose to carry out, a project for large-capacity, common carrier infrastructure with a probable future increase in demand for carbon dioxide transportation; and

(3) submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

(c) **USE OF FUNDS.**—A grant provided under this section may be used only to pay the costs of any additional flow rate capacity of a carbon dioxide transportation infrastructure asset that the project sponsor demonstrates to the satisfaction of the Secretary can reasonably be expected to be used during the 20-year period beginning on the date of substantial completion of the project described in subsection (b)(2).

(d) **MAXIMUM AMOUNT.**—The amount of a grant provided under this section may not exceed an amount equal to 80 percent of the cost of the additional capacity described in subsection (a).

SEC. 999E. [42 U.S.C. 16375] PROGRAM ADMINISTRATION.

(a) **REQUIREMENT.**—The Secretary shall establish a uniform system to service the Federal credit instruments provided under the CIFIA program.

(b) **FEES.**—If funding sufficient to cover the costs of services of expert firms retained pursuant to subsection (d) and all or a portion of the costs to the Federal Government of servicing the Federal credit instruments is not provided in an appropriations Act for a fiscal year, the Secretary, during that fiscal year, may collect fees on or after the date of the financial close of a Federal credit instrument provided under the CIFIA program at a level that is sufficient to cover those costs.

(c) **SERVICER.**—

(1) **IN GENERAL.**—The Secretary may appoint a financial entity to assist the Secretary in servicing the Federal credit instruments.

(2) **DUTIES.**—A servicer appointed under paragraph (1) shall act as the agent for the Secretary.

(3) **FEE.**—A servicer appointed under paragraph (1) shall receive a servicing fee, subject to approval by the Secretary.

(d) **ASSISTANCE FROM EXPERT FIRMS.**—The Secretary may retain the services of expert firms, including counsel, in the field of municipal and project finance to assist in the underwriting and servicing of Federal credit instruments.

(e) **EXPEDITED PROCESSING.**—The Secretary shall implement procedures and measures to economize the time and cost involved in obtaining approval and the issuance of credit assistance under the CIFIA program.

SEC. 999F. [42 U.S.C. 16376] STATE AND LOCAL PERMITS.

The provision of credit assistance under the CIFIA program with respect to a project shall not—

(1) relieve any recipient of the assistance of any project obligation to obtain any required State or local permit or approval with respect to the project;

(2) limit the right of any unit of State or local government to approve or regulate any rate of return on private equity invested in the project; or

(3) otherwise supersede any State or local law (including any regulation) applicable to the construction or operation of the project.

SEC. 999G. [42 U.S.C. 16377] REGULATIONS.

The Secretary may promulgate such regulations as the Secretary determines to be appropriate to carry out the CIFIA program.

SEC. 999H. [42 U.S.C. 16378] AUTHORIZATION OF APPROPRIATIONS; CONTRACT AUTHORITY.**(a) AUTHORIZATION OF APPROPRIATIONS.—**

(1) IN GENERAL.—There are authorized to be appropriated to the Secretary to carry out this subtitle—

(A) \$600,000,000 for each of fiscal years 2022 and 2023; and

(B) \$300,000,000 for each of fiscal years 2024 through 2026.

(2) SPENDING AND BORROWING AUTHORITY.—Spending and borrowing authority for a fiscal year to enter into Federal credit instruments shall be promptly apportioned to the Secretary on a fiscal-year basis.

(3) REESTIMATES.—If the subsidy amount of a Federal credit instrument is reestimated, the cost increase or decrease of the reestimate shall be borne by, or benefit, the general fund of the Treasury, consistent with section 504(f) of the Congressional Budget Act of 1974 (2 U.S.C. 661c(f)).

(4) ADMINISTRATIVE COSTS.—Of the amounts made available to carry out the CIFIA program, the Secretary may use not more than \$9,000,000 (as indexed for United States dollar inflation from the date of enactment of the Infrastructure Investment and Jobs Act (as measured by the Consumer Price Index)) each fiscal year for the administration of the CIFIA program.

(b) CONTRACT AUTHORITY.—

(1) IN GENERAL.—Notwithstanding any other provision of law, execution of a term sheet by the Secretary of a Federal credit instrument that uses amounts made available under the CIFIA program shall impose on the United States a contractual obligation to fund the Federal credit investment.

(2) AVAILABILITY.—Amounts made available to carry out the CIFIA program for a fiscal year shall be available for obligation on October 1 of the fiscal year.

TITLE X—DEPARTMENT OF ENERGY MANAGEMENT

SEC. 1001. [42 U.S.C. 16391] IMPROVED TECHNOLOGY TRANSFER OF ENERGY TECHNOLOGIES.**(a) OFFICE OF TECHNOLOGY TRANSITIONS.—**

(1) ESTABLISHMENT.—There is established within the Department an Office of Technology Transitions (referred to in this section as the “Office”).

(2) MISSION.—The mission of the Office shall be—

(A) to expand the commercial impact of the research investments of the Department; and

(B) to focus on commercializing technologies that support the missions of the Department, including reducing greenhouse gas emissions and other pollutants.

(3) GOALS.—

(A) IN GENERAL.—In carrying out the mission and activities of the Office, the Chief Commercialization Officer appointed under paragraph (4) shall, with respect to commercialization activities, meet all of the goals described in subparagraph (B).

(B) GOALS DESCRIBED.—The goals referred to in subparagraph (A) are the following:

(i) Reduction of greenhouse gas emissions and other pollutants.

(ii) Ensuring economic competitiveness.

(iii) Enhancement of domestic energy security and national security.

(iv) Enhancement of domestic jobs.

(v) Improvement of energy efficiency.

(vi) Any other goals to support the transfer of technology developed by Department-funded programs to the private sector, as consistent with missions of the Department.

(4) CHIEF COMMERCIALIZATION OFFICER

(A) IN GENERAL The Office shall be headed by an officer, who shall be known as the “Chief Commercialization Officer”, and who shall report directly to, and be appointed by, the Secretary.

(B) PRINCIPAL ADVISOR The Chief Commercialization Officer shall be the principal advisor to the Secretary on all matters relating to technology transfer and commercialization.

(C) QUALIFICATIONS.—The Chief Commercialization Officer shall be an individual who, by reason of professional background and experience, is specially qualified to advise the Secretary on matters pertaining to technology transfer at the Department.

(D) DUTIES.—The Chief Commercialization Officershall oversee—

(i) the activities of the Technology Transfer Working Group established under subsection (b);

(ii) the expenditure of funds allocated for technology transfer within the Department;

(iii) the activities of each technology partnership ombudsman appointed under section 11 of the Technology Transfer Commercialization Act of 2000 (42 U.S.C. 7261c); and

(iv) efforts to engage private sector entities, including venture capital companies.

(5) COORDINATION.—In carrying out the mission and activities of the Office, the Chief Commercialization Officer shall coordinate with the senior leadership of the Department, other relevant program offices of the Department, National Laboratories, the Technology Transfer Working Group established

under subsection (b), the Technology Transfer Policy Board, and other stakeholders (including private industry).

(6) **HIRING AND MANAGEMENT.**—To carry out the program authorized in this section, the Under Secretary for Science may appoint personnel using the authorities in section 10726 of the Research and Development, Competition, and Innovation Act.

(7) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary to carry out the activities authorized in this section \$20,000,000 for each of fiscal years 2023 through 2027.

(b) **TECHNOLOGY TRANSFER WORKING GROUP.**—The Secretary shall establish a Technology Transfer Working Group, which shall consist of representatives of the National Laboratories and single-purpose research facilities, to—

(1) coordinate technology transfer activities occurring at National Laboratories and single-purpose research facilities;

(2) exchange information about technology transfer practices, including alternative approaches to resolution of disputes involving intellectual property rights and other technology transfer matters; and

(3) develop and disseminate to the public and prospective technology partners information about opportunities and procedures for technology transfer with the Department, including opportunities and procedures related to alternative approaches to resolution of disputes involving intellectual property rights and other technology transfer matters.

(c) **TECHNOLOGY COMMERCIALIZATION FUND.**—The Secretary shall establish an Energy Technology Commercialization Fund, using 0.9 percent of the amount made available to the Department for applied energy research, development, demonstration, and commercial application for each fiscal year based on future planned activities and the amount of the appropriations for the fiscal year, to be used to provide matching funds with private partners to promote promising energy technologies for commercial purposes.

(d) **TECHNOLOGY TRANSFER RESPONSIBILITY.**—Nothing in this section affects the technology transfer responsibilities of Federal employees under the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.).

(e) **TECHNOLOGY COMMERCIALIZATION FUND.**—

(1) **ESTABLISHMENT.**—The Secretary, acting through the Chief Commercialization Officer established in section 1001(a) of the Energy Policy Act of 2005 (42 U.S.C. 16391(a)), shall establish a Technology Commercialization Fund (hereafter referred to as the “Fund”), using nine-tenths of one percent of the amount of appropriations made available to the Department for applied energy research, development, demonstration, and commercial application for each fiscal year, to be used to provide, in accordance with the cost-sharing requirements under section 988, funds to private partners, including national laboratories, to promote promising energy technologies for commercial purposes.

(2) **APPLICATIONS.**—

- (A) CONSIDERATIONS.—The Secretary shall develop criteria for evaluating applications for funding under this section, which may include—
- (i) the potential that a proposed technology will result in a commercially successful product within a reasonable timeframe; and
 - (ii) the relative maturity of a proposed technology for commercial application.
- (B) SELECTIONS.—In awarding funds under this section, the Secretary may give special consideration to applications that involve at least one applicant that has participated in an entrepreneurial or commercialization training program, such as Energy Innovation Corps.
- (f) ANNUAL REPORT.—The Secretary shall include in the annual report required under section 9007(a) of the Energy Act of 2020—
- (1) description of the projects carried out with awards from the Fund for that fiscal year;
 - (2) each project's cost-share for that fiscal year; and
 - (3) each project's partners for that fiscal year.
- (g) TECHNOLOGY COMMERCIALIZATION FUND REPORT.—
- (1) IN GENERAL.—Not later than 1 year after the date of enactment of the Energy Act of 2020, the Secretary shall submit to the Committee on Science, Space, and Technology and Committee on Appropriations of the House of Representatives and the Committee on Energy and Natural Resources and Committee on Appropriations of the Senate a report on the current and recommended implementation of the Fund.
 - (2) CONTENTS.—The report under subparagraph (A) shall include—
 - (A) a summary, with supporting data, of how much Department program offices contribute to and use the Fund each year, including a list of current funding restrictions;
 - (B) recommendations on how to improve implementation and administration of the Fund; and
 - (C) an analysis on how to spend funds optimally on technology areas that have the greatest need and opportunity for commercial application, rather than spending funds at the programmatic level or under current funding restrictions.
- (h) PLANNING AND REPORTING.—
- (1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a technology transfer execution plan.
 - (2) UPDATES.—Each year after the submission of the plan under paragraph (1), the Secretary shall submit to Congress an updated execution plan and reports that describe progress toward meeting goals set forth in the execution plan and the funds expended under subsection (c).
- (i) ADDITIONAL TECHNOLOGY TRANSFER PROGRAMS.—The Secretary may develop additional programs to—
- (1) support regional energy innovation systems;
 - (2) support clean energy incubators;

- (3) provide small business vouchers;
- (4) provide financial and technical assistance for entrepreneurial fellowships at national laboratories;
- (5) encourage students, energy researchers, and national laboratory employees to develop entrepreneurial skillsets and engage in entrepreneurial opportunities;
- (6) support private companies and individuals in partnering with National Laboratories; and
- (7) further support the mission and goals of the Office.

SEC. 1002. [42 U.S.C. 16392] TECHNOLOGY INFRASTRUCTURE PROGRAM.

(a) **DEFINITIONS.**—In this section:

(1) **PROGRAM.**—The term “Program” means the Technology Infrastructure Program established under subsection (b).

(2) **TECHNOLOGY CLUSTER.**—The term “technology cluster” means a concentration of technology-related business concerns, institutions of higher education, or nonprofit institutions, that reinforce each other’s performance in the areas of technology development through formal or informal relationships.

(3) **TECHNOLOGY-RELATED BUSINESS CONCERN.**—The term “technology-related business concern” means a for-profit corporation, company, association, firm, partnership, or small business concern that—

- (A) conducts scientific or engineering research;
- (B) develops new technologies;
- (C) manufactures products based on new technologies;

or

(D) performs technological services.

(b) **ESTABLISHMENT.**—The Secretary shall establish a Technology Infrastructure Program in accordance with this section.

(c) **PURPOSE.**—The purpose of the Program shall be to improve the ability of National Laboratories and single-purpose research facilities to support departmental missions by—

(1) stimulating the development of technology clusters that can support departmental missions at the National Laboratories or single-purpose research facilities;

(2) improving the ability of National Laboratories and single-purpose research facilities to leverage and benefit from commercial research, technology, products, processes, and services; and

(3) encouraging the exchange of scientific and technological expertise between—

(A) National Laboratories or single-purpose research facilities; and

(B) entities that can support departmental missions at the National Laboratories or single-purpose research facilities, such as—

- (i) institutions of higher education;
- (ii) technology-related business concerns;
- (iii) nonprofit institutions; and
- (iv) agencies of State, tribal, or local governments.

(d) **PROJECTS.**—The Secretary shall authorize the director of each National Laboratory or single-purpose research facility to implement the Program at the National Laboratory or facility through

one or more projects that meet the requirements of subsections (e) and (f).

(e) PROGRAM REQUIREMENTS.—

(1) IN GENERAL.—Each project funded under this section shall meet the requirements of this subsection.

(2) ENTITIES.—Each project shall include at least one of each of the following entities:

(A) A business.

(B) An institution of higher education.

(C) A nonprofit institution.

(D) An agency of a State, local, or tribal government.

(3) COST-SHARING.—

(A) IN GENERAL.—The costs of carrying out projects under this section shall be shared in accordance with section 988.

(B) SOURCES.—The calculation of costs paid by the non-Federal sources for a project shall include cash, personnel, services, equipment, and other resources expended on the project after the commencement of the project.

(C) RESEARCH AND DEVELOPMENT EXPENSES.—Independent research and development expenses of Government contractors that qualify for reimbursement under section 31.205–18(e) of title 48, Code of Federal Regulations, issued pursuant to section 25(c)(1) of the Office of Federal Procurement Policy Act (41 U.S.C. 421(c)(1)), may be credited towards costs paid by non-Federal sources to a project, if the expenses meet the other requirements of this section.

(4) COMPETITIVE SELECTION.—A project under this section shall be competitively selected using procedures determined by the Secretary.

(5) ACCOUNTING.—Any participant that receives funds under this section may use generally accepted accounting principles for maintaining accounts, books, and records relating to the project.

(6) DURATION.—No Federal funds shall be made available under this section for a construction project or for any project with a duration of more than 5 years.

(f) SELECTION CRITERIA.—

(1) DEPARTMENTAL MISSIONS.—The Secretary shall allocate funds under this section only if the Director of the National Laboratory or single-purpose research facility managing the project determines that the project is likely to improve the ability of the National Laboratory or single-purpose research facility to achieve technical success in meeting departmental missions.

(2) OTHER CRITERIA.—In selecting a project to receive Federal funds, the Secretary shall consider—

(A) the potential of the project to promote the development of a commercially sustainable technology cluster following the period of investment by the Department, which will derive most of the demand for its products or services from the private sector, and which will support depart-

mental missions at the participating National Laboratory or single-purpose research facility;

(B) the potential of the project to promote the use of commercial research, technology, products, processes, and services by the participating National Laboratory or single-purpose research facility to achieve its mission or the commercial development of technological innovations made at the participating National Laboratory or single-purpose research facility;

(C) the extent to which the project involves a wide variety and number of institutions of higher education, non-profit institutions, and technology-related business concerns that can support the missions of the participating National Laboratory or single-purpose research facility and that will make substantive contributions to achieving the goals of the project;

(D) the extent to which the project focuses on promoting the development of technology-related business concerns that are small businesses or involves such small businesses substantively in the project; and

(E) such other criteria as the Secretary determines to be appropriate.

(g) **ALLOCATION.**—In allocating funds for projects approved under this section, the Secretary shall provide—

(1) the Federal share of the project costs; and

(2) additional funds to the National Laboratory or single-purpose research facility managing the project to permit the National Laboratory or single-purpose research facility to carry out activities relating to the project, and to coordinate the activities with the project.

(h) **REPORT TO CONGRESS.**—Not later than July 1, 2008, the Secretary shall submit to Congress a report on whether the Program should be continued and, if so, how the program should be managed.

(i) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary for activities under this section \$10,000,000 for each of fiscal years 2006 through 2008.

SEC. 1003. [42 U.S.C. 16393] SMALL BUSINESS ADVOCACY AND ASSISTANCE.

(a) **SMALL BUSINESS ADVOCATE.**—The Secretary shall require the Director of each National Laboratory(as defined in section 2) and the Director of each single-purpose research facility to designate a small business advocate to—

(1) encourage the participation of small business concerns, including socially and economically disadvantaged small business concerns (as defined in section 8(a)(4) of the Small Business Act (15 U.S.C. 637(a)(4))), in procurement, research, development, demonstration, and commercial application activities, including product development, technology licensing, and technology transfer activities conducted by the National Laboratory or single-purpose research facility;

(2) report to the Director of the National Laboratory or single-purpose research facility on the actual participation of small business concerns in the activities described in para-

graph (1) along with recommendations, if appropriate, on how to improve participation;

(3) make available to small business concerns facilities, training, mentoring, and information on how to participate in the activities described in paragraph (1);

(4) increase the awareness inside the National Laboratory or single-purpose research facility of the capabilities and opportunities presented by small business concerns; and

(5) establish guidelines and metrics for the programs under subsections (b) and (c) and report on the effectiveness of the program to the Director of the National Laboratory or single-purpose research facility.

(b) **ESTABLISHMENT OF SMALL BUSINESS ASSISTANCE PROGRAM.**—The Secretary shall require the Director of each National Laboratory, and may require the Director of a single-purpose research facility, to establish a program to provide small business concerns with—

(1) assistance directed at making the small business concerns more effective and efficient subcontractors or suppliers to the National Laboratory or single-purpose research facilities; or

(2) general technical assistance, the cost of which shall not exceed \$10,000 per instance of assistance, to improve the products or services of the small business concern.

(c) **SMALL BUSINESS VOUCHER PROGRAM.**—

(1) **DEFINITIONS.**—In this subsection:

(A) **DIRECTOR.**—The term “Director” means—

(i) the Director of each National Laboratory; and

(ii) the Director of each single-purpose research facility.

(B) **NATIONAL LABORATORY.**—The term “National Laboratory” has the meaning given the term in section 2.

(C) **PROGRAM.**—The term “program” means the program established under paragraph (2).

(D) **SMALL BUSINESS CONCERN.**—The term “small business concern” has the meaning given such term in section 3 of the Small Business Act (15 U.S.C. 632).

(2) **ESTABLISHMENT.**—The Secretary, acting through the Chief Commercialization Officer appointed under section 1001(a), and in consultation with the Directors, shall establish a program to provide small business concerns with vouchers under paragraph (3)—

(A) to achieve the goal described in subsection (a)(1); and

(B) to improve the products, services, and capabilities of small business concerns in the mission space of the Department.

(3) **VOUCHERS.**—Under the program, the Directors are authorized to provide to small business concerns vouchers to be used at National Laboratories and single-purpose research facilities for—

(A) research, development, demonstration, technology transfer, skills training and workforce development, or commercial application activities; or

(B) any other activities that the applicable Director determines appropriate.

(4) EXPEDITED APPROVAL.—The Secretary, working with the Directors, shall establish a stream-lined approval process for financial assistance agreements signed between—

(A) small business concerns selected to receive a voucher under the program; and

(B) the National Laboratories and single-purpose research facilities.

(5) COST-SHARING REQUIREMENT.—In carrying out the program, the Secretary shall require cost-sharing in accordance with section 988.

(6) REPORT.—In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary shall report annually on the progress and implementation of the small business voucher program established under this section, including the number and locations of small businesses that received grants under this program.

(d) USE OF FUNDS.—None of the funds expended under subsection (b) may be used for direct grants to small business concerns.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary for activities under subsection (b) \$5,000,000 for each of fiscal years 2006 through 2008 and for activities under subsection (c) \$25,000,000 for each of fiscal years 2023 through 2027.

SEC. 1004. [42 U.S.C. 16394] OUTREACH.

The Secretary shall ensure that each program authorized by this Act or an amendment made by this Act includes an outreach component to provide information, as appropriate, to manufacturers, consumers, engineers, architects, builders, energy service companies, institutions of higher education, facility planners and managers, State and local governments, and other entities.

SEC. 1005. [42 U.S.C. 16395] RELATIONSHIP TO OTHER LAWS.

Except as otherwise provided in this Act or an amendment made by this Act, the Secretary shall carry out the research, development, demonstration, and commercial application programs, projects, and activities authorized by this Act or an amendment made by this Act in accordance with the applicable provisions of—

(1) the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.);

(2) the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5901 et seq.);

(3) the Energy Policy Act of 1992 (42 U.S.C. 13201 et seq.);

(4) the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.);

(5) chapter 18 of title 35, United States Code (commonly known as the “Bayh-Dole Act”); and

(6) any other Act under which the Secretary is authorized to carry out the programs, projects, and activities.

SEC. 1006. IMPROVED COORDINATION AND MANAGEMENT OF CIVILIAN SCIENCE AND TECHNOLOGY PROGRAMS.

(a) EFFECTIVE TOP-LEVEL COORDINATION OF RESEARCH AND DEVELOPMENT PROGRAMS.—Section 202 of the Department of En-

ergy Organization Act (42 U.S.C. 7132) is amended by striking subsection (b) and inserting the following:

“(b)(1) There shall be in the Department an Under Secretary for Science, who shall be appointed by the President, by and with the advice and consent of the Senate.

“(2) The Under Secretary shall be compensated at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code.

“(3) The Under Secretary for Science shall be appointed from among persons who—

“(A) have extensive background in scientific or engineering fields; and

“(B) are well qualified to manage the civilian research and development programs of the Department.

“(4) The Under Secretary for Science shall—

“(A) serve as the Science and Technology Advisor to the Secretary;

“(B) monitor the research and development programs of the Department in order to advise the Secretary with respect to any undesirable duplication or gaps in the programs;

“(C) advise the Secretary with respect to the well-being and management of the multipurpose laboratories under the jurisdiction of the Department;

“(D) advise the Secretary with respect to education and training activities required for effective short- and long-term basic and applied research activities of the Department;

“(E) advise the Secretary with respect to grants and other forms of financial assistance required for effective short- and long-term basic and applied research activities of the Department;

“(F) advise the Secretary with respect to long-term planning, coordination, and development of a strategic framework for Department research and development activities; and

“(G) carry out such additional duties assigned to the Under Secretary by the Secretary relating to basic and applied research, including supervision or support of research activities carried out by any of the Assistant Secretaries designated by section 203 of this Act, as the Secretary considers advantageous.”.

(b) ADDITIONAL ASSISTANT SECRETARY POSITION.—

(1) IN GENERAL.—Section 203(a) of the Department of Energy Organization Act (42 U.S.C. 7133(a)) is amended in the first sentence by striking “six Assistant Secretaries” and inserting “7 Assistant Secretaries”.

(2) ASSISTANT SECRETARY LEVEL.—It is the sense of Congress that the leadership for departmental missions in nuclear energy should be at the Assistant Secretary level.

(c) TECHNICAL AND CONFORMING AMENDMENTS.—

(1) Section 202 of the Department of Energy Organization Act (42 U.S.C. 7132) is amended by adding at the end the following:

“(d)(1) There shall be in the Department an Under Secretary, who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall perform such functions

and duties as the Secretary shall prescribe, consistent with this section.

“(2) The Under Secretary shall be compensated at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code.

“(e)(1) There shall be in the Department a General Counsel, who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall perform such functions and duties as the Secretary shall prescribe.

“(2) The General Counsel shall be compensated at the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code.”.

(2) Section 5314 of title 5, United States Code, is amended by striking “Under Secretaries of Energy (2)” and inserting “Under Secretaries of Energy (3)”.

(3) Section 5315 of title 5, United States Code, is amended by striking “Assistant Secretaries of Energy (6)” and inserting “Assistant Secretaries of Energy (7)”.

(4) Section 209(b) of the Department of Energy Organization Act (42 U.S.C. 7139(b)) is amended by striking paragraph (6) and inserting the following:

“(6) to carry out such additional duties assigned to the Office by the Secretary.”.

SEC. 1007. OTHER TRANSACTIONS AUTHORITY.

Section 646 of the Department of Energy Organization Act (42 U.S.C. 7256) is amended by adding at the end the following:

“(g)(1) In addition to authority granted to the Secretary under any other provision of law, the Secretary may exercise the same authority to enter into transactions (other than contracts, cooperative agreements, and grants), subject to the same terms and conditions as the Secretary of Defense under section 2371 of title 10, United States Code (other than subsections (b) and (f) of that section).

“(2) In applying section 2371 of title 10, United States Code, to the Secretary under paragraph (1)—

“(A) the term ‘basic’ shall be replaced by the term ‘research’;

“(B) the term ‘applied’ shall be replaced by the term ‘development’; and

“(C) the terms ‘advanced research projects’ and ‘advanced research’ shall be replaced by the term ‘demonstration projects’.

“(3) The authority of the Secretary under paragraph (1) shall not be subject to—

“(A) section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908); or

“(B) section 152 of the Atomic Energy Act of 1954 (42 U.S.C. 2182).

“(4)(A) The Secretary shall use such competitive, merit-based selection procedures in entering into transactions under paragraph (1), as the Secretary determines in writing to be practicable.

“(B) A transaction under paragraph (1) shall relate to a research, development, or demonstration project only if the Secretary

determines in writing that the use of a standard contract, grant, or cooperative agreement for the project is not feasible or appropriate.

“(5) The Secretary may protect from disclosure, for up to 5 years after the date on which the information is developed, any information developed pursuant to a transaction under paragraph (1) that would be protected from disclosure under section 552(b)(4) of title 5, United States Code, if obtained from a person other than a Federal agency.

“(6)(A) Not later than 90 days after the date of enactment of this subsection, the Secretary shall issue guidelines for transactions under paragraph (1).

“(B) The guidelines shall be published in the Federal Register for public comment in accordance with rulemaking procedures of the Department.

“(C) The Secretary shall not have authority to carry out transactions under paragraph (1) until the guidelines for transactions required under subparagraph (A) are final.

“(7) The annual report of the head of an executive agency under section 2371(h) of title 10, United States Code, shall be submitted to Congress.

“(8)(A) In this paragraph, the term ‘nontraditional Government contractor’ has the meaning given the term ‘nontraditional defense contractor’ in section 845(f) of the National Defense Authorization Act for Fiscal Year 1994 (Public Law 103–160; 10 U.S.C. 2371 note).

“(B) Not later than 1 year after the date on which the final guidelines are published under paragraph (6), the Comptroller General of the United States shall submit to Congress a report describing—

“(i) the use by the Department of authorities under this section, including the ability to attract nontraditional Government contractors; and

“(ii) whether additional safeguards are necessary to carry out the authorities.

“(9) The authority of the Secretary under this subsection may be delegated only to an officer of the Department who is appointed by the President by and with the advice and consent of the Senate.

“(10) Notwithstanding any other provision of law, the authority to enter into transactions under paragraph (1) shall terminate on September 30, 2010.”.

SEC. 1008. [42 U.S.C. 16396] PRIZES FOR ACHIEVEMENT IN GRAND CHALLENGES OF SCIENCE AND TECHNOLOGY.

(a) **AUTHORITY.**—The Secretary may carry out a program to award cash prizes in recognition of breakthrough achievements in research, development, demonstration, and commercial application that have the potential for application to the performance of the mission of the Department.

(b) **COMPETITION REQUIREMENTS.**—The program under subsection (a) may include prizes for the achievement of goals articulated by the Secretary in a specific area through a widely advertised solicitation of submission of results for research, development, demonstration, or commercial application projects.

(c) **PRIZES FOR PROCESSES AND TECHNOLOGIES TO REDUCE DEPENDENCE ON IMPORTED OIL.**—The Secretary, in cooperation with the Freedom Prize Foundation, shall support a program of awarding prizes, to be known as Freedom Prizes, to encourage and recognize the development and deployment of processes and technologies that serve to reduce the dependence of the United States on imported oil.

(d) **RELATIONSHIP TO OTHER AUTHORITY.**—The program under subsection (a) may be carried out in conjunction with or in addition to the exercise of any other authority of the Secretary to acquire, support, or stimulate research, development, demonstration, or commercial application projects.

(e) **COORDINATION.**—In carrying out subsection (a), and for any prize competitions under section 105 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, the Secretary shall—

(1) issue Department-wide guidance on the design, development, and implementation of prize competitions;

(2) collect and disseminate best practices on the design and administration of prize competitions;

(3) streamline contracting mechanisms for the implementation of prize competitions; and

(4) provide training and prize competition design support, as necessary, to Department staff to develop prize competitions and challenges.

(f) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated—

(1) \$10,000,000 to carry out the program under subsection (a); and

(2) \$5,000,000 to carry out the program under subsection (c).

(g) **H-PRIZE.**—

(1) **PRIZE AUTHORITY.**—

(A) **IN GENERAL.**—As part of the program under this section, the Secretary shall carry out a program to competitively award cash prizes in conformity with this subsection to advance the research, development, demonstration, and commercial application of hydrogen energy technologies.

(B) **ADVERTISING AND SOLICITATION OF COMPETITORS.**—

(i) **ADVERTISING.**—The Secretary shall widely advertise prize competitions under this subsection to encourage broad participation, including by individuals, universities (including historically Black colleges and universities and other minority serving institutions), and large and small businesses (including businesses owned or controlled by socially and economically disadvantaged persons).

(ii) **ANNOUNCEMENT THROUGH FEDERAL REGISTER NOTICE.**—The Secretary shall announce each prize competition under this subsection by publishing a notice in the Federal Register. This notice shall include essential elements of the competition such as the sub-

ject of the competition, the duration of the competition, the eligibility requirements for participation in the competition, the process for participants to register for the competition, the amount of the prize, and the criteria for awarding the prize.

(C) ADMINISTERING THE COMPETITIONS.—The Secretary shall enter into an agreement with a private, nonprofit entity to administer the prize competitions under this subsection, subject to the provisions of this subsection (in this subsection referred to as the “administering entity”). The duties of the administering entity under the agreement shall include—

(i) advertising prize competitions under this subsection and their results;

(ii) raising funds from private entities and individuals to pay for administrative costs and to contribute to cash prizes, including funds provided in exchange for the right to name a prize awarded under this subsection;

(iii) developing, in consultation with and subject to the final approval of the Secretary, the criteria for selecting winners in prize competitions under this subsection, based on goals provided by the Secretary;

(iv) determining, in consultation with the Secretary, the appropriate amount and funding sources for each prize to be awarded under this subsection, subject to the final approval of the Secretary with respect to Federal funding;

(v) providing advice and consultation to the Secretary on the selection of judges in accordance with paragraph (2)(D), using criteria developed in consultation with and subject to the final approval of the Secretary; and

(vi) protecting against the administering entity’s unauthorized use or disclosure of a registered participant’s trade secrets and confidential business information. Any information properly identified as trade secrets or confidential business information that is submitted by a participant as part of a competitive program under this subsection may be withheld from public disclosure.

(D) FUNDING SOURCES.—Prizes under this subsection shall consist of Federal appropriated funds and any funds provided by the administering entity (including funds raised pursuant to subparagraph (C)(ii)) for such cash prize programs. The Secretary may accept funds from other Federal agencies for such cash prizes and, notwithstanding section 3302(b) of title 31, United States Code, may use such funds for the cash prize program under this subsection. Other than publication of the names of prize sponsors, the Secretary may not give any special consideration to any private sector entity or individual in return for a donation to the Secretary or administering entity.

(E) ANNOUNCEMENT OF PRIZES.—The Secretary may not issue a notice required by subparagraph (B)(ii) until all the funds needed to pay out the announced amount of the prize have been appropriated or committed in writing by the administering entity. The Secretary may increase the amount of a prize after an initial announcement is made under subparagraph (B)(ii) if—

(i) notice of the increase is provided in the same manner as the initial notice of the prize; and

(ii) the funds needed to pay out the announced amount of the increase have been appropriated or committed in writing by the administering entity.

(F) SUNSET.—The authority to announce prize competitions under this subsection shall terminate on September 30, 2018.

(2) PRIZE CATEGORIES.—

(A) CATEGORIES.—The Secretary shall establish prizes under this subsection for—

(i) advancements in technologies, components, or systems related to—

(I) hydrogen production;

(II) hydrogen storage;

(III) hydrogen distribution; and

(IV) hydrogen utilization;

(ii) prototypes of hydrogen-powered vehicles or other hydrogen-based products that best meet or exceed objective performance criteria, such as completion of a race over a certain distance or terrain or generation of energy at certain levels of efficiency; and

(iii) transformational changes in technologies for the distribution or production of hydrogen that meet or exceed far-reaching objective criteria, which shall include minimal carbon emissions and which may include cost criteria designed to facilitate the eventual market success of a winning technology.

(B) AWARDS.—

(i) ADVANCEMENTS.—To the extent permitted under paragraph (1)(E), the prizes authorized under subparagraph (A)(i) shall be awarded biennially to the most significant advance made in each of the four subcategories described in subclauses (I) through (IV) of subparagraph (A)(i) since the submission deadline of the previous prize competition in the same category under subparagraph (A)(i) or the date of enactment of this subsection, whichever is later, unless no such advance is significant enough to merit an award. No one such prize may exceed \$1,000,000. If less than \$4,000,000 is available for a prize competition under subparagraph (A)(i), the Secretary may omit one or more subcategories, reduce the amount of the prizes, or not hold a prize competition.

(ii) PROTOTYPES.—To the extent permitted under paragraph (1)(E), prizes authorized under subparagraph (A)(ii) shall be awarded biennially in alternate

years from the prizes authorized under subparagraph (A)(i). The Secretary is authorized to award up to one prize in this category in each 2-year period. No such prize may exceed \$4,000,000. If no registered participants meet the objective performance criteria established pursuant to subparagraph (C) for a competition under this clause, the Secretary shall not award a prize.

(iii) TRANSFORMATIONAL TECHNOLOGIES.—To the extent permitted under paragraph (1)(E), the Secretary shall announce one prize competition authorized under subparagraph (A)(iii) as soon after the date of enactment of this subsection as is practicable. A prize offered under this clause shall be not less than \$10,000,000, paid to the winner in a lump sum, and an additional amount paid to the winner as a match for each dollar of private funding raised by the winner for the hydrogen technology beginning on the date the winner was named. The match shall be provided for 3 years after the date the prize winner is named or until the full amount of the prize has been paid out, whichever occurs first. A prize winner may elect to have the match amount paid to another entity that is continuing the development of the winning technology. The Secretary shall announce the rules for receiving the match in the notice required by paragraph (1)(B)(ii). The Secretary shall award a prize under this clause only when a registered participant has met the objective criteria established for the prize pursuant to subparagraph (C) and announced pursuant to paragraph (1)(B)(ii). Not more than \$10,000,000 in Federal funds may be used for the prize award under this clause. The administering entity shall seek to raise \$40,000,000 toward the matching award under this clause.

(C) CRITERIA.—In establishing the criteria required by this subsection, the Secretary—

(i) shall consult with the Department's Hydrogen Technical and Fuel Cell Advisory Committee;

(ii) shall consult with other Federal agencies, including the National Science Foundation; and

(iii) may consult with other experts such as private organizations, including professional societies, industry associations, and the National Academy of Sciences and the National Academy of Engineering.

(D) JUDGES.—For each prize competition under this subsection, the Secretary in consultation with the administering entity shall assemble a panel of qualified judges to select the winner or winners on the basis of the criteria established under subparagraph (C). Judges for each prize competition shall include individuals from outside the Department, including from the private sector. A judge, spouse, minor children, and members of the judge's household may not—

(i) have personal or financial interests in, or be an employee, officer, director, or agent of, any entity that is a registered participant in the prize competition for which he or she will serve as a judge; or

(ii) have a familial or financial relationship with an individual who is a registered participant in the prize competition for which he or she will serve as a judge.

(3) **ELIGIBILITY.**—To be eligible to win a prize under this subsection, an individual or entity—

(A) shall have complied with all the requirements in accordance with the Federal Register notice required under paragraph (1)(B)(ii);

(B) in the case of a private entity, shall be incorporated in and maintain a primary place of business in the United States, and in the case of an individual, whether participating singly or in a group, shall be a citizen of, or an alien lawfully admitted for permanent residence in, the United States; and

(C) shall not be a Federal entity, a Federal employee acting within the scope of his employment, or an employee of a national laboratory acting within the scope of his employment.

(4) **INTELLECTUAL PROPERTY.**—The Federal Government shall not, by virtue of offering or awarding a prize under this subsection, be entitled to any intellectual property rights derived as a consequence of, or direct relation to, the participation by a registered participant in a competition authorized by this subsection. This paragraph shall not be construed to prevent the Federal Government from negotiating a license for the use of intellectual property developed for a prize competition under this subsection.

(5) **LIABILITY.**—

(A) **WAIVER OF LIABILITY.**—The Secretary may require registered participants to waive claims against the Federal Government and the administering entity (except claims for willful misconduct) for any injury, death, damage, or loss of property, revenue, or profits arising from the registered participants' participation in a competition under this subsection. The Secretary shall give notice of any waiver required under this subparagraph in the notice required by paragraph (1)(B)(ii). The Secretary may not require a registered participant to waive claims against the administering entity arising out of the unauthorized use or disclosure by the administering entity of the registered participant's trade secrets or confidential business information.

(B) **LIABILITY INSURANCE.**—

(i) **REQUIREMENTS.**—Registered participants in a prize competition under this subsection shall be required to obtain liability insurance or demonstrate financial responsibility, in amounts determined by the Secretary, for claims by—

(I) a third party for death, bodily injury, or property damage or loss resulting from an activity carried out in connection with participation in a competition under this subsection; and

(II) the Federal Government for damage or loss to Government property resulting from such an activity.

(ii) **FEDERAL GOVERNMENT INSURED.**—The Federal Government shall be named as an additional insured under a registered participant's insurance policy required under clause (i)(I), and registered participants shall be required to agree to indemnify the Federal Government against third party claims for damages arising from or related to competition activities under this subsection.

(6) **REPORT TO CONGRESS.**—Not later than 60 days after the awarding of the first prize under this subsection, and annually thereafter, the Secretary shall transmit to the Congress a report that—

(A) identifies each award recipient;

(B) describes the technologies developed by each award recipient; and

(C) specifies actions being taken toward commercial application of all technologies with respect to which a prize has been awarded under this subsection.

(7) **AUTHORIZATION OF APPROPRIATIONS.**—

(A) **IN GENERAL.**—

(i) **AWARDS.**—There are authorized to be appropriated to the Secretary for the period encompassing fiscal years 2008 through 2017 for carrying out this subsection—

(I) \$20,000,000 for awards described in paragraph (2)(A)(i);

(II) \$20,000,000 for awards described in paragraph (2)(A)(ii); and

(III) \$10,000,000 for the award described in paragraph (2)(A)(iii).

(ii) **ADMINISTRATION.**—In addition to the amounts authorized in clause (i), there are authorized to be appropriated to the Secretary for each of fiscal years 2008 and 2009 \$2,000,000 for the administrative costs of carrying out this subsection.

(B) **CARRYOVER OF FUNDS.**—Funds appropriated for prize awards under this subsection shall remain available until expended, and may be transferred, reprogrammed, or expended for other purposes only after the expiration of 10 fiscal years after the fiscal year for which the funds were originally appropriated. No provision in this subsection permits obligation or payment of funds in violation of section 1341 of title 31 of the United States Code (commonly referred to as the Anti-Deficiency Act).

(8) **NONSUBSTITUTION.**—The programs created under this subsection shall not be considered a substitute for Federal research and development programs.

(h) REPORT.—In accordance with section 9007 of division Z of the Consolidated Appropriations Act, 2021 (Public Law 116–260), the Secretary shall report annually on a description of any prize competitions carried out using the authority under this section, the total amount of prizes awarded along with any private sector contributions, the methods used for solicitation and evaluation, and a description of how each prize competition advanced the mission of the Department.

SEC. 1009. TECHNICAL CORRECTIONS.

(a) COAL RESEARCH AND DEVELOPMENT.—

(1) IN GENERAL.—Public Law 86–599 (30 U.S.C. 661 et seq.) is amended—

(A) by striking the first section (30 U.S.C. 661) and inserting the following:

“SEC. 1. (a) This Act may be cited as the ‘Coal Research and Development Act of 1960’.

“(b) In this Act:

“(1) The term ‘research’ means scientific, technical, and economic research and the practical application of that research.

“(2) The term ‘Secretary’ means the Secretary of Energy.”;

(B) in section 2 (30 U.S.C. 662), by striking “shall establish within” and all that follows through “such Office”;

(C) by striking sections 3, 4, and 7 (30 U.S.C. 663, 664, 667); and

(D) by redesignating sections 5, 6, and 8 (30 U.S.C. 665, 666, 668) as sections 3, 4, and 5, respectively.

(2) PATENTS.—Section 210(a)(8) of title 35, United States Code, is amended by striking “Coal Research Development Act of 1960” and inserting “Coal Research and Development Act of 1960”.

(b) NONNUCLEAR ENERGY RESEARCH AND DEVELOPMENT.—

(1) SHORT TITLE; DEFINITIONS.—Section 1 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5902) is amended to read as follows:

“SHORT TITLE AND DEFINITIONS

“SEC. 1. (a) This Act may be cited as the ‘Federal Nonnuclear Energy Research and Development Act of 1974’.

“(b) In this Act:

“(1) The term ‘Department’ means the Department of Energy.

“(2) The term ‘Secretary’ means the Secretary of Energy.”.

(2) STATEMENT OF POLICY.—Section 3(b) of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5902(b)) is amended—

(A) in paragraph (1), by striking “Energy Research and Development Administration” and inserting “Department”;

(B) in paragraph (2), by striking “Administrator of the Energy Research and Development Administration (hereinafter in this Act referred to as the ‘Administrator’)” and inserting “Secretary”; and

- (C) in paragraph (3)—
- (i) by striking “Administrator” and inserting “Secretary”; and
 - (ii) by inserting “Demonstration” after “Cooling”.
- (3) DUTIES AND AUTHORITIES.—Section 4 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5903) is amended—
- (A) by striking the section heading and inserting the following: “DUTIES AND AUTHORITIES OF THE SECRETARY”; and
 - (B) in the matter preceding subsection (a), by striking “Administrator” and inserting “Secretary”.
- (4) COMPREHENSIVE PLANNING AND PROGRAMMING.—Section 6 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5905) is amended—
- (A) by striking “Administrator” each place it appears and inserting “Secretary”; and
 - (B) in subsection (b)(3)—
 - (i) in subparagraph (I), by inserting “Demonstration” after “Cooling”; and
 - (ii) in subparagraph (L), by inserting “Energy” after “Solar”.
- (5) FORMS OF FEDERAL ASSISTANCE.—Section 7 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5906) is amended—
- (A) by striking “Administrator” each place it appears and inserting “Secretary”; and
 - (B) in subsection (a)(4), by striking “of the section”.
- (6) DEMONSTRATIONS.—Section 8 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5907) is amended—
- (A) in subsections (a) through (c), by striking “Administrator” each place it appears and inserting “Secretary”; and
 - (B) in subsection (d)—
 - (i) in the first sentence of paragraph (1), by inserting “of the Energy Research and Development Administration” after “Administrator”; and
 - (ii) in paragraph (3), by striking “Administrator” and inserting “Secretary”; and
 - (C) in subsection (f)—
 - (i) by striking “Administrator” each place it appears and inserting “Secretary”; and
 - (ii) in the proviso of the first sentence, by striking “Administrator’s” and inserting “Secretary’s”.
- (7) PATENT POLICY.—Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908) is amended—
- (A) by striking “Administration” each place it appears and inserting “Department”; and
 - (B) by striking “Administrator” each place it appears and inserting “Secretary”; and
 - (C) in subsection (c)(3), by striking “Administration’s” and inserting “Department’s”.

(8) ACQUISITION OF ESSENTIAL MATERIALS.—Section 12 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5911) is amended by striking subsection (b) and inserting the following:

“(b) A rule or order under subsection (a) shall be considered to be a major rule subject to chapter 8 of title 5, United States Code.”.

(9) WATER RESOURCE EVALUATION.—Section 13 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5912) is amended by striking “Administrator” each place it appears and inserting “Secretary”.

(10) AUTHORIZATION OF APPROPRIATIONS.—Section 16 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5915) is amended—

(A) by striking the section heading and inserting the following: “AUTHORIZATION OF APPROPRIATIONS”;

(B) by striking “(a) There may be appropriated to the Administrator” and inserting “There may be appropriated to the Secretary”; and

(C) by striking subsections (b) and (c).

(11) CENTRAL SOURCE OF NONNUCLEAR ENERGY INFORMATION.—Section 17 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5916) is amended—

(A) by striking “Administrator” each place it appears and inserting “Secretary”;

(B) in the first sentence, by striking “Administrator’s”;

(C) in the second sentence, by striking “he” and inserting “the Secretary”;

(D) in the third sentence—

(i) in paragraph (2) of the first proviso, by striking “section 1905 or title 18” and inserting “section 1905 of title 18”; and

(ii) in subparagraph (B) of the second proviso—

(I) by striking “the Federal Energy Administration,”;

(II) by striking “the Federal Power Commission,” and inserting “the Federal Energy Regulatory Commission”; and

(III) by striking “General Accounting Office” and inserting “Government Accountability Office”; and

(E) in the last sentence, by inserting “or ranking minority member” after “chairman”.

(12) ENERGY INFORMATION, LOAN GUARANTEES, AND FINANCIAL SUPPORT.—Sections 18 through 20 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5917 through 5920) are repealed.

(c) STEVENSON-WYDLER TECHNOLOGY INNOVATION ACT OF 1980.—Section 20 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3712) is amended by striking “and the National Science Foundation” and inserting “, the Secretary of Energy, and the Director of the National Science Foundation”.

SEC. 1010. UNIVERSITY COLLABORATION.

Not later than 2 years after the date of enactment of this Act, the Secretary shall transmit to the Congress a report that examines the feasibility of promoting collaborations between major universities and other colleges and universities in grants, contracts, and cooperative agreements made by the Secretary for energy projects. For purposes of this section, major universities are schools listed by the Carnegie Foundation as Doctoral Research Extensive Universities. The Secretary shall also consider providing incentives to increase the inclusion of small institutions of higher education, including minority-serving institutions, in energy grants, contracts, and cooperative agreements.

SEC. 1011. SENSE OF CONGRESS.

It is the sense of Congress that—

(1) the Secretary should develop and implement more stringent procurement and inventory controls, including controls on the purchase card program, to prevent waste, fraud, and abuse of taxpayer funds by employees and contractors of the Department; and

(2) the Department's Inspector General should continue to closely review purchase card purchases and other procurement and inventory practices at the Department.

TITLE XI—PERSONNEL AND TRAINING

SEC. 1101. [42 U.S.C. 16411] WORKFORCE TRENDS AND TRAINEESHIP GRANTS.

(a) **DEFINITIONS.**—In this section:

(1) **ENERGY TECHNOLOGY INDUSTRY.**—The term “energy technology industry” includes—

- (A) a renewable energy industry;
- (B) a company that develops or commercializes a device to increase energy efficiency;
- (C) the oil and gas industry;
- (D) the nuclear power industry;
- (E) the coal industry;
- (F) the electric utility industry; and
- (G) any other industrial sector, as the Secretary determines to be appropriate.

(2) **SKILLED TECHNICAL PERSONNEL.**—The term “skilled technical personnel” means—

- (A) journey- and apprentice-level workers who are enrolled in, or have completed, a federally-recognized or State-recognized apprenticeship program; and
- (B) other skilled workers in energy technology industries, as determined by the Secretary.

(b) **WORKFORCE TRENDS.**—

(1) **MONITORING.**—The Secretary, in consultation with, and using data collected by, the Secretary of Labor, shall monitor trends in the workforce of—

- (A) skilled technical personnel that support energy technology industries; and
- (B) electric power and transmission engineers.

(2) REPORT ON TRENDS.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report on current trends under paragraph (1), with recommendations (as appropriate) to meet the future labor requirements for the energy technology industries.

(3) REPORT ON SHORTAGE.—As soon as practicable after the date on which the Secretary identifies or predicts a significant national shortage of skilled technical personnel in one or more energy technology industries, the Secretary shall submit to Congress a report describing the shortage.

(c) TRAINEESHIP GRANTS FOR SKILLED TECHNICAL PERSONNEL.—The Secretary, in consultation with the Secretary of Labor, may establish programs in the appropriate offices of the Department under which the Secretary provides grants to enhance training (including distance learning) for any workforce category for which a shortage is identified or predicted under subsection (b)(2).

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$20,000,000 for each of fiscal years 2006 through 2008.

SEC. 1102. EDUCATIONAL PROGRAMS IN SCIENCE AND MATHEMATICS.

(a) SCIENCE EDUCATION ENHANCEMENT FUND.—Section 3164 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) is amended by adding at the end:

“(c) SCIENCE EDUCATION ENHANCEMENT FUND.—The Secretary shall use not less than 0.3 percent of the amount made available to the Department for research, development, demonstration, and commercial application for fiscal year 2006 and each fiscal year thereafter to carry out activities authorized by this part.”.

(b) AUTHORIZED EDUCATION ACTIVITIES.—Section 3165 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381b) is amended by adding at the end the following:

“(14) Support competitive events for students under the supervision of teachers, designed to encourage student interest and knowledge in science and mathematics.

“(15) Support competitively-awarded, peer-reviewed programs to promote professional development for mathematics teachers and science teachers who teach in grades from kindergarten through grade 12 at Department research and development facilities.

“(16) Support summer internships at Department research and development facilities, for mathematics teachers and science teachers who teach in grades from kindergarten through grade 12.

“(17) Sponsor and assist in educational and training activities identified as critical skills needs for future workforce development at Department research and development facilities.”.

(c) EDUCATIONAL PARTNERSHIPS.—Section 3166(b) of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381c(b)) is amended—

(1) by striking paragraph (1) and inserting the following:

“(1) loaning or transferring equipment to the institution;”;

- (2) in paragraph (5), by striking “and” at the end;
- (3) in paragraph (6), by striking the period at the end and inserting “; and”; and
- (4) by adding at the end the following:
 “(7) providing funds to educational institutions to hire personnel to facilitate interactions between local school systems, Department research and development facilities, and corporate and governmental entities.”.
- (d) **DEFINITION OF DEPARTMENT RESEARCH AND DEVELOPMENT FACILITIES.**—Section 3167(3) of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381d(3)) is amended by striking “from the Office of Science of the Department of Energy” and inserting “by the Department of Energy”.
- (e) **STUDY.**—
 - (1) **IN GENERAL.**—The Secretary, in consultation with the Secretary of Education, shall enter into an arrangement with the National Academy of Public Administration to conduct a study of the priorities, quality, local and regional flexibility, and plans for educational programs at Department research and development facilities.
 - (2) **INCLUSION.**—The study shall recommend measures that the Secretary may take to improve Department-wide coordination of educational, workforce development, and critical skills development activities.
 - (3) **REPORT.**—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report on the results of the study conducted under this subsection.

SEC. 1103. [42 U.S.C. 16412] TRAINING GUIDELINES FOR NONNUCLEAR ELECTRIC ENERGY INDUSTRY PERSONNEL.

- (a) **IN GENERAL.**—The Secretary of Labor, in consultation with the Secretary and in conjunction with the electric industry and recognized employee representatives, shall develop model personnel training guidelines to support the reliability and safety of the non-nuclear electric system.
- (b) **REQUIREMENTS.**—The training guidelines under subsection (a) shall, at a minimum—
 - (1) include training requirements for workers engaged in the construction, operation, inspection, or maintenance of non-nuclear electric generation, transmission, or distribution systems, including requirements relating to—
 - (A) competency;
 - (B) certification; and
 - (C) assessment, including—
 - (i) initial and continuous evaluation of workers;
 - (ii) recertification procedures; and
 - (iii) methods for examining or testing the qualification of an individual who performs a covered task;
 - (2) consolidate training guidelines in existence on the date on which the guidelines under subsection (a) are developed relating to the construction, operation, maintenance, and inspection of nonnuclear electric generation, transmission, and distribution facilities, such as guidelines established by the Na-

tional Electric Safety Code and other industry consensus standards.

SEC. 1104. [42 U.S.C. 16413] NATIONAL CENTER FOR ENERGY MANAGEMENT AND BUILDING TECHNOLOGIES.

The Secretary shall support the ongoing activities of and explore opportunities for expansion of the National Center for Energy Management and Building Technologies to carry out research, education, and training activities to facilitate the improvement of energy efficiency, indoor environmental quality, and security of industrial, commercial, residential, and public buildings.

SEC. 1105. IMPROVED ACCESS TO ENERGY-RELATED SCIENTIFIC AND TECHNICAL CAREERS.

(a) **SCIENCE EDUCATION PROGRAMS.**—Section 3164 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) (as amended by section 1102(a)) is amended by adding at the end the following:

“(d) **PROGRAMS FOR STUDENTS FROM UNDER-REPRESENTED GROUPS.**—In carrying out a program under subsection (a), the Secretary shall give priority to activities that are designed to encourage students from under-represented groups to pursue scientific and technical careers.”

(b) **PARTNERSHIPS WITH HISTORICALLY BLACK COLLEGES AND UNIVERSITIES, HISPANIC-SERVICING INSTITUTIONS, AND TRIBAL COLLEGES.**—The Department of Energy Science Education Enhancement Act (42 U.S.C. 7381 et seq.) is amended—

(1) by redesignating sections 3167 and 3168 as sections 3168 and 3169, respectively; and

(2) by inserting after section 3166 the following:

“SEC. 3167. PARTNERSHIPS WITH HISTORICALLY BLACK COLLEGES AND UNIVERSITIES, HISPANIC-SERVICING INSTITUTIONS, AND TRIBAL COLLEGES.

“(a) **DEFINITIONS.**—In this section:

“(1) **HISPANIC-SERVING INSTITUTION.**—The term ‘Hispanic-serving institution’ has the meaning given the term in section 502(a) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)).

“(2) **HISTORICALLY BLACK COLLEGE OR UNIVERSITY.**—The term ‘historically Black college or university’ has the meaning given the term ‘part B institution’ in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

“(3) **NATIONAL LABORATORY.**—The term ‘National Laboratory’ has the meaning given the term in section 2 of the Energy Policy Act of 2005.

“(4) **SCIENCE FACILITY.**—The term ‘science facility’ has the meaning given the term ‘single-purpose research facility’ in section 903 of the Energy Policy Act of 2005.

“(5) **TRIBAL COLLEGE.**—The term ‘tribal college’ has the meaning given the term ‘tribally controlled college or university’ in section 2(a) of the Tribally Controlled College Assistance Act of 1978 (25 U.S.C. 1801(a)).

“(b) **EDUCATION PARTNERSHIP.**—The Secretary shall require the director of each National Laboratory, and may require the head of any science facility, to increase the participation of historically

Black colleges or universities, Hispanic-serving institutions, or tribal colleges in any activity that increases the capacity of the historically Black colleges or universities, Hispanic-serving institutions, or tribal colleges to train personnel in science or engineering.

“(c) ACTIVITIES.—An activity described in subsection (b) includes—

- “(1) collaborative research;
- “(2) equipment transfer;
- “(3) training activities carried out at a National Laboratory or science facility; and
- “(4) mentoring activities carried out at a National Laboratory or science facility.

“(d) REPORT.—Not later than 2 years after the date of enactment of this subsection, the Secretary shall submit to Congress a report describing the activities carried out under this section.”.

SEC. 1106. [42 U.S.C. 16414] NATIONAL POWER PLANT OPERATIONS TECHNOLOGY AND EDUCATIONAL CENTER.

(a) ESTABLISHMENT.—The Secretary shall support the establishment of a National Power Plant Operations Technology and Education Center (referred to in this section as the “Center”), to address the need for training and educating certified operators and technicians for the electric power industry.

(b) LOCATION OF CENTER.—The Secretary shall support the establishment of the Center at an institution of higher education that has—

- (1) expertise in providing degree programs in electric power generation, transmission, and distribution technologies;
- (2) expertise in providing onsite and Internet-based training; and
- (3) demonstrated responsiveness to workforce and training requirements in the electric power industry.

(c) TRAINING AND CONTINUING EDUCATION.—

(1) IN GENERAL.—The Center shall provide training and continuing education in electric power generation, transmission, and distribution technologies and operations.

(2) LOCATION.—The Center shall carry out training and education activities under paragraph (1)—

- (A) at the Center; and
- (B) through Internet-based information technologies that allow for learning at remote sites.

TITLE XII—ELECTRICITY

SEC. 1201. [42 U.S.C. 15801 note] SHORT TITLE.

This title may be cited as the “Electricity Modernization Act of 2005”.

Subtitle A—Reliability Standards

SEC. 1211. ELECTRIC RELIABILITY STANDARDS.

(a) IN GENERAL.—Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

“SEC. 215. ELECTRIC RELIABILITY.

“(a) **DEFINITIONS.**—For purposes of this section:

“(1) The term ‘bulk-power system’ means—

“(A) facilities and control systems necessary for operating an interconnected electric energy transmission network (or any portion thereof); and

“(B) electric energy from generation facilities needed to maintain transmission system reliability.

The term does not include facilities used in the local distribution of electric energy.

“(2) The terms ‘Electric Reliability Organization’ and ‘ERO’ mean the organization certified by the Commission under subsection (c) the purpose of which is to establish and enforce reliability standards for the bulk-power system, subject to Commission review.

“(3) The term ‘reliability standard’ means a requirement, approved by the Commission under this section, to provide for reliable operation of the bulk-power system. The term includes requirements for the operation of existing bulk-power system facilities, including cybersecurity protection, and the design of planned additions or modifications to such facilities to the extent necessary to provide for reliable operation of the bulk-power system, but the term does not include any requirement to enlarge such facilities or to construct new transmission capacity or generation capacity.

“(4) The term ‘reliable operation’ means operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.

“(5) The term ‘Interconnection’ means a geographic area in which the operation of bulk-power system components is synchronized such that the failure of one or more of such components may adversely affect the ability of the operators of other components within the system to maintain reliable operation of the facilities within their control.

“(6) The term ‘transmission organization’ means a Regional Transmission Organization, Independent System Operator, independent transmission provider, or other transmission organization finally approved by the Commission for the operation of transmission facilities.

“(7) The term ‘regional entity’ means an entity having enforcement authority pursuant to subsection (e)(4).

“(8) The term ‘cybersecurity incident’ means a malicious act or suspicious event that disrupts, or was an attempt to disrupt, the operation of those programmable electronic devices and communication networks including hardware, software and data that are essential to the reliable operation of the bulk power system.

“(b) **JURISDICTION AND APPLICABILITY.**—(1) The Commission shall have jurisdiction, within the United States, over the ERO certified by the Commission under subsection (c), any regional enti-

ties, and all users, owners and operators of the bulk-power system, including but not limited to the entities described in section 201(f), for purposes of approving reliability standards established under this section and enforcing compliance with this section. All users, owners and operators of the bulk-power system shall comply with reliability standards that take effect under this section.

“(2) The Commission shall issue a final rule to implement the requirements of this section not later than 180 days after the date of enactment of this section.

“(c) CERTIFICATION.—Following the issuance of a Commission rule under subsection (b)(2), any person may submit an application to the Commission for certification as the Electric Reliability Organization. The Commission may certify one such ERO if the Commission determines that such ERO—

“(1) has the ability to develop and enforce, subject to subsection (e)(2), reliability standards that provide for an adequate level of reliability of the bulk-power system; and

“(2) has established rules that—

“(A) assure its independence of the users and owners and operators of the bulk-power system, while assuring fair stakeholder representation in the selection of its directors and balanced decisionmaking in any ERO committee or subordinate organizational structure;

“(B) allocate equitably reasonable dues, fees, and other charges among end users for all activities under this section;

“(C) provide fair and impartial procedures for enforcement of reliability standards through the imposition of penalties in accordance with subsection (e) (including limitations on activities, functions, or operations, or other appropriate sanctions);

“(D) provide for reasonable notice and opportunity for public comment, due process, openness, and balance of interests in developing reliability standards and otherwise exercising its duties; and

“(E) provide for taking, after certification, appropriate steps to gain recognition in Canada and Mexico.

“(d) RELIABILITY STANDARDS.—(1) The Electric Reliability Organization shall file each reliability standard or modification to a reliability standard that it proposes to be made effective under this section with the Commission.

“(2) The Commission may approve, by rule or order, a proposed reliability standard or modification to a reliability standard if it determines that the standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest. The Commission shall give due weight to the technical expertise of the Electric Reliability Organization with respect to the content of a proposed standard or modification to a reliability standard and to the technical expertise of a regional entity organized on an Interconnection-wide basis with respect to a reliability standard to be applicable within that Interconnection, but shall not defer with respect to the effect of a standard on competition. A proposed standard or modification shall take effect upon approval by the Commission.

“(3) The Electric Reliability Organization shall rebuttably presume that a proposal from a regional entity organized on an Interconnection-wide basis for a reliability standard or modification to a reliability standard to be applicable on an Interconnection-wide basis is just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

“(4) The Commission shall remand to the Electric Reliability Organization for further consideration a proposed reliability standard or a modification to a reliability standard that the Commission disapproves in whole or in part.

“(5) The Commission, upon its own motion or upon complaint, may order the Electric Reliability Organization to submit to the Commission a proposed reliability standard or a modification to a reliability standard that addresses a specific matter if the Commission considers such a new or modified reliability standard appropriate to carry out this section.

“(6) The final rule adopted under subsection (b)(2) shall include fair processes for the identification and timely resolution of any conflict between a reliability standard and any function, rule, order, tariff, rate schedule, or agreement accepted, approved, or ordered by the Commission applicable to a transmission organization. Such transmission organization shall continue to comply with such function, rule, order, tariff, rate schedule or agreement accepted, approved, or ordered by the Commission until—

“(A) the Commission finds a conflict exists between a reliability standard and any such provision;

“(B) the Commission orders a change to such provision pursuant to section 206 of this part; and

“(C) the ordered change becomes effective under this part. If the Commission determines that a reliability standard needs to be changed as a result of such a conflict, it shall order the ERO to develop and file with the Commission a modified reliability standard under paragraph (4) or (5) of this subsection.

“(e) ENFORCEMENT.—(1) The ERO may impose, subject to paragraph (2), a penalty on a user or owner or operator of the bulk-power system for a violation of a reliability standard approved by the Commission under subsection (d) if the ERO, after notice and an opportunity for a hearing—

“(A) finds that the user or owner or operator has violated a reliability standard approved by the Commission under subsection (d); and

“(B) files notice and the record of the proceeding with the Commission.

“(2) A penalty imposed under paragraph (1) may take effect not earlier than the 31st day after the ERO files with the Commission notice of the penalty and the record of proceedings. Such penalty shall be subject to review by the Commission, on its own motion or upon application by the user, owner or operator that is the subject of the penalty filed within 30 days after the date such notice is filed with the Commission. Application to the Commission for review, or the initiation of review by the Commission on its own motion, shall not operate as a stay of such penalty unless the Commission otherwise orders upon its own motion or upon application by the user, owner or operator that is the subject of such penalty.

In any proceeding to review a penalty imposed under paragraph (1), the Commission, after notice and opportunity for hearing (which hearing may consist solely of the record before the ERO and opportunity for the presentation of supporting reasons to affirm, modify, or set aside the penalty), shall by order affirm, set aside, reinstate, or modify the penalty, and, if appropriate, remand to the ERO for further proceedings. The Commission shall implement expedited procedures for such hearings.

“(3) On its own motion or upon complaint, the Commission may order compliance with a reliability standard and may impose a penalty against a user or owner or operator of the bulk-power system if the Commission finds, after notice and opportunity for a hearing, that the user or owner or operator of the bulk-power system has engaged or is about to engage in any acts or practices that constitute or will constitute a violation of a reliability standard.

“(4) The Commission shall issue regulations authorizing the ERO to enter into an agreement to delegate authority to a regional entity for the purpose of proposing reliability standards to the ERO and enforcing reliability standards under paragraph (1) if—

“(A) the regional entity is governed by—

“(i) an independent board;

“(ii) a balanced stakeholder board; or

“(iii) a combination independent and balanced stakeholder board.

“(B) the regional entity otherwise satisfies the provisions of subsection (c)(1) and (2); and

“(C) the agreement promotes effective and efficient administration of bulk-power system reliability.

The Commission may modify such delegation. The ERO and the Commission shall rebuttably presume that a proposal for delegation to a regional entity organized on an Interconnection-wide basis promotes effective and efficient administration of bulk-power system reliability and should be approved. Such regulation may provide that the Commission may assign the ERO’s authority to enforce reliability standards under paragraph (1) directly to a regional entity consistent with the requirements of this paragraph.

“(5) The Commission may take such action as is necessary or appropriate against the ERO or a regional entity to ensure compliance with a reliability standard or any Commission order affecting the ERO or a regional entity.

“(6) Any penalty imposed under this section shall bear a reasonable relation to the seriousness of the violation and shall take into consideration the efforts of such user, owner, or operator to remedy the violation in a timely manner.

“(f) CHANGES IN ELECTRIC RELIABILITY ORGANIZATION RULES.—The Electric Reliability Organization shall file with the Commission for approval any proposed rule or proposed rule change, accompanied by an explanation of its basis and purpose. The Commission, upon its own motion or complaint, may propose a change to the rules of the ERO. A proposed rule or proposed rule change shall take effect upon a finding by the Commission, after notice and opportunity for comment, that the change is just, reasonable, not unduly discriminatory or preferential, is in the public interest, and satisfies the requirements of subsection (c).

“(g) RELIABILITY REPORTS.—The ERO shall conduct periodic assessments of the reliability and adequacy of the bulk-power system in North America.

“(h) COORDINATION WITH CANADA AND MEXICO.—The President is urged to negotiate international agreements with the governments of Canada and Mexico to provide for effective compliance with reliability standards and the effectiveness of the ERO in the United States and Canada or Mexico.

“(i) SAVINGS PROVISIONS.—(1) The ERO shall have authority to develop and enforce compliance with reliability standards for only the bulk-power system.

“(2) This section does not authorize the ERO or the Commission to order the construction of additional generation or transmission capacity or to set and enforce compliance with standards for adequacy or safety of electric facilities or services.

“(3) Nothing in this section shall be construed to preempt any authority of any State to take action to ensure the safety, adequacy, and reliability of electric service within that State, as long as such action is not inconsistent with any reliability standard, except that the State of New York may establish rules that result in greater reliability within that State, as long as such action does not result in lesser reliability outside the State than that provided by the reliability standards.

“(4) Within 90 days of the application of the Electric Reliability Organization or other affected party, and after notice and opportunity for comment, the Commission shall issue a final order determining whether a State action is inconsistent with a reliability standard, taking into consideration any recommendation of the ERO.

“(5) The Commission, after consultation with the ERO and the State taking action, may stay the effectiveness of any State action, pending the Commission’s issuance of a final order.

“(j) REGIONAL ADVISORY BODIES.—The Commission shall establish a regional advisory body on the petition of at least two-thirds of the States within a region that have more than one-half of their electric load served within the region. A regional advisory body shall be composed of one member from each participating State in the region, appointed by the Governor of each State, and may include representatives of agencies, States, and provinces outside the United States. A regional advisory body may provide advice to the Electric Reliability Organization, a regional entity, or the Commission regarding the governance of an existing or proposed regional entity within the same region, whether a standard proposed to apply within the region is just, reasonable, not unduly discriminatory or preferential, and in the public interest, whether fees proposed to be assessed within the region are just, reasonable, not unduly discriminatory or preferential, and in the public interest and any other responsibilities requested by the Commission. The Commission may give deference to the advice of any such regional advisory body if that body is organized on an Interconnection-wide basis.

“(k) ALASKA AND HAWAII.—The provisions of this section do not apply to Alaska or Hawaii.”

(b) **STATUS OF ERO.**—The Electric Reliability Organization certified by the Federal Energy Regulatory Commission under section 215(c) of the Federal Power Act and any regional entity delegated enforcement authority pursuant to section 215(e)(4) of that Act are not departments, agencies, or instrumentalities of the United States Government.

(c) **ACCESS APPROVALS BY FEDERAL AGENCIES.**—Federal agencies responsible for approving access to electric transmission or distribution facilities located on lands within the United States shall, in accordance with applicable law, expedite any Federal agency approvals that are necessary to allow the owners or operators of such facilities to comply with any reliability standard, approved by the Commission under section 215 of the Federal Power Act, that pertains to vegetation management, electric service restoration, or resolution of situations that imminently endanger the reliability or safety of the facilities.

Subtitle B—Transmission Infrastructure Modernization

SEC. 1221. SITING OF INTERSTATE ELECTRIC TRANSMISSION FACILITIES.

(a) **IN GENERAL.**—Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

“SEC. 216. SITING OF INTERSTATE ELECTRIC TRANSMISSION FACILITIES.

“(a) **DESIGNATION OF NATIONAL INTEREST ELECTRIC TRANSMISSION CORRIDORS.**—(1) Not later than 1 year after the date of enactment of this section and every 3 years thereafter, the Secretary of Energy (referred to in this section as the ‘Secretary’), in consultation with affected States, shall conduct a study of electric transmission congestion.

“(2) After considering alternatives and recommendations from interested parties (including an opportunity for comment from affected States), the Secretary shall issue a report, based on the study, which may designate any geographic area experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers as a national interest electric transmission corridor.

“(3) The Secretary shall conduct the study and issue the report in consultation with any appropriate regional entity referred to in section 215.

“(4) In determining whether to designate a national interest electric transmission corridor under paragraph (2), the Secretary may consider whether—

“(A) the economic vitality and development of the corridor, or the end markets served by the corridor, may be constrained by lack of adequate or reasonably priced electricity;

“(B)(i) economic growth in the corridor, or the end markets served by the corridor, may be jeopardized by reliance on limited sources of energy; and

“(ii) a diversification of supply is warranted;

“(C) the energy independence of the United States would be served by the designation;

“(D) the designation would be in the interest of national energy policy; and

“(E) the designation would enhance national defense and homeland security.

“(b) CONSTRUCTION PERMIT.—Except as provided in subsection (i), the Commission may, after notice and an opportunity for hearing, issue one or more permits for the construction or modification of electric transmission facilities in a national interest electric transmission corridor designated by the Secretary under subsection (a) if the Commission finds that—

“(1)(A) a State in which the transmission facilities are to be constructed or modified does not have authority to—

“(i) approve the siting of the facilities; or

“(ii) consider the interstate benefits expected to be achieved by the proposed construction or modification of transmission facilities in the State;

“(B) the applicant for a permit is a transmitting utility under this Act but does not qualify to apply for a permit or siting approval for the proposed project in a State because the applicant does not serve end-use customers in the State; or

“(C) a State commission or other entity that has authority to approve the siting of the facilities has—

“(i) withheld approval for more than 1 year after the filing of an application seeking approval pursuant to applicable law or 1 year after the designation of the relevant national interest electric transmission corridor, whichever is later; or

“(ii) conditioned its approval in such a manner that the proposed construction or modification will not significantly reduce transmission congestion in interstate commerce or is not economically feasible;

“(2) the facilities to be authorized by the permit will be used for the transmission of electric energy in interstate commerce;

“(3) the proposed construction or modification is consistent with the public interest;

“(4) the proposed construction or modification will significantly reduce transmission congestion in interstate commerce and protects or benefits consumers;

“(5) the proposed construction or modification is consistent with sound national energy policy and will enhance energy independence; and

“(6) the proposed modification will maximize, to the extent reasonable and economical, the transmission capabilities of existing towers or structures.

“(c) PERMIT APPLICATIONS.—(1) Permit applications under subsection (b) shall be made in writing to the Commission.

“(2) The Commission shall issue rules specifying—

“(A) the form of the application;

“(B) the information to be contained in the application; and

“(C) the manner of service of notice of the permit application on interested persons.

“(d) COMMENTS.—In any proceeding before the Commission under subsection (b), the Commission shall afford each State in which a transmission facility covered by the permit is or will be located, each affected Federal agency and Indian tribe, private property owners, and other interested persons, a reasonable opportunity to present their views and recommendations with respect to the need for and impact of a facility covered by the permit.

“(e) RIGHTS-OF-WAY.—(1) In the case of a permit under subsection (b) for electric transmission facilities to be located on property other than property owned by the United States or a State, if the permit holder cannot acquire by contract, or is unable to agree with the owner of the property to the compensation to be paid for, the necessary right-of-way to construct or modify the transmission facilities, the permit holder may acquire the right-of-way by the exercise of the right of eminent domain in the district court of the United States for the district in which the property concerned is located, or in the appropriate court of the State in which the property is located.

“(2) Any right-of-way acquired under paragraph (1) shall be used exclusively for the construction or modification of electric transmission facilities within a reasonable period of time after the acquisition.

“(3) The practice and procedure in any action or proceeding under this subsection in the district court of the United States shall conform as nearly as practicable to the practice and procedure in a similar action or proceeding in the courts of the State in which the property is located.

“(4) Nothing in this subsection shall be construed to authorize the use of eminent domain to acquire a right-of-way for any purpose other than the construction, modification, operation, or maintenance of electric transmission facilities and related facilities. The right-of-way cannot be used for any other purpose, and the right-of-way shall terminate upon the termination of the use for which the right-of-way was acquired.

“(f) COMPENSATION.—(1) Any right-of-way acquired pursuant to subsection (e) shall be considered a taking of private property for which just compensation is due.

“(2) Just compensation shall be an amount equal to the fair market value (including applicable severance damages) of the property taken on the date of the exercise of eminent domain authority.

“(g) STATE LAW.—Nothing in this section precludes any person from constructing or modifying any transmission facility in accordance with State law.

“(h) COORDINATION OF FEDERAL AUTHORIZATIONS FOR TRANSMISSION FACILITIES.—(1) In this subsection:

“(A) The term ‘Federal authorization’ means any authorization required under Federal law in order to site a transmission facility.

“(B) The term ‘Federal authorization’ includes such permits, special use authorizations, certifications, opinions, or other approvals as may be required under Federal law in order to site a transmission facility.

“(2) The Department of Energy shall act as the lead agency for purposes of coordinating all applicable Federal authorizations and related environmental reviews of the facility.

“(3) To the maximum extent practicable under applicable Federal law, the Secretary shall coordinate the Federal authorization and review process under this subsection with any Indian tribes, multistate entities, and State agencies that are responsible for conducting any separate permitting and environmental reviews of the facility, to ensure timely and efficient review and permit decisions.

“(4)(A) As head of the lead agency, the Secretary, in consultation with agencies responsible for Federal authorizations and, as appropriate, with Indian tribes, multistate entities, and State agencies that are willing to coordinate their own separate permitting and environmental reviews with the Federal authorization and environmental reviews, shall establish prompt and binding intermediate milestones and ultimate deadlines for the review of, and Federal authorization decisions relating to, the proposed facility.

“(B) The Secretary shall ensure that, once an application has been submitted with such data as the Secretary considers necessary, all permit decisions and related environmental reviews under all applicable Federal laws shall be completed—

“(i) within 1 year; or

“(ii) if a requirement of another provision of Federal law does not permit compliance with clause (i), as soon thereafter as is practicable.

“(C) The Secretary shall provide an expeditious pre-application mechanism for prospective applicants to confer with the agencies involved to have each such agency determine and communicate to the prospective applicant not later than 60 days after the prospective applicant submits a request for such information concerning—

“(i) the likelihood of approval for a potential facility; and

“(ii) key issues of concern to the agencies and public.

“(5)(A) As lead agency head, the Secretary, in consultation with the affected agencies, shall prepare a single environmental review document, which shall be used as the basis for all decisions on the proposed project under Federal law.

“(B) The Secretary and the heads of other agencies shall streamline the review and permitting of transmission within corridors designated under section 503 of the Federal Land Policy and Management Act (43 U.S.C. 1763) by fully taking into account prior analyses and decisions relating to the corridors.

“(C) The document shall include consideration by the relevant agencies of any applicable criteria or other matters as required under applicable law.

“(6)(A) If any agency has denied a Federal authorization required for a transmission facility, or has failed to act by the deadline established by the Secretary pursuant to this section for deciding whether to issue the authorization, the applicant or any State in which the facility would be located may file an appeal with the President, who shall, in consultation with the affected agency, review the denial or failure to take action on the pending application.

“(B) Based on the overall record and in consultation with the affected agency, the President may—

“(i) issue the necessary authorization with any appropriate conditions; or

“(ii) deny the application.

“(C) The President shall issue a decision not later than 90 days after the date of the filing of the appeal.

“(D) In making a decision under this paragraph, the President shall comply with applicable requirements of Federal law, including any requirements of—

“(i) the National Forest Management Act of 1976 (16 U.S.C. 472a et seq.);

“(ii) the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);

“(iii) the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.);

“(iv) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.); and

“(v) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).

“(7)(A) Not later than 18 months after the date of enactment of this section, the Secretary shall issue any regulations necessary to implement this subsection.

“(B)(i) Not later than 1 year after the date of enactment of this section, the Secretary and the heads of all Federal agencies with authority to issue Federal authorizations shall enter into a memorandum of understanding to ensure the timely and coordinated review and permitting of electricity transmission facilities.

“(ii) Interested Indian tribes, multistate entities, and State agencies may enter the memorandum of understanding.

“(C) The head of each Federal agency with authority to issue a Federal authorization shall designate a senior official responsible for, and dedicate sufficient other staff and resources to ensure, full implementation of the regulations and memorandum required under this paragraph.

“(8)(A) Each Federal land use authorization for an electricity transmission facility shall be issued—

“(i) for a duration, as determined by the Secretary, commensurate with the anticipated use of the facility; and

“(ii) with appropriate authority to manage the right-of-way for reliability and environmental protection.

“(B) On the expiration of the authorization (including an authorization issued before the date of enactment of this section), the authorization shall be reviewed for renewal taking fully into account reliance on such electricity infrastructure, recognizing the importance of the authorization for public health, safety, and economic welfare and as a legitimate use of Federal land.

“(9) In exercising the responsibilities under this section, the Secretary shall consult regularly with—

“(A) the Federal Energy Regulatory Commission;

“(B) electric reliability organizations (including related regional entities) approved by the Commission; and

“(C) Transmission Organizations approved by the Commission.

“(i) INTERSTATE COMPACTS.—(1) The consent of Congress is given for three or more contiguous States to enter into an inter-

state compact, subject to approval by Congress, establishing regional transmission siting agencies to—

“(A) facilitate siting of future electric energy transmission facilities within those States; and

“(B) carry out the electric energy transmission siting responsibilities of those States.

“(2) The Secretary may provide technical assistance to regional transmission siting agencies established under this subsection.

“(3) The regional transmission siting agencies shall have the authority to review, certify, and permit siting of transmission facilities, including facilities in national interest electric transmission corridors (other than facilities on property owned by the United States).

“(4) The Commission shall have no authority to issue a permit for the construction or modification of an electric transmission facility within a State that is a party to a compact, unless the members of the compact are in disagreement and the Secretary makes, after notice and an opportunity for a hearing, the finding described in subsection (b)(1)(C).

“(j) RELATIONSHIP TO OTHER LAWS.—(1) Except as specifically provided, nothing in this section affects any requirement of an environmental law of the United States, including the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

“(2) Subsection (h)(6) shall not apply to any unit of the National Park System, the National Wildlife Refuge System, the National Wild and Scenic Rivers System, the National Trails System, the National Wilderness Preservation System, or a National Monument.

“(k) ERCOT.—This section shall not apply within the area referred to in section 212(k)(2)(A).”.

(b) REPORTS TO CONGRESS ON CORRIDORS AND RIGHTS-OF-WAY ON FEDERAL LANDS.—Not later than 90 days after the date of enactment of this Act, the Secretary of the Interior, the Secretary, the Secretary of Agriculture, and the Chairman of the Council on Environmental Quality shall submit to Congress a joint report identifying—

(1)(A) all existing designated transmission and distribution corridors on Federal land and the status of work related to proposed transmission and distribution corridor designations under title V of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1761 et seq.);

(B) the schedule for completing the work;

(C) any impediments to completing the work; and

(D) steps that Congress could take to expedite the process;

(2)(A) the number of pending applications to locate transmission facilities on Federal land;

(B) key information relating to each such facility;

(C) how long each application has been pending;

(D) the schedule for issuing a timely decision as to each facility; and

(E) progress in incorporating existing and new such rights-of-way into relevant land use and resource management plans or the equivalent of those plans; and

(3)(A) the number of existing transmission and distribution rights-of-way on Federal land that will come up for renewal within the following 5-, 10-, and 15-year periods; and

(B) a description of how the Secretaries plan to manage the renewals.

SEC. 1222. [42 U.S.C. 16421] THIRD-PARTY FINANCE.

(a) **EXISTING FACILITIES.**—The Secretary, acting through the Administrator of the Western Area Power Administration (hereinafter in this section referred to as “WAPA”), or through the Administrator of the Southwestern Power Administration (hereinafter in this section referred to as “SWPA”), or both, may design, develop, construct, operate, maintain, or own, or participate with other entities in designing, developing, constructing, operating, maintaining, or owning, an electric power transmission facility and related facilities (“Project”) needed to upgrade existing transmission facilities owned by SWPA or WAPA if the Secretary, in consultation with the applicable Administrator, determines that the proposed Project—

(1)(A) is located in a national interest electric transmission corridor designated under section 216(a) of the Federal Power Act and will reduce congestion of electric transmission in interstate commerce; or

(B) is necessary to accommodate an actual or projected increase in demand for electric transmission capacity;

(2) is consistent with—

(A) transmission needs identified, in a transmission expansion plan or otherwise, by the appropriate Transmission Organization (as defined in the Federal Power Act), if any, or approved regional reliability organization; and

(B) efficient and reliable operation of the transmission grid; and

(3) would be operated in conformance with prudent utility practice.

(b) **NEW FACILITIES.**—The Secretary, acting through WAPA or SWPA, or both, may design, develop, construct, operate, maintain, or own, or participate with other entities in designing, developing, constructing, operating, maintaining, or owning, a new electric power transmission facility and related facilities (“Project”) located within any State in which WAPA or SWPA operates if the Secretary, in consultation with the applicable Administrator, determines that the proposed Project—

(1)(A) is located in an area designated under section 216(a) of the Federal Power Act and will reduce congestion of electric transmission in interstate commerce; or

(B) is necessary to accommodate an actual or projected increase in demand for electric transmission capacity;

(2) is consistent with—

(A) transmission needs identified, in a transmission expansion plan or otherwise, by the appropriate Transmission Organization (as defined in the Federal Power Act) if any, or approved regional reliability organization; and

- (B) efficient and reliable operation of the transmission grid;
- (3) will be operated in conformance with prudent utility practice;
- (4) will be operated by, or in conformance with the rules of, the appropriate (A) Transmission Organization, if any, or (B) if such an organization does not exist, regional reliability organization; and
- (5) will not duplicate the functions of existing transmission facilities or proposed facilities which are the subject of ongoing or approved siting and related permitting proceedings.
- (c) OTHER FUNDS.—
- (1) IN GENERAL.—In carrying out a Project under subsection (a) or (b), the Secretary may accept and use funds contributed by another entity for the purpose of carrying out the Project.
- (2) AVAILABILITY.—The contributed funds shall be available for expenditure for the purpose of carrying out the Project—
- (A) without fiscal year limitation; and
- (B) as if the funds had been appropriated specifically for that Project.
- (3) ALLOCATION OF COSTS.—In carrying out a Project under subsection (a) or (b), any costs of the Project not paid for by contributions from another entity shall be collected through rates charged to customers using the new transmission capability provided by the Project and allocated equitably among these project beneficiaries using the new transmission capability.
- (d) RELATIONSHIP TO OTHER LAWS.—Nothing in this section affects any requirement of—
- (1) any Federal environmental law, including the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);
- (2) any Federal or State law relating to the siting of energy facilities; or
- (3) any existing authorizing statutes.
- (e) SAVINGS CLAUSE.—Nothing in this section shall constrain or restrict an Administrator in the utilization of other authority delegated to the Administrator of WAPA or SWPA.
- (f) SECRETARIAL DETERMINATIONS.—Any determination made pursuant to subsections (a) or (b) shall be based on findings by the Secretary using the best available data.
- (g) MAXIMUM FUNDING AMOUNT.—The Secretary shall not accept and use more than \$100,000,000 under subsection (c)(1) for the period encompassing fiscal years 2006 through 2015.

SEC. 1223. [42 U.S.C. 16422] ADVANCED TRANSMISSION TECHNOLOGIES.

- (a) DEFINITION OF ADVANCED TRANSMISSION TECHNOLOGY.—In this section, the term “advanced transmission technology” means a technology that increases the capacity, efficiency, or reliability of an existing or new transmission facility, including—
- (1) high-temperature lines (including superconducting cables);
- (2) underground cables;

(3) advanced conductor technology (including advanced composite conductors, high-temperature low-sag conductors, and fiber optic temperature sensing conductors);

(4) high-capacity ceramic electric wire, connectors, and insulators;

(5) optimized transmission line configurations (including multiple phased transmission lines);

(6) modular equipment;

(7) wireless power transmission;

(8) ultra-high voltage lines;

(9) high-voltage DC technology;

(10) flexible AC transmission systems;

(11) energy storage devices (including pumped hydro, compressed air, superconducting magnetic energy storage, flywheels, and batteries);

(12) controllable load;

(13) distributed generation (including PV, fuel cells, and microturbines);

(14) enhanced power device monitoring;

(15) direct system state sensors;

(16) fiber optic technologies;

(17) power electronics and related software (including real time monitoring and analytical software);

(18) mobile transformers and mobile substations; and

(19) any other technologies the Commission considers appropriate.

(b) **AUTHORITY.**—In carrying out the Federal Power Act (16 U.S.C. 791a et seq.) and the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.), the Commission shall encourage, as appropriate, the deployment of advanced transmission technologies.

SEC. 1224. [42 U.S.C. 16423] ADVANCED POWER SYSTEM TECHNOLOGY INCENTIVE PROGRAM.

(a) **PROGRAM.**—The Secretary is authorized to establish an Advanced Power System Technology Incentive Program to support the deployment of certain advanced power system technologies and to improve and protect certain critical governmental, industrial, and commercial processes. Funds provided under this section shall be used by the Secretary to make incentive payments to eligible owners or operators of advanced power system technologies to increase power generation through enhanced operational, economic, and environmental performance. Payments under this section may only be made upon receipt by the Secretary of an incentive payment application establishing an applicant as either—

(1) a qualifying advanced power system technology facility;

or

(2) a qualifying security and assured power facility.

(b) **INCENTIVES.**—Subject to availability of funds, a payment of 1.8 cents per kilowatt-hour shall be paid to the owner or operator of a qualifying advanced power system technology facility under this section for electricity generated at such facility. An additional 0.7 cents per kilowatt-hour shall be paid to the owner or operator of a qualifying security and assured power facility for electricity generated at such facility. Any facility qualifying under this section

shall be eligible for an incentive payment for up to, but not more than, the first 10,000,000 kilowatt-hours produced in any fiscal year.

(c) **ELIGIBILITY.**—For purposes of this section:

(1) **QUALIFYING ADVANCED POWER SYSTEM TECHNOLOGY FACILITY.**—The term “qualifying advanced power system technology facility” means a facility using an advanced fuel cell, turbine, or hybrid power system or power storage system to generate or store electric energy.

(2) **QUALIFYING SECURITY AND ASSURED POWER FACILITY.**—The term “qualifying security and assured power facility” means a qualifying advanced power system technology facility determined by the Secretary, in consultation with the Secretary of Homeland Security, to be in critical need of secure, reliable, rapidly available, high-quality power for critical governmental, industrial, or commercial applications.

(d) **AUTHORIZATION.**—There are authorized to be appropriated to the Secretary for the purposes of this section, \$10,000,000 for each of the fiscal years 2006 through 2012.

Subtitle C—Transmission Operation Improvements

SEC. 1231. OPEN NONDISCRIMINATORY ACCESS.

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by inserting after section 211 (16 U.S.C. 824j) the following:

“SEC. 211A. OPEN ACCESS BY UNREGULATED TRANSMITTING UTILITIES.

“(a) **DEFINITION OF UNREGULATED TRANSMITTING UTILITY.**—In this section, the term ‘unregulated transmitting utility’ means an entity that—

“(1) owns or operates facilities used for the transmission of electric energy in interstate commerce; and

“(2) is an entity described in section 201(f).

“(b) **TRANSMISSION OPERATION SERVICES.**—Subject to section 212(h), the Commission may, by rule or order, require an unregulated transmitting utility to provide transmission services—

“(1) at rates that are comparable to those that the unregulated transmitting utility charges itself; and

“(2) on terms and conditions (not relating to rates) that are comparable to those under which the unregulated transmitting utility provides transmission services to itself and that are not unduly discriminatory or preferential.

“(c) **EXEMPTION.**—The Commission shall exempt from any rule or order under this section any unregulated transmitting utility that—

“(1) sells not more than 4,000,000 megawatt hours of electricity per year;

“(2) does not own or operate any transmission facilities that are necessary for operating an interconnected transmission system (or any portion of the system); or

“(3) meets other criteria the Commission determines to be in the public interest.

“(d) LOCAL DISTRIBUTION FACILITIES.—The requirements of subsection (b) shall not apply to facilities used in local distribution.

“(e) EXEMPTION TERMINATION.—If the Commission, after an evidentiary hearing held on a complaint and after giving consideration to reliability standards established under section 215, finds on the basis of a preponderance of the evidence that any exemption granted pursuant to subsection (c) unreasonably impairs the continued reliability of an interconnected transmission system, the Commission shall revoke the exemption granted to the transmitting utility.

“(f) APPLICATION TO UNREGULATED TRANSMITTING UTILITIES.—The rate changing procedures applicable to public utilities under subsections (c) and (d) of section 205 are applicable to unregulated transmitting utilities for purposes of this section.

“(g) REMAND.—In exercising authority under subsection (b)(1), the Commission may remand transmission rates to an unregulated transmitting utility for review and revision if necessary to meet the requirements of subsection (b).

“(h) OTHER REQUESTS.—The provision of transmission services under subsection (b) does not preclude a request for transmission services under section 211.

“(i) LIMITATION.—The Commission may not require a State or municipality to take action under this section that would violate a private activity bond rule for purposes of section 141 of the Internal Revenue Code of 1986.

“(j) TRANSFER OF CONTROL OF TRANSMITTING FACILITIES.—Nothing in this section authorizes the Commission to require an unregulated transmitting utility to transfer control or operational control of its transmitting facilities to a Transmission Organization that is designated to provide nondiscriminatory transmission access.”.

SEC. 1232. [42 U.S.C. 16431] FEDERAL UTILITY PARTICIPATION IN TRANSMISSION ORGANIZATIONS.

(a) DEFINITIONS.—In this section:

(1) APPROPRIATE FEDERAL REGULATORY AUTHORITY.—The term “appropriate Federal regulatory authority” means—

(A) in the case of a Federal power marketing agency, the Secretary, except that the Secretary may designate the Administrator of a Federal power marketing agency to act as the appropriate Federal regulatory authority with respect to the transmission system of the Federal power marketing agency; and

(B) in the case of the Tennessee Valley Authority, the Board of Directors of the Tennessee Valley Authority.

(2) FEDERAL POWER MARKETING AGENCY.—The term “Federal power marketing agency” has the meaning given the term in section 3 of the Federal Power Act (16 U.S.C. 796).

(3) FEDERAL UTILITY.—The term “Federal utility” means—

(A) a Federal power marketing agency; or

(B) the Tennessee Valley Authority.

(4) TRANSMISSION ORGANIZATION.—The term “Transmission Organization” has the meaning given the term in section 3 of the Federal Power Act (16 U.S.C. 796).

(5) TRANSMISSION SYSTEM.—The term “transmission system” means an electric transmission facility owned, leased, or contracted for by the United States and operated by a Federal utility.

(b) TRANSFER.—The appropriate Federal regulatory authority may enter into a contract, agreement, or other arrangement transferring control and use of all or part of the transmission system of a Federal utility to a Transmission Organization.

(c) CONTENTS.—The contract, agreement, or arrangement shall include—

(1) performance standards for operation and use of the transmission system that the head of the Federal utility determines are necessary or appropriate, including standards that ensure—

(A) recovery of all of the costs and expenses of the Federal utility related to the transmission facilities that are the subject of the contract, agreement, or other arrangement;

(B) consistency with existing contracts and third-party financing arrangements; and

(C) consistency with the statutory authorities, obligations, and limitations of the Federal utility;

(2) provisions for monitoring and oversight by the Federal utility of the Transmission Organization’s terms and conditions of the contract, agreement, or other arrangement, including a provision for the resolution of disputes through arbitration or other means with the Transmission Organization or with other participants, notwithstanding the obligations and limitations of any other law regarding arbitration; and

(3) a provision that allows the Federal utility to withdraw from the Transmission Organization and terminate the contract, agreement, or other arrangement in accordance with its terms.

(d) COMMISSION.—Neither this section, actions taken pursuant to this section, nor any other transaction of a Federal utility participating in a Transmission Organization shall confer on the Commission jurisdiction or authority over—

(1) the electric generation assets, electric capacity, or energy of the Federal utility that the Federal utility is authorized by law to market; or

(2) the power sales activities of the Federal utility.

(e) EXISTING STATUTORY AND OTHER OBLIGATIONS.—

(1) SYSTEM OPERATION REQUIREMENTS.—No statutory provision requiring or authorizing a Federal utility to transmit electric power or to construct, operate, or maintain the transmission system of the Federal utility prohibits a transfer of control and use of the transmission system pursuant to, and subject to, the requirements of this section.

(2) OTHER OBLIGATIONS.—This subsection does not—

(A) suspend, or exempt any Federal utility from, any provision of Federal law in effect on the date of enactment

of this Act, including any requirement or direction relating to the use of the transmission system of the Federal utility, environmental protection, fish and wildlife protection, flood control, navigation, water delivery, or recreation; or
(B) authorize abrogation of any contract or treaty obligation.

(3) CONFORMING AMENDMENT.—Section 311 of the Energy and Water Development Appropriations Act, 2001 (16 U.S.C. 824n) is repealed.

SEC. 1233. NATIVE LOAD SERVICE OBLIGATION.

(a) IN GENERAL.—Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

“SEC. 217. NATIVE LOAD SERVICE OBLIGATION.

“(a) DEFINITIONS.—In this section:

“(1) The term ‘distribution utility’ means an electric utility that has a service obligation to end-users or to a State utility or electric cooperative that, directly or indirectly, through one or more additional State utilities or electric cooperatives, provides electric service to end-users.

“(2) The term ‘load-serving entity’ means a distribution utility or an electric utility that has a service obligation.

“(3) The term ‘service obligation’ means a requirement applicable to, or the exercise of authority granted to, an electric utility under Federal, State, or local law or under long-term contracts to provide electric service to end-users or to a distribution utility.

“(4) The term ‘State utility’ means a State or any political subdivision of a State, or any agency, authority, or instrumentality of any one or more of the foregoing, or a corporation that is wholly owned, directly or indirectly, by any one or more of the foregoing, competent to carry on the business of developing, transmitting, utilizing, or distributing power.

“(b) MEETING SERVICE OBLIGATIONS.—(1) Paragraph (2) applies to any load-serving entity that, as of the date of enactment of this section—

“(A) owns generation facilities, markets the output of Federal generation facilities, or holds rights under one or more wholesale contracts to purchase electric energy, for the purpose of meeting a service obligation; and

“(B) by reason of ownership of transmission facilities, or one or more contracts or service agreements for firm transmission service, holds firm transmission rights for delivery of the output of the generation facilities or the purchased energy to meet the service obligation.

“(2) Any load-serving entity described in paragraph (1) is entitled to use the firm transmission rights, or, equivalent tradable or financial transmission rights, in order to deliver the output or purchased energy, or the output of other generating facilities or purchased energy to the extent deliverable using the rights, to the extent required to meet the service obligation of the load-serving entity.

“(3)(A) To the extent that all or a portion of the service obligation covered by the firm transmission rights or equivalent tradable

or financial transmission rights is transferred to another load-serving entity, the successor load-serving entity shall be entitled to use the firm transmission rights or equivalent tradable or financial transmission rights associated with the transferred service obligation.

“(B) Subsequent transfers to another load-serving entity, or back to the original load-serving entity, shall be entitled to the same rights.

“(4) The Commission shall exercise the authority of the Commission under this Act in a manner that facilitates the planning and expansion of transmission facilities to meet the reasonable needs of load-serving entities to satisfy the service obligations of the load-serving entities, and enables load-serving entities to secure firm transmission rights (or equivalent tradable or financial rights) on a long-term basis for long-term power supply arrangements made, or planned, to meet such needs.

“(c) ALLOCATION OF TRANSMISSION RIGHTS.—Nothing in subsections (b)(1), (b)(2), and (b)(3) of this section shall affect any existing or future methodology employed by a Transmission Organization for allocating or auctioning transmission rights if such Transmission Organization was authorized by the Commission to allocate or auction financial transmission rights on its system as of January 1, 2005, and the Commission determines that any future allocation or auction is just, reasonable and not unduly discriminatory or preferential, provided, however, that if such a Transmission Organization never allocated financial transmission rights on its system that pertained to a period before January 1, 2005, with respect to any application by such Transmission Organization that would change its methodology the Commission shall exercise its authority in a manner consistent with the Act and that takes into account the policies expressed in subsections (b)(1), (b)(2), and (b)(3) as applied to firm transmission rights held by a load-serving entity as of January 1, 2005, to the extent the associated generation ownership or power purchase arrangements remain in effect.

“(d) CERTAIN TRANSMISSION RIGHTS.—The Commission may exercise authority under this Act to make transmission rights not used to meet an obligation covered by subsection (b) available to other entities in a manner determined by the Commission to be just, reasonable, and not unduly discriminatory or preferential.

“(e) OBLIGATION TO BUILD.—Nothing in this Act relieves a load-serving entity from any obligation under State or local law to build transmission or distribution facilities adequate to meet the service obligations of the load-serving entity.

“(f) CONTRACTS.—Nothing in this section shall provide a basis for abrogating any contract or service agreement for firm transmission service or rights in effect as of the date of the enactment of this subsection. If an ISO in the Western Interconnection had allocated financial transmission rights prior to the date of enactment of this section but had not done so with respect to one or more load-serving entities' firm transmission rights held under contracts to which the preceding sentence applies (or held by reason of ownership or future ownership of transmission facilities), such load-serving entities may not be required, without their consent, to convert such firm transmission rights to tradable or financial rights,

except where the load-serving entity has voluntarily joined the ISO as a participating transmission owner (or its successor) in accordance with the ISO tariff.

“(g) WATER PUMPING FACILITIES.—The Commission shall ensure that any entity described in section 201(f) that owns transmission facilities used predominately to support its own water pumping facilities shall have, with respect to the facilities, protections for transmission service comparable to those provided to load-serving entities pursuant to this section.

“(h) ERCOT.—This section shall not apply within the area referred to in section 212(k)(2)(A).

“(i) JURISDICTION.—This section does not authorize the Commission to take any action not otherwise within the jurisdiction of the Commission.

“(j) TVA AREA.—(1) Subject to paragraphs (2) and (3), for purposes of subsection (b)(1)(B), a load-serving entity that is located within the service area of the Tennessee Valley Authority and that has a firm wholesale power supply contract with the Tennessee Valley Authority shall be considered to hold firm transmission rights for the transmission of the power provided.

“(2) Nothing in this subsection affects the requirements of section 212(j).

“(3) The Commission shall not issue an order on the basis of this subsection that is contrary to the purposes of section 212(j).

“(k) EFFECT OF EXERCISING RIGHTS.—An entity that to the extent required to meet its service obligations exercises rights described in subsection (b) shall not be considered by such action as engaging in undue discrimination or preference under this Act.”.

(b) FERC RULEMAKING ON LONG-TERM TRANSMISSION RIGHTS IN ORGANIZED MARKETS.—Within 1 year after the date of enactment of this section and after notice and an opportunity for comment, the Commission shall by rule or order, implement section 217(b)(4) of the Federal Power Act in Transmission Organizations, as defined by that Act with organized electricity markets.

SEC. 1234. [42 U.S.C. 16432] STUDY ON THE BENEFITS OF ECONOMIC DISPATCH.

(a) STUDY.—The Secretary, in coordination and consultation with the States, shall conduct a study on—

(1) the procedures currently used by electric utilities to perform economic dispatch;

(2) identifying possible revisions to those procedures to improve the ability of nonutility generation resources to offer their output for sale for the purpose of inclusion in economic dispatch; and

(3) the potential benefits to residential, commercial, and industrial electricity consumers nationally and in each State if economic dispatch procedures were revised to improve the ability of nonutility generation resources to offer their output for inclusion in economic dispatch.

(b) DEFINITION.—The term “economic dispatch” when used in this section means the operation of generation facilities to produce energy at the lowest cost to reliably serve consumers, recognizing any operational limits of generation and transmission facilities.

(c) REPORT TO CONGRESS AND THE STATES.—Not later than 90 days after the date of enactment of this Act, and on a yearly basis following, the Secretary shall submit a report to Congress and the States on the results of the study conducted under subsection (a), including recommendations to Congress and the States for any suggested legislative or regulatory changes.

SEC. 1235. PROTECTION OF TRANSMISSION CONTRACTS IN THE PACIFIC NORTHWEST.

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

“SEC. 218. PROTECTION OF TRANSMISSION CONTRACTS IN THE PACIFIC NORTHWEST.

“(a) DEFINITION OF ELECTRIC UTILITY OR PERSON.—In this section, the term ‘electric utility or person’ means an electric utility or person that—

“(1) as of the date of enactment of the Energy Policy Act of 2005 holds firm transmission rights pursuant to contract or by reason of ownership of transmission facilities; and

“(2) is located—

“(A) in the Pacific Northwest, as that region is defined in section 3 of the Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C. 839a); or

“(B) in that portion of a State included in the geographic area proposed for a regional transmission organization in Commission Docket Number RT01–35 on the date on which that docket was opened.

“(b) PROTECTION OF TRANSMISSION CONTRACTS.—Nothing in this Act confers on the Commission the authority to require an electric utility or person to convert to tradable or financial rights—

“(1) firm transmission rights described in subsection (a); or

“(2) firm transmission rights obtained by exercising contract or tariff rights associated with the firm transmission rights described in subsection (a).”.

SEC. 1236. SENSE OF CONGRESS REGARDING LOCATIONAL INSTALLED CAPACITY MECHANISM.

(a) FINDINGS.—Congress finds that—

(1) in regard to a proposal to develop and implement a specific type of locational installed capacity mechanism in New England pending before the Federal Energy Regulatory Commission; and

(2) the Governors of the States have objected to the proposed mechanism, arguing that the mechanism—

(A) would not provide adequate assurance that necessary electric generation capacity or reliability will be provided; and

(B) would impose a high cost on consumers and have a significant negative economic impact.

(b) SENSE OF CONGRESS.—Congress—

(1) notes the concerns of the New England States to the proposed mechanism; and

(2) declares that it is the sense of Congress that the Federal Energy Regulatory Commission should carefully consider the States’ objections.

Subtitle D—Transmission Rate Reform

SEC. 1241. TRANSMISSION INFRASTRUCTURE INVESTMENT.

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

“SEC. 219. TRANSMISSION INFRASTRUCTURE INVESTMENT.

“(a) RULEMAKING REQUIREMENT.—Not later than 1 year after the date of enactment of this section, the Commission shall establish, by rule, incentive-based (including performance-based) rate treatments for the transmission of electric energy in interstate commerce by public utilities for the purpose of benefitting consumers by ensuring reliability and reducing the cost of delivered power by reducing transmission congestion.

“(b) CONTENTS.—The rule shall—

“(1) promote reliable and economically efficient transmission and generation of electricity by promoting capital investment in the enlargement, improvement, maintenance, and operation of all facilities for the transmission of electric energy in interstate commerce, regardless of the ownership of the facilities;

“(2) provide a return on equity that attracts new investment in transmission facilities (including related transmission technologies);

“(3) encourage deployment of transmission technologies and other measures to increase the capacity and efficiency of existing transmission facilities and improve the operation of the facilities; and

“(4) allow recovery of—

“(A) all prudently incurred costs necessary to comply with mandatory reliability standards issued pursuant to section 215; and

“(B) all prudently incurred costs related to transmission infrastructure development pursuant to section 216.

“(c) INCENTIVES.—In the rule issued under this section, the Commission shall, to the extent within its jurisdiction, provide for incentives to each transmitting utility or electric utility that joins a Transmission Organization. The Commission shall ensure that any costs recoverable pursuant to this subsection may be recovered by such utility through the transmission rates charged by such utility or through the transmission rates charged by the Transmission Organization that provides transmission service to such utility.

“(d) JUST AND REASONABLE RATES.—All rates approved under the rules adopted pursuant to this section, including any revisions to the rules, are subject to the requirements of sections 205 and 206 that all rates, charges, terms, and conditions be just and reasonable and not unduly discriminatory or preferential.”.

SEC. 1242. [42 U.S.C. 16441] FUNDING NEW INTERCONNECTION AND TRANSMISSION UPGRADES.

The Commission may approve a participant funding plan that allocates costs related to transmission upgrades or new generator interconnection, without regard to whether an applicant is a mem-

ber of a Commission-approved Transmission Organization, if the plan results in rates that—

- (1) are just and reasonable;
- (2) are not unduly discriminatory or preferential; and
- (3) are otherwise consistent with sections 205 and 206 of the Federal Power Act (16 U.S.C. 824d, 824e).

Subtitle E—Amendments to PURPA

SEC. 1251. NET METERING AND ADDITIONAL STANDARDS.

(a) ADOPTION OF STANDARDS.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

“(11) NET METERING.—Each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves. For purposes of this paragraph, the term ‘net metering service’ means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.

“(12) FUEL SOURCES.—Each electric utility shall develop a plan to minimize dependence on 1 fuel source and to ensure that the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies.

“(13) FOSSIL FUEL GENERATION EFFICIENCY.—Each electric utility shall develop and implement a 10-year plan to increase the efficiency of its fossil fuel generation.”.

(b) COMPLIANCE.—

(1) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding at the end the following:

“(3)(A) Not later than 2 years after the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall commence the consideration referred to in section 111, or set a hearing date for such consideration, with respect to each standard established by paragraphs (11) through (13) of section 111(d).

“(B) Not later than 3 years after the date of the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to each standard established by paragraphs (11) through (13) of section 111(d).”.

(2) FAILURE TO COMPLY.—Section 112(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) is amended by adding at the end the following: “In the case of each standard established by paragraphs (11) through (13) of section 111(d), the reference contained in this subsection to the

date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraphs (11) through (13).”.

(3) PRIOR STATE ACTIONS.—

(A) IN GENERAL.—Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) is amended by adding at the end the following:

“(d) PRIOR STATE ACTIONS.—Subsections (b) and (c) of this section shall not apply to the standards established by paragraphs (11) through (13) of section 111(d) in the case of any electric utility in a State if, before the enactment of this subsection—

“(1) the State has implemented for such utility the standard concerned (or a comparable standard);

“(2) the State regulatory authority for such State or relevant nonregulated electric utility has conducted a proceeding to consider implementation of the standard concerned (or a comparable standard) for such utility; or

“(3) the State legislature has voted on the implementation of such standard (or a comparable standard) for such utility.”.

(B) CROSS REFERENCE.—Section 124 of such Act (16 U.S.C. 2634) is amended by adding the following at the end thereof: “In the case of each standard established by paragraphs (11) through (13) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraphs (11) through (13).”.

SEC. 1252. SMART METERING.

(a) IN GENERAL.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

“(14) TIME-BASED METERING AND COMMUNICATIONS.—(A) Not later than 18 months after the date of enactment of this paragraph, each electric utility shall offer each of its customer classes, and provide individual customers upon customer request, a time-based rate schedule under which the rate charged by the electric utility varies during different time periods and reflects the variance, if any, in the utility’s costs of generating and purchasing electricity at the wholesale level. The time-based rate schedule shall enable the electric consumer to manage energy use and cost through advanced metering and communications technology.

“(B) The types of time-based rate schedules that may be offered under the schedule referred to in subparagraph (A) include, among others—

“(i) time-of-use pricing whereby electricity prices are set for a specific time period on an advance or forward basis, typically not changing more often than twice a year, based on the utility’s cost of generating and/or purchasing such electricity at the wholesale level for the benefit of the consumer. Prices paid for energy consumed during these periods shall be pre-established and known to consumers in advance of such consumption, allowing them to vary their demand and usage in response to such prices and

manage their energy costs by shifting usage to a lower cost period or reducing their consumption overall;

“(ii) critical peak pricing whereby time-of-use prices are in effect except for certain peak days, when prices may reflect the costs of generating and/or purchasing electricity at the wholesale level and when consumers may receive additional discounts for reducing peak period energy consumption;

“(iii) real-time pricing whereby electricity prices are set for a specific time period on an advanced or forward basis, reflecting the utility’s cost of generating and/or purchasing electricity at the wholesale level, and may change as often as hourly; and

“(iv) credits for consumers with large loads who enter into pre-established peak load reduction agreements that reduce a utility’s planned capacity obligations.

“(C) Each electric utility subject to subparagraph (A) shall provide each customer requesting a time-based rate with a time-based meter capable of enabling the utility and customer to offer and receive such rate, respectively.

“(D) For purposes of implementing this paragraph, any reference contained in this section to the date of enactment of the Public Utility Regulatory Policies Act of 1978 shall be deemed to be a reference to the date of enactment of this paragraph.

“(E) In a State that permits third-party marketers to sell electric energy to retail electric consumers, such consumers shall be entitled to receive the same time-based metering and communications device and service as a retail electric consumer of the electric utility.

“(F) Notwithstanding subsections (b) and (c) of section 112, each State regulatory authority shall, not later than 18 months after the date of enactment of this paragraph conduct an investigation in accordance with section 115(i) and issue a decision whether it is appropriate to implement the standards set out in subparagraphs (A) and (C).”.

(b) STATE INVESTIGATION OF DEMAND RESPONSE AND TIME-BASED METERING.—Section 115 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2625) is amended as follows:

(1) By inserting in subsection (b) after the phrase “the standard for time-of-day rates established by section 111(d)(3)” the following: “and the standard for time-based metering and communications established by section 111(d)(14)”.

(2) By inserting in subsection (b) after the phrase “are likely to exceed the metering” the following: “and communications”.

(3) By adding at the end the following:

“(i) TIME-BASED METERING AND COMMUNICATIONS.—In making a determination with respect to the standard established by section 111(d)(14), the investigation requirement of section 111(d)(14)(F) shall be as follows: Each State regulatory authority shall conduct an investigation and issue a decision whether or not it is appropriate for electric utilities to provide and install time-based meters and communications devices for each of their customers which en-

able such customers to participate in time-based pricing rate schedules and other demand response programs.”.

(c) FEDERAL ASSISTANCE ON DEMAND RESPONSE.—Section 132(a) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2642(a)) is amended by striking “and” at the end of paragraph (3), striking the period at the end of paragraph (4) and inserting “; and”, and by adding the following at the end thereof:

“(5) technologies, techniques, and rate-making methods related to advanced metering and communications and the use of these technologies, techniques and methods in demand response programs.”.

(d) FEDERAL GUIDANCE.—Section 132 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2642) is amended by adding the following at the end thereof:

“(d) DEMAND RESPONSE.—The Secretary shall be responsible for—

“(1) educating consumers on the availability, advantages, and benefits of advanced metering and communications technologies, including the funding of demonstration or pilot projects;

“(2) working with States, utilities, other energy providers and advanced metering and communications experts to identify and address barriers to the adoption of demand response programs; and

“(3) not later than 180 days after the date of enactment of the Energy Policy Act of 2005, providing Congress with a report that identifies and quantifies the national benefits of demand response and makes a recommendation on achieving specific levels of such benefits by January 1, 2007.”.

(e) DEMAND RESPONSE AND REGIONAL COORDINATION.—

(1) IN GENERAL.—It is the policy of the United States to encourage States to coordinate, on a regional basis, State energy policies to provide reliable and affordable demand response services to the public.

(2) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance to States and regional organizations formed by two or more States to assist them in—

(A) identifying the areas with the greatest demand response potential;

(B) identifying and resolving problems in transmission and distribution networks, including through the use of demand response;

(C) developing plans and programs to use demand response to respond to peak demand or emergency needs; and

(D) identifying specific measures consumers can take to participate in these demand response programs.

(3) REPORT.—Not later than 1 year after the date of enactment of the Energy Policy Act of 2005, the Commission shall prepare and publish an annual report, by appropriate region, that assesses demand response resources, including those available from all consumer classes, and which identifies and reviews—

(A) saturation and penetration rate of advanced meters and communications technologies, devices and systems;

(B) existing demand response programs and time-based rate programs;

(C) the annual resource contribution of demand resources;

(D) the potential for demand response as a quantifiable, reliable resource for regional planning purposes;

(E) steps taken to ensure that, in regional transmission planning and operations, demand resources are provided equitable treatment as a quantifiable, reliable resource relative to the resource obligations of any load-serving entity, transmission provider, or transmitting party; and

(F) regulatory barriers to improve customer participation in demand response, peak reduction and critical period pricing programs.

(f) **FEDERAL ENCOURAGEMENT OF DEMAND RESPONSE DEVICES.**—It is the policy of the United States that time-based pricing and other forms of demand response, whereby electricity customers are provided with electricity price signals and the ability to benefit by responding to them, shall be encouraged, the deployment of such technology and devices that enable electricity customers to participate in such pricing and demand response systems shall be facilitated, and unnecessary barriers to demand response participation in energy, capacity and ancillary service markets shall be eliminated. It is further the policy of the United States that the benefits of such demand response that accrue to those not deploying such technology and devices, but who are part of the same regional electricity entity, shall be recognized.

(g) **TIME LIMITATIONS.**—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding at the end the following:

“(4)(A) Not later than 1 year after the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall commence the consideration referred to in section 111, or set a hearing date for such consideration, with respect to the standard established by paragraph (14) of section 111(d).

“(B) Not later than 2 years after the date of the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to the standard established by paragraph (14) of section 111(d).”.

(h) **FAILURE TO COMPLY.**—Section 112(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) is amended by adding at the end the following:

“In the case of the standard established by paragraph (14) of section 111(d), the reference contained in this subsection to the

date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraph (14).”.

(i) PRIOR STATE ACTIONS REGARDING SMART METERING STANDARDS.—

(1) IN GENERAL.—Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) is amended by adding at the end the following:

“(e) PRIOR STATE ACTIONS.—Subsections (b) and (c) of this section shall not apply to the standard established by paragraph (14) of section 111(d) in the case of any electric utility in a State if, before the enactment of this subsection—

“(1) the State has implemented for such utility the standard concerned (or a comparable standard);

“(2) the State regulatory authority for such State or relevant nonregulated electric utility has conducted a proceeding to consider implementation of the standard concerned (or a comparable standard) for such utility within the previous 3 years; or

“(3) the State legislature has voted on the implementation of such standard (or a comparable standard) for such utility within the previous 3 years.”.

(2) CROSS REFERENCE.—Section 124 of such Act (16 U.S.C. 2634) is amended by adding the following at the end thereof: “In the case of the standard established by paragraph (14) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraph (14).”.

SEC. 1253. COGENERATION AND SMALL POWER PRODUCTION PURCHASE AND SALE REQUIREMENTS.

(a) TERMINATION OF MANDATORY PURCHASE AND SALE REQUIREMENTS.—Section 210 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 824a–3) is amended by adding at the end the following:

“(m) TERMINATION OF MANDATORY PURCHASE AND SALE REQUIREMENTS.—

“(1) OBLIGATION TO PURCHASE.—After the date of enactment of this subsection, no electric utility shall be required to enter into a new contract or obligation to purchase electric energy from a qualifying cogeneration facility or a qualifying small power production facility under this section if the Commission finds that the qualifying cogeneration facility or qualifying small power production facility has nondiscriminatory access to—

“(A)(i) independently administered, auction-based day ahead and real time wholesale markets for the sale of electric energy; and (ii) wholesale markets for long-term sales of capacity and electric energy; or

“(B)(i) transmission and interconnection services that are provided by a Commission-approved regional transmission entity and administered pursuant to an open access transmission tariff that affords nondiscriminatory treatment to all customers; and (ii) competitive wholesale markets that provide a meaningful opportunity to sell capacity, including long-term and short-term sales, and elec-

tric energy, including long-term, short-term and real-time sales, to buyers other than the utility to which the qualifying facility is interconnected. In determining whether a meaningful opportunity to sell exists, the Commission shall consider, among other factors, evidence of transactions within the relevant market; or

“(C) wholesale markets for the sale of capacity and electric energy that are, at a minimum, of comparable competitive quality as markets described in subparagraphs (A) and (B).

“(2) REVISED PURCHASE AND SALE OBLIGATION FOR NEW FACILITIES.—(A) After the date of enactment of this subsection, no electric utility shall be required pursuant to this section to enter into a new contract or obligation to purchase from or sell electric energy to a facility that is not an existing qualifying cogeneration facility unless the facility meets the criteria for qualifying cogeneration facilities established by the Commission pursuant to the rulemaking required by subsection (n).

“(B) For the purposes of this paragraph, the term ‘existing qualifying cogeneration facility’ means a facility that—

“(i) was a qualifying cogeneration facility on the date of enactment of subsection (m); or

“(ii) had filed with the Commission a notice of self-certification, self recertification or an application for Commission certification under 18 CFR 292.207 prior to the date on which the Commission issues the final rule required by subsection (n).

“(3) COMMISSION REVIEW.—Any electric utility may file an application with the Commission for relief from the mandatory purchase obligation pursuant to this subsection on a service territory-wide basis. Such application shall set forth the factual basis upon which relief is requested and describe why the conditions set forth in subparagraph (A), (B), or (C) of paragraph (1) of this subsection have been met. After notice, including sufficient notice to potentially affected qualifying cogeneration facilities and qualifying small power production facilities, and an opportunity for comment, the Commission shall make a final determination within 90 days of such application regarding whether the conditions set forth in subparagraph (A), (B), or (C) of paragraph (1) have been met.

“(4) REINSTATEMENT OF OBLIGATION TO PURCHASE.—At any time after the Commission makes a finding under paragraph (3) relieving an electric utility of its obligation to purchase electric energy, a qualifying cogeneration facility, a qualifying small power production facility, a State agency, or any other affected person may apply to the Commission for an order reinstating the electric utility’s obligation to purchase electric energy under this section. Such application shall set forth the factual basis upon which the application is based and describe why the conditions set forth in subparagraph (A), (B), or (C) of paragraph (1) of this subsection are no longer met. After notice, including sufficient notice to potentially affected utilities, and opportunity for comment, the Commission shall issue an order within 90 days of such application reinstating the electric

utility's obligation to purchase electric energy under this section if the Commission finds that the conditions set forth in subparagraphs (A), (B) or (C) of paragraph (1) which relieved the obligation to purchase, are no longer met.

"(5) OBLIGATION TO SELL.—After the date of enactment of this subsection, no electric utility shall be required to enter into a new contract or obligation to sell electric energy to a qualifying cogeneration facility or a qualifying small power production facility under this section if the Commission finds that—

“(A) competing retail electric suppliers are willing and able to sell and deliver electric energy to the qualifying cogeneration facility or qualifying small power production facility; and

“(B) the electric utility is not required by State law to sell electric energy in its service territory.

"(6) NO EFFECT ON EXISTING RIGHTS AND REMEDIES.—Nothing in this subsection affects the rights or remedies of any party under any contract or obligation, in effect or pending approval before the appropriate State regulatory authority or non-regulated electric utility on the date of enactment of this subsection, to purchase electric energy or capacity from or to sell electric energy or capacity to a qualifying cogeneration facility or qualifying small power production facility under this Act (including the right to recover costs of purchasing electric energy or capacity).

"(7) RECOVERY OF COSTS.—(A) The Commission shall issue and enforce such regulations as are necessary to ensure that an electric utility that purchases electric energy or capacity from a qualifying cogeneration facility or qualifying small power production facility in accordance with any legally enforceable obligation entered into or imposed under this section recovers all prudently incurred costs associated with the purchase.

“(B) A regulation under subparagraph (A) shall be enforceable in accordance with the provisions of law applicable to enforcement of regulations under the Federal Power Act (16 U.S.C. 791a et seq.).

"(n) RULEMAKING FOR NEW QUALIFYING FACILITIES.—(1)(A) Not later than 180 days after the date of enactment of this section, the Commission shall issue a rule revising the criteria in 18 CFR 292.205 for new qualifying cogeneration facilities seeking to sell electric energy pursuant to section 210 of this Act to ensure—

“(i) that the thermal energy output of a new qualifying cogeneration facility is used in a productive and beneficial manner;

“(ii) the electrical, thermal, and chemical output of the cogeneration facility is used fundamentally for industrial, commercial, or institutional purposes and is not intended fundamentally for sale to an electric utility, taking into account technological, efficiency, economic, and variable thermal energy requirements, as well as State laws applicable to sales of electric energy from a qualifying facility to its host facility; and

“(iii) continuing progress in the development of efficient electric energy generating technology.

“(B) The rule issued pursuant to paragraph (1)(A) of this subsection shall be applicable only to facilities that seek to sell electric energy pursuant to section 210 of this Act. For all other purposes, except as specifically provided in subsection (m)(2)(A), qualifying facility status shall be determined in accordance with the rules and regulations of this Act.

“(2) Notwithstanding rule revisions under paragraph (1), the Commission’s criteria for qualifying cogeneration facilities in effect prior to the date on which the Commission issues the final rule required by paragraph (1) shall continue to apply to any cogeneration facility that—

“(A) was a qualifying cogeneration facility on the date of enactment of subsection (m), or

“(B) had filed with the Commission a notice of self-certification, self-recertification or an application for Commission certification under 18 CFR 292.207 prior to the date on which the Commission issues the final rule required by paragraph (1).”.

(b) ELIMINATION OF OWNERSHIP LIMITATIONS.—

(1) QUALIFYING SMALL POWER PRODUCTION FACILITY.—Section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)) is amended to read as follows:

“(C) ‘qualifying small power production facility’ means a small power production facility that the Commission determines, by rule, meets such requirements (including requirements respecting fuel use, fuel efficiency, and reliability) as the Commission may, by rule, prescribe;”.

(2) QUALIFYING COGENERATION FACILITY.—Section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)) is amended to read as follows:

“(B) ‘qualifying cogeneration facility’ means a cogeneration facility that the Commission determines, by rule, meets such requirements (including requirements respecting minimum size, fuel use, and fuel efficiency) as the Commission may, by rule, prescribe;”.

SEC. 1254. INTERCONNECTION.

(a) ADOPTION OF STANDARDS.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

“(15) INTERCONNECTION.—Each electric utility shall make available, upon request, interconnection service to any electric consumer that the electric utility serves. For purposes of this paragraph, the term ‘interconnection service’ means service to an electric consumer under which an on-site generating facility on the consumer’s premises shall be connected to the local distribution facilities. Interconnection services shall be offered based upon the standards developed by the Institute of Electrical and Electronics Engineers: IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems, as they may be amended from time to time. In addition, agreements and procedures shall be established whereby the services are offered shall promote current best practices of

interconnection for distributed generation, including but not limited to practices stipulated in model codes adopted by associations of state regulatory agencies. All such agreements and procedures shall be just and reasonable, and not unduly discriminatory or preferential.”.

(b) COMPLIANCE.—

(1) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding at the end the following:

“(5)(A) Not later than 1 year after the enactment of this paragraph, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence the consideration referred to in section 111, or set a hearing date for consideration, with respect to the standard established by paragraph (15) of section 111(d).

“(B) Not later than two years after the date of the enactment of the this paragraph, each State regulatory authority (with respect to each electric utility for which it has rate-making authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 111 with respect to each standard established by paragraph (15) of section 111(d).”.

【Paragraph (2) of section 1254(b) was repealed by section 40104(a)(2)(B)(ii) of Division D of Public Law 117-58.】

(3) PRIOR STATE ACTIONS.—

(A) IN GENERAL.—Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) is amended by adding at the end the following:

“(f) PRIOR STATE ACTIONS.—Subsections (b) and (c) of this section shall not apply to the standard established by paragraph (15) of section 111(d) in the case of any electric utility in a State if, before the enactment of this subsection—

“(1) the State has implemented for such utility the standard concerned (or a comparable standard);

“(2) the State regulatory authority for such State or relevant nonregulated electric utility has conducted a proceeding to consider implementation of the standard concerned (or a comparable standard) for such utility; or

“(3) the State legislature has voted on the implementation of such standard (or a comparable standard) for such utility.”.

(B) CROSS REFERENCE.—Section 124 of such Act (16 U.S.C. 2634) is amended by adding the following at the end thereof: “In the case of each standard established by paragraph (15) of section 111(d), the reference contained in this subsection to the date of enactment of the Act shall be deemed to be a reference to the date of enactment of paragraph (15).”.

Subtitle F—Repeal of PUHCA

SEC. 1261. [42 U.S.C. 15801 note] SHORT TITLE.

This subtitle may be cited as the “Public Utility Holding Company Act of 2005”.

SEC. 1262. [42 U.S.C. 16451] DEFINITIONS.

For purposes of this subtitle:

(1) **AFFILIATE.**—The term “affiliate” of a company means any company, 5 percent or more of the outstanding voting securities of which are owned, controlled, or held with power to vote, directly or indirectly, by such company.

(2) **ASSOCIATE COMPANY.**—The term “associate company” of a company means any company in the same holding company system with such company.

(3) **COMMISSION.**—The term “Commission” means the Federal Energy Regulatory Commission.

(4) **COMPANY.**—The term “company” means a corporation, partnership, association, joint stock company, business trust, or any organized group of persons, whether incorporated or not, or a receiver, trustee, or other liquidating agent of any of the foregoing.

(5) **ELECTRIC UTILITY COMPANY.**—The term “electric utility company” means any company that owns or operates facilities used for the generation, transmission, or distribution of electric energy for sale.

(6) **EXEMPT WHOLESALE GENERATOR AND FOREIGN UTILITY COMPANY.**—The terms “exempt wholesale generator” and “foreign utility company” have the same meanings as in sections 32 and 33, respectively, of the Public Utility Holding Company Act of 1935 (15 U.S.C. 79z–5a, 79z–5b), as those sections existed on the day before the effective date of this subtitle.

(7) **GAS UTILITY COMPANY.**—The term “gas utility company” means any company that owns or operates facilities used for distribution at retail (other than the distribution only in enclosed portable containers or distribution to tenants or employees of the company operating such facilities for their own use and not for resale) of natural or manufactured gas for heat, light, or power.

(8) **HOLDING COMPANY.**—

(A) **IN GENERAL.**—The term “holding company” means—

(i) any company that directly or indirectly owns, controls, or holds, with power to vote, 10 percent or more of the outstanding voting securities of a public-utility company or of a holding company of any public-utility company; and

(ii) any person, determined by the Commission, after notice and opportunity for hearing, to exercise directly or indirectly (either alone or pursuant to an arrangement or understanding with one or more persons) such a controlling influence over the management or policies of any public-utility company or holding company as to make it necessary or appropriate

for the rate protection of utility customers with respect to rates that such person be subject to the obligations, duties, and liabilities imposed by this subtitle upon holding companies.

(B) EXCLUSIONS.—The term “holding company” shall not include—

(i) a bank, savings association, or trust company, or their operating subsidiaries that own, control, or hold, with the power to vote, public utility or public utility holding company securities so long as the securities are—

(I) held as collateral for a loan;

(II) held in the ordinary course of business as a fiduciary; or

(III) acquired solely for purposes of liquidation and in connection with a loan previously contracted for and owned beneficially for a period of not more than two years; or

(ii) a broker or dealer that owns, controls, or holds with the power to vote public utility or public utility holding company securities so long as the securities are—

(I) not beneficially owned by the broker or dealer and are subject to any voting instructions which may be given by customers or their assigns; or

(II) acquired within 12 months in the ordinary course of business as a broker, dealer, or underwriter with the bona fide intention of effecting distribution of the specific securities so acquired.

(9) HOLDING COMPANY SYSTEM.—The term “holding company system” means a holding company, together with its subsidiary companies.

(10) JURISDICTIONAL RATES.—The term “jurisdictional rates” means rates accepted or established by the Commission for the transmission of electric energy in interstate commerce, the sale of electric energy at wholesale in interstate commerce, the transportation of natural gas in interstate commerce, and the sale in interstate commerce of natural gas for resale for ultimate public consumption for domestic, commercial, industrial, or any other use.

(11) NATURAL GAS COMPANY.—The term “natural gas company” means a person engaged in the transportation of natural gas in interstate commerce or the sale of such gas in interstate commerce for resale.

(12) PERSON.—The term “person” means an individual or company.

(13) PUBLIC UTILITY.—The term “public utility” means any person who owns or operates facilities used for transmission of electric energy in interstate commerce or sales of electric energy at wholesale in interstate commerce.

(14) PUBLIC-UTILITY COMPANY.—The term “public-utility company” means an electric utility company or a gas utility company.

(15) STATE COMMISSION.—The term “State commission” means any commission, board, agency, or officer, by whatever name designated, of a State, municipality, or other political subdivision of a State that, under the laws of such State, has jurisdiction to regulate public utility companies.

(16) SUBSIDIARY COMPANY.—The term “subsidiary company” of a holding company means—

(A) any company, 10 percent or more of the outstanding voting securities of which are directly or indirectly owned, controlled, or held with power to vote, by such holding company; and

(B) any person, the management or policies of which the Commission, after notice and opportunity for hearing, determines to be subject to a controlling influence, directly or indirectly, by such holding company (either alone or pursuant to an arrangement or understanding with one or more other persons) so as to make it necessary for the rate protection of utility customers with respect to rates that such person be subject to the obligations, duties, and liabilities imposed by this subtitle upon subsidiary companies of holding companies.

(17) VOTING SECURITY.—The term “voting security” means any security presently entitling the owner or holder thereof to vote in the direction or management of the affairs of a company.

SEC. 1263. REPEAL OF THE PUBLIC UTILITY HOLDING COMPANY ACT OF 1935.

The Public Utility Holding Company Act of 1935 (15 U.S.C. 79 et seq.) is repealed.

SEC. 1264. [42 U.S.C. 16452] FEDERAL ACCESS TO BOOKS AND RECORDS.

(a) IN GENERAL.—Each holding company and each associate company thereof shall maintain, and shall make available to the Commission, such books, accounts, memoranda, and other records as the Commission determines are relevant to costs incurred by a public utility or natural gas company that is an associate company of such holding company and necessary or appropriate for the protection of utility customers with respect to jurisdictional rates.

(b) AFFILIATE COMPANIES.—Each affiliate of a holding company or of any subsidiary company of a holding company shall maintain, and shall make available to the Commission, such books, accounts, memoranda, and other records with respect to any transaction with another affiliate, as the Commission determines are relevant to costs incurred by a public utility or natural gas company that is an associate company of such holding company and necessary or appropriate for the protection of utility customers with respect to jurisdictional rates.

(c) HOLDING COMPANY SYSTEMS.—The Commission may examine the books, accounts, memoranda, and other records of any company in a holding company system, or any affiliate thereof, as the Commission determines are relevant to costs incurred by a public utility or natural gas company within such holding company sys-

tem and necessary or appropriate for the protection of utility customers with respect to jurisdictional rates.

(d) **CONFIDENTIALITY.**—No member, officer, or employee of the Commission shall divulge any fact or information that may come to his or her knowledge during the course of examination of books, accounts, memoranda, or other records as provided in this section, except as may be directed by the Commission or by a court of competent jurisdiction.

SEC. 1265. [42 U.S.C. 16453] STATE ACCESS TO BOOKS AND RECORDS.

(a) **IN GENERAL.**—Upon the written request of a State commission having jurisdiction to regulate a public-utility company in a holding company system, the holding company or any associate company or affiliate thereof, other than such public-utility company, wherever located, shall produce for inspection books, accounts, memoranda, and other records that—

(1) have been identified in reasonable detail in a proceeding before the State commission;

(2) the State commission determines are relevant to costs incurred by such public-utility company; and

(3) are necessary for the effective discharge of the responsibilities of the State commission with respect to such proceeding.

(b) **LIMITATION.**—Subsection (a) does not apply to any person that is a holding company solely by reason of ownership of one or more qualifying facilities under the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.).

(c) **CONFIDENTIALITY OF INFORMATION.**—The production of books, accounts, memoranda, and other records under subsection (a) shall be subject to such terms and conditions as may be necessary and appropriate to safeguard against unwarranted disclosure to the public of any trade secrets or sensitive commercial information.

(d) **EFFECT ON STATE LAW.**—Nothing in this section shall preempt applicable State law concerning the provision of books, accounts, memoranda, and other records, or in any way limit the rights of any State to obtain books, accounts, memoranda, and other records under any other Federal law, contract, or otherwise.

(e) **COURT JURISDICTION.**—Any United States district court located in the State in which the State commission referred to in subsection (a) is located shall have jurisdiction to enforce compliance with this section.

SEC. 1266. [42 U.S.C. 16454] EXEMPTION AUTHORITY.

(a) **RULEMAKING.**—Not later than 90 days after the effective date of this subtitle, the Commission shall issue a final rule to exempt from the requirements of section 1264 (relating to Federal access to books and records) any person that is a holding company, solely with respect to one or more—

(1) qualifying facilities under the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.);

(2) exempt wholesale generators; or

(3) foreign utility companies.

(b) **OTHER AUTHORITY.**—The Commission shall exempt a person or transaction from the requirements of section 1264 (relating

to Federal access to books and records) if, upon application or upon the motion of the Commission—

(1) the Commission finds that the books, accounts, memoranda, and other records of any person are not relevant to the jurisdictional rates of a public utility or natural gas company; or

(2) the Commission finds that any class of transactions is not relevant to the jurisdictional rates of a public utility or natural gas company.

SEC. 1267. [42 U.S.C. 16455] AFFILIATE TRANSACTIONS.

(a) COMMISSION AUTHORITY UNAFFECTED.—Nothing in this subtitle shall limit the authority of the Commission under the Federal Power Act (16 U.S.C. 791a et seq.) to require that jurisdictional rates are just and reasonable, including the ability to deny or approve the pass through of costs, the prevention of cross-subsidization, and the issuance of such rules and regulations as are necessary or appropriate for the protection of utility consumers.

(b) RECOVERY OF COSTS.—Nothing in this subtitle shall preclude the Commission or a State commission from exercising its jurisdiction under otherwise applicable law to determine whether a public-utility company, public utility, or natural gas company may recover in rates any costs of an activity performed by an associate company, or any costs of goods or services acquired by such public-utility company from an associate company.

SEC. 1268. [42 U.S.C. 16456] APPLICABILITY.

Except as otherwise specifically provided in this subtitle, no provision of this subtitle shall apply to, or be deemed to include—

- (1) the United States;
- (2) a State or any political subdivision of a State;
- (3) any foreign governmental authority not operating in the United States;
- (4) any agency, authority, or instrumentality of any entity referred to in paragraph (1), (2), or (3); or
- (5) any officer, agent, or employee of any entity referred to in paragraph (1), (2), (3), or (4) acting as such in the course of his or her official duty.

SEC. 1269. [42 U.S.C. 16457] EFFECT ON OTHER REGULATIONS.

Nothing in this subtitle precludes the Commission or a State commission from exercising its jurisdiction under otherwise applicable law to protect utility customers.

SEC. 1270. [42 U.S.C. 16458] ENFORCEMENT.

The Commission shall have the same powers as set forth in sections 306 through 317 of the Federal Power Act (16 U.S.C. 825e–825p) to enforce the provisions of this subtitle.

SEC. 1271. [42 U.S.C. 16459] SAVINGS PROVISIONS.

(a) IN GENERAL.—Nothing in this subtitle, or otherwise in the Public Utility Holding Company Act of 1935, or rules, regulations, or orders thereunder, prohibits a person from engaging in or continuing to engage in activities or transactions in which it is legally engaged or authorized to engage on the date of enactment of this Act, if that person continues to comply with the terms (other than

an expiration date or termination date) of any such authorization, whether by rule or by order.

(b) **EFFECT ON OTHER COMMISSION AUTHORITY.**—Nothing in this subtitle limits the authority of the Commission under the Federal Power Act (16 U.S.C. 791a et seq.) or the Natural Gas Act (15 U.S.C. 717 et seq.).

(c) **TAX TREATMENT.**—Tax treatment under section 1081 of the Internal Revenue Code of 1986 as a result of transactions ordered in compliance with the Public Utility Holding Company Act of 1935 (15 U.S.C. 79 et seq.) shall not be affected in any manner due to the repeal of that Act and the enactment of the Public Utility Holding Company Act of 2005.

SEC. 1272. [42 U.S.C. 16460] IMPLEMENTATION.

Not later than 4 months after the date of enactment of this subtitle, the Commission shall—

(1) issue such regulations as may be necessary or appropriate to implement this subtitle (other than section 1265, relating to State access to books and records); and

(2) submit to Congress detailed recommendations on technical and conforming amendments to Federal law necessary to carry out this subtitle and the amendments made by this subtitle.

SEC. 1273. [42 U.S.C. 16461] TRANSFER OF RESOURCES.

All books and records that relate primarily to the functions transferred to the Commission under this subtitle shall be transferred from the Securities and Exchange Commission to the Commission.

SEC. 1274. [42 U.S.C. 16451 note] EFFECTIVE DATE.

(a) **IN GENERAL.**—Except for section 1272 (relating to implementation), this subtitle shall take effect 6 months after the date of enactment of this subtitle.

(b) **COMPLIANCE WITH CERTAIN RULES.**—If the Commission approves and makes effective any final rulemaking modifying the standards of conduct governing entities that own, operate, or control facilities for transmission of electricity in interstate commerce or transportation of natural gas in interstate commerce prior to the effective date of this subtitle, any action taken by a public-utility company or utility holding company to comply with the requirements of such rulemaking shall not subject such public-utility company or utility holding company to any regulatory requirement applicable to a holding company under the Public Utility Holding Company Act of 1935 (15 U.S.C. 79 et seq.).

SEC. 1275. [42 U.S.C. 16462] SERVICE ALLOCATION.

(a) **DEFINITION OF PUBLIC UTILITY.**—In this section, the term “public utility” has the meaning given the term in section 201(e) of the Federal Power Act (16 U.S.C. 824(e)).

(b) **FERC REVIEW.**—In the case of non-power goods or administrative or management services provided by an associate company organized specifically for the purpose of providing such goods or services to any public utility in the same holding company system, at the election of the system or a State commission having jurisdiction over the public utility, the Commission, after the effective date

of this subtitle, shall review and authorize the allocation of the costs for such goods or services to the extent relevant to that associate company.

(c) **EFFECT ON FEDERAL AND STATE LAW.**—Nothing in this section shall affect the authority of the Commission or a State commission under other applicable law.

(d) **RULES.**—Not later than 4 months after the date of enactment of this Act, the Commission shall issue rules (which rules shall be effective no earlier than the effective date of this subtitle) to exempt from the requirements of this section any company in a holding company system whose public utility operations are confined substantially to a single State and any other class of transactions that the Commission finds is not relevant to the jurisdictional rates of a public utility.

SEC. 1276. [42 U.S.C. 16463] AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such funds as may be necessary to carry out this subtitle.

SEC. 1277. CONFORMING AMENDMENTS TO THE FEDERAL POWER ACT.

(a) **CONFLICT OF JURISDICTION.**—Section 318 of the Federal Power Act (16 U.S.C. 825q) is repealed.

(b) **DEFINITIONS.**—(1) Section 201(g)(5) of the Federal Power Act (16 U.S.C. 824(g)(5)) is amended by striking “1935” and inserting “2005”.

(2) Section 214 of the Federal Power Act (16 U.S.C. 824m) is amended by striking “1935” and inserting “2005”.

Subtitle G—Market Transparency, Enforcement, and Consumer Protection

SEC. 1281. ELECTRICITY MARKET TRANSPARENCY.

Part II of the Federal Power Act is amended by adding at the end the following:

“SEC. 220. ELECTRICITY MARKET TRANSPARENCY RULES.

“(a)(1) The Commission is directed to facilitate price transparency in markets for the sale and transmission of electric energy in interstate commerce, having due regard for the public interest, the integrity of those markets, fair competition, and the protection of consumers.

“(2) The Commission may prescribe such rules as the Commission determines necessary and appropriate to carry out the purposes of this section. The rules shall provide for the dissemination, on a timely basis, of information about the availability and prices of wholesale electric energy and transmission service to the Commission, State commissions, buyers and sellers of wholesale electric energy, users of transmission services, and the public.

“(3) The Commission may—

“(A) obtain the information described in paragraph (2) from any market participant; and

“(B) rely on entities other than the Commission to receive and make public the information, subject to the disclosure rules in subsection (b).

“(4) In carrying out this section, the Commission shall consider the degree of price transparency provided by existing price publishers and providers of trade processing services, and shall rely on such publishers and services to the maximum extent possible. The Commission may establish an electronic information system if it determines that existing price publications are not adequately providing price discovery or market transparency. Nothing in this section, however, shall affect any electronic information filing requirements in effect under this Act as of the date of enactment of this section.

“(b)(1) Rules described in subsection (a)(2), if adopted, shall exempt from disclosure information the Commission determines would, if disclosed, be detrimental to the operation of an effective market or jeopardize system security.

“(2) In determining the information to be made available under this section and time to make the information available, the Commission shall seek to ensure that consumers and competitive markets are protected from the adverse effects of potential collusion or other anticompetitive behaviors that can be facilitated by untimely public disclosure of transaction-specific information.

“(c)(1) Within 180 days of enactment of this section, the Commission shall conclude a memorandum of understanding with the Commodity Futures Trading Commission relating to information sharing, which shall include, among other things, provisions ensuring that information requests to markets within the respective jurisdiction of each agency are properly coordinated to minimize duplicative information requests, and provisions regarding the treatment of proprietary trading information.

“(2) Nothing in this section may be construed to limit or affect the exclusive jurisdiction of the Commodity Futures Trading Commission under the Commodity Exchange Act (7 U.S.C. 1 et seq.).

“(d) The Commission shall not require entities who have a de minimis market presence to comply with the reporting requirements of this section.

“(e)(1) Except as provided in paragraph (2), no person shall be subject to any civil penalty under this section with respect to any violation occurring more than 3 years before the date on which the person is provided notice of the proposed penalty under section 316A.

“(2) Paragraph (1) shall not apply in any case in which the Commission finds that a seller that has entered into a contract for the sale of electric energy at wholesale or transmission service subject to the jurisdiction of the Commission has engaged in fraudulent market manipulation activities materially affecting the contract in violation of section 222.

“(f) This section shall not apply to a transaction for the purchase or sale of wholesale electric energy or transmission services within the area described in section 212(k)(2)(A).”.

SEC. 1282. FALSE STATEMENTS.

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

“SEC. 221. PROHIBITION ON FILING FALSE INFORMATION.

“No entity (including an entity described in section 201(f)) shall willfully and knowingly report any information relating to the price of electricity sold at wholesale or the availability of transmission capacity, which information the person or any other entity knew to be false at the time of the reporting, to a Federal agency with intent to fraudulently affect the data being compiled by the Federal agency.”.

SEC. 1283. MARKET MANIPULATION.

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

“SEC. 222. PROHIBITION OF ENERGY MARKET MANIPULATION.

“(a) IN GENERAL.—It shall be unlawful for any entity (including an entity described in section 201(f)), directly or indirectly, to use or employ, in connection with the purchase or sale of electric energy or the purchase or sale of transmission services subject to the jurisdiction of the Commission, any manipulative or deceptive device or contrivance (as those terms are used in section 10(b) of the Securities Exchange Act of 1934 (15 U.S.C. 78j(b))), in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of electric ratepayers.

“(b) NO PRIVATE RIGHT OF ACTION.—Nothing in this section shall be construed to create a private right of action.”.

SEC. 1284. ENFORCEMENT.

(a) COMPLAINTS.—Section 306 of the Federal Power Act (16 U.S.C. 825e) is amended—

- (1) by inserting “electric utility,” after “Any person,”; and
- (2) by inserting “, transmitting utility,” after “licensee” each place it appears.

(b) INVESTIGATIONS.—Section 307(a) of the Federal Power Act (16 U.S.C. 825f(a)) is amended—

- (1) by inserting “, electric utility, transmitting utility, or other entity” after “person” each place it appears; and
- (2) in the first sentence, by inserting before the period at the end the following: “, or in obtaining information about the sale of electric energy at wholesale in interstate commerce and the transmission of electric energy in interstate commerce”.

(c) REVIEW OF COMMISSION ORDERS.—Section 313(a) of the Federal Power Act (16 U.S.C. 825l) is amended by inserting “electric utility,” after “person,” in the first 2 places it appears and by striking “any person unless such person” and inserting “any entity unless such entity”.

(d) CRIMINAL PENALTIES.—Section 316 of the Federal Power Act (16 U.S.C. 825o) is amended—

- (1) in subsection (a)—
 - (A) by striking “\$5,000” and inserting “\$1,000,000”; and
 - (B) by striking “two years” and inserting “5 years”;
- (2) in subsection (b), by striking “\$500” and inserting “\$25,000”; and
- (3) by striking subsection (c).

(e) CIVIL PENALTIES.—Section 316A of the Federal Power Act (16 U.S.C. 825o–1) is amended—

(1) by striking “section 211, 212, 213, or 214” each place it appears and inserting “part II”; and

(2) in subsection (b), by striking “\$10,000” and inserting “\$1,000,000”.

SEC. 1285. REFUND EFFECTIVE DATE.

Section 206(b) of the Federal Power Act (16 U.S.C. 824e(b)) is amended as follows:

(1) By striking “the date 60 days after the filing of such complaint nor later than 5 months after the expiration of such 60-day period” in the second sentence and inserting “the date of the filing of such complaint nor later than 5 months after the filing of such complaint”.

(2) By striking “60 days after” in the third sentence and inserting “of”.

(3) By striking “expiration of such 60-day period” in the third sentence and inserting “publication date”.

(4) By striking the fifth sentence and inserting the following: “If no final decision is rendered by the conclusion of the 180-day period commencing upon initiation of a proceeding pursuant to this section, the Commission shall state the reasons why it has failed to do so and shall state its best estimate as to when it reasonably expects to make such decision.”.

SEC. 1286. REFUND AUTHORITY.

Section 206 of the Federal Power Act (16 U.S.C. 824e) is amended by adding at the end the following:

“(e)(1) In this subsection:

“(A) The term ‘short-term sale’ means an agreement for the sale of electric energy at wholesale in interstate commerce that is for a period of 31 days or less (excluding monthly contracts subject to automatic renewal).

“(B) The term ‘applicable Commission rule’ means a Commission rule applicable to sales at wholesale by public utilities that the Commission determines after notice and comment should also be applicable to entities subject to this subsection.

“(2) If an entity described in section 201(f) voluntarily makes a short-term sale of electric energy through an organized market in which the rates for the sale are established by Commission-approved tariff (rather than by contract) and the sale violates the terms of the tariff or applicable Commission rules in effect at the time of the sale, the entity shall be subject to the refund authority of the Commission under this section with respect to the violation.

“(3) This section shall not apply to—

“(A) any entity that sells in total (including affiliates of the entity) less than 8,000,000 megawatt hours of electricity per year; or

“(B) an electric cooperative.

“(4)(A) The Commission shall have refund authority under paragraph (2) with respect to a voluntary short term sale of electric energy by the Bonneville Power Administration only if the sale is at an unjust and unreasonable rate.

“(B) The Commission may order a refund under subparagraph (A) only for short-term sales made by the Bonneville Power Administration at rates that are higher than the highest just and reasonable rate charged by any other entity for a short-term sale of electric energy in the same geographic market for the same, or most nearly comparable, period as the sale by the Bonneville Power Administration.

“(C) In the case of any Federal power marketing agency or the Tennessee Valley Authority, the Commission shall not assert or exercise any regulatory authority or power under paragraph (2) other than the ordering of refunds to achieve a just and reasonable rate.”.

SEC. 1287. [42 U.S.C. 16471] CONSUMER PRIVACY AND UNFAIR TRADE PRACTICES.

(a) **PRIVACY.**—The Federal Trade Commission may issue rules protecting the privacy of electric consumers from the disclosure of consumer information obtained in connection with the sale or delivery of electric energy to electric consumers.

(b) **SLAMMING.**—The Federal Trade Commission may issue rules prohibiting the change of selection of an electric utility except with the informed consent of the electric consumer or if approved by the appropriate State regulatory authority.

(c) **CRAMMING.**—The Federal Trade Commission may issue rules prohibiting the sale of goods and services to an electric consumer unless expressly authorized by law or the electric consumer.

(d) **RULEMAKING.**—The Federal Trade Commission shall proceed in accordance with section 553 of title 5, United States Code, when prescribing a rule under this section.

(e) **STATE AUTHORITY.**—If the Federal Trade Commission determines that a State’s regulations provide equivalent or greater protection than the provisions of this section, such State regulations shall apply in that State in lieu of the regulations issued by the Commission under this section.

(f) **DEFINITIONS.**—For purposes of this section:

(1) **STATE REGULATORY AUTHORITY.**—The term “State regulatory authority” has the meaning given that term in section 3(21) of the Federal Power Act (16 U.S.C. 796(21)).

(2) **ELECTRIC CONSUMER AND ELECTRIC UTILITY.**—The terms “electric consumer” and “electric utility” have the meanings given those terms in section 3 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602).

SEC. 1288. AUTHORITY OF COURT TO PROHIBIT INDIVIDUALS FROM SERVING AS OFFICERS, DIRECTORS, AND ENERGY TRADERS.

Section 314 of the Federal Power Act (16 U.S.C. 825m) is amended by adding at the end the following:

“(d) In any proceedings under subsection (a), the court may prohibit, conditionally or unconditionally, and permanently or for such period of time as the court determines, any individual who is engaged or has engaged in practices constituting a violation of section 221 (and related rules and regulations) from—

“(1) acting as an officer or director of an electric utility; or

“(2) engaging in the business of purchasing or selling—

“(A) electric energy; or

“(B) transmission services subject to the jurisdiction of the Commission.”.

SEC. 1289. MERGER REVIEW REFORM.

(a) IN GENERAL.—Section 203(a) of the Federal Power Act (16 U.S.C. 824b(a)) is amended to read as follows:

“(a)(1) No public utility shall, without first having secured an order of the Commission authorizing it to do so—

“(A) sell, lease, or otherwise dispose of the whole of its facilities subject to the jurisdiction of the Commission, or any part thereof of a value in excess of \$10,000,000;

“(B) merge or consolidate, directly or indirectly, such facilities or any part thereof with those of any other person, by any means whatsoever;

“(C) purchase, acquire, or take any security with a value in excess of \$10,000,000 of any other public utility; or

“(D) purchase, lease, or otherwise acquire an existing generation facility—

“(i) that has a value in excess of \$10,000,000; and

“(ii) that is used for interstate wholesale sales and over which the Commission has jurisdiction for rate-making purposes.

“(2) No holding company in a holding company system that includes a transmitting utility or an electric utility shall purchase, acquire, or take any security with a value in excess of \$10,000,000 of, or, by any described in subsection (a) in which there is not a final, nonappealable order by the Commission or any other jurisdiction determining the respective rights of the seller.”

Subtitle H—Definitions

SEC. 1291. [42 U.S.C. 16481] DEFINITIONS.

(a) COMMISSION.—In this title, the term “Commission” means the Federal Energy Regulatory Commission.

(b) AMENDMENT.—Section 3 of the Federal Power Act (16 U.S.C. 796) is amended—

(1) by striking paragraphs (22) and (23) and inserting the following:

“(22) ELECTRIC UTILITY.—(A) The term ‘electric utility’ means a person or Federal or State agency (including an entity described in section 201(f)) that sells electric energy.

“(B) The term ‘electric utility’ includes the Tennessee Valley Authority and each Federal power marketing administration.

“(23) TRANSMITTING UTILITY.—The term ‘transmitting utility’ means an entity (including an entity described in section 201(f)) that owns, operates, or controls facilities used for the transmission of electric energy—

“(A) in interstate commerce;

“(B) for the sale of electric energy at wholesale.”; and

(2) by adding at the end the following:

“(26) ELECTRIC COOPERATIVE.—The term ‘electric cooperative’ means a cooperatively owned electric utility.

“(27) RTO.—The term ‘Regional Transmission Organization’ or ‘RTO’ means an entity of sufficient regional scope approved by the Commission—

“(A) to exercise operational or functional control of facilities used for the transmission of electric energy in interstate commerce; and

“(B) to ensure nondiscriminatory access to the facilities.

“(28) ISO.—The term ‘Independent System Operator’ or ‘ISO’ means an entity approved by the Commission—

“(A) to exercise operational or functional control of facilities used for the transmission of electric energy in interstate commerce; and

“(B) to ensure nondiscriminatory access to the facilities.

“(29) TRANSMISSION ORGANIZATION.—The term ‘Transmission Organization’ means a Regional Transmission Organization, Independent System Operator, independent transmission provider, or other transmission organization finally approved by the Commission for the operation of transmission facilities.”.

(c) APPLICABILITY.—Section 201(f) of the Federal Power Act (16 U.S.C. 824(f)) is amended by striking “political subdivision of a state,” and inserting “political subdivision of a State, an electric cooperative that receives financing under the Rural Electrification Act of 1936 (7 U.S.C. 901 et seq.) or that sells less than 4,000,000 megawatt hours of electricity per year,”.

Subtitle I—Technical and Conforming Amendments

SEC. 1295. CONFORMING AMENDMENTS.

(a) Section 201 of the Federal Power Act (16 U.S.C. 824) is amended—

(1) in subsection (b)(2)—

(A) in the first sentence—

(i) by striking “The” and inserting “Notwithstanding section 201(f), the”; and

(ii) by striking “210, 211, and 212” and inserting “203(a)(2), 206(e), 210, 211, 211A, 212, 215, 216, 217, 218, 219, 220, 221, and 222”; and

(B) in the second sentence—

(i) by inserting “or rule” after “any order”; and

(ii) by striking “210 or 211” and inserting “203(a)(2), 206(e), 210, 211, 211A, 212, 215, 216, 217, 218, 219, 220, 221, or 222”; and

(2) in subsection (e), by striking “210, 211, or 212” and inserting “206(e), 206(f), 210, 211, 211A, 212, 215, 216, 217, 218, 219, 220, 221, or 222”.

(b) Section 206 of the Federal Power Act (16 U.S.C. 824e) is amended—

- (1) in the first sentence of subsection (a), by striking “hearing had” and inserting “hearing held”; and
- (2) in the seventh sentence of subsection (b), by striking “the public utility to make”.
- (c) Section 211 of the Federal Power Act (16 U.S.C. 824j) is amended—
- (1) in subsection (c)—
- (A) by striking “(2)”;
- (B) by striking “(A)” and inserting “(1)”
- (C) by striking “(B)” and inserting “(2)”;
- (D) by striking “termination of modification” and inserting “termination or modification”; and
- (2) in the second sentence of subsection (d)(1), by striking “electric utility” the second place it appears and inserting “transmitting utility”.
- (d) Section 315(c) of the Federal Power Act (16 U.S.C. 825n(c)) is amended by striking “subsection” and inserting “section”.

Subtitle J—Economic Dispatch

SEC. 1298. ECONOMIC DISPATCH.

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

“SEC. 223. JOINT BOARDS ON ECONOMIC DISPATCH.

“(a) IN GENERAL.—The Commission shall convene joint boards on a regional basis pursuant to section 209 of this Act to study the issue of security constrained economic dispatch for the various market regions. The Commission shall designate the appropriate regions to be covered by each such joint board for purposes of this section.

“(b) MEMBERSHIP.—The Commission shall request each State to nominate a representative for the appropriate regional joint board, and shall designate a member of the Commission to chair and participate as a member of each such board.

“(c) POWERS.—The sole authority of each joint board convened under this section shall be to consider issues relevant to what constitutes ‘security constrained economic dispatch’ and how such a mode of operating an electric energy system affects or enhances the reliability and affordability of service to customers in the region concerned and to make recommendations to the Commission regarding such issues.

“(d) REPORT TO THE CONGRESS.—Within 1 year after enactment of this section, the Commission shall issue a report and submit such report to the Congress regarding the recommendations of the joint boards under this section and the Commission may consolidate the recommendations of more than one such regional joint board, including any consensus recommendations for statutory or regulatory reform.”.

TITLE XIII—ENERGY POLICY TAX INCENTIVES

SEC. 1300. SHORT TITLE; AMENDMENT OF 1986 CODE.

(a) **SHORT TITLE.**—This title may be cited as the “Energy Tax Incentives Act of 2005”.

(b) **AMENDMENT OF 1986 CODE.**—Except as otherwise expressly provided, whenever in this title an amendment or repeal is expressed in terms of an amendment to, or repeal of, a section or other provision, the reference shall be considered to be made to a section or other provision of the Internal Revenue Code of 1986.

Subtitle A—Electricity Infrastructure

SEC. 1301. EXTENSION AND MODIFICATION OF RENEWABLE ELECTRICITY PRODUCTION CREDIT.

(a) **2-YEAR EXTENSION FOR CERTAIN FACILITIES.**—Section 45(d) (relating to qualified facilities) is amended—

(1) by striking “January 1, 2006” each place it appears in paragraphs (1), (2), (3), (5), (6), and (7) and inserting “January 1, 2008”, and

(2) by striking “January 1, 2006” in paragraph (4) and inserting “January 1, 2008 (January 1, 2006, in the case of a facility using solar energy)”.

(b) **INCREASE IN CREDIT PERIOD.**—Section 45(b)(4)(B) (relating to credit period) is amended—

(1) by inserting “or clause (iii)” after “clause (ii)” in clause (i), and

(2) by adding at the end the following:

“(iii) **TERMINATION.**—Clause (i) shall not apply to any facility placed in service after the date of the enactment of this clause.”.

(c) **EXPANSION OF QUALIFIED RESOURCES TO CERTAIN HYDROPOWER.**—

(1) **IN GENERAL.**—Section 45(c)(1) (defining qualified energy resources) is amended by striking “and” at the end of subparagraph (F), by striking the period at the end of subparagraph (G) and inserting “, and”, and by adding at the end the following new subparagraph:

“(H) qualified hydropower production.”.

(2) **CREDIT RATE.**—Section 45(b)(4)(A) (relating to credit rate) is amended by striking “or (7)” and inserting “(7), or (9)”.

(3) **DEFINITION OF RESOURCES.**—Section 45(c) (relating to qualified energy resources and refined coal) is amended by adding at the end the following new paragraph:

“(8) **QUALIFIED HYDROPOWER PRODUCTION.**—

“(A) **IN GENERAL.**—The term ‘qualified hydropower production’ means—

“(i) in the case of any hydroelectric dam which was placed in service on or before the date of the enactment of this paragraph, the incremental hydropower production for the taxable year, and

“(ii) in the case of any nonhydroelectric dam described in subparagraph (C), the hydropower production from the facility for the taxable year.

“(B) DETERMINATION OF INCREMENTAL HYDROPOWER PRODUCTION.—

“(i) IN GENERAL.—For purposes of subparagraph (A), incremental hydropower production for any taxable year shall be equal to the percentage of average annual hydropower production at the facility attributable to the efficiency improvements or additions of capacity placed in service after the date of the enactment of this paragraph, determined by using the same water flow information used to determine an historic average annual hydropower production baseline for such facility. Such percentage and baseline shall be certified by the Federal Energy Regulatory Commission.

“(ii) OPERATIONAL CHANGES DISREGARDED.—For purposes of clause (i), the determination of incremental hydropower production shall not be based on any operational changes at such facility not directly associated with the efficiency improvements or additions of capacity.

“(C) NONHYDROELECTRIC DAM.—For purposes of subparagraph (A), a facility is described in this subparagraph if—

“(i) the facility is licensed by the Federal Energy Regulatory Commission and meets all other applicable environmental, licensing, and regulatory requirements,

“(ii) the facility was placed in service before the date of the enactment of this paragraph and did not produce hydroelectric power on the date of the enactment of this paragraph, and

“(iii) turbines or other generating devices are to be added to the facility after such date to produce hydroelectric power, but only if there is not any enlargement of the diversion structure, or construction or enlargement of a bypass channel, or the impoundment or any withholding of any additional water from the natural stream channel.”

(4) FACILITIES.—Section 45(d) (relating to qualified facilities) is amended by adding at the end the following new paragraph:

“(9) QUALIFIED HYDROPOWER FACILITY.—In the case of a facility producing qualified hydroelectric production described in subsection (c)(8), the term ‘qualified facility’ means—

“(A) in the case of any facility producing incremental hydropower production, such facility but only to the extent of its incremental hydropower production attributable to efficiency improvements or additions to capacity described in subsection (c)(8)(B) placed in service after the date of the enactment of this paragraph and before January 1, 2008, and

“(B) any other facility placed in service after the date of the enactment of this paragraph and before January 1, 2008.

“(C) CREDIT PERIOD.—In the case of a qualified facility described in subparagraph (A), the 10-year period referred to in subsection (a) shall be treated as beginning on the date the efficiency improvements or additions to capacity are placed in service.”.

(d) INDIAN COAL.—

(1) PRODUCTION FACILITIES.—Subsection (e) of section 45 (relating to definitions and special rules) is amended by adding at the end the following new paragraph:

“(10) INDIAN COAL PRODUCTION FACILITIES.—

“(A) DETERMINATION OF CREDIT AMOUNT.—In the case of a producer of Indian coal, the credit determined under this section (without regard to this paragraph) for any taxable year shall be increased by an amount equal to the applicable dollar amount per ton of Indian coal—

“(i) produced by the taxpayer at an Indian coal production facility during the 7-year period beginning on January 1, 2006, and

“(ii) sold by the taxpayer—

“(I) to an unrelated person, and

“(II) during such 7-year period and such taxable year.

“(B) APPLICABLE DOLLAR AMOUNT.—

“(i) IN GENERAL.—The term ‘applicable dollar amount’ for any taxable year beginning in a calendar year means—

“(I) \$1.50 in the case of calendar years 2006 through 2009, and

“(II) \$2.00 in the case of calendar years beginning after 2009.

“(ii) INFLATION ADJUSTMENT.—In the case of any calendar year after 2006, each of the dollar amounts under clause (i) shall be equal to the product of such dollar amount and the inflation adjustment factor determined under paragraph (2)(B) for the calendar year, except that such paragraph shall be applied by substituting ‘2005’ for ‘1992’.

“(C) APPLICATION OF RULES.—Rules similar to the rules of the subsection (b)(3) and paragraphs (1), (3), (4), and (5) of this subsection shall apply for purposes of determining the amount of any increase under this paragraph.

“(D) TREATMENT AS SPECIFIED CREDIT.—The increase in the credit determined under subsection (a) by reason of this paragraph with respect to any facility shall be treated as a specified credit for purposes of section 38(c)(4)(A) during the 4-year period beginning on the later of January 1, 2006, or the date on which such facility is placed in service by the taxpayer.”.

(2) RESOURCE.—Subsection (c) of section 45 (relating to qualified energy resources and refined coal), as amended by

this Act, is amended by adding at the end the following new paragraph:

“(9) INDIAN COAL.—

“(A) IN GENERAL.—The term ‘Indian coal’ means coal which is produced from coal reserves which, on June 14, 2005—

“(i) were owned by an Indian tribe, or

“(ii) were held in trust by the United States for the benefit of an Indian tribe or its members.

“(B) INDIAN TRIBE.—For purposes of this paragraph, the term ‘Indian tribe’ has the meaning given such term by section 7871(c)(3)(E)(ii).”

(3) INDIAN COAL PRODUCTION FACILITY.—Subsection (d) of section 45, as amended by this Act, is amended by adding at the end the following new paragraph:

“(10) INDIAN COAL PRODUCTION FACILITY.—The term ‘Indian coal production facility’ means a facility which is placed in service before January 1, 2009.”

(4) CONFORMING AMENDMENT.—The heading for section 45(c) is amended by striking “QUALIFIED ENERGY RESOURCES AND REFINED COAL” and inserting “RESOURCES”.

(e) TECHNICAL AMENDMENT RELATED TO TRASH COMBUSTION FACILITIES.—Section 45(d)(7) (relating to trash combustion facilities) is amended by adding at the end the following: “Such term shall include a new unit placed in service in connection with a facility placed in service on or before the date of the enactment of this paragraph, but only to the extent of the increased amount of electricity produced at the facility by reason of such new unit.”

(f) ADDITIONAL TECHNICAL AMENDMENTS RELATED TO SECTION 710 OF THE AMERICAN JOBS CREATION ACT OF 2004.—

(1) Clause (ii) of section 45(b)(4)(B) is amended by striking “the date of the enactment of this Act” and inserting “January 1, 2005.”

(2) Clause (ii) of section 45(c)(3)(A) is amended by inserting “or any nonhazardous lignin waste material” after “cellulosic waste material”.

(3) Subsection (e) of section 45 is amended by striking paragraph (6).

(4)(A) Paragraph (9) of section 45(e) is amended to read as follows:

“(9) COORDINATION WITH CREDIT FOR PRODUCING FUEL FROM A NONCONVENTIONAL SOURCE.—

“(A) IN GENERAL.—The term ‘qualified facility’ shall not include any facility which produces electricity from gas derived from the biodegradation of municipal solid waste if such biodegradation occurred in a facility (within the meaning of section 29) the production from which is allowed as a credit under section 29 for the taxable year or any prior taxable year.

“(B) REFINED COAL FACILITIES.—The term ‘refined coal production facility’ shall not include any facility the production from which is allowed as a credit under section 29 for the taxable year or any prior taxable year.”

(B) Subparagraph (C) of section 45(e)(8) is amended by striking “and (9)”.

(5) Subclause (I) of section 168(e)(3)(B)(vi) is amended to read as follows:

“(I) is described in subparagraph (A) of section 48(a)(3) (or would be so described if ‘solar and wind’ were substituted for ‘solar’ in clause (i) thereof and the last sentence of such section did not apply to such subparagraph),”.

(6) Paragraph (4) of section 710(g) of the American Jobs Creation Act of 2004 is amended by striking “January 1, 2004” and inserting “January 1, 2005”.

(g) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall take effect on the date of the enactment of this Act.

(2) TECHNICAL AMENDMENTS.—The amendments made by subsections (e) and (f) shall take effect as if included in the amendments made by section 710 of the American Jobs Creation Act of 2004.

SEC. 1302. APPLICATION OF SECTION 45 CREDIT TO AGRICULTURAL COOPERATIVES.

(a) IN GENERAL.—Section 45(e) (relating to definitions and special rules), as amended by this Act, is amended by adding at the end the following:

“(11) ALLOCATION OF CREDIT TO PATRONS OF AGRICULTURAL COOPERATIVE.—

“(A) ELECTION TO ALLOCATE.—

“(i) IN GENERAL.—In the case of an eligible cooperative organization, any portion of the credit determined under subsection (a) for the taxable year may, at the election of the organization, be apportioned among patrons of the organization on the basis of the amount of business done by the patrons during the taxable year.

“(ii) FORM AND EFFECT OF ELECTION.—An election under clause (i) for any taxable year shall be made on a timely filed return for such year. Such election, once made, shall be irrevocable for such taxable year. Such election shall not take effect unless the organization designates the apportionment as such in a written notice mailed to its patrons during the payment period described in section 1382(d).

“(B) TREATMENT OF ORGANIZATIONS AND PATRONS.—The amount of the credit apportioned to any patrons under subparagraph (A)—

“(i) shall not be included in the amount determined under subsection (a) with respect to the organization for the taxable year, and

“(ii) shall be included in the amount determined under subsection (a) for the first taxable year of each patron ending on or after the last day of the payment period (as defined in section 1382(d)) for the taxable year of the organization or, if earlier, for the taxable

year of each patron ending on or after the date on which the patron receives notice from the cooperative of the apportionment.

“(C) SPECIAL RULES FOR DECREASE IN CREDITS FOR TAXABLE YEAR.—If the amount of the credit of a cooperative organization determined under subsection (a) for a taxable year is less than the amount of such credit shown on the return of the cooperative organization for such year, an amount equal to the excess of—

“(i) such reduction, over

“(ii) the amount not apportioned to such patrons under subparagraph (A) for the taxable year, shall be treated as an increase in tax imposed by this chapter on the organization. Such increase shall not be treated as tax imposed by this chapter for purposes of determining the amount of any credit under this chapter.

“(D) ELIGIBLE COOPERATIVE DEFINED.—For purposes of this section the term ‘eligible cooperative’ means a cooperative organization described in section 1381(a) which is owned more than 50 percent by agricultural producers or by entities owned by agricultural producers. For this purpose an entity owned by an agricultural producer is one that is more than 50 percent owned by agricultural producers.”.

(b) CONFORMING AMENDMENT.—The last sentence of section 55(c)(1) is amended by inserting “45(e)(11)(C),” after “section”.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to taxable years of cooperative organizations ending after the date of the enactment of this Act.

SEC. 1303. CLEAN RENEWABLE ENERGY BONDS.

(a) IN GENERAL.—Part IV of subchapter A of chapter 1 (relating to credits against tax) is amended by adding at the end the following new subpart:

“Subpart H—Nonrefundable Credit to Holders of Certain Bonds

“Sec. 54. Credit to holders of clean renewable energy bonds.

“SEC. 54. CREDIT TO HOLDERS OF CLEAN RENEWABLE ENERGY BONDS.

“(a) ALLOWANCE OF CREDIT.—If a taxpayer holds a clean renewable energy bond on one or more credit allowance dates of the bond occurring during any taxable year, there shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of the credits determined under subsection (b) with respect to such dates.

“(b) AMOUNT OF CREDIT.—

“(1) IN GENERAL.—The amount of the credit determined under this subsection with respect to any credit allowance date for a clean renewable energy bond is 25 percent of the annual credit determined with respect to such bond.

“(2) ANNUAL CREDIT.—The annual credit determined with respect to any clean renewable energy bond is the product of—

“(A) the credit rate determined by the Secretary under paragraph (3) for the day on which such bond was sold, multiplied by

“(B) the outstanding face amount of the bond.

“(3) DETERMINATION.—For purposes of paragraph (2), with respect to any clean renewable energy bond, the Secretary shall determine daily or cause to be determined daily a credit rate which shall apply to the first day on which there is a binding, written contract for the sale or exchange of the bond. The credit rate for any day is the credit rate which the Secretary or the Secretary’s designee estimates will permit the issuance of clean renewable energy bonds with a specified maturity or redemption date without discount and without interest cost to the qualified issuer.

“(4) CREDIT ALLOWANCE DATE.—For purposes of this section, the term ‘credit allowance date’ means—

“(A) March 15,

“(B) June 15,

“(C) September 15, and

“(D) December 15.

Such term also includes the last day on which the bond is outstanding.

“(5) SPECIAL RULE FOR ISSUANCE AND REDEMPTION.—In the case of a bond which is issued during the 3-month period ending on a credit allowance date, the amount of the credit determined under this subsection with respect to such credit allowance date shall be a ratable portion of the credit otherwise determined based on the portion of the 3-month period during which the bond is outstanding. A similar rule shall apply when the bond is redeemed or matures.

“(c) LIMITATION BASED ON AMOUNT OF TAX.—The credit allowed under subsection (a) for any taxable year shall not exceed the excess of—

“(1) the sum of the regular tax liability (as defined in section 26(b)) plus the tax imposed by section 55, over

“(2) the sum of the credits allowable under this part (other than subpart C and this section).

“(d) CLEAN RENEWABLE ENERGY BOND.—For purposes of this section—

“(1) IN GENERAL.—The term ‘clean renewable energy bond’ means any bond issued as part of an issue if—

“(A) the bond is issued by a qualified issuer pursuant to an allocation by the Secretary to such issuer of a portion of the national clean renewable energy bond limitation under subsection (f)(2),

“(B) 95 percent or more of the proceeds of such issue are to be used for capital expenditures incurred by qualified borrowers for one or more qualified projects,

“(C) the qualified issuer designates such bond for purposes of this section and the bond is in registered form, and

“(D) the issue meets the requirements of subsection (h).

“(2) QUALIFIED PROJECT; SPECIAL USE RULES.—

“(A) IN GENERAL.—The term ‘qualified project’ means any qualified facility (as determined under section 45(d) without regard to paragraph (10) and to any placed in service date) owned by a qualified borrower.

“(B) REFINANCING RULES.—For purposes of paragraph (1)(B), a qualified project may be refinanced with proceeds of a clean renewable energy bond only if the indebtedness being refinanced (including any obligation directly or indirectly refinanced by such indebtedness) was originally incurred by a qualified borrower after the date of the enactment of this section.

“(C) REIMBURSEMENT.—For purposes of paragraph (1)(B), a clean renewable energy bond may be issued to reimburse a qualified borrower for amounts paid after the date of the enactment of this section with respect to a qualified project, but only if—

“(i) prior to the payment of the original expenditure, the qualified borrower declared its intent to reimburse such expenditure with the proceeds of a clean renewable energy bond,

“(ii) not later than 60 days after payment of the original expenditure, the qualified issuer adopts an official intent to reimburse the original expenditure with such proceeds, and

“(iii) the reimbursement is made not later than 18 months after the date the original expenditure is paid.

“(D) TREATMENT OF CHANGES IN USE.—For purposes of paragraph (1)(B), the proceeds of an issue shall not be treated as used for a qualified project to the extent that a qualified borrower or qualified issuer takes any action within its control which causes such proceeds not to be used for a qualified project. The Secretary shall prescribe regulations specifying remedial actions that may be taken (including conditions to taking such remedial actions) to prevent an action described in the preceding sentence from causing a bond to fail to be a clean renewable energy bond.

“(e) MATURITY LIMITATIONS.—

“(1) DURATION OF TERM.—A bond shall not be treated as a clean renewable energy bond if the maturity of such bond exceeds the maximum term determined by the Secretary under paragraph (2) with respect to such bond.

“(2) MAXIMUM TERM.—During each calendar month, the Secretary shall determine the maximum term permitted under this paragraph for bonds issued during the following calendar month. Such maximum term shall be the term which the Secretary estimates will result in the present value of the obligation to repay the principal on the bond being equal to 50 percent of the face amount of such bond. Such present value shall be determined without regard to the requirements of subsection (1)(6) and using as a discount rate the average annual interest rate of tax-exempt obligations having a term of 10

years or more which are issued during the month. If the term as so determined is not a multiple of a whole year, such term shall be rounded to the next highest whole year.

“(f) LIMITATION ON AMOUNT OF BONDS DESIGNATED.—

“(1) NATIONAL LIMITATION.—There is a national clean renewable energy bond limitation of \$800,000,000.

“(2) ALLOCATION BY SECRETARY.—The Secretary shall allocate the amount described in paragraph (1) among qualified projects in such manner as the Secretary determines appropriate, except that the Secretary may not allocate more than \$500,000,000 of the national clean renewable energy bond limitation to finance qualified projects of qualified borrowers which are governmental bodies.

“(g) CREDIT INCLUDED IN GROSS INCOME.—Gross income includes the amount of the credit allowed to the taxpayer under this section (determined without regard to subsection (c)) and the amount so included shall be treated as interest income.

“(h) SPECIAL RULES RELATING TO EXPENDITURES.—

“(1) IN GENERAL.—An issue shall be treated as meeting the requirements of this subsection if, as of the date of issuance, the qualified issuer reasonably expects—

“(A) at least 95 percent of the proceeds of such issue are to be spent for one or more qualified projects within the 5-year period beginning on the date of issuance of the clean energy bond,

“(B) a binding commitment with a third party to spend at least 10 percent of the proceeds of such issue will be incurred within the 6-month period beginning on the date of issuance of the clean energy bond or, in the case of a clean energy bond the proceeds of which are to be loaned to two or more qualified borrowers, such binding commitment will be incurred within the 6-month period beginning on the date of the loan of such proceeds to a qualified borrower, and

“(C) such projects will be completed with due diligence and the proceeds of such issue will be spent with due diligence.

“(2) EXTENSION OF PERIOD.—Upon submission of a request prior to the expiration of the period described in paragraph (1)(A), the Secretary may extend such period if the qualified issuer establishes that the failure to satisfy the 5-year requirement is due to reasonable cause and the related projects will continue to proceed with due diligence.

“(3) FAILURE TO SPEND REQUIRED AMOUNT OF BOND PROCEEDS WITHIN 5 YEARS.—To the extent that less than 95 percent of the proceeds of such issue are expended by the close of the 5-year period beginning on the date of issuance (or if an extension has been obtained under paragraph (2), by the close of the extended period), the qualified issuer shall redeem all of the nonqualified bonds within 90 days after the end of such period. For purposes of this paragraph, the amount of the nonqualified bonds required to be redeemed shall be determined in the same manner as under section 142.

“(i) SPECIAL RULES RELATING TO ARBITRAGE.—A bond which is part of an issue shall not be treated as a clean renewable energy bond unless, with respect to the issue of which the bond is a part, the qualified issuer satisfies the arbitrage requirements of section 148 with respect to proceeds of the issue.

“(j) COOPERATIVE ELECTRIC COMPANY; QUALIFIED ENERGY TAX CREDIT BOND LENDER; GOVERNMENTAL BODY; QUALIFIED BORROWER.—For purposes of this section—

“(1) COOPERATIVE ELECTRIC COMPANY.—The term ‘cooperative electric company’ means a mutual or cooperative electric company described in section 501(c)(12) or section 1381(a)(2)(C), or a not-for-profit electric utility which has received a loan or loan guarantee under the Rural Electrification Act.

“(2) CLEAN RENEWABLE ENERGY BOND LENDER.—The term ‘clean renewable energy bond lender’ means a lender which is a cooperative which is owned by, or has outstanding loans to, 100 or more cooperative electric companies and is in existence on February 1, 2002, and shall include any affiliated entity which is controlled by such lender.

“(3) GOVERNMENTAL BODY.—The term ‘governmental body’ means any State, territory, possession of the United States, the District of Columbia, Indian tribal government, and any political subdivision thereof.

“(4) QUALIFIED ISSUER.—The term ‘qualified issuer’ means—

“(A) a clean renewable energy bond lender,

“(B) a cooperative electric company, or

“(C) a governmental body.

“(5) QUALIFIED BORROWER.—The term ‘qualified borrower’ means—

“(A) a mutual or cooperative electric company described in section 501(c)(12) or 1381(a)(2)(C), or

“(B) a governmental body.

“(k) SPECIAL RULES RELATING TO POOL BONDS.—No portion of a pooled financing bond may be allocable to any loan unless the borrower has entered into a written loan commitment for such portion prior to the issue date of such issue.

“(l) OTHER DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

“(1) BOND.—The term ‘bond’ includes any obligation.

“(2) POOLED FINANCING BOND.—The term ‘pooled financing bond’ shall have the meaning given such term by section 149(f)(4)(A).

“(3) PARTNERSHIP; S CORPORATION; AND OTHER PASS-THRU ENTITIES.—

“(A) IN GENERAL.—Under regulations prescribed by the Secretary, in the case of a partnership, trust, S corporation, or other pass-thru entity, rules similar to the rules of section 41(g) shall apply with respect to the credit allowable under subsection (a).

“(B) NO BASIS ADJUSTMENT.—In the case of a bond held by a partnership or an S corporation, rules similar to the rules under section 1397E(i) shall apply.

“(4) BONDS HELD BY REGULATED INVESTMENT COMPANIES.—If any clean renewable energy bond is held by a regulated investment company, the credit determined under subsection (a) shall be allowed to shareholders of such company under procedures prescribed by the Secretary.

“(5) TREATMENT FOR ESTIMATED TAX PURPOSES.—Solely for purposes of sections 6654 and 6655, the credit allowed by this section (determined without regard to subsection (c)) to a taxpayer by reason of holding a clean renewable energy bond on a credit allowance date shall be treated as if it were a payment of estimated tax made by the taxpayer on such date.

“(6) RATABLE PRINCIPAL AMORTIZATION REQUIRED.—A bond shall not be treated as a clean renewable energy bond unless it is part of an issue which provides for an equal amount of principal to be paid by the qualified issuer during each calendar year that the issue is outstanding.

“(7) REPORTING.—Issuers of clean renewable energy bonds shall submit reports similar to the reports required under section 149(e).

“(m) TERMINATION.—This section shall not apply with respect to any bond issued after December 31, 2007.”

(b) REPORTING.—Subsection (d) of section 6049 (relating to returns regarding payments of interest) is amended by adding at the end the following new paragraph:

“(8) REPORTING OF CREDIT ON CLEAN RENEWABLE ENERGY BONDS.—

“(A) IN GENERAL.—For purposes of subsection (a), the term ‘interest’ includes amounts includible in gross income under section 54(g) and such amounts shall be treated as paid on the credit allowance date (as defined in section 54(b)(4)).

“(B) REPORTING TO CORPORATIONS, ETC.—Except as otherwise provided in regulations, in the case of any interest described in subparagraph (A), subsection (b)(4) shall be applied without regard to subparagraphs (A), (H), (I), (J), (K), and (L)(i) of such subsection.

“(C) REGULATORY AUTHORITY.—The Secretary may prescribe such regulations as are necessary or appropriate to carry out the purposes of this paragraph, including regulations which require more frequent or more detailed reporting.”

(c) CONFORMING AMENDMENTS.—

(1) The table of subparts for part IV of subchapter A of chapter 1 is amended by adding at the end the following new item:

“SUBPART H—NONREFUNDABLE CREDIT TO HOLDERS OF CERTAIN BONDS.”

(2) Section 1397E(c)(2) is amended by inserting “, and subpart H thereof” after “refundable credits”.

(3) Subsection (h) of section 1397E is amended to read as follows:

“(h) CREDIT TREATED AS NONREFUNDABLE BONDHOLDER CREDIT.—For purposes of this title, the credit allowed by this section shall be treated as a credit allowable under subpart H of part IV of subchapter A of this chapter.”.

(4) Section 6401(b)(1) is amended by striking “and G” and inserting “G, and H”.

(d) ISSUANCE OF REGULATIONS.—The Secretary of the Treasury shall issue regulations required under section 54 of the Internal Revenue Code of 1986 (as added by this section) not later than 120 days after the date of the enactment of this Act.

(e) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall apply to bonds issued after December 31, 2005.

(2) SUBSECTION (C).—The amendments made by subsection (c) shall apply to taxable years beginning after December 31, 2005.

SEC. 1304. TREATMENT OF INCOME OF CERTAIN ELECTRIC COOPERATIVES.

(a) ELIMINATION OF SUNSET ON TREATMENT OF INCOME FROM OPEN ACCESS AND NUCLEAR DECOMMISSIONING TRANSACTIONS.—Section 501(c)(12)(C) is amended by striking the last sentence.

(b) ELIMINATION OF SUNSET ON TREATMENT OF INCOME FROM LOAD LOSS TRANSACTIONS.—Section 501(c)(12)(H) is amended by striking clause (x).

(c) EFFECTIVE DATE.—The amendments made by this section shall take effect on the date of the enactment of this Act.

SEC. 1305. DISPOSITIONS OF TRANSMISSION PROPERTY TO IMPLEMENT FERC RESTRUCTURING POLICY.

(a) IN GENERAL.—Section 451(i)(3) (defining qualifying electric transmission transaction) is amended by striking “2007” and inserting “2008”.

(b) TECHNICAL AMENDMENT RELATED TO SECTION 909 OF THE AMERICAN JOBS CREATION ACT OF 2004.—Clause (ii) of section 451(i)(4)(B) is amended by striking “the close of the period applicable under subsection (a)(2)(B) as extended under paragraph (2)” and inserting “December 31, 2007”.

(c) EFFECTIVE DATES.—

(1) IN GENERAL.—The amendment made by subsection (a) shall apply to transactions occurring after the date of the enactment of this Act.

(2) TECHNICAL AMENDMENT.—The amendment made by subsection (b) shall take effect as if included in the amendments made by section 909 of the American Jobs Creation Act of 2004.

SEC. 1306. CREDIT FOR PRODUCTION FROM ADVANCED NUCLEAR POWER FACILITIES.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 (relating to business related credits) is amended by adding after section 45I the following new section:

“SEC. 45J. CREDIT FOR PRODUCTION FROM ADVANCED NUCLEAR POWER FACILITIES.

“(a) **GENERAL RULE.**—For purposes of section 38, the advanced nuclear power facility production credit of any taxpayer for any taxable year is equal to the product of—

“(1) 1.8 cents, multiplied by

“(2) the kilowatt hours of electricity—

“(A) produced by the taxpayer at an advanced nuclear power facility during the 8-year period beginning on the date the facility was originally placed in service, and

“(B) sold by the taxpayer to an unrelated person during the taxable year.

“(b) **NATIONAL LIMITATION.**—

“(1) **IN GENERAL.**—The amount of credit which would (but for this subsection and subsection (c)) be allowed with respect to any facility for any taxable year shall not exceed the amount which bears the same ratio to such amount of credit as—

“(A) the national megawatt capacity limitation allocated to the facility, bears to

“(B) the total megawatt nameplate capacity of such facility.

“(2) **AMOUNT OF NATIONAL LIMITATION.**—The national megawatt capacity limitation shall be 6,000 megawatts.

“(3) **ALLOCATION OF LIMITATION.**—The Secretary shall allocate the national megawatt capacity limitation in such manner as the Secretary may prescribe.

“(4) **REGULATIONS.**—Not later than 6 months after the date of the enactment of this section, the Secretary shall prescribe such regulations as may be necessary or appropriate to carry out the purposes of this subsection. Such regulations shall provide a certification process under which the Secretary, after consultation with the Secretary of Energy, shall approve and allocate the national megawatt capacity limitation.

“(c) **OTHER LIMITATIONS.**—

“(1) **ANNUAL LIMITATION.**—The amount of the credit allowable under subsection (a) (after the application of subsection (b)) for any taxable year with respect to any facility shall not exceed an amount which bears the same ratio to \$125,000,000 as—

“(A) the national megawatt capacity limitation allocated under subsection (b) to the facility, bears to

“(B) 1,000.

“(2) **OTHER LIMITATIONS.**—Rules similar to the rules of section 45(b)(1) shall apply for purposes of this section.

“(d) **ADVANCED NUCLEAR POWER FACILITY.**—For purposes of this section—

“(1) **IN GENERAL.**—The term ‘advanced nuclear power facility’ means any advanced nuclear facility—

“(A) which is owned by the taxpayer and which uses nuclear energy to produce electricity, and

“(B) which is placed in service after the date of the enactment of this paragraph and before January 1, 2021.

“(2) **ADVANCED NUCLEAR FACILITY.**—For purposes of paragraph (1), the term ‘advanced nuclear facility’ means any nu-

clear facility the reactor design for which is approved after December 31, 1993, by the Nuclear Regulatory Commission (and such design or a substantially similar design of comparable capacity was not approved on or before such date).

“(e) OTHER RULES TO APPLY.—Rules similar to the rules of paragraphs (1), (2), (3), (4), and (5) of section 45(e) shall apply for purposes of this section.”.

(b) CREDIT TREATED AS BUSINESS CREDIT.—Section 38(b), as amended by the Transportation Equity Act: A Legacy for Users, is amended by striking “plus” at the end of paragraph (19), by striking the period at the end of paragraph (20) and inserting “, plus”, and by adding at the end the following:

“(21) the advanced nuclear power facility production credit determined under section 45J(a).”.

(c) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1 is amended by adding at the end the following:

“Sec. 45J. Credit for production from advanced nuclear power facilities.”.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to production in taxable years beginning after the date of the enactment of this Act.

SEC. 1307. CREDIT FOR INVESTMENT IN CLEAN COAL FACILITIES.

(a) IN GENERAL.—Section 46 (relating to amount of credit) is amended by striking “and” at the end of paragraph (1), by striking the period at the end of paragraph (2), and by adding at the end the following new paragraphs:

“(3) the qualifying advanced coal project credit, and

“(4) the qualifying gasification project credit.”.

(b) AMOUNT OF CREDITS.—Subpart E of part IV of subchapter A of chapter 1 (relating to rules for computing investment credit) is amended by inserting after section 48 the following new sections:

“SEC. 48A. QUALIFYING ADVANCED COAL PROJECT CREDIT.

“(a) IN GENERAL.—For purposes of section 46, the qualifying advanced coal project credit for any taxable year is an amount equal to—

“(1) 20 percent of the qualified investment for such taxable year in the case of projects described in subsection (d)(3)(B)(i), and

“(2) 15 percent of the qualified investment for such taxable year in the case of projects described in subsection (d)(3)(B)(ii).

“(b) QUALIFIED INVESTMENT.—

“(1) IN GENERAL.—For purposes of subsection (a), the qualified investment for any taxable year is the basis of eligible property placed in service by the taxpayer during such taxable year which is part of a qualifying advanced coal project—

“(A)(i) the construction, reconstruction, or erection of which is completed by the taxpayer, or

“(ii) which is acquired by the taxpayer if the original use of such property commences with the taxpayer, and

“(B) with respect to which depreciation (or amortization in lieu of depreciation) is allowable.

“(2) SPECIAL RULE FOR CERTAIN SUBSIDIZED PROPERTY.—Rules similar to section 48(a)(4) shall apply for purposes of this section.

“(3) CERTAIN QUALIFIED PROGRESS EXPENDITURES RULES MADE APPLICABLE.—Rules similar to the rules of subsections (c)(4) and (d) of section 46 (as in effect on the day before the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of this section.

“(c) DEFINITIONS.—For purposes of this section—

“(1) QUALIFYING ADVANCED COAL PROJECT.—The term ‘qualifying advanced coal project’ means a project which meets the requirements of subsection (e).

“(2) ADVANCED COAL-BASED GENERATION TECHNOLOGY.—The term ‘advanced coal-based generation technology’ means a technology which meets the requirements of subsection (f).

“(3) ELIGIBLE PROPERTY.—The term ‘eligible property’ means—

“(A) in the case of any qualifying advanced coal project using an integrated gasification combined cycle, any property which is a part of such project and is necessary for the gasification of coal, including any coal handling and gas separation equipment, and

“(B) in the case of any other qualifying advanced coal project, any property which is a part of such project.

“(4) COAL.—The term ‘coal’ means anthracite, bituminous coal, subbituminous coal, lignite, and peat.

“(5) GREENHOUSE GAS CAPTURE CAPABILITY.—The term ‘greenhouse gas capture capability’ means an integrated gasification combined cycle technology facility capable of adding components which can capture, separate on a long-term basis, isolate, remove, and sequester greenhouse gases which result from the generation of electricity.

“(6) ELECTRIC GENERATION UNIT.—The term ‘electric generation unit’ means any facility at least 50 percent of the total annual net output of which is electrical power, including an otherwise eligible facility which is used in an industrial application.

“(7) INTEGRATED GASIFICATION COMBINED CYCLE.—The term ‘integrated gasification combined cycle’ means an electric generation unit which produces electricity by converting coal to synthesis gas which is used to fuel a combined-cycle plant which produces electricity from both a combustion turbine (including a combustion turbine/fuel cell hybrid) and a steam turbine.

“(d) QUALIFYING ADVANCED COAL PROJECT PROGRAM.—

“(1) ESTABLISHMENT.—Not later than 180 days after the date of enactment of this section, the Secretary, in consultation with the Secretary of Energy, shall establish a qualifying advanced coal project program for the deployment of advanced coal-based generation technologies.

“(2) CERTIFICATION.—

“(A) APPLICATION PERIOD.—Each applicant for certification under this paragraph shall submit an application meeting the requirements of subparagraph (B). An appli-

cant may only submit an application during the 3-year period beginning on the date the Secretary establishes the program under paragraph (1).

“(B) REQUIREMENTS FOR APPLICATIONS FOR CERTIFICATION.—An application under subparagraph (A) shall contain such information as the Secretary may require in order to make a determination to accept or reject an application for certification as meeting the requirements under subsection (e)(1). Any information contained in the application shall be protected as provided in section 552(b)(4) of title 5, United States Code.

“(C) TIME TO ACT UPON APPLICATIONS FOR CERTIFICATION.—The Secretary shall issue a determination as to whether an applicant has met the requirements under subsection (e)(1) within 60 days following the date of submittal of the application for certification.

“(D) TIME TO MEET CRITERIA FOR CERTIFICATION.—Each applicant for certification shall have 2 years from the date of acceptance by the Secretary of the application during which to provide to the Secretary evidence that the criteria set forth in subsection (e)(2) have been met.

“(E) PERIOD OF ISSUANCE.—An applicant which receives a certification shall have 5 years from the date of issuance of the certification in order to place the project in service and if such project is not placed in service by that time period then the certification shall no longer be valid.

“(3) AGGREGATE CREDITS.—

“(A) IN GENERAL.—The aggregate credits allowed under subsection (a) for projects certified by the Secretary under paragraph (2) may not exceed \$1,300,000,000.

“(B) PARTICULAR PROJECTS.—Of the dollar amount in subparagraph (A), the Secretary is authorized to certify—

“(i) \$800,000,000 for integrated gasification combined cycle projects, and

“(ii) \$500,000,000 for projects which use other advanced coal-based generation technologies.

“(4) REVIEW AND REDISTRIBUTION.—

“(A) REVIEW.—Not later than 6 years after the date of enactment of this section, the Secretary shall review the credits allocated under this section as of the date which is 6 years after the date of enactment of this section.

“(B) REDISTRIBUTION.—The Secretary may reallocate credits available under clauses (i) and (ii) of paragraph (3)(B) if the Secretary determines that—

“(i) there is an insufficient quantity of qualifying applications for certification pending at the time of the review, or

“(ii) any certification made pursuant to subsection paragraph (2) has been revoked pursuant to subsection paragraph (2)(D) because the project subject to the certification has been delayed as a result of third party opposition or litigation to the proposed project.

“(C) REALLOCATION.—If the Secretary determines that credits under clause (i) or (ii) of paragraph (3)(B) are avail-

able for reallocation pursuant to the requirements set forth in paragraph (2), the Secretary is authorized to conduct an additional program for applications for certification.

“(e) QUALIFYING ADVANCED COAL PROJECTS.—

“(1) REQUIREMENTS.—For purposes of subsection (c)(1), a project shall be considered a qualifying advanced coal project that the Secretary may certify under subsection (d)(2) if the Secretary determines that, at a minimum—

“(A) the project uses an advanced coal-based generation technology—

“(i) to power a new electric generation unit; or

“(ii) to retrofit or repower an existing electric generation unit (including an existing natural gas-fired combined cycle unit);

“(B) the fuel input for the project, when completed, is at least 75 percent coal;

“(C) the project, consisting of one or more electric generation units at one site, will have a total nameplate generating capacity of at least 400 megawatts;

“(D) the applicant provides evidence that a majority of the output of the project is reasonably expected to be acquired or utilized;

“(E) the applicant provides evidence of ownership or control of a site of sufficient size to allow the proposed project to be constructed and to operate on a long-term basis; and

“(F) the project will be located in the United States.

“(2) REQUIREMENTS FOR CERTIFICATION.—For the purpose of subsection (d)(2)(D), a project shall be eligible for certification only if the Secretary determines that—

“(A) the applicant for certification has received all Federal and State environmental authorizations or reviews necessary to commence construction of the project; and

“(B) the applicant for certification, except in the case of a retrofit or repower of an existing electric generation unit, has purchased or entered into a binding contract for the purchase of the main steam turbine or turbines for the project, except that such contract may be contingent upon receipt of a certification under subsection (d)(2).

“(3) PRIORITY FOR INTEGRATED GASIFICATION COMBINED CYCLE PROJECTS.—In determining which qualifying advanced coal projects to certify under subsection (d)(2), the Secretary shall—

“(A) certify capacity, in accordance with the procedures set forth in subsection (d), in relatively equal amounts to—

“(i) projects using bituminous coal as a primary feedstock,

“(ii) projects using subbituminous coal as a primary feedstock, and

“(iii) projects using lignite as a primary feedstock, and

“(B) give high priority to projects which include, as determined by the Secretary—

- “(i) greenhouse gas capture capability,
- “(ii) increased by-product utilization, and
- “(iii) other benefits.

“(f) ADVANCED COAL-BASED GENERATION TECHNOLOGY.—

“(1) IN GENERAL.—For the purpose of this section, an electric generation unit uses advanced coal-based generation technology if—

“(A) the unit—

“(i) uses integrated gasification combined cycle technology, or

“(ii) except as provided in paragraph (3), has a design net heat rate of 8530 Btu/kWh (40 percent efficiency), and

“(B) the unit is designed to meet the performance requirements in the following table:

Performance characteristic:	Design level for project:
SO ₂ (percent removal)	99 percent
NO _x (emissions)	0.07 lbs/MMBTU
PM* (emissions)	0.015 lbs/MMBTU
Hg (percent removal)	90 percent

“(2) DESIGN NET HEAT RATE.—For purposes of this subsection, design net heat rate with respect to an electric generation unit shall—

“(A) be measured in Btu per kilowatt hour (higher heating value),

“(B) be based on the design annual heat input to the unit and the rated net electrical power, fuels, and chemicals output of the unit (determined without regard to the cogeneration of steam by the unit),

“(C) be adjusted for the heat content of the design coal to be used by the unit—

“(i) if the heat content is less than 13,500 Btu per pound, but greater than 7,000 Btu per pound, according to the following formula: design net heat rate = unit net heat rate \times $[1 - (((13,500 - \text{design coal heat content, Btu per pound}) / 1,000) \times 0.013)]$, and

“(ii) if the heat content is less than or equal to 7,000 Btu per pound, according to the following formula: design net heat rate = unit net heat rate \times $[1 - ((13,500 - \text{design coal heat content, Btu per pound}) / 1,000) \times 0.018]]$, and

“(D) be corrected for the site reference conditions of—

“(i) elevation above sea level of 500 feet,

“(ii) air pressure of 14.4 pounds per square inch absolute,

“(iii) temperature, dry bulb of 63°F,

“(iv) temperature, wet bulb of 54°F, and

“(v) relative humidity of 55 percent.

“(3) EXISTING UNITS.—In the case of any electric generation unit in existence on the date of the enactment of this section, such unit uses advanced coal-based generation technology if, in lieu of the requirements under paragraph (1)(A)(ii), such unit achieves a minimum efficiency of 35 percent and an overall thermal design efficiency improvement, compared to the efficiency of the unit as operated, of not less than—

“(A) 7 percentage points for coal of more than 9,000 Btu,

“(B) 6 percentage points for coal of 7,000 to 9,000 Btu, or

“(C) 4 percentage points for coal of less than 7,000 Btu.

“(g) APPLICABILITY.—No use of technology (or level of emission reduction solely by reason of the use of the technology), and no achievement of any emission reduction by the demonstration of any technology or performance level, by or at one or more facilities with respect to which a credit is allowed under this section, shall be considered to indicate that the technology or performance level is—

“(1) adequately demonstrated for purposes of section 111 of the Clean Air Act (42 U.S.C. 7411);

“(2) achievable for purposes of section 169 of that Act (42 U.S.C. 7479); or

“(3) achievable in practice for purposes of section 171 of such Act (42 U.S.C. 7501).

“SEC. 48B. QUALIFYING GASIFICATION PROJECT CREDIT.

“(a) IN GENERAL.—For purposes of section 46, the qualifying gasification project credit for any taxable year is an amount equal to 20 percent of the qualified investment for such taxable year.

“(b) QUALIFIED INVESTMENT.—

“(1) IN GENERAL.—For purposes of subsection (a), the qualified investment for any taxable year is the basis of eligible property placed in service by the taxpayer during such taxable year which is part of a qualifying gasification project—

“(A)(i) the construction, reconstruction, or erection of which is completed by the taxpayer, or

“(ii) which is acquired by the taxpayer if the original use of such property commences with the taxpayer, and

“(B) with respect to which depreciation (or amortization in lieu of depreciation) is allowable.

“(2) SPECIAL RULE FOR CERTAIN SUBSIDIZED PROPERTY.—

Rules similar to section 48(a)(4) shall apply for purposes of this section.

“(3) CERTAIN QUALIFIED PROGRESS EXPENDITURES RULES MADE APPLICABLE.—Rules similar to the rules of subsections (c)(4) and (d) of section 46 (as in effect on the day before the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of this section.

“(c) DEFINITIONS.—For purposes of this section—

“(1) QUALIFYING GASIFICATION PROJECT.—The term ‘qualifying gasification project’ means any project which—

“(A) employs gasification technology,

“(B) will be carried out by an eligible entity, and

“(C) any portion of the qualified investment of which is certified under the qualifying gasification program as eligible for credit under this section in an amount (not to exceed \$650,000,000) determined by the Secretary.

“(2) GASIFICATION TECHNOLOGY.—The term ‘gasification technology’ means any process which converts a solid or liquid product from coal, petroleum residue, biomass, or other materials which are recovered for their energy or feedstock value into a synthesis gas composed primarily of carbon monoxide and hydrogen for direct use or subsequent chemical or physical conversion.

“(3) ELIGIBLE PROPERTY.—The term ‘eligible property’ means any property which is a part of a qualifying gasification project and is necessary for the gasification technology of such project.

“(4) BIOMASS.—

“(A) IN GENERAL.—The term ‘biomass’ means any—

“(i) agricultural or plant waste,

“(ii) byproduct of wood or paper mill operations, including lignin in spent pulping liquors, and

“(iii) other products of forestry maintenance.

“(B) EXCLUSION.—The term ‘biomass’ does not include paper which is commonly recycled.

“(5) CARBON CAPTURE CAPABILITY.—The term ‘carbon capture capability’ means a gasification plant design which is determined by the Secretary to reflect reasonable consideration

for, and be capable of, accommodating the equipment likely to be necessary to capture carbon dioxide from the gaseous stream, for later use or sequestration, which would otherwise be emitted in the flue gas from a project which uses a non-renewable fuel.

“(6) COAL.—The term ‘coal’ means anthracite, bituminous coal, subbituminous coal, lignite, and peat.

“(7) ELIGIBLE ENTITY.—The term ‘eligible entity’ means any person whose application for certification is principally intended for use in a domestic project which employs domestic gasification applications related to—

“(A) chemicals,

“(B) fertilizers,

“(C) glass,

“(D) steel,

“(E) petroleum residues,

“(F) forest products, and

“(G) agriculture, including feedlots and dairy operations.

“(8) PETROLEUM RESIDUE.—The term ‘petroleum residue’ means the carbonized product of high-boiling hydrocarbon fractions obtained in petroleum processing.

“(d) QUALIFYING GASIFICATION PROJECT PROGRAM.—

“(1) IN GENERAL.—Not later than 180 days after the date of the enactment of this section, the Secretary, in consultation with the Secretary of Energy, shall establish a qualifying gasification project program to consider and award certifications for qualified investment eligible for credits under this section to qualifying gasification project sponsors under this section. The total amounts of credit that may be allocated under the program shall not exceed \$350,000,000 under rules similar to the rules of section 48A(d)(4).

“(2) PERIOD OF ISSUANCE.—A certificate of eligibility under paragraph (1) may be issued only during the 10-fiscal year period beginning on October 1, 2005.

“(3) SELECTION CRITERIA.—The Secretary shall not make a competitive certification award for qualified investment for credit eligibility under this section unless the recipient has documented to the satisfaction of the Secretary that—

“(A) the award recipient is financially viable without the receipt of additional Federal funding associated with the proposed project,

“(B) the recipient will provide sufficient information to the Secretary for the Secretary to ensure that the qualified investment is spent efficiently and effectively,

“(C) a market exists for the products of the proposed project as evidenced by contracts or written statements of intent from potential customers,

“(D) the fuels identified with respect to the gasification technology for such project will comprise at least 90 percent of the fuels required by the project for the production of chemical feedstocks, liquid transportation fuels, or co-production of electricity,

“(E) the award recipient’s project team is competent in the construction and operation of the gasification technology proposed, with preference given to those recipients with experience which demonstrates successful and reliable operations of the technology on domestic fuels so identified, and

“(F) the award recipient has met other criteria established and published by the Secretary.

“(e) DENIAL OF DOUBLE BENEFIT.—A credit shall not be allowed under this section for any qualified investment for which a credit is allowed under section 48A.”.

(c) CONFORMING AMENDMENTS.—

(1) Section 49(a)(1)(C) is amended by striking “and” at the end of clause (ii), by striking clause (iii), and by adding after clause (ii) the following new clauses:

“(iii) the basis of any property which is part of a qualifying advanced coal project under section 48A, and

“(iv) the basis of any property which is part of a qualifying gasification project under section 48B.”.

(2) The table of sections for subpart E of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 48 the following new items:

“Sec. 48A. Qualifying advanced coal project credit.

“Sec. 48B. Qualifying gasification project credit.”.

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

SEC. 1308. ELECTRIC TRANSMISSION PROPERTY TREATED AS 15-YEAR PROPERTY.

(a) IN GENERAL.—Subparagraph (E) of section 168(e)(3) (relating to classification of certain property) 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) any section 1245 property (as defined in section 1245(a)(3)) used in the transmission at 69 or more kilovolts of electricity for sale and the original use of which commences with the taxpayer after April 11, 2005.”.

(b) ALTERNATIVE SYSTEM.—The table contained in section 168(g)(3)(B) (relating to special rule for certain property assigned to classes) is amended by inserting after the item relating to subparagraph (E)(vi) the following new item:

“(E)(vii) 30”.

(c) EFFECTIVE DATE.—

(1) IN GENERAL.—The amendments made by this section shall apply to property placed in service after April 11, 2005.

(2) EXCEPTION.—The amendments made by this section shall not apply to any property with respect to which the taxpayer or a related party has entered into a binding contract for the construction thereof on or before April 11, 2005, or, in the case of self-constructed property, has started construction on or before such date.

SEC. 1309. EXPANSION OF AMORTIZATION FOR CERTAIN ATMOSPHERIC POLLUTION CONTROL FACILITIES IN CONNECTION WITH PLANTS FIRST PLACED IN SERVICE AFTER 1975.

(a) ELIGIBILITY OF POST-1975 POLLUTION CONTROL FACILITIES.—Subsection (d) of section 169 (relating to definitions) is amended by adding at the end the following:

“(5) SPECIAL RULE RELATING TO CERTAIN ATMOSPHERIC POLLUTION CONTROL FACILITIES.—In the case of any atmospheric pollution control facility which is placed in service after April 11, 2005, and used in connection with an electric generation plant or other property which is primarily coal fired—

“(A) paragraph (1) shall be applied without regard to the phrase ‘in operation before January 1, 1976’, and

“(B) this section shall be applied by substituting ‘84’ for ‘60’ each place it appears in subsections (a) and (b).”.

(b) TREATMENT AS NEW IDENTIFIABLE TREATMENT FACILITY.—Subparagraph (B) of section 169(d)(4) is amended to read as follows:

“(B) CERTAIN FACILITIES PLACED IN OPERATION AFTER APRIL 11, 2005.—In the case of any facility described in paragraph (1) solely by reason of paragraph (5), subparagraph (A) shall be applied by substituting ‘April 11, 2005’ for ‘December 31, 1968’ each place it appears therein.”.

(c) CONFORMING AMENDMENT.—The heading for section 169(d) is amended by inserting “AND SPECIAL RULES” after “DEFINITIONS”.

(d) TECHNICAL AMENDMENT.—Section 169(d)(3) is amended by striking “Health, Education, and Welfare” and inserting “Health and Human Services”.

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to facilities placed in service after April 11, 2005.

SEC. 1310. MODIFICATIONS TO SPECIAL RULES FOR NUCLEAR DECOMMISSIONING COSTS.

(a) REPEAL OF LIMITATION ON DEPOSITS INTO FUND BASED ON COST OF SERVICE; CONTRIBUTIONS AFTER FUNDING PERIOD.—Subsection (b) of section 468A (relating to special rules for nuclear decommissioning costs) is amended to read as follows:

“(b) LIMITATION ON AMOUNTS PAID INTO FUND.—The amount which a taxpayer may pay into the Fund for any taxable year shall not exceed the ruling amount applicable to such taxable year.”.

(b) TREATMENT OF CERTAIN DECOMMISSIONING COSTS.—

(1) IN GENERAL.—Section 468A is amended by redesignating subsections (f) and (g) as subsections (g) and (h), respectively, and by inserting after subsection (e) the following new subsection:

“(f) TRANSFERS INTO QUALIFIED FUNDS.—

“(1) IN GENERAL.—Notwithstanding subsection (b), any taxpayer maintaining a Fund to which this section applies with

respect to a nuclear power plant may transfer into such Fund not more than an amount equal to the present value of the portion of the total nuclear decommissioning costs with respect to such nuclear power plant previously excluded for such nuclear power plant under subsection (d)(2)(A) as in effect immediately before the date of the enactment of this subsection.

“(2) DEDUCTION FOR AMOUNTS TRANSFERRED.—

“(A) IN GENERAL.—Except as provided in subparagraph (C), the deduction allowed by subsection (a) for any transfer permitted by this subsection shall be allowed ratably over the remaining estimated useful life (within the meaning of subsection (d)(2)(A)) of the nuclear power plant beginning with the taxable year during which the transfer is made.

“(B) DENIAL OF DEDUCTION FOR PREVIOUSLY DEDUCTED AMOUNTS.—No deduction shall be allowed for any transfer under this subsection of an amount for which a deduction was previously allowed to the taxpayer (or a predecessor) or a corresponding amount was not included in gross income of the taxpayer (or a predecessor). For purposes of the preceding sentence, a ratable portion of each transfer shall be treated as being from previously deducted or excluded amounts to the extent thereof.

“(C) TRANSFERS OF QUALIFIED FUNDS.—If—

“(i) any transfer permitted by this subsection is made to any Fund to which this section applies, and

“(ii) such Fund is transferred thereafter,
any deduction under this subsection for taxable years ending after the date that such Fund is transferred shall be allowed to the transferor for the taxable year which includes such date.

“(D) SPECIAL RULES.—

“(i) GAIN OR LOSS NOT RECOGNIZED ON TRANSFERS TO FUND.—No gain or loss shall be recognized on any transfer described in paragraph (1).

“(ii) TRANSFERS OF APPRECIATED PROPERTY TO FUND.—If appreciated property is transferred in a transfer described in paragraph (1), the amount of the deduction shall not exceed the adjusted basis of such property.

“(3) NEW RULING AMOUNT REQUIRED.—Paragraph (1) shall not apply to any transfer unless the taxpayer requests from the Secretary a new schedule of ruling amounts in connection with such transfer.

“(4) NO BASIS IN QUALIFIED FUNDS.—Notwithstanding any other provision of law, the taxpayer’s basis in any Fund to which this section applies shall not be increased by reason of any transfer permitted by this subsection.”.

(2) NEW RULING AMOUNT TO TAKE INTO ACCOUNT TOTAL COSTS.—Subparagraph (A) of section 468A(d)(2) (defining ruling amount) is amended to read as follows:

“(A) fund the total nuclear decommissioning costs with respect to such power plant over the estimated useful life of such power plant, and”.

(c) **NEW RULING AMOUNT REQUIRED UPON LICENSE RENEWAL.**—Paragraph (1) of section 468A(d) (relating to request required) is amended by adding at the end the following new sentence: “For purposes of the preceding sentence, the taxpayer shall request a schedule of ruling amounts upon each renewal of the operating license of the nuclear powerplant.”.

(d) **CONFORMING AMENDMENT.**—Section 468A(e)(3) (relating to review of amount) is amended by striking “The Fund” and inserting “Except as provided in subsection (f), the Fund”.

(e) **TECHNICAL AMENDMENTS.**—Section 468A(e)(2) (relating to taxation of Fund) is amended—

(1) by striking “rate set forth in subparagraph (B)” in subparagraph (A) and inserting “rate of 20 percent”,

(2) by striking subparagraph (B), and

(3) by redesignating subparagraphs (C) and (D) as subparagraphs (B) and (C), respectively.

(f) **EFFECTIVE DATE.**—The amendments made by this section shall apply to taxable years beginning after December 31, 2005.

SEC. 1311. FIVE-YEAR NET OPERATING LOSS CARRYOVER FOR CERTAIN LOSSES.

Paragraph (1) of section 172(b) (relating to net operating loss carrybacks and carryovers) is amended by adding at the end the following new subparagraph:

“(I) **TRANSMISSION PROPERTY AND POLLUTION CONTROL INVESTMENT.**—

“(i) **IN GENERAL.**—At the election of the taxpayer in any taxable year ending after December 31, 2005, and before January 1, 2009, in the case of a net operating loss in a taxable year ending after December 31, 2002, and before January 1, 2006, there shall be a net operating loss carryback to each of the 5 years preceding the taxable year of such loss to the extent that such loss does not exceed 20 percent of the sum of electric transmission property capital expenditures and pollution control facility capital expenditures of the taxpayer for the taxable year preceding the taxable year in which such election is made.

“(ii) **LIMITATIONS.**—For purposes of this subsection—

“(I) not more than one election may be made under clause (i) with respect to any net operating loss in a taxable year, and

“(II) an election may not be made under clause (i) for more than 1 taxable year beginning in any calendar year.

“(iii) **COORDINATION WITH ORDERING RULE.**—For purposes of applying subsection (b)(2), the portion of any loss which is carried back 5 years by reason of clause (i) shall be treated in a manner similar to the manner in which a specified liability loss is treated.

“(iv) **APPLICATION FOR ADJUSTMENT.**—In the case of any portion of a net operating loss to which an election under clause (i) applies, an application under section 6411(a) with respect to such loss shall not fail to

be treated as timely filed if filed within 24 months after the due date specified under such section.

“(v) SPECIAL RULES RELATING TO REFUND.—For purposes of a net operating loss to which an election under clause (i) applies, references in sections 6501(h), 6511(d)(2)(A), and 6611(f)(1) to the taxable year in which such net operating loss arises or result in a net loss carryback shall be treated as references to the taxable year in which such election occurs.

“(vi) DEFINITIONS.—For purposes of this subparagraph—

“(I) ELECTRIC TRANSMISSION PROPERTY CAPITAL EXPENDITURES.—The term ‘electric transmission property capital expenditures’ means any expenditure, chargeable to capital account, made by the taxpayer which is attributable to electric transmission property used by the taxpayer in the transmission at 69 or more kilovolts of electricity for sale. Such term shall not include any expenditure which may be refunded or the purpose of which may be modified at the option of the taxpayer so as to cease to be treated as an expenditure within the meaning of such term.

“(II) POLLUTION CONTROL FACILITY CAPITAL EXPENDITURES.—The term ‘pollution control facility capital expenditures’ means any expenditure, chargeable to capital account, made by an electric utility company (as defined in section 2(3) of the Public Utility Holding Company Act (15 U.S.C. 79b(3)), as in effect on the day before the date of the enactment of the Energy Tax Incentives Act of 2005) which is attributable to a facility which will qualify as a certified pollution control facility as determined under section 169(d)(1) by striking ‘before January 1, 1976,’ and by substituting ‘an identifiable’ for ‘a new identifiable’. Such term shall not include any expenditure which may be refunded or the purpose of which may be modified at the option of the taxpayer so as to cease to be treated as an expenditure within the meaning of such term.”.

Subtitle B—Domestic Fossil Fuel Security

SEC. 1321. EXTENSION OF CREDIT FOR PRODUCING FUEL FROM A NONCONVENTIONAL SOURCE FOR FACILITIES PRODUCING COKE OR COKE GAS.

(a) IN GENERAL.—Section 29 (relating to credit for producing fuel from a nonconventional source) is amended by adding at the end the following new subsection:

“(h) EXTENSION FOR FACILITIES PRODUCING COKE OR COKE GAS.—Notwithstanding subsection (f)—

“(1) IN GENERAL.—In the case of a facility for producing coke or coke gas which was placed in service before January

1, 1993, or after June 30, 1998, and before January 1, 2010, this section shall apply with respect to coke and coke gas produced in such facility and sold during the period—

“(A) beginning on the later of January 1, 2006, or the date that such facility is placed in service, and

“(B) ending on the date which is 4 years after the date such period began.

“(2) SPECIAL RULES.—In determining the amount of credit allowable under this section solely by reason of this subsection—

“(A) DAILY LIMIT.—The amount of qualified fuels sold during any taxable year which may be taken into account by reason of this subsection with respect to any facility shall not exceed an average barrel-of-oil equivalent of 4,000 barrels per day. Days before the date the facility is placed in service shall not be taken into account in determining such average.

“(B) EXTENSION PERIOD TO COMMENCE WITH UNADJUSTED CREDIT AMOUNT.—For purposes of applying subsection (b)(2) to the \$3 amount in subsection (a), in the case of fuels sold after 2005, subsection (d)(2)(B) shall be applied by substituting ‘2004’ for ‘1979’.

“(C) DENIAL OF DOUBLE BENEFIT.—This subsection shall not apply to any facility producing qualified fuels for which a credit was allowed under this section for the taxable year or any preceding taxable year by reason of subsection (g).”.

(b) EFFECTIVE DATE.—The amendment made by this section shall apply to fuel produced and sold after December 31, 2005, in taxable years ending after such date.

SEC. 1322. MODIFICATION OF CREDIT FOR PRODUCING FUEL FROM A NONCONVENTIONAL SOURCE.

(a) TREATMENT AS BUSINESS CREDIT.—

(1) CREDIT MOVED TO SUBPART RELATING TO BUSINESS RELATED CREDITS.—The Internal Revenue Code of 1986 is amended by redesignating section 29 as section 45K and by moving section 45K (as so redesignated) from subpart B of part IV of subchapter A of chapter 1 to the end of subpart D of part IV of subchapter A of chapter 1.

(2) CREDIT TREATED AS BUSINESS CREDIT.—Section 38(b), as amended by this Act, is amended by striking “plus” at the end of paragraph (20), by striking the period at the end of paragraph (21) and inserting “, plus”, and by adding at the end the following:

“(22) the nonconventional source production credit determined under section 45K(a).”.

(3) CONFORMING AMENDMENTS.—

(A) Section 30(b)(3)(A) is amended by striking “sections 27 and 29” and inserting “section 27”.

(B) Sections 43(b)(2), 45I(b)(2)(C)(i), and 613A(c)(6)(C) are each amended by striking “section 29(d)(2)(C)” and inserting “section 45K(d)(2)(C)”.

(C) Section 45(e)(9), as added by this Act, is amended—

(i) by striking “section 29” each place it appears and inserting “section 45K”, and

(ii) by inserting “(or under section 29, as in effect on the day before the date of enactment of the Energy Tax Incentives Act of 2005, for any prior taxable year)” before the period at the end thereof.

(D) Section 45I is amended—

(i) in subsection (c)(2)(A) by striking “section 29(d)(5))” and inserting “section 45K(d)(5))”, and

(ii) in subsection (d)(3) by striking “section 29” both places it appears and inserting “section 45K”.

(E) Section 45K(a), as redesignated by paragraph (1), is amended by striking “There shall be allowed as a credit against the tax imposed by this chapter for the taxable year” and inserting “For purposes of section 38, if the taxpayer elects to have this section apply, the nonconventional source production credit determined under this section for the taxable year is”.

(F) Section 45K(b), as so redesignated, is amended by striking paragraph (6).

(G) Section 53(d)(1)(B)(iii) is amended by striking “under section 29” and all that follows through “or not allowed”.

(H) Section 55(c)(3) is amended by striking “29(b)(6),”.

(I) Subsection (a) of section 772 is amended by inserting “and” at the end of paragraph (9), by striking paragraph (10), and by redesignating paragraph (11) as paragraph (10).

(J) Paragraph (5) of section 772(d) is amended by striking “the foreign tax credit, and the credit allowable under section 29” and inserting “and the foreign tax credit”.

(K) The table of sections for subpart B of part IV of subchapter A of chapter 1 is amended by striking the item relating to section 29.

(L) The table of sections for subpart D of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 45I the following new item:

“Sec. 45K. Credit for producing fuel from a nonconventional source.”.

(b) AMENDMENTS CONFORMING TO THE REPEAL OF THE NATURAL GAS POLICY ACT OF 1978.—

(1) IN GENERAL.—Section 29(c)(2)(A) (before redesignation under subsection (a) and as amended by section 1321) is amended—

(A) by inserting “(as in effect before the repeal of such section)” after “1978”, and

(B) by striking subsection (e) and redesignating subsections (f), (g), and (h) as subsections (e), (f), and (g), respectively.

(2) CONFORMING AMENDMENTS.—Section 29(g)(1) (before redesignation under subsection (a) and paragraph (1) of this subsection) is amended—

(A) in subparagraph (A) by striking “subsection (f)(1)(B)” and inserting “subsection (e)(1)(B)”, and

(B) in subparagraph (B) by striking “subsection (f)” and inserting “subsection (e)”.

(c) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall apply to credits determined under the Internal Revenue Code of 1986 for taxable years ending after December 31, 2005.

(2) SUBSECTION (b).—The amendments made by subsection (b) shall take effect on the date of the enactment of this Act.

SEC. 1323. TEMPORARY EXPENSING FOR EQUIPMENT USED IN REFINING OF LIQUID FUELS.

(a) IN GENERAL.—Part VI of subchapter B of chapter 1 is amended by inserting after section 179B the following new section:

“SEC. 179C. ELECTION TO EXPENSE CERTAIN REFINERIES.

“(a) TREATMENT AS EXPENSES.—A taxpayer may elect to treat 50 percent of the cost of any qualified refinery property as an expense which is not chargeable to capital account. Any cost so treated shall be allowed as a deduction for the taxable year in which the qualified refinery property 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) QUALIFIED REFINERY PROPERTY.—

“(1) IN GENERAL.—The term ‘qualified refinery property’ means any portion of a qualified refinery—

“(A) the original use of which commences with the taxpayer,

“(B) which is placed in service by the taxpayer after the date of the enactment of this section and before January 1, 2012,

“(C) in the case any portion of a qualified refinery (other than a qualified refinery which is separate from any existing refinery), which meets the requirements of subsection (e),

“(D) which meets all applicable environmental laws in effect on the date such portion was placed in service,

“(E) no written binding contract for the construction of which was in effect on or before June 14, 2005, and

“(F)(i) the construction of which is subject to a written binding construction contract entered into before January 1, 2008,

“(ii) which is placed in service before January 1, 2008, or

“(iii) in the case of self-constructed property, the construction of which began after June 14, 2005, and before January 1, 2008.

“(2) SPECIAL RULE FOR SALE-LEASEBACKS.—For purposes of paragraph (1)(A), if property is—

“(A) originally placed in service after the date of the enactment of this section by a person, and

“(B) sold and leased back by such person within 3 months after the date such property was originally placed in service,

such property shall be treated as originally placed in service not earlier than the date on which such property is used under the leaseback referred to in subparagraph (B).

“(3) EFFECT OF WAIVER UNDER CLEAN AIR ACT.—A waiver under the Clean Air Act shall not be taken into account in determining whether the requirements of paragraph (1)(D) are met.

“(d) QUALIFIED REFINERY.—For purposes of this section, the term ‘qualified refinery’ means any refinery located in the United States which is designed to serve the primary purpose of processing liquid fuel from crude oil or qualified fuels (as defined in section 45K(c)).

“(e) PRODUCTION CAPACITY.—The requirements of this subsection are met if the portion of the qualified refinery—

“(1) enables the existing qualified refinery to increase total volume output (determined without regard to asphalt or lube oil) by 5 percent or more on an average daily basis, or

“(2) enables the existing qualified refinery to process qualified fuels (as defined in section 45K(c)) at a rate which is equal to or greater than 25 percent of the total throughput of such qualified refinery on an average daily basis.

“(f) INELIGIBLE REFINERY PROPERTY.—No deduction shall be allowed under subsection (a) for any qualified refinery property—

“(1) the primary purpose of which is for use as a topping plant, asphalt plant, lube oil facility, crude or product terminal, or blending facility, or

“(2) which is built solely to comply with consent decrees or projects mandated by Federal, State, or local governments.

“(g) ELECTION TO ALLOCATE DEDUCTION TO COOPERATIVE OWNER.—

“(1) IN GENERAL.—If—

“(A) a taxpayer to which subsection (a) applies is an organization to which part I of subchapter T applies, and

“(B) one or more persons directly holding an ownership interest in the taxpayer are organizations to which part I of subchapter T apply,

the taxpayer may elect to allocate all or a portion of the deduction allowable under subsection (a) to such persons. Such allocation shall be equal to the person’s ratable share of the total amount allocated, determined on the basis of the person’s ownership interest in the taxpayer. The taxable income of the taxpayer shall not be reduced under section 1382 by reason of any amount to which the preceding sentence applies.

“(2) FORM AND EFFECT OF ELECTION.—An election under paragraph (1) for any taxable year shall be made on a timely filed return for such year. Such election, once made, shall be irrevocable for such taxable year.

“(3) WRITTEN NOTICE TO OWNERS.—If any portion of the deduction available under subsection (a) is allocated to owners under paragraph (1), the cooperative shall provide any owner receiving an allocation written notice of the amount of the allocation. Such notice shall be provided before the date on which the return described in paragraph (2) is due.

“(h) REPORTING.—No deduction shall be allowed under subsection (a) to any taxpayer for any taxable year unless such taxpayer files with the Secretary a report containing such information with respect to the operation of the refineries of the taxpayer as the Secretary shall require.”.

(b) CONFORMING AMENDMENTS.—

(1) Section 1245(a) is amended by inserting “179C,” after “179B,” both places it appears in paragraphs (2)(C) and (3)(C).

(2) Section 263(a)(1) is amended by striking “or” at the end of subparagraph (H), by striking the period at the end of subparagraph (I) and inserting “, or”, and by inserting after subparagraph (I) the following new subparagraph:

“(J) expenditures for which a deduction is allowed under section 179C.”.

(3) Section 312(k)(3)(B) is amended by striking “179 179A, or 179B” each place it appears in the heading and text and inserting “179, 179A, 179B, or 179C”.

(4) The table of sections for part VI of subchapter B of chapter 1 is amended by inserting after the item relating to section 179B the following new item:

“Sec. 179C. Election to expense certain refineries.”.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to properties placed in service after the date of the enactment of this Act.

SEC. 1324. PASS THROUGH TO OWNERS OF DEDUCTION FOR CAPITAL COSTS INCURRED BY SMALL REFINER COOPERATIVES IN COMPLYING WITH ENVIRONMENTAL PROTECTION AGENCY SULFUR REGULATIONS.

(a) IN GENERAL.—Section 179B (relating to deduction for capital costs incurred in complying with Environmental Protection Agency sulfur regulations) is amended by adding at the end the following new subsection:

“(e) ELECTION TO ALLOCATE DEDUCTION TO COOPERATIVE OWNER.—

“(1) IN GENERAL.—If—

“(A) a small business refiner to which subsection (a) applies is an organization to which part I of subchapter T applies, and

“(B) one or more persons directly holding an ownership interest in the refiner are organizations to which part I of subchapter T apply,

the refiner may elect to allocate all or a portion of the deduction allowable under subsection (a) to such persons. Such allocation shall be equal to the person’s ratable share of the total amount allocated, determined on the basis of the person’s ownership interest in the taxpayer. The taxable income of the refiner shall not be reduced under section 1382 by reason of any amount to which the preceding sentence applies.

“(2) FORM AND EFFECT OF ELECTION.—An election under paragraph (1) for any taxable year shall be made on a timely filed return for such year. Such election, once made, shall be irrevocable for such taxable year.

“(3) WRITTEN NOTICE TO OWNERS.—If any portion of the deduction available under subsection (a) is allocated to owners under paragraph (1), the cooperative shall provide any owner receiving an allocation written notice of the amount of the allocation. Such notice shall be provided before the date on which the return described in paragraph (2) is due.”.

(b) EFFECTIVE DATE.—The amendment made by this section shall take effect as if included in the amendment made by section 338(a) of the American Jobs Creation Act of 2004.

SEC. 1325. NATURAL GAS DISTRIBUTION LINES TREATED AS 15-YEAR PROPERTY.

(a) IN GENERAL.—Section 168(e)(3)(E) (defining 15-year property), as amended by this Act, is amended by striking “and” at the end of clause (vi), by striking the period at the end of clause (vii) and by inserting “, and”, and by adding at the end the following new clause:

“(viii) any natural gas distribution line the original use of which commences with the taxpayer after April 11, 2005, and which is placed in service before January 1, 2011.”.

(b) ALTERNATIVE SYSTEM.—The table contained in section 168(g)(3)(B) (relating to special rule for certain property assigned to classes), as amended by this Act, is amended by inserting after the item relating to subparagraph (E)(vii) the following new item:

“(E)(viii) 35”.

(c) EFFECTIVE DATE.—

(1) IN GENERAL.—The amendments made by this section shall apply to property placed in service after April 11, 2005.

(2) EXCEPTION.—The amendments made by this section shall not apply to any property with respect to which the taxpayer or a related party has entered into a binding contract for the construction thereof on or before April 11, 2005, or, in the case of self-constructed property, has started construction on or before such date.

SEC. 1326. NATURAL GAS GATHERING LINES TREATED AS 7-YEAR PROPERTY.

(a) IN GENERAL.—Subparagraph (C) of section 168(e)(3) (relating to classification of certain property) is amended by striking “and” at the end of clause (iii), by redesignating clause (iv) as clause (v), and by inserting after clause (iii) the following new clause:

“(iv) any natural gas gathering line the original use of which commences with the taxpayer after April 11, 2005, and”.

(b) **NATURAL GAS GATHERING LINE.**—Subsection (i) of section 168 is amended by inserting after paragraph (16) the following new paragraph:

“(17) **NATURAL GAS GATHERING LINE.**—The term ‘natural gas gathering line’ means—

“(A) the pipe, equipment, and appurtenances determined to be a gathering line by the Federal Energy Regulatory Commission, and

“(B) the pipe, equipment, and appurtenances used to deliver natural gas from the wellhead or a commonpoint to the point at which such gas first reaches—

“(i) a gas processing plant,

“(ii) an interconnection with a transmission pipeline for which a certificate as an interstate transmission pipeline has been issued by the Federal Energy Regulatory Commission,

“(iii) an interconnection with an intrastate transmission pipeline, or

“(iv) a direct interconnection with a local distribution company, a gas storage facility, or an industrial consumer.”.

(c) **ALTERNATIVE SYSTEM.**—The table contained in section 168(g)(3)(B) (relating to special rule for certain property assigned to classes), as amended by this Act, is amended by inserting after the item relating to subparagraph (C)(iii) the following new item:

“(C)(iv) 14”.

(d) **ALTERNATIVE MINIMUM TAX EXCEPTION.**—Subparagraph (B) of section 56(a)(1) is amended by inserting before the period the following: “, or in section 168(e)(3)(C)(iv)”.

(e) **EFFECTIVE DATE.**—

(1) **IN GENERAL.**—The amendments made by this section shall apply to property placed in service after April 11, 2005.

(2) **EXCEPTION.**—The amendments made by this section shall not apply to any property with respect to which the taxpayer or a related party has entered into a binding contract for the construction thereof on or before April 11, 2005, or, in the case of self-constructed property, has started construction on or before such date.

SEC. 1327. ARBITRAGE RULES NOT TO APPLY TO PREPAYMENTS FOR NATURAL GAS.

(a) **IN GENERAL.**—Subsection (b) of section 148 (relating to higher yielding investments) is amended by adding at the end the following new paragraph:

“(4) **SAFE HARBOR FOR PREPAID NATURAL GAS.**—

“(A) **IN GENERAL.**—The term ‘investment-type property’ does not include a prepayment under a qualified natural gas supply contract.

“(B) **QUALIFIED NATURAL GAS SUPPLY CONTRACT.**—For purposes of this paragraph, the term ‘qualified natural gas supply contract’ means any contract to acquire natural gas

for resale by a utility owned by a governmental unit if the amount of gas permitted to be acquired under the contract by the utility during any year does not exceed the sum of—

“(i) the annual average amount during the testing period of natural gas purchased (other than for resale) by customers of such utility who are located within the service area of such utility, and

“(ii) the amount of natural gas to be used to transport the prepaid natural gas to the utility during such year.

“(C) NATURAL GAS USED TO GENERATE ELECTRICITY.—Natural gas used to generate electricity shall be taken into account in determining the average under subparagraph (B)(i)—

“(i) only if the electricity is generated by a utility owned by a governmental unit, and

“(ii) only to the extent that the electricity is sold (other than for resale) to customers of such utility who are located within the service area of such utility.

“(D) ADJUSTMENTS FOR CHANGES IN CUSTOMER BASE.—

“(i) NEW BUSINESS CUSTOMERS.—If—

“(I) after the close of the testing period and before the date of issuance of the issue, the utility owned by a governmental unit enters into a contract to supply natural gas (other than for resale) for a business use at a property within the service area of such utility, and

“(II) the utility did not supply natural gas to such property during the testing period or the ratable amount of natural gas to be supplied under the contract is significantly greater than the ratable amount of gas supplied to such property during the testing period,

then a contract shall not fail to be treated as a qualified natural gas supply contract by reason of supplying the additional natural gas under the contract referred to in subclause (I).

“(ii) LOST CUSTOMERS.—The average under subparagraph (B)(i) shall not exceed the annual amount of natural gas reasonably expected to be purchased (other than for resale) by persons who are located within the service area of such utility and who, as of the date of issuance of the issue, are customers of such utility.

“(E) RULING REQUESTS.—The Secretary may increase the average under subparagraph (B)(i) for any period if the utility owned by the governmental unit establishes to the satisfaction of the Secretary that, based on objective evidence of growth in natural gas consumption or population, such average would otherwise be insufficient for such period.

“(F) ADJUSTMENT FOR NATURAL GAS OTHERWISE ON HAND.—

“(i) IN GENERAL.—The amount otherwise permitted to be acquired under the contract for any period shall be reduced by—

“(I) the applicable share of natural gas held by the utility on the date of issuance of the issue, and

“(II) the natural gas (not taken into account under subclause (I)) which the utility has a right to acquire during such period (determined as of the date of issuance of the issue).

“(ii) APPLICABLE SHARE.—For purposes of the clause (i), the term ‘applicable share’ means, with respect to any period, the natural gas allocable to such period if the gas were allocated ratably over the period to which the prepayment relates.

“(G) INTENTIONAL ACTS.—Subparagraph (A) shall cease to apply to any issue if the utility owned by the governmental unit engages in any intentional act to render the volume of natural gas acquired by such prepayment to be in excess of the sum of—

“(i) the amount of natural gas needed (other than for resale) by customers of such utility who are located within the service area of such utility, and

“(ii) the amount of natural gas used to transport such natural gas to the utility.

“(H) TESTING PERIOD.—For purposes of this paragraph, the term ‘testing period’ means, with respect to an issue, the most recent 5 calendar years ending before the date of issuance of the issue.

“(I) SERVICE AREA.—For purposes of this paragraph, the service area of a utility owned by a governmental unit shall be comprised of—

“(i) any area throughout which such utility provided at all times during the testing period—

“(I) in the case of a natural gas utility, natural gas transmission or distribution services, and

“(II) in the case of an electric utility, electricity distribution services,

“(ii) any area within a county contiguous to the area described in clause (i) in which retail customers of such utility are located if such area is not also served by another utility providing natural gas or electricity services, as the case may be, and

“(iii) any area recognized as the service area of such utility under State or Federal law.”.

(b) PRIVATE LOAN FINANCING TEST NOT TO APPLY TO PREPAYMENTS FOR NATURAL GAS.—Paragraph (2) of section 141(c) (providing exceptions to the private loan financing test) is amended by striking “or” at the end of subparagraph (A), by striking the period at the end of subparagraph (B) and inserting “, or”, and by adding at the end the following new subparagraph:

“(C) is a qualified natural gas supply contract (as defined in section 148(b)(4)).”.

(c) **EXCEPTION FOR QUALIFIED ELECTRIC AND NATURAL GAS SUPPLY CONTRACTS.**—Section 141(d) is amended by adding at the end the following new paragraph:

“(7) **EXCEPTION FOR QUALIFIED ELECTRIC AND NATURAL GAS SUPPLY CONTRACTS.**—The term ‘nongovernmental output property’ shall not include any contract for the prepayment of electricity or natural gas which is not investment property under section 148(b)(2).”.

(d) **EFFECTIVE DATE.**—The amendments made by this section shall apply to obligations issued after the date of the enactment of this Act.

SEC. 1328. DETERMINATION OF SMALL REFINER EXCEPTION TO OIL DEPLETION DEDUCTION.

(a) **IN GENERAL.**—Paragraph (4) of section 613A(d) (relating to limitations on application of subsection (c)) is amended to read as follows:

“(4) **CERTAIN REFINERS EXCLUDED.**—If the taxpayer or one or more related persons engages in the refining of crude oil, subsection (c) shall not apply to the taxpayer for a taxable year if the average daily refinery runs of the taxpayer and such persons for the taxable year exceed 75,000 barrels. For purposes of this paragraph, the average daily refinery runs for any taxable year shall be determined by dividing the aggregate refinery runs for the taxable year by the number of days in the taxable year.”.

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

SEC. 1329. AMORTIZATION OF GEOLOGICAL AND GEOPHYSICAL EXPENDITURES.

(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 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) **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 with respect to which geological and geophysical expenses are paid or incurred 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.”.

(b) CONFORMING AMENDMENT.—Section 263A(c)(3) is amended by inserting “167(h),” 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.

Subtitle C—Conservation and Energy Efficiency Provisions

SEC. 1331. ENERGY EFFICIENT COMMERCIAL BUILDINGS DEDUCTION.

(a) IN GENERAL.—Part VI of subchapter B of chapter 1 (relating to itemized deductions for individuals and corporations), as amended by this Act, is amended by inserting after section 179C the following new section:

“SEC. 179D. ENERGY EFFICIENT COMMERCIAL BUILDINGS DEDUCTION.

“(a) IN GENERAL.—There shall be allowed as a deduction an amount equal to the cost of energy efficient commercial building property placed in service during the taxable year.

“(b) MAXIMUM AMOUNT OF DEDUCTION.—The deduction under subsection (a) with respect to any building for any taxable year shall not exceed the excess (if any) of—

“(1) the product of—

“(A) \$1.80, and

“(B) the square footage of the building, over

“(2) the aggregate amount of the deductions under subsection (a) with respect to the building for all prior taxable years.

“(c) DEFINITIONS.—For purposes of this section—

“(1) ENERGY EFFICIENT COMMERCIAL BUILDING PROPERTY.—The term ‘energy efficient commercial building property’ means property—

“(A) with respect to which depreciation (or amortization in lieu of depreciation) is allowable,

“(B) which is installed on or in any building which is—

“(i) located in the United States, and

“(ii) within the scope of Standard 90.1–2001,

“(C) which is installed as part of—

“(i) the interior lighting systems,

“(ii) the heating, cooling, ventilation, and hot water systems, or

“(iii) the building envelope, and

“(D) which is certified in accordance with subsection (d)(6) as being installed as part of a plan designed to reduce the total annual energy and power costs with respect to the interior lighting systems, heating, cooling, ventilation, and hot water systems of the building by 50 percent or more in comparison to a reference building which meets the minimum requirements of Standard 90.1–2001 using methods of calculation under subsection (d)(2).

“(2) STANDARD 90.1–2001.—The term ‘Standard 90.1–2001’ means Standard 90.1–2001 of the American Society of Heating, Refrigerating, and Air Conditioning Engineers and the Illuminating Engineering Society of North America (as in effect on April 2, 2003).

“(d) SPECIAL RULES.—

“(1) PARTIAL ALLOWANCE.—

“(A) IN GENERAL.—Except as provided in subsection (f), if—

“(i) the requirement of subsection (c)(1)(D) is not met, but

“(ii) there is a certification in accordance with paragraph (6) that any system referred to in subsection (c)(1)(C) satisfies the energy-savings targets established by the Secretary under subparagraph (B) with respect to such system,

then the requirement of subsection (c)(1)(D) shall be treated as met with respect to such system, and the deduction under subsection (a) shall be allowed with respect to energy efficient commercial building property installed as part of such system and as part of a plan to meet such targets, except that subsection (b) shall be applied to such property by substituting ‘\$.60’ for ‘\$1.80’.

“(B) REGULATIONS.—The Secretary, after consultation with the Secretary of Energy, shall establish a target for each system described in subsection (c)(1)(C) which, if such targets were met for all such systems, the building would meet the requirements of subsection (c)(1)(D).

“(2) METHODS OF CALCULATION.—The Secretary, after consultation with the Secretary of Energy, shall promulgate regulations which describe in detail methods for calculating and verifying energy and power consumption and cost, based on the provisions of the 2005 California Nonresidential Alternative Calculation Method Approval Manual.

“(3) COMPUTER SOFTWARE.—

“(A) IN GENERAL.—Any calculation under paragraph (2) shall be prepared by qualified computer software.

“(B) QUALIFIED COMPUTER SOFTWARE.—For purposes of this paragraph, the term ‘qualified computer software’ means software—

“(i) for which the software designer has certified that the software meets all procedures and detailed methods for calculating energy and power consumption and costs as required by the Secretary,

“(ii) which provides such forms as required to be filed by the Secretary in connection with energy efficiency of property and the deduction allowed under this section, and

“(iii) which provides a notice form which documents the energy efficiency features of the building and its projected annual energy costs.

“(4) ALLOCATION OF DEDUCTION FOR PUBLIC PROPERTY.—In the case of energy efficient commercial building property installed on or in property owned by a Federal, State, or local

government or a political subdivision thereof, the Secretary shall promulgate a regulation to allow the allocation of the deduction to the person primarily responsible for designing the property in lieu of the owner of such property. Such person shall be treated as the taxpayer for purposes of this section.

“(5) NOTICE TO OWNER.—Each certification required under this section shall include an explanation to the building owner regarding the energy efficiency features of the building and its projected annual energy costs as provided in the notice under paragraph (3)(B)(iii).

“(6) CERTIFICATION.—

“(A) IN GENERAL.—The Secretary shall prescribe the manner and method for the making of certifications under this section.

“(B) PROCEDURES.—The Secretary shall include as part of the certification process procedures for inspection and testing by qualified individuals described in subparagraph (C) to ensure compliance of buildings with energy-savings plans and targets. Such procedures shall be comparable, given the difference between commercial and residential buildings, to the requirements in the Mortgage Industry National Accreditation Procedures for Home Energy Rating Systems.

“(C) QUALIFIED INDIVIDUALS.—Individuals qualified to determine compliance shall be only those individuals who are recognized by an organization certified by the Secretary for such purposes.

“(e) BASIS REDUCTION.—For purposes of this subtitle, if a deduction is allowed under this section with respect to any energy efficient commercial building property, the basis of such property shall be reduced by the amount of the deduction so allowed.

“(f) INTERIM RULES FOR LIGHTING SYSTEMS.—Until such time as the Secretary issues final regulations under subsection (d)(1)(B) with respect to property which is part of a lighting system—

“(1) IN GENERAL.—The lighting system target under subsection (d)(1)(A)(ii) shall be a reduction in lighting power density of 25 percent (50 percent in the case of a warehouse) of the minimum requirements in Table 9.3.1.1 or Table 9.3.1.2 (not including additional interior lighting power allowances) of Standard 90.1–2001.

“(2) REDUCTION IN DEDUCTION IF REDUCTION LESS THAN 40 PERCENT.—

“(A) IN GENERAL.—If, with respect to the lighting system of any building other than a warehouse, the reduction in lighting power density of the lighting system is not at least 40 percent, only the applicable percentage of the amount of deduction otherwise allowable under this section with respect to such property shall be allowed.

“(B) APPLICABLE PERCENTAGE.—For purposes of subparagraph (A), the applicable percentage is the number of percentage points (not greater than 100) equal to the sum of—

“(i) 50, and

“(ii) the amount which bears the same ratio to 50 as the excess of the reduction of lighting power density of the lighting system over 25 percentage points bears to 15.

“(C) EXCEPTIONS.—This subsection shall not apply to any system—

“(i) the controls and circuiting of which do not comply fully with the mandatory and prescriptive requirements of Standard 90.1–2001 and which do not include provision for bilevel switching in all occupancies except hotel and motel guest rooms, store rooms, restrooms, and public lobbies, or

“(ii) which does not meet the minimum requirements for calculated lighting levels as set forth in the Illuminating Engineering Society of North America Lighting Handbook, Performance and Application, Ninth Edition, 2000.

“(g) REGULATIONS.—The Secretary shall promulgate such regulations as necessary—

“(1) to take into account new technologies regarding energy efficiency and renewable energy for purposes of determining energy efficiency and savings under this section, and

“(2) to provide for a recapture of the deduction allowed under this section if the plan described in subsection (c)(1)(D) or (d)(1)(A) is not fully implemented.

“(h) TERMINATION.—This section shall not apply with respect to property placed in service after December 31, 2007.”.

(b) CONFORMING AMENDMENTS.—

(1) Section 1016(a) is amended by striking “and” at the end of paragraph (30), by striking the period at the end of paragraph (31) and inserting “, and”, and by adding at the end the following new paragraph:

“(32) to the extent provided in section 179D(e).”.

(2) Section 1245(a), as amended by this Act, is amended by inserting “179D,” after “179C,” both places it appears in paragraphs (2)(C) and (3)(C).

(3) Section 1250(b)(3) is amended by inserting before the period at the end of the first sentence “or by section 179D”.

(4) Section 263(a)(1), as amended by this Act, is amended by striking “or” at the end of subparagraph (I), by striking the period at the end of subparagraph (J) and inserting “, or”, and by inserting after subparagraph (J) the following new subparagraph:

“(K) expenditures for which a deduction is allowed under section 179D.”.

(5) Section 312(k)(3)(B), as amended by this Act, is amended by striking “179, 179A, 179B, or 179C” each place it appears in the heading and text and inserting “179, 179A, 179B, 179C, or 179D”.

(c) CLERICAL AMENDMENT.—The table of sections for part VI of subchapter B of chapter 1, as amended by this Act, is amended by inserting after section 179C the following new item:

“Sec. 179D. Energy efficient commercial buildings deduction.”.

(d) **EFFECTIVE DATE.**—The amendments made by this section shall apply to property placed in service after December 31, 2005.

SEC. 1332. CREDIT FOR CONSTRUCTION OF NEW ENERGY EFFICIENT HOMES.

(a) **IN GENERAL.**—Subpart D of part IV of subchapter A of chapter 1 (relating to business related credits), as amended by this Act, is amended by adding at the end the following new section:

“SEC. 45L. NEW ENERGY EFFICIENT HOME CREDIT.

“(a) ALLOWANCE OF CREDIT.—

“(1) IN GENERAL.—For purposes of section 38, in the case of an eligible contractor, the new energy efficient home credit for the taxable year is the applicable amount for each qualified new energy efficient home which is—

“(A) constructed by the eligible contractor, and

“(B) acquired by a person from such eligible contractor for use as a residence during the taxable year.

“(2) APPLICABLE AMOUNT.—For purposes of paragraph (1), the applicable amount is an amount equal to—

“(A) in the case of a dwelling unit described in paragraph (1) or (2) of subsection (c), \$2,000, and

“(B) in the case of a dwelling unit described in paragraph (3) of subsection (c), \$1,000.

“(b) DEFINITIONS.—For purposes of this section—

“(1) ELIGIBLE CONTRACTOR.—The term ‘eligible contractor’ means—

“(A) the person who constructed the qualified new energy efficient home, or

“(B) in the case of a qualified new energy efficient home which is a manufactured home, the manufactured home producer of such home.

“(2) QUALIFIED NEW ENERGY EFFICIENT HOME.—The term ‘qualified new energy efficient home’ means a dwelling unit—

“(A) located in the United States,

“(B) the construction of which is substantially completed after the date of the enactment of this section, and

“(C) which meets the energy saving requirements of subsection (c).

“(3) CONSTRUCTION.—The term ‘construction’ includes substantial reconstruction and rehabilitation.

“(4) ACQUIRE.—The term ‘acquire’ includes purchase.

“(c) ENERGY SAVING REQUIREMENTS.—A dwelling unit meets the energy saving requirements of this subsection if such unit is—

“(1) certified—

“(A) to have a level of annual heating and cooling energy consumption which is at least 50 percent below the annual level of heating and cooling energy consumption of a comparable dwelling unit—

“(i) which is constructed in accordance with the standards of chapter 4 of the 2003 International Energy Conservation Code, as such Code (including supplements) is in effect on the date of the enactment of this section, and

“(ii) for which the heating and cooling equipment efficiencies correspond to the minimum allowed under the regulations established by the Department of Energy pursuant to the National Appliance Energy Conservation Act of 1987 and in effect at the time of completion of construction, and

“(B) to have building envelope component improvements account for at least $\frac{1}{5}$ of such 50 percent,

“(2) a manufactured home which conforms to Federal Manufactured Home Construction and Safety Standards (section 3280 of title 24, Code of Federal Regulations) and which meets the requirements of paragraph (1), or

“(3) a manufactured home which conforms to Federal Manufactured Home Construction and Safety Standards (section 3280 of title 24, Code of Federal Regulations) and which—

“(A) meets the requirements of paragraph (1) applied by substituting ‘30 percent’ for ‘50 percent’ both places it appears therein and by substituting ‘ $\frac{1}{3}$ ’ for ‘ $\frac{1}{5}$ ’ in subparagraph (B) thereof, or

“(B) meets the requirements established by the Administrator of the Environmental Protection Agency under the Energy Star Labeled Homes program.

“(d) CERTIFICATION.—

“(1) METHOD OF CERTIFICATION.—A certification described in subsection (c) shall be made in accordance with guidance prescribed by the Secretary, after consultation with the Secretary of Energy. Such guidance shall specify procedures and methods for calculating energy and cost savings.

“(2) FORM.—Any certification described in subsection (c) shall be made in writing in a manner which specifies in readily verifiable fashion the energy efficient building envelope components and energy efficient heating or cooling equipment installed and their respective rated energy efficiency performance.

“(e) BASIS ADJUSTMENT.—For purposes of this subtitle, if a credit is allowed under this section in connection with any expenditure for any property, the increase in the basis of such property which would (but for this subsection) result from such expenditure shall be reduced by the amount of the credit so determined.

“(f) COORDINATION WITH INVESTMENT CREDIT.—For purposes of this section, expenditures taken into account under section 47 or 48(a) shall not be taken into account under this section.

“(g) TERMINATION.—This section shall not apply to any qualified new energy efficient home acquired after December 31, 2007.”.

(b) CREDIT MADE PART OF GENERAL BUSINESS CREDIT.—Section 38(b) (relating to current year business credit), as amended by this Act, is amended by striking “plus” at the end of paragraph (21), by striking the period at the end of paragraph (22) and inserting “, plus”, and by adding at the end the following new paragraph:

“(23) the new energy efficient home credit determined under section 45L(a).”.

(c) BASIS ADJUSTMENT.—Subsection (a) of section 1016, as amended by this Act, is amended by striking “and” at the end of paragraph (31), by striking the period at the end of paragraph (32)

and inserting “, and”, and by adding at the end the following new paragraph:

“(33) to the extent provided in section 45L(e), in the case of amounts with respect to which a credit has been allowed under section 45L.”.

(d) DEDUCTION FOR CERTAIN UNUSED BUSINESS CREDITS.—Section 196(c) (defining qualified business credits) is amended by striking “and” at the end of paragraph (11), by striking the period at the end of paragraph (12) and inserting “, and”, and by adding after paragraph (12) the following new paragraph:

“(13) the new energy efficient home credit determined under section 45L(a).”.

(e) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

“Sec. 45L. New energy efficient home credit.”.

(f) EFFECTIVE DATE.—The amendments made by this section shall apply to qualified new energy efficient homes acquired after December 31, 2005, in taxable years ending after such date.

SEC. 1333. CREDIT FOR CERTAIN NONBUSINESS ENERGY PROPERTY.

(a) IN GENERAL.—Subpart A of part IV of subchapter A of chapter 1 (relating to nonrefundable personal credits) is amended by inserting after section 25B the following new section:

“SEC. 25C. NONBUSINESS ENERGY PROPERTY.

“(a) ALLOWANCE OF CREDIT.—In the case of an individual, there shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of—

“(1) 10 percent of the amount paid or incurred by the taxpayer for qualified energy efficiency improvements installed during such taxable year, and

“(2) the amount of the residential energy property expenditures paid or incurred by the taxpayer during such taxable year.

“(b) LIMITATIONS.—

“(1) LIFETIME LIMITATION.—The credit allowed under this section with respect to any taxpayer for any taxable year shall not exceed the excess (if any) of \$500 over the aggregate credits allowed under this section with respect to such taxpayer for all prior taxable years.

“(2) WINDOWS.—In the case of amounts paid or incurred for components described in subsection (c)(3)(B) by any taxpayer for any taxable year, the credit allowed under this section with respect to such amounts for such year shall not exceed the excess (if any) of \$200 over the aggregate credits allowed under this section with respect to such amounts for all prior taxable years.

“(3) LIMITATION ON RESIDENTIAL ENERGY PROPERTY EXPENDITURES.—The amount of the credit allowed under this section by reason of subsection (a)(2) shall not exceed—

“(A) \$50 for any advanced main air circulating fan,

“(B) \$150 for any qualified natural gas, propane, or oil furnace or hot water boiler, and

“(C) \$300 for any item of energy-efficient building property.

“(c) QUALIFIED ENERGY EFFICIENCY IMPROVEMENTS.—For purposes of this section—

“(1) IN GENERAL.—The term ‘qualified energy efficiency improvements’ means any energy efficient building envelope component which meets the prescriptive criteria for such component established by the 2000 International Energy Conservation Code, as such Code (including supplements) is in effect on the date of the enactment of this section (or, in the case of a metal roof with appropriate pigmented coatings which meet the Energy Star program requirements), if—

“(A) such component is installed in or on a dwelling unit located in the United States and owned and used by the taxpayer as the taxpayer’s principal residence (within the meaning of section 121),

“(B) the original use of such component commences with the taxpayer, and

“(C) such component reasonably can be expected to remain in use for at least 5 years.

“(2) BUILDING ENVELOPE COMPONENT.—The term ‘building envelope component’ means—

“(A) any insulation material or system which is specifically and primarily designed to reduce the heat loss or gain of a dwelling unit when installed in or on such dwelling unit,

“(B) exterior windows (including skylights),

“(C) exterior doors, and

“(D) any metal roof installed on a dwelling unit, but only if such roof has appropriate pigmented coatings which are specifically and primarily designed to reduce the heat gain of such dwelling unit.

“(3) MANUFACTURED HOMES INCLUDED.—The term ‘dwelling unit’ includes a manufactured home which conforms to Federal Manufactured Home Construction and Safety Standards (section 3280 of title 24, Code of Federal Regulations).

“(d) RESIDENTIAL ENERGY PROPERTY EXPENDITURES.—For purposes of this section—

“(1) IN GENERAL.—The term ‘residential energy property expenditures’ means expenditures made by the taxpayer for qualified energy property which is—

“(A) installed on or in connection with a dwelling unit located in the United States and owned and used by the taxpayer as the taxpayer’s principal residence (within the meaning of section 121), and

“(B) originally placed in service by the taxpayer.

Such term includes expenditures for labor costs properly allocable to the onsite preparation, assembly, or original installation of the property.

“(2) QUALIFIED ENERGY PROPERTY.—

“(A) IN GENERAL.—The term ‘qualified energy property’ means—

“(i) energy-efficient building property,

“(ii) a qualified natural gas, propane, or oil furnace or hot water boiler, or

“(iii) an advanced main air circulating fan.

“(B) PERFORMANCE AND QUALITY STANDARDS.—Property described under subparagraph (A) shall meet the performance and quality standards, and the certification requirements (if any), which—

“(i) have been prescribed by the Secretary by regulations (after consultation with the Secretary of Energy or the Administrator of the Environmental Protection Agency, as appropriate), and

“(ii) are in effect at the time of the acquisition of the property, or at the time of the completion of the construction, reconstruction, or erection of the property, as the case may be.

“(C) REQUIREMENTS FOR STANDARDS.—The standards and requirements prescribed by the Secretary under subparagraph (B)—

“(i) in the case of the energy efficiency ratio (EER) for central air conditioners and electric heat pumps—

“(I) shall require measurements to be based on published data which is tested by manufacturers at 95 degrees Fahrenheit, and

“(II) may be based on the certified data of the Air Conditioning and Refrigeration Institute that are prepared in partnership with the Consortium for Energy Efficiency, and

“(ii) in the case of geothermal heat pumps—

“(I) shall be based on testing under the conditions of ARI/ISO Standard 13256–1 for Water Source Heat Pumps or ARI 870 for Direct Expansion GeoExchange Heat Pumps (DX), as appropriate, and

“(II) shall include evidence that water heating services have been provided through a desuperheater or integrated water heating system connected to the storage water heater tank.

“(3) ENERGY-EFFICIENT BUILDING PROPERTY.—The term ‘energy-efficient building property’ means—

“(A) an electric heat pump water heater which yields an energy factor of at least 2.0 in the standard Department of Energy test procedure,

“(B) an electric heat pump which has a heating seasonal performance factor (HSPF) of at least 9, a seasonal energy efficiency ratio (SEER) of at least 15, and an energy efficiency ratio (EER) of at least 13,

“(C) a geothermal heat pump which—

“(i) in the case of a closed loop product, has an energy efficiency ratio (EER) of at least 14.1 and a heating coefficient of performance (COP) of at least 3.3,

“(ii) in the case of an open loop product, has an energy efficiency ratio (EER) of at least 16.2 and a heating coefficient of performance (COP) of at least 3.6, and

“(iii) in the case of a direct expansion (DX) product, has an energy efficiency ratio (EER) of at least 15 and a heating coefficient of performance (COP) of at least 3.5,

“(D) a central air conditioner which achieves the highest efficiency tier established by the Consortium for Energy Efficiency, as in effect on January 1, 2006, and

“(E) a natural gas, propane, or oil water heater which has an energy factor of at least 0.80.

“(4) QUALIFIED NATURAL GAS, PROPANE, OR OIL FURNACE OR HOT WATER BOILER.—The term ‘qualified natural gas, propane, or oil furnace or hot water boiler’ means a natural gas, propane, or oil furnace or hot water boiler which achieves an annual fuel utilization efficiency rate of not less than 95.

“(5) ADVANCED MAIN AIR CIRCULATING FAN.—The term ‘advanced main air circulating fan’ means a fan used in a natural gas, propane, or oil furnace and which has an annual electricity use of no more than 2 percent of the total annual energy use of the furnace (as determined in the standard Department of Energy test procedures).

“(e) SPECIAL RULES.—For purposes of this section—

“(1) APPLICATION OF RULES.—Rules similar to the rules under paragraphs (4), (5), (6), (7), (8), and (9) of section 25D(e) shall apply.

“(2) JOINT OWNERSHIP OF ENERGY ITEMS.—

“(A) IN GENERAL.—Any expenditure otherwise qualifying as an expenditure under this section shall not be treated as failing to so qualify merely because such expenditure was made with respect to two or more dwelling units.

“(B) LIMITS APPLIED SEPARATELY.—In the case of any expenditure described in subparagraph (A), the amount of the credit allowable under subsection (a) shall (subject to paragraph (1)) be computed separately with respect to the amount of the expenditure made for each dwelling unit.

“(f) BASIS ADJUSTMENTS.—For purposes of this subtitle, if a credit is allowed under this section for any expenditure with respect to any property, the increase in the basis of such property which would (but for this subsection) result from such expenditure shall be reduced by the amount of the credit so allowed.

“(g) TERMINATION.—This section shall not apply with respect to any property placed in service after December 31, 2007.”.

(b) CONFORMING AMENDMENTS.—

(1) Subsection (a) of section 1016, as amended by this Act, is amended by striking “and” at the end of paragraph (32), by striking the period at the end of paragraph (33) and inserting “, and”, and by adding at the end the following new paragraph:

“(34) to the extent provided in section 25C(e), in the case of amounts with respect to which a credit has been allowed under section 25C.”.

(2) The table of sections for subpart A of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 25B the following new item:

“Sec. 25C. Nonbusiness energy property.”.

(c) **EFFECTIVE DATES.**—The amendments made by this section shall apply to property placed in service after December 31, 2005.

SEC. 1334. CREDIT FOR ENERGY EFFICIENT APPLIANCES.

(a) **IN GENERAL.**—Subpart D of part IV of subchapter A of chapter 1 (relating to business-related credits), as amended by this Act, is amended by adding at the end the following new section:

“SEC. 45M. ENERGY EFFICIENT APPLIANCE CREDIT.

“(a) GENERAL RULE.—

“(1) IN GENERAL.—For purposes of section 38, the energy efficient appliance credit determined under this section for any taxable year is an amount equal to the sum of the credit amounts determined under paragraph (2) for each type of qualified energy efficient appliance produced by the taxpayer during the calendar year ending with or within the taxable year.

“(2) CREDIT AMOUNTS.—The credit amount determined for any type of qualified energy efficient appliance is—

“(A) the applicable amount determined under subsection (b) with respect to such type, multiplied by

“(B) the eligible production for such type.

“(b) APPLICABLE AMOUNT.—

“(1) IN GENERAL.—For purposes of subsection (a)—

“(A) DISHWASHERS.—The applicable amount is the energy savings amount in the case of a dishwasher which—

“(i) is manufactured in calendar year 2006 or 2007, and

“(ii) meets the requirements of the Energy Star program which are in effect for dishwashers in 2007.

“(B) CLOTHES WASHERS.—The applicable amount is \$100 in the case of a clothes washer which—

“(i) is manufactured in calendar year 2006 or 2007, and

“(ii) meets the requirements of the Energy Star program which are in effect for clothes washers in 2007.

“(C) REFRIGERATORS.—

“(i) 15 PERCENT SAVINGS.—The applicable amount is \$75 in the case of a refrigerator which—

“(I) is manufactured in calendar year 2006, and

“(II) consumes at least 15 percent but not more than 20 percent less kilowatt hours per year than the 2001 energy conservation standards.

“(ii) 20 PERCENT SAVINGS.—The applicable amount is \$125 in the case of a refrigerator which—

“(I) is manufactured in calendar year 2006 or 2007, and

“(II) consumes at least 20 percent but not more than 25 percent less kilowatt hours per year than the 2001 energy conservation standards.

“(iii) 25 PERCENT SAVINGS.—The applicable amount is \$175 in the case of a refrigerator which—

“(I) is manufactured in calendar year 2006 or 2007, and

“(II) consumes at least 25 percent less kilowatt hours per year than the 2001 energy conservation standards.

“(2) ENERGY SAVINGS AMOUNT.—For purposes of paragraph (1)(A)—

“(A) IN GENERAL.—The energy savings amount is the lesser of—

“(i) the product of—

“(I) \$3, and

“(II) 100 multiplied by the energy savings percentage, or

“(ii) \$100.

“(B) ENERGY SAVINGS PERCENTAGE.—For purposes of subparagraph (A), the energy savings percentage is the ratio of—

“(i) the EF required by the Energy Star program for dishwashers in 2007 minus the EF required by the Energy Star program for dishwashers in 2005, to

“(ii) the EF required by the Energy Star program for dishwashers in 2007.

“(c) ELIGIBLE PRODUCTION.—

“(1) IN GENERAL.—Except as provided in paragraphs (2), the eligible production in a calendar year with respect to each type of energy efficient appliance is the excess of—

“(A) the number of appliances of such type which are produced by the taxpayer in the United States during such calendar year, over

“(B) the average number of appliances of such type which were produced by the taxpayer (or any predecessor) in the United States during the preceding 3-calendar year period.

“(2) SPECIAL RULE FOR REFRIGERATORS.—The eligible production in a calendar year with respect to each type of refrigerator described in subsection (b)(1)(C) is the excess of—

“(A) the number of appliances of such type which are produced by the taxpayer in the United States during such calendar year, over

“(B) 110 percent of the average number of appliances of such type which were produced by the taxpayer (or any predecessor) in the United States during the preceding 3-calendar year period.

“(d) TYPES OF ENERGY EFFICIENT APPLIANCE.—For purposes of this section, the types of energy efficient appliances are—

“(1) dishwashers described in subsection (b)(1)(A),

“(2) clothes washers described in subsection (b)(1)(B),

“(3) refrigerators described in subsection (b)(1)(C)(i),

“(4) refrigerators described in subsection (b)(1)(C)(ii), and

“(5) refrigerators described in subsection (b)(1)(C)(iii).

“(e) LIMITATIONS.—

“(1) AGGREGATE CREDIT AMOUNT ALLOWED.—The aggregate amount of credit allowed under subsection (a) with respect to a taxpayer for any taxable year shall not exceed \$75,000,000

reduced by the amount of the credit allowed under subsection (a) to the taxpayer (or any predecessor) for all prior taxable years.

“(2) AMOUNT ALLOWED FOR 15 PERCENT SAVINGS REFRIGERATORS.—In the case of refrigerators described in subsection (b)(1)(C)(i), the aggregate amount of the credit allowed under subsection (a) with respect to a taxpayer for any taxable year shall not exceed \$20,000,000.

“(3) LIMITATION BASED ON GROSS RECEIPTS.—The credit allowed under subsection (a) with respect to a taxpayer for the taxable year shall not exceed an amount equal to 2 percent of the average annual gross receipts of the taxpayer for the 3 taxable years preceding the taxable year in which the credit is determined.

“(4) GROSS RECEIPTS.—For purposes of this subsection, the rules of paragraphs (2) and (3) of section 448(c) shall apply.

“(f) DEFINITIONS.—For purposes of this section—

“(1) QUALIFIED ENERGY EFFICIENT APPLIANCE.—The term ‘qualified energy efficient appliance’ means—

“(A) any dishwasher described in subsection (b)(1)(A),

“(B) any clothes washer described in subsection (b)(1)(B), and

“(C) any refrigerator described in subsection (b)(1)(C).

“(2) DISHWASHER.—The term ‘dishwasher’ means a residential dishwasher subject to the energy conservation standards established by the Department of Energy.

“(3) CLOTHES WASHER.—The term ‘clothes washer’ means a residential model clothes washer, including a residential style coin operated washer.

“(4) REFRIGERATOR.—The term ‘refrigerator’ means a residential model automatic defrost refrigerator-freezer which has an internal volume of at least 16.5 cubic feet.

“(5) EF.—The term ‘EF’ means the energy factor established by the Department of Energy for compliance with the Federal energy conservation standards.

“(6) PRODUCED.—The term ‘produced’ includes manufactured.

“(7) 2001 ENERGY CONSERVATION STANDARD.—The term ‘2001 energy conservation standard’ means the energy conservation standards promulgated by the Department of Energy and effective July 1, 2001.

“(g) SPECIAL RULES.—For purposes of this section—

“(1) IN GENERAL.—Rules similar to the rules of subsections (c), (d), and (e) of section 52 shall apply.

“(2) CONTROLLED GROUP.—

“(A) IN GENERAL.—All persons treated as a single employer under subsection (a) or (b) of section 52 or subsection (m) or (o) of section 414 shall be treated as a single producer.

“(B) INCLUSION OF FOREIGN CORPORATIONS.—For purposes of subparagraph (A), in applying subsections (a) and (b) of section 52 to this section, section 1563 shall be applied without regard to subsection (b)(2)(C) thereof.

“(3) VERIFICATION.—No amount shall be allowed as a credit under subsection (a) with respect to which the taxpayer has not submitted such information or certification as the Secretary, in consultation with the Secretary of Energy, determines necessary.”.

(b) CONFORMING AMENDMENT.—Section 38(b) (relating to general business credit), as amended by this Act, is amended by striking “plus” at the end of paragraph (22), by striking the period at the end of paragraph (23) and inserting “, plus”, and by adding at the end the following new paragraph:

“(24) the energy efficient appliance credit determined under section 45M(a).”.

(c) CLERICAL AMENDMENT.—The table of sections for subpart D of part IV of subchapter A of chapter 1, as amended by this Act, is amended by adding at the end the following new item:

“Sec. 45M. Energy efficient appliance credit.”.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to appliances produced after December 31, 2005.

SEC. 1335. CREDIT FOR RESIDENTIAL ENERGY EFFICIENT PROPERTY.

(a) IN GENERAL.—Subpart A of part IV of subchapter A of chapter 1 (relating to nonrefundable personal credits), as amended by this Act, is amended by inserting after section 25C the following new section:

“SEC. 25D. RESIDENTIAL ENERGY EFFICIENT PROPERTY.

“(a) ALLOWANCE OF CREDIT.—In the case of an individual, there shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of—

“(1) 30 percent of the qualified photovoltaic property expenditures made by the taxpayer during such year,

“(2) 30 percent of the qualified solar water heating property expenditures made by the taxpayer during such year, and

“(3) 30 percent of the qualified fuel cell property expenditures made by the taxpayer during such year.

“(b) LIMITATIONS.—

“(1) MAXIMUM CREDIT.—The credit allowed under subsection (a) for any taxable year shall not exceed—

“(A) \$2,000 with respect to any qualified photovoltaic property expenditures,

“(B) \$2,000 with respect to any qualified solar water heating property expenditures, and

“(C) \$500 with respect to each half kilowatt of capacity of qualified fuel cell property (as defined in section 48(c)(1)) for which qualified fuel cell property expenditures are made.

“(2) CERTIFICATION OF SOLAR WATER HEATING PROPERTY.—

No credit shall be allowed under this section for an item of property described in subsection (d)(1) unless such property is certified for performance by the non-profit Solar Rating Certification Corporation or a comparable entity endorsed by the government of the State in which such property is installed.

“(c) CARRYFORWARD OF UNUSED CREDIT.—If the credit allowable under subsection (a) exceeds the limitation imposed by section 26(a) for such taxable year reduced by the sum of the credits allow-

able under this subpart (other than this section), such excess shall be carried to the succeeding taxable year and added to the credit allowable under subsection (a) for such succeeding taxable year.

“(d) DEFINITIONS.—For purposes of this section—

“(1) QUALIFIED SOLAR WATER HEATING PROPERTY EXPENDITURE.—The term ‘qualified solar water heating property expenditure’ means an expenditure for property to heat water for use in a dwelling unit located in the United States and used as a residence by the taxpayer if at least half of the energy used by such property for such purpose is derived from the sun.

“(2) QUALIFIED PHOTOVOLTAIC PROPERTY EXPENDITURE.—The term ‘qualified photovoltaic property expenditure’ means an expenditure for property which uses solar energy to generate electricity for use in a dwelling unit located in the United States and used as a residence by the taxpayer.

“(3) QUALIFIED FUEL CELL PROPERTY EXPENDITURE.—The term ‘qualified fuel cell property expenditure’ means an expenditure for qualified fuel cell property (as defined in section 48(c)(1)) installed on or in connection with a dwelling unit located in the United States and used as a principal residence (within the meaning of section 121) by the taxpayer.

“(e) SPECIAL RULES.—For purposes of this section—

“(1) LABOR COSTS.—Expenditures for labor costs properly allocable to the onsite preparation, assembly, or original installation of the property described in subsection (d) and for piping or wiring to interconnect such property to the dwelling unit shall be taken into account for purposes of this section.

“(2) SOLAR PANELS.—No expenditure relating to a solar panel or other property installed as a roof (or portion thereof) shall fail to be treated as property described in paragraph (1) or (2) of subsection (d) solely because it constitutes a structural component of the structure on which it is installed.

“(3) SWIMMING POOLS, ETC., USED AS STORAGE MEDIUM.—Expenditures which are properly allocable to a swimming pool, hot tub, or any other energy storage medium which has a function other than the function of such storage shall not be taken into account for purposes of this section.

“(4) DOLLAR AMOUNTS IN CASE OF JOINT OCCUPANCY.—In the case of any dwelling unit which is jointly occupied and used during any calendar year as a residence by two or more individuals the following rules shall apply:

“(A) The amount of the credit allowable, under subsection (a) by reason of expenditures (as the case may be) made during such calendar year by any of such individuals with respect to such dwelling unit shall be determined by treating all of such individuals as 1 taxpayer whose taxable year is such calendar year.

“(B) There shall be allowable, with respect to such expenditures to each of such individuals, a credit under subsection (a) for the taxable year in which such calendar year ends in an amount which bears the same ratio to the amount determined under subparagraph (A) as the amount of such expenditures made by such individual dur-

ing such calendar year bears to the aggregate of such expenditures made by all of such individuals during such calendar year.

“(C) Subparagraphs (A) and (B) shall be applied separately with respect to expenditures described in paragraphs (1), (2), and (3) of subsection (d).

“(5) TENANT-STOCKHOLDER IN COOPERATIVE HOUSING CORPORATION.—In the case of an individual who is a tenant-stockholder (as defined in section 216) in a cooperative housing corporation (as defined in such section), such individual shall be treated as having made his tenant-stockholder’s proportionate share (as defined in section 216(b)(3)) of any expenditures of such corporation.

“(6) CONDOMINIUMS.—

“(A) IN GENERAL.—In the case of an individual who is a member of a condominium management association with respect to a condominium which the individual owns, such individual shall be treated as having made the individual’s proportionate share of any expenditures of such association.

“(B) CONDOMINIUM MANAGEMENT ASSOCIATION.—For purposes of this paragraph, the term ‘condominium management association’ means an organization which meets the requirements of paragraph (1) of section 528(c) (other than subparagraph (E) thereof) with respect to a condominium project substantially all of the units of which are used as residences.

“(7) ALLOCATION IN CERTAIN CASES.—If less than 80 percent of the use of an item is for nonbusiness purposes, only that portion of the expenditures for such item which is properly allocable to use for nonbusiness purposes shall be taken into account.

“(8) WHEN EXPENDITURE MADE; AMOUNT OF EXPENDITURE.—

“(A) IN GENERAL.—Except as provided in subparagraph (B), an expenditure with respect to an item shall be treated as made when the original installation of the item is completed.

“(B) EXPENDITURES PART OF BUILDING CONSTRUCTION.—In the case of an expenditure in connection with the construction or reconstruction of a structure, such expenditure shall be treated as made when the original use of the constructed or reconstructed structure by the taxpayer begins.

“(9) PROPERTY FINANCED BY SUBSIDIZED ENERGY FINANCING.—For purposes of determining the amount of expenditures made by any individual with respect to any dwelling unit, there shall not be taken into account expenditures which are made from subsidized energy financing (as defined in section 48(a)(4)(C)).

“(f) BASIS ADJUSTMENTS.—For purposes of this subtitle, if a credit is allowed under this section for any expenditure with respect to any property, the increase in the basis of such property

which would (but for this subsection) result from such expenditure shall be reduced by the amount of the credit so allowed.

“(g) TERMINATION.—The credit allowed under this section shall not apply to property placed in service after December 31, 2007.”.

(b) CONFORMING AMENDMENTS.—⁸

(4) Section 1016(a), as amended by this Act, is amended by striking “and” at the end of paragraph (33), by striking the period at the end of paragraph (34) and inserting “, and”, and by adding at the end the following new paragraph:

“(35) to the extent provided in section 25D(f), in the case of amounts with respect to which a credit has been allowed under section 25D.”.

(5) The table of sections for subpart A of part IV of subchapter A of chapter 1, as amended by this Act, is amended by inserting after the item relating to section 25C the following new item:

“Sec. 25D. Residential energy efficient property.”.

(c) EFFECTIVE DATES.—The amendments made by this section shall apply to property placed in service after December 31, 2005, in taxable years ending after such date.

SEC. 1336. CREDIT FOR BUSINESS INSTALLATION OF QUALIFIED FUEL CELLS AND STATIONARY MICROTURBINE POWER PLANTS.

(a) IN GENERAL.—Section 48(a)(3)(A) (defining energy property) is amended by striking “or” at the end of clause (i), by adding “or” at the end of clause (ii), and by inserting after clause (ii) the following new clause:

“(iii) qualified fuel cell property or qualified microturbine property,”.

(b) QUALIFIED FUEL CELL PROPERTY; QUALIFIED MICROTURBINE PROPERTY.—Section 48 (relating to energy credit) is amended by adding at the end the following new subsection:

“(c) QUALIFIED FUEL CELL PROPERTY; QUALIFIED MICROTURBINE PROPERTY.—For purposes of this subsection—

“(1) QUALIFIED FUEL CELL PROPERTY.—

“(A) IN GENERAL.—The term ‘qualified fuel cell property’ means a fuel cell power plant which—

“(i) has a nameplate capacity of at least 0.5 kilowatt of electricity using an electrochemical process, and

“(ii) has an electricity-only generation efficiency greater than 30 percent.

“(B) LIMITATION.—In the case of qualified fuel cell property placed in service during the taxable year, the credit otherwise determined under paragraph (1) for such year with respect to such property shall not exceed an amount equal to \$500 for each 0.5 kilowatt of capacity of such property.

“(C) FUEL CELL POWER PLANT.—The term ‘fuel cell power plant’ means an integrated system comprised of a fuel cell stack assembly and associated balance of plant components which converts a fuel into electricity using electrochemical means.

⁸ Paragraphs (1)–(3) were struck by section 402(i)(4) of Public Law 109–135.

“(D) SPECIAL RULE.—The first sentence of the matter in subsection (a)(3) which follows subparagraph (D) thereof shall not apply to qualified fuel cell property which is used predominantly in the trade or business of the furnishing or sale of telephone service, telegraph service by means of domestic telegraph operations, or other telegraph services (other than international telegraph services).

“(E) TERMINATION.—The term ‘qualified fuel cell property’ shall not include any property for any period after December 31, 2007.

“(2) QUALIFIED MICROTURBINE PROPERTY.—

“(A) IN GENERAL.—The term ‘qualified microturbine property’ means a stationary microturbine power plant which—

“(i) has a nameplate capacity of less than 2,000 kilowatts, and

“(ii) has an electricity-only generation efficiency of not less than 26 percent at International Standard Organization conditions.

“(B) LIMITATION.—In the case of qualified microturbine property placed in service during the taxable year, the credit otherwise determined under paragraph (1) for such year with respect to such property shall not exceed an amount equal \$200 for each kilowatt of capacity of such property.

“(C) STATIONARY MICROTURBINE POWER PLANT.—The term ‘stationary microturbine power plant’ means an integrated system comprised of a gas turbine engine, a combustor, a recuperator or regenerator, a generator or alternator, and associated balance of plant components which converts a fuel into electricity and thermal energy. Such term also includes all secondary components located between the existing infrastructure for fuel delivery and the existing infrastructure for power distribution, including equipment and controls for meeting relevant power standards, such as voltage, frequency, and power factors.

“(D) SPECIAL RULE.—The first sentence of the matter in subsection (a)(3) which follows subparagraph (D) thereof shall not apply to qualified microturbine property which is used predominantly in the trade or business of the furnishing or sale of telephone service, telegraph service by means of domestic telegraph operations, or other telegraph services (other than international telegraph services).

“(E) TERMINATION.—The term ‘qualified microturbine property’ shall not include any property for any period after December 31, 2007.”

(c) ENERGY PERCENTAGE.—Section 48(a)(2)(A) (relating to energy percentage) is amended to read as follows:

“(A) IN GENERAL.—The energy percentage is—

“(i) in the case of qualified fuel cell property, 30 percent, and

“(ii) in the case of any other energy property, 10 percent.”

(d) CONFORMING AMENDMENT.—Section 48(a)(1) is amended by inserting “except as provided in paragraph (1)(B) or (2)(B) of subsection (d),” before “the energy”.

(e) EFFECTIVE DATE.—The amendments made by this section shall apply to periods after December 31, 2005, 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).

SEC. 1337. BUSINESS SOLAR INVESTMENT TAX CREDIT.

(a) INCREASE IN ENERGY PERCENTAGE.—Section 48(a)(2)(A) (relating to energy percentage), as amended by this Act, is amended to read as follows:

“(A) IN GENERAL.—The energy percentage is—

“(i) 30 percent in the case of—

“(I) qualified fuel cell property,

“(II) energy property described in paragraph (3)(A)(i) but only with respect to periods ending before January 1, 2008, and

“(III) energy property described in paragraph (3)(A)(ii), and

“(ii) in the case of any energy property to which clause (i) does not apply, 10 percent.”.

(b) HYBRID SOLAR LIGHTING SYSTEMS.—Subparagraph (A) of section 48(a)(3) is amended by striking “or” at the end of clause (i), by redesignating clause (ii) as clause (iii), and by inserting after clause (i) the following new clause:

“(ii) equipment which uses solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight but only with respect to periods ending before January 1, 2008, or”.

(c) LIMITATION ON USE OF SOLAR ENERGY TO HEAT SWIMMING POOLS.—Clause (i) of section 48(a)(3)(A) is amended by inserting “excepting property used to generate energy for the purposes of heating a swimming pool,” after “solar process heat,”.

(d) EFFECTIVE DATE.—The amendments made by this section shall apply to periods after December 31, 2005, 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).

Subtitle D—Alternative Motor Vehicles and Fuels Incentives

SEC. 1341. ALTERNATIVE MOTOR VEHICLE CREDIT.

(a) IN GENERAL.—Subpart B of part IV of subchapter A of chapter 1 (relating to foreign tax credit, etc.) is amended by adding at the end the following new section:

“SEC. 30B. ALTERNATIVE MOTOR VEHICLE CREDIT.

“(a) ALLOWANCE OF CREDIT.—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to the sum of—

“(1) the new qualified fuel cell motor vehicle credit determined under subsection (b),

“(2) the new advanced lean burn technology motor vehicle credit determined under subsection (c),

“(3) the new qualified hybrid motor vehicle credit determined under subsection (d), and

“(4) the new qualified alternative fuel motor vehicle credit determined under subsection (e).

“(b) NEW QUALIFIED FUEL CELL MOTOR VEHICLE CREDIT.—

“(1) IN GENERAL.—For purposes of subsection (a), the new qualified fuel cell motor vehicle credit determined under this subsection with respect to a new qualified fuel cell motor vehicle placed in service by the taxpayer during the taxable year is—

“(A) \$8,000 (\$4,000 in the case of a vehicle placed in service after December 31, 2009), if such vehicle has a gross vehicle weight rating of not more than 8,500 pounds,

“(B) \$10,000, if such vehicle has a gross vehicle weight rating of more than 8,500 pounds but not more than 14,000 pounds,

“(C) \$20,000, if such vehicle has a gross vehicle weight rating of more than 14,000 pounds but not more than 26,000 pounds, and

“(D) \$40,000, if such vehicle has a gross vehicle weight rating of more than 26,000 pounds.

“(2) INCREASE FOR FUEL EFFICIENCY.—

“(A) IN GENERAL.—The amount determined under paragraph (1)(A) with respect to a new qualified fuel cell motor vehicle which is a passenger automobile or light truck shall be increased by—

“(i) \$1,000, if such vehicle achieves at least 150 percent but less than 175 percent of the 2002 model year city fuel economy,

“(ii) \$1,500, if such vehicle achieves at least 175 percent but less than 200 percent of the 2002 model year city fuel economy,

“(iii) \$2,000, if such vehicle achieves at least 200 percent but less than 225 percent of the 2002 model year city fuel economy,

“(iv) \$2,500, if such vehicle achieves at least 225 percent but less than 250 percent of the 2002 model year city fuel economy,

“(v) \$3,000, if such vehicle achieves at least 250 percent but less than 275 percent of the 2002 model year city fuel economy,

“(vi) \$3,500, if such vehicle achieves at least 275 percent but less than 300 percent of the 2002 model year city fuel economy, and

“(vii) \$4,000, if such vehicle achieves at least 300 percent of the 2002 model year city fuel economy.

“(B) 2002 MODEL YEAR CITY FUEL ECONOMY.—For purposes of subparagraph (A), the 2002 model year city economy with respect to a vehicle shall be determined in accordance with the following tables:

“(i) In the case of a passenger automobile:

“If vehicle inertia weight class is:	The 2002 model year city fuel economy is:
1,500 or 1,750 lbs	45.2 mpg
2,000 lbs	39.6 mpg
2,250 lbs	35.2 mpg
2,500 lbs	31.7 mpg
2,750 lbs	28.8 mpg
3,000 lbs	26.4 mpg
3,500 lbs	22.6 mpg
4,000 lbs	19.8 mpg
4,500 lbs	17.6 mpg
5,000 lbs	15.9 mpg
5,500 lbs	14.4 mpg
6,000 lbs	13.2 mpg
6,500 lbs	12.2 mpg
7,000 to 8,500 lbs	11.3 mpg.

“(ii) In the case of a light truck:

“If vehicle inertia weight class is:	The 2002 model year city fuel economy is:
1,500 or 1,750 lbs	39.4 mpg
2,000 lbs	35.2 mpg
2,250 lbs	31.8 mpg
2,500 lbs	29.0 mpg
2,750 lbs	26.8 mpg
3,000 lbs	24.9 mpg
3,500 lbs	21.8 mpg
4,000 lbs	19.4 mpg
4,500 lbs	17.6 mpg
5,000 lbs	16.1 mpg
5,500 lbs	14.8 mpg
6,000 lbs	13.7 mpg
6,500 lbs	12.8 mpg
7,000 to 8,500 lbs	12.1 mpg.

“(C) VEHICLE INERTIA WEIGHT CLASS.—For purposes of subparagraph (B), the term ‘vehicle inertia weight class’ has the same meaning as when defined in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

“(3) NEW QUALIFIED FUEL CELL MOTOR VEHICLE.—For purposes of this subsection, the term ‘new qualified fuel cell motor vehicle’ means a motor vehicle—

“(A) which is propelled by power derived from 1 or more cells which convert chemical energy directly into electricity by combining oxygen with hydrogen fuel which is stored on board the vehicle in any form and may or may not require reformation prior to use,

“(B) which, in the case of a passenger automobile or light truck, has received on or after the date of the enactment of this section a certificate that such vehicle meets or exceeds the Bin 5 Tier II emission level established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act for that make and model year vehicle,

“(C) the original use of which commences with the taxpayer,

“(D) which is acquired for use or lease by the taxpayer and not for resale, and

“(E) which is made by a manufacturer.

“(c) NEW ADVANCED LEAN BURN TECHNOLOGY MOTOR VEHICLE CREDIT.—

“(1) IN GENERAL.—For purposes of subsection (a), the new advanced lean burn technology motor vehicle credit determined under this subsection for the taxable year is the credit amount determined under paragraph (2) with respect to a new advanced lean burn technology motor vehicle placed in service by the taxpayer during the taxable year.

“(2) CREDIT AMOUNT.—

“(A) FUEL ECONOMY.—

“(i) IN GENERAL.—The credit amount determined under this paragraph shall be determined in accordance with the following table:

**“In the case of a vehicle which achieves a fuel economy credit amount is—
pressed as a percentage of the 2002 model year city fuel
economy) of—**

At least 125 percent but less than 150 percent	\$400
At least 150 percent but less than 175 percent	\$800
At least 175 percent but less than 200 percent	\$1,200
At least 200 percent but less than 225 percent	\$1,600
At least 225 percent but less than 250 percent	\$2,000
At least 250 percent	\$2,400.

“(ii) 2002 MODEL YEAR CITY FUEL ECONOMY.—For purposes of clause (i), the 2002 model year city fuel economy with respect to a vehicle shall be determined on a gasoline gallon equivalent basis as determined by the Administrator of the Environmental Protection Agency using the tables provided in subsection (b)(2)(B) with respect to such vehicle.

“(B) CONSERVATION CREDIT.—The amount determined under subparagraph (A) with respect to a new advanced lean burn technology motor vehicle shall be increased by the conservation credit amount determined in accordance with the following table:

**“In the case of a vehicle which achieves a conservation credit amount is—
ings (expressed in gallons of gasoline) of—**

At least 1,200 but less than 1,800	\$250
At least 1,800 but less than 2,400	\$500
At least 2,400 but less than 3,000	\$750
At least 3,000	\$1,000.

“(3) NEW ADVANCED LEAN BURN TECHNOLOGY MOTOR VEHICLE.—For purposes of this subsection, the term ‘new advanced lean burn technology motor vehicle’ means a passenger automobile or a light truck—

“(A) with an internal combustion engine which—

“(i) is designed to operate primarily using more air than is necessary for complete combustion of the fuel,

“(ii) incorporates direct injection,

“(iii) achieves at least 125 percent of the 2002 model year city fuel economy,

“(iv) for 2004 and later model vehicles, has received a certificate that such vehicle meets or exceeds—

“(I) in the case of a vehicle having a gross vehicle weight rating of 6,000 pounds or less, the Bin 5 Tier II emission standard established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act for that make and model year vehicle, and

“(II) in the case of a vehicle having a gross vehicle weight rating of more than 6,000 pounds but not more than 8,500 pounds, the Bin 8 Tier II emission standard which is so established,

“(B) the original use of which commences with the taxpayer,

“(C) which is acquired for use or lease by the taxpayer and not for resale, and

“(D) which is made by a manufacturer.

“(4) LIFETIME FUEL SAVINGS.—For purposes of this subsection, the term ‘lifetime fuel savings’ means, in the case of any new advanced lean burn technology motor vehicle, an amount equal to the excess (if any) of—

“(A) 120,000 divided by the 2002 model year city fuel economy for the vehicle inertia weight class, over

“(B) 120,000 divided by the city fuel economy for such vehicle.

“(d) NEW QUALIFIED HYBRID MOTOR VEHICLE CREDIT.—

“(1) IN GENERAL.—For purposes of subsection (a), the new qualified hybrid motor vehicle credit determined under this subsection for the taxable year is the credit amount determined under paragraph (2) with respect to a new qualified hybrid motor vehicle placed in service by the taxpayer during the taxable year.

“(2) CREDIT AMOUNT.—

“(A) CREDIT AMOUNT FOR PASSENGER AUTOMOBILES AND LIGHT TRUCKS.—In the case of a new qualified hybrid motor vehicle which is a passenger automobile or light truck and which has a gross vehicle weight rating of not more than 8,500 pounds, the amount determined under this paragraph is the sum of the amounts determined under clauses (i) and (ii).

“(i) FUEL ECONOMY.—The amount determined under this clause is the amount which would be determined under subsection (c)(2)(A) if such vehicle were a vehicle referred to in such subsection.

“(ii) CONSERVATION CREDIT.—The amount determined under this clause is the amount which would be determined under subsection (c)(2)(B) if such vehicle were a vehicle referred to in such subsection.

“(B) CREDIT AMOUNT FOR OTHER MOTOR VEHICLES.—

“(i) IN GENERAL.—In the case of any new qualified hybrid motor vehicle to which subparagraph (A) does not apply, the amount determined under this para-

graph is the amount equal to the applicable percentage of the qualified incremental hybrid cost of the vehicle as certified under clause (v).

“(ii) APPLICABLE PERCENTAGE.—For purposes of clause (i), the applicable percentage is—

“(I) 20 percent if the vehicle achieves an increase in city fuel economy relative to a comparable vehicle of at least 30 percent but less than 40 percent,

“(II) 30 percent if the vehicle achieves such an increase of at least 40 percent but less than 50 percent, and

“(III) 40 percent if the vehicle achieves such an increase of at least 50 percent.

“(iii) QUALIFIED INCREMENTAL HYBRID COST.—For purposes of this subparagraph, the qualified incremental hybrid cost of any vehicle is equal to the amount of the excess of the manufacturer’s suggested retail price for such vehicle over such price for a comparable vehicle, to the extent such amount does not exceed—

“(I) \$7,500, if such vehicle has a gross vehicle weight rating of not more than 14,000 pounds,

“(II) \$15,000, if such vehicle has a gross vehicle weight rating of more than 14,000 pounds but not more than 26,000 pounds, and

“(III) \$30,000, if such vehicle has a gross vehicle weight rating of more than 26,000 pounds.

“(iv) COMPARABLE VEHICLE.—For purposes of this subparagraph, the term ‘comparable vehicle’ means, with respect to any new qualified hybrid motor vehicle, any vehicle which is powered solely by a gasoline or diesel internal combustion engine and which is comparable in weight, size, and use to such vehicle.

“(v) CERTIFICATION.—A certification described in clause (i) shall be made by the manufacturer and shall be determined in accordance with guidance prescribed by the Secretary. Such guidance shall specify procedures and methods for calculating fuel economy savings and incremental hybrid costs.

“(3) NEW QUALIFIED HYBRID MOTOR VEHICLE.—For purposes of this subsection—

“(A) IN GENERAL.—The term ‘new qualified hybrid motor vehicle’ means a motor vehicle—

“(i) which draws propulsion energy from onboard sources of stored energy which are both—

“(I) an internal combustion or heat engine using consumable fuel, and

“(II) a rechargeable energy storage system,

“(ii) which, in the case of a vehicle to which paragraph (2)(A) applies, has received a certificate of conformity under the Clean Air Act and meets or exceeds the equivalent qualifying California low emission vehi-

cle standard under section 243(e)(2) of the Clean Air Act for that make and model year, and

“(I) in the case of a vehicle having a gross vehicle weight rating of 6,000 pounds or less, the Bin 5 Tier II emission standard established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act for that make and model year vehicle, and

“(II) in the case of a vehicle having a gross vehicle weight rating of more than 6,000 pounds but not more than 8,500 pounds, the Bin 8 Tier II emission standard which is so established,

“(iii) which has a maximum available power of at least—

“(I) 4 percent in the case of a vehicle to which paragraph (2)(A) applies,

“(II) 10 percent in the case of a vehicle which has a gross vehicle weight rating of more than 8,500 pounds and not more than 14,000 pounds, and

“(III) 15 percent in the case of a vehicle in excess of 14,000 pounds,

“(iv) which, in the case of a vehicle to which paragraph (2)(B) applies, has an internal combustion or heat engine which has received a certificate of conformity under the Clean Air Act as meeting the emission standards set in the regulations prescribed by the Administrator of the Environmental Protection Agency for 2004 through 2007 model year diesel heavy duty engines or ottocycle heavy duty engines, as applicable,

“(v) the original use of which commences with the taxpayer,

“(vi) which is acquired for use or lease by the taxpayer and not for resale, and

“(vii) which is made by a manufacturer.

Such term shall not include any vehicle which is not a passenger automobile or light truck if such vehicle has a gross vehicle weight rating of less than 8,500 pounds.

“(B) CONSUMABLE FUEL.—For purposes of subparagraph (A)(i)(I), the term ‘consumable fuel’ means any solid, liquid, or gaseous matter which releases energy when consumed by an auxiliary power unit.

“(C) MAXIMUM AVAILABLE POWER.—

“(i) CERTAIN PASSENGER AUTOMOBILES AND LIGHT TRUCKS.—In the case of a vehicle to which paragraph (2)(A) applies, the term ‘maximum available power’ means the maximum power available from the rechargeable energy storage system, during a standard 10 second pulse power or equivalent test, divided by such maximum power and the SAE net power of the heat engine.

“(ii) OTHER MOTOR VEHICLES.—In the case of a vehicle to which paragraph (2)(B) applies, the term ‘max-

imum available power' means the maximum power available from the rechargeable energy storage system, during a standard 10 second pulse power or equivalent test, divided by the vehicle's total traction power. For purposes of the preceding sentence, the term 'total traction power' means the sum of the peak power from the rechargeable energy storage system and the heat engine peak power of the vehicle, except that if such storage system is the sole means by which the vehicle can be driven, the total traction power is the peak power of such storage system.

“(e) NEW QUALIFIED ALTERNATIVE FUEL MOTOR VEHICLE CREDIT.—

“(1) ALLOWANCE OF CREDIT.—Except as provided in paragraph (5), the new qualified alternative fuel motor vehicle credit determined under this subsection is an amount equal to the applicable percentage of the incremental cost of any new qualified alternative fuel motor vehicle placed in service by the taxpayer during the taxable year.

“(2) APPLICABLE PERCENTAGE.—For purposes of paragraph (1), the applicable percentage with respect to any new qualified alternative fuel motor vehicle is—

“(A) 50 percent, plus

“(B) 30 percent, if such vehicle—

“(i) has received a certificate of conformity under the Clean Air Act and meets or exceeds the most stringent standard available for certification under the Clean Air Act for that make and model year vehicle (other than a zero emission standard), or

“(ii) has received an order certifying the vehicle as meeting the same requirements as vehicles which may be sold or leased in California and meets or exceeds the most stringent standard available for certification under the State laws of California (enacted in accordance with a waiver granted under section 209(b) of the Clean Air Act) for that make and model year vehicle (other than a zero emission standard).

For purposes of the preceding sentence, in the case of any new qualified alternative fuel motor vehicle which weighs more than 14,000 pounds gross vehicle weight rating, the most stringent standard available shall be such standard available for certification on the date of the enactment of the Energy Tax Incentives Act of 2005.

“(3) INCREMENTAL COST.—For purposes of this subsection, the incremental cost of any new qualified alternative fuel motor vehicle is equal to the amount of the excess of the manufacturer's suggested retail price for such vehicle over such price for a gasoline or diesel fuel motor vehicle of the same model, to the extent such amount does not exceed—

“(A) \$5,000, if such vehicle has a gross vehicle weight rating of not more than 8,500 pounds,

“(B) \$10,000, if such vehicle has a gross vehicle weight rating of more than 8,500 pounds but not more than 14,000 pounds,

“(C) \$25,000, if such vehicle has a gross vehicle weight rating of more than 14,000 pounds but not more than 26,000 pounds, and

“(D) \$40,000, if such vehicle has a gross vehicle weight rating of more than 26,000 pounds.

“(4) NEW QUALIFIED ALTERNATIVE FUEL MOTOR VEHICLE.—For purposes of this subsection—

“(A) IN GENERAL.—The term ‘new qualified alternative fuel motor vehicle’ means any motor vehicle—

“(i) which is only capable of operating on an alternative fuel,

“(ii) the original use of which commences with the taxpayer,

“(iii) which is acquired by the taxpayer for use or lease, but not for resale, and

“(iv) which is made by a manufacturer.

“(B) ALTERNATIVE FUEL.—The term ‘alternative fuel’ means compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen, and any liquid at least 85 percent of the volume of which consists of methanol.

“(5) CREDIT FOR MIXED-FUEL VEHICLES.—

“(A) IN GENERAL.—In the case of a mixed-fuel vehicle placed in service by the taxpayer during the taxable year, the credit determined under this subsection is an amount equal to—

“(i) in the case of a 75/25 mixed-fuel vehicle, 70 percent of the credit which would have been allowed under this subsection if such vehicle was a qualified alternative fuel motor vehicle, and

“(ii) in the case of a 90/10 mixed-fuel vehicle, 90 percent of the credit which would have been allowed under this subsection if such vehicle was a qualified alternative fuel motor vehicle.

“(B) MIXED-FUEL VEHICLE.—For purposes of this subsection, the term ‘mixed-fuel vehicle’ means any motor vehicle described in subparagraph (C) or (D) of paragraph (3), which—

“(i) is certified by the manufacturer as being able to perform efficiently in normal operation on a combination of an alternative fuel and a petroleum-based fuel,

“(ii) either—

“(I) has received a certificate of conformity under the Clean Air Act, or

“(II) has received an order certifying the vehicle as meeting the same requirements as vehicles which may be sold or leased in California and meets or exceeds the low emission vehicle standard under section 88.105–94 of title 40, Code of Federal Regulations, for that make and model year vehicle,

“(iii) the original use of which commences with the taxpayer,

“(iv) which is acquired by the taxpayer for use or lease, but not for resale, and

“(v) which is made by a manufacturer.

“(C) 75/25 MIXED-FUEL VEHICLE.—For purposes of this subsection, the term ‘75/25 mixed-fuel vehicle’ means a mixed-fuel vehicle which operates using at least 75 percent alternative fuel and not more than 25 percent petroleum-based fuel.

“(D) 90/10 MIXED-FUEL VEHICLE.—For purposes of this subsection, the term ‘90/10 mixed-fuel vehicle’ means a mixed-fuel vehicle which operates using at least 90 percent alternative fuel and not more than 10 percent petroleum-based fuel.

“(f) LIMITATION ON NUMBER OF NEW QUALIFIED HYBRID AND ADVANCED LEAN-BURN TECHNOLOGY VEHICLES ELIGIBLE FOR CREDIT.—

“(1) IN GENERAL.—In the case of a qualified vehicle sold during the phaseout period, only the applicable percentage of the credit otherwise allowable under subsection (c) or (d) shall be allowed.

“(2) PHASEOUT PERIOD.—For purposes of this subsection, the phaseout period is the period beginning with the second calendar quarter following the calendar quarter which includes the first date on which the number of qualified vehicles manufactured by the manufacturer of the vehicle referred to in paragraph (1) sold for use in the United States after December 31, 2005, is at least 60,000.

“(3) APPLICABLE PERCENTAGE.—For purposes of paragraph (1), the applicable percentage is—

“(A) 50 percent for the first 2 calendar quarters of the phaseout period,

“(B) 25 percent for the 3d and 4th calendar quarters of the phaseout period, and

“(C) 0 percent for each calendar quarter thereafter.

“(4) CONTROLLED GROUPS.—

“(A) IN GENERAL.—For purposes of this subsection, all persons treated as a single employer under subsection (a) or (b) of section 52 or subsection (m) or (o) of section 414 shall be treated as a single manufacturer.

“(B) INCLUSION OF FOREIGN CORPORATIONS.—For purposes of subparagraph (A), in applying subsections (a) and (b) of section 52 to this section, section 1563 shall be applied without regard to subsection (b)(2)(C) thereof.

“(5) QUALIFIED VEHICLE.—For purposes of this subsection, the term ‘qualified vehicle’ means any new qualified hybrid motor vehicle (described in subsection (d)(2)(A)) and any new advanced lean burn technology motor vehicle.

“(g) APPLICATION WITH OTHER CREDITS.—

“(1) BUSINESS CREDIT TREATED AS PART OF GENERAL BUSINESS CREDIT.—So much of the credit which would be allowed under subsection (a) for any taxable year (determined without regard to this subsection) that is attributable to property of a character subject to an allowance for depreciation shall be treated as a credit listed in the air quality provisions of State

law in the case of a State which has adopted such provision under a waiver under section 209(b) of the Clean Air Act), and

“(B) the motor vehicle safety provisions of sections 30101 through 30169 of title 49, United States Code.

“(i) REGULATIONS.—

“(1) IN GENERAL.—Except as provided in paragraph (2), the Secretary shall promulgate such regulations as necessary to carry out the provisions of this section.

“(2) COORDINATION IN PRESCRIPTION OF CERTAIN REGULATIONS.—The Secretary of the Treasury, in coordination with the Secretary of Transportation and the Administrator of the Environmental Protection Agency, shall prescribe such regulations as necessary to determine whether a motor vehicle meets the requirements to be eligible for a credit under this section.

“(j) TERMINATION.—This section shall not apply to any property purchased after—

“(1) in the case of a new qualified fuel cell motor vehicle (as described in subsection (b)), December 31, 2014,

“(2) in the case of a new advanced lean burn technology motor vehicle (as described in subsection (c)) or a new qualified hybrid motor vehicle (as described in subsection (d)(2)(A)), December 31, 2010,

“(3) in the case of a new qualified hybrid motor vehicle (as described in subsection (d)(2)(B)), December 31, 2009, and

“(4) in the case of a new qualified alternative fuel vehicle (as described in subsection (e)), December 31, 2010.

“(b) CONFORMING AMENDMENTS.—

“(1) Section 38(b), as amended by this Act, is amended by striking ‘plus’ at the end of paragraph (23), by striking the period at the end of paragraph (24) and inserting ‘, and’, and by adding at the end the following new paragraph:

“(25) the portion of the alternative motor vehicle credit to which section 30B(g)(1) applies.”.

“(2) Section 1016(a), as amended by this Act, is amended by striking ‘and’ at the end of paragraph (34), by striking the period at the end of paragraph (35) and inserting ‘, and’, and by adding at the end the following new paragraph:

“(36) to the extent provided in section 30B(h)(4).”.

【Paragraph (3) was struck by section 412(p)(2) of Public Law 109–135.】

“(4) Section 6501(m) is amended by inserting ‘30B(h)(9),’ after ‘30(d)(4),’.

“(5) The table of sections for subpart B of part IV of subchapter A of chapter 1 is amended by inserting after the item relating to section 30A the following new item:

“Sec. 30B. Alternative motor vehicle credit.”.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after December 31, 2005, in taxable years ending after such date.

SEC. 1342. CREDIT FOR INSTALLATION OF ALTERNATIVE FUELING STATIONS.

(a) **IN GENERAL.**—Subpart B of part IV of subchapter A of chapter 1 (relating to other credits), as amended by this Act, is amended by adding at the end the following new section:

“SEC. 30C. ALTERNATIVE FUEL VEHICLE REFUELING PROPERTY CREDIT.

“(a) **CREDIT ALLOWED.**—There shall be allowed as a credit against the tax imposed by this chapter for the taxable year an amount equal to 30 percent of the cost of any qualified alternative fuel vehicle refueling property placed in service by the taxpayer during the taxable year.

“(b) **LIMITATION.**—The credit allowed under subsection (a) with respect to any alternative fuel vehicle refueling property shall not exceed—

“(1) \$30,000 in the case of a property of a character subject to an allowance for depreciation, and

“(2) \$1,000 in any other case.

“(c) **QUALIFIED ALTERNATIVE FUEL VEHICLE REFUELING PROPERTY.**—

“(1) **IN GENERAL.**—Except as provided in paragraph (2), the term ‘qualified alternative fuel vehicle refueling property’ has the meaning given to such term by section 179A(d), but only with respect to any fuel—

“(A) at least 85 percent of the volume of which consists of one or more of the following: ethanol, natural gas, compressed natural gas, liquefied natural gas, liquefied petroleum gas, or hydrogen, or

“(B) any mixture of biodiesel (as defined in section 40A(d)(1)) and diesel fuel (as defined in section 4083(a)(3)), determined without regard to any use of kerosene and containing at least 20 percent biodiesel.

“(2) **RESIDENTIAL PROPERTY.**—In the case of any property installed on property which is used as the principal residence (within the meaning of section 121) of the taxpayer, paragraph (1) of section 179A(d) shall not apply.

“(d) **APPLICATION WITH OTHER CREDITS.**—

“(1) **BUSINESS CREDIT TREATED AS PART OF GENERAL BUSINESS CREDIT.**—So much of the credit which would be allowed under subsection (a) for any taxable year (determined without regard to this subsection) that is attributable to property of a character subject to an allowance for depreciation shall be treated as a credit listed in section 38(b) for such taxable year (and not allowed under subsection (a)).

“(2) **PERSONAL CREDIT.**—The credit allowed under subsection (a) (after the application of paragraph (1)) for any taxable year shall not exceed the excess (if any) of—

“(A) the regular tax reduced by the sum of the credits allowable under subpart A and sections 27, 30, and 30B, over

“(B) the tentative minimum tax for the taxable year.

“(e) **SPECIAL RULES.**—For purposes of this section—

“(1) BASIS REDUCTION.—The basis of any property shall be reduced by the portion of the cost of such property taken into account under subsection (a).

“(2) PROPERTY USED BY TAX-EXEMPT ENTITY.—In the case of any qualified alternative fuel vehicle refueling property the use of which is described in paragraph (3) or (4) of section 50(b) and which is not subject to a lease, the person who sold such property to the person or entity using such property shall be treated as the taxpayer that placed such property in service, but only if such person clearly discloses to such person or entity in a document the amount of any credit allowable under subsection (a) with respect to such property (determined without regard to subsection (d)).

“(3) PROPERTY USED OUTSIDE UNITED STATES NOT QUALIFIED.—No credit shall be allowable under subsection (a) with respect to any property referred to in section 50(b)(1) or with respect to the portion of the cost of any property taken into account under section 179.

“(4) ELECTION NOT TO TAKE CREDIT.—No credit shall be allowed under subsection (a) for any property if the taxpayer elects not to have this section apply to such property.

“(5) RECAPTURE RULES.—Rules similar to the rules of section 179A(e)(4) shall apply.

“(f) REGULATIONS.—The Secretary shall prescribe such regulations as necessary to carry out the provisions of this section.

“(g) TERMINATION.—This section shall not apply to any property placed in service—

“(1) in the case of property relating to hydrogen, after December 31, 2014, and

“(2) in the case of any other property, after December 31, 2009.”.

(b) CONFORMING AMENDMENTS.—

(1) Section 38(b), as amended by this Act, is amended by striking “plus” at the end of paragraph (24), by striking the period at the end of paragraph (25) and inserting “, and”, and by adding at the end the following new paragraph:

“(26) the portion of the alternative fuel vehicle refueling property credit to which section 30C(d)(1) applies.”.

(2) Section 1016(a), as amended by this Act, is amended by striking “and” at the end of paragraph (35), by striking the period at the end of paragraph (36) and inserting “, and”, and by adding at the end the following new paragraph:

“(37) to the extent provided in section 30C(f).”.

【Paragraph (3) was struck by section 412(p)(3) of Public Law 109–135.】

(4) Section 6501(m) is amended by inserting “30C(e)(5),” after “30B(h)(9),”.

(5) The table of sections for subpart B of part IV of subchapter A of chapter 1, as amended by this Act, is amended by inserting after the item relating to section 30B the following new item:

“Sec. 30C. Clean-fuel vehicle refueling property credit.”.

(c) **EFFECTIVE DATE.**—The amendments made by this section shall apply to property placed in service after December 31, 2005, in taxable years ending after such date.

SEC. 1343. REDUCED MOTOR FUEL EXCISE TAX ON CERTAIN MIXTURES OF DIESEL FUEL.

(a) **IN GENERAL.**—Paragraph (2) of section 4081(a) is amended by adding at the end the following:

“(D) **DIESEL-WATER FUEL EMULSION.**—In the case of diesel-water fuel emulsion at least 14 percent of which is water and with respect to which the emulsion additive is registered by a United States manufacturer with the Environmental Protection Agency pursuant to section 211 of the Clean Air Act (as in effect on March 31, 2003), subparagraph (A)(iii) shall be applied by substituting ‘19.7 cents’ for ‘24.3 cents’. The preceding sentence shall not apply to the removal, sale, or use of diesel-water fuel emulsion unless the person so removing, selling, or using such fuel is registered under section 4101.”.

(b) **SPECIAL RULES FOR DIESEL-WATER FUEL EMULSIONS.**—

(1) **REFUNDS FOR TAX-PAID PURCHASES.**—Section 6427 is amended by redesignating subsections (m) through (p) as subsections (n) through (q), respectively, and by inserting after subsection (l) the following new subsection:

“(m) **DIESEL FUEL USED TO PRODUCE EMULSION.**—

“(1) **IN GENERAL.**—Except as provided in subsection (k), if any diesel fuel on which tax was imposed by section 4081 at the regular tax rate is used by any person in producing an emulsion described in section 4081(a)(2)(D) which is sold or used in such person’s trade or business, the Secretary shall pay (without interest) to such person an amount equal to the excess of the regular tax rate over the incentive tax rate with respect to such fuel.

“(2) **DEFINITIONS.**—For purposes of paragraph (1)—

“(A) **REGULAR TAX RATE.**—The term ‘regular tax rate’ means the aggregate rate of tax imposed by section 4081 determined without regard to section 4081(a)(2)(D).

“(B) **INCENTIVE TAX RATE.**—The term ‘incentive tax rate’ means the aggregate rate of tax imposed by section 4081 determined with regard to section 4081(a)(2)(D).”.

(2) **LATER SEPARATION OF FUEL.**—Section 4081 (relating to imposition of tax) is amended by inserting after subsection (b) the following new subsection:

“(c) **LATER SEPARATION OF FUEL FROM DIESEL-WATER FUEL EMULSION.**—If any person separates the taxable fuel from a diesel-water fuel emulsion on which tax was imposed under subsection (a) at a rate determined under subsection (a)(2)(D) (or with respect to which a credit or payment was allowed or made by reason of section 6427), such person shall be treated as the refiner of such taxable fuel. The amount of tax imposed on any removal of such fuel by such person shall be reduced by the amount of tax imposed (and not credited or refunded) on any prior removal or entry of such fuel.”.

(3) **CREDIT CLAIMS.**—Paragraphs (1) and (2) of section 6427(i) are both amended by inserting “(m),” after “(l),”.

(c) **EFFECTIVE DATE.**—The amendments made by this section shall take effect on January 1, 2006.

SEC. 1344. EXTENSION OF EXCISE TAX PROVISIONS AND INCOME TAX CREDIT FOR BIODIESEL.

(a) **IN GENERAL.**—Sections 40A(e), 6426(c)(6), and 6427(e)(4)(B) are each amended by striking “2006” and inserting “2008”.

(b) **EFFECTIVE DATE.**—The amendments made by this section shall take effect on the date of the enactment of this Act.

SEC. 1345. SMALL AGRI-BIODIESEL PRODUCER CREDIT.

(a) **IN GENERAL.**—Subsection (a) of section 40A (relating to biodiesel used as a fuel) is amended to read as follows:

“(a) **GENERAL RULE.**—For purposes of section 38, the biodiesel fuels credit determined under this section for the taxable year is an amount equal to the sum of—

“(1) the biodiesel mixture credit, plus

“(2) the biodiesel credit, plus

“(3) in the case of an eligible small agri-biodiesel producer, the small agri-biodiesel producer credit.”.

(b) **SMALL AGRI-BIODIESEL PRODUCER CREDIT DEFINED.**—Section 40A(b) (relating to definition of biodiesel mixture credit and biodiesel credit) is amended by adding at the end the following new paragraph:

“(5) **SMALL AGRI-BIODIESEL PRODUCER CREDIT.**—

“(A) **IN GENERAL.**—The small agri-biodiesel producer credit of any eligible small agri-biodiesel producer for any taxable year is 10 cents for each gallon of qualified agri-biodiesel production of such producer.

“(B) **QUALIFIED AGRI-BIODIESEL PRODUCTION.**—For purposes of this paragraph, the term ‘qualified agri-biodiesel production’ means any agri-biodiesel (determined without regard to the last sentence of subsection (d)(2)) which is produced by an eligible small agri-biodiesel producer, and which during the taxable year—

“(i) is sold by such producer to another person—

“(I) for use by such other person in the production of a qualified biodiesel mixture in such other person’s trade or business (other than casual off-farm production),

“(II) for use by such other person as a fuel in a trade or business, or

“(III) who sells such agri-biodiesel at retail to another person and places such agri-biodiesel in the fuel tank of such other person, or

“(ii) is used or sold by such producer for any purpose described in clause (i).

“(C) **LIMITATION.**—The qualified agri-biodiesel production of any producer for any taxable year shall not exceed 15,000,000 gallons.”.

(c) **DEFINITIONS AND SPECIAL RULES.**—Section 40A is amended by redesignating subsection (e) as subsection (f) and by inserting after subsection (d) the following new subsection:

“(e) **DEFINITIONS AND SPECIAL RULES FOR SMALL AGRI-BIODIESEL PRODUCER CREDIT.**—For purposes of this section—

“(1) ELIGIBLE SMALL AGRI-BIODIESEL PRODUCER.—The term ‘eligible small agri-biodiesel producer’ means a person who, at all times during the taxable year, has a productive capacity for agri-biodiesel not in excess of 60,000,000 gallons.

“(2) AGGREGATION RULE.—For purposes of the 15,000,000 gallon limitation under subsection (b)(5)(C) and the 60,000,000 gallon limitation under paragraph (1), all members of the same controlled group of corporations (within the meaning of section 267(f)) and all persons under common control (within the meaning of section 52(b) but determined by treating an interest of more than 50 percent as a controlling interest) shall be treated as 1 person.

“(3) PARTNERSHIP, S CORPORATION, AND OTHER PASS-THRU ENTITIES.—In the case of a partnership, trust, S corporation, or other pass-thru entity, the limitations contained in subsection (b)(5)(C) and paragraph (1) shall be applied at the entity level and at the partner or similar level.

“(4) ALLOCATION.—For purposes of this subsection, in the case of a facility in which more than 1 person has an interest, productive capacity shall be allocated among such persons in such manner as the Secretary may prescribe.

“(5) REGULATIONS.—The Secretary may prescribe such regulations as may be necessary—

“(A) to prevent the credit provided for in subsection (a)(3) from directly or indirectly benefiting any person with a direct or indirect productive capacity of more than 60,000,000 gallons of agri-biodiesel during the taxable year, or

“(B) to prevent any person from directly or indirectly benefiting with respect to more than 15,000,000 gallons during the taxable year.

“(6) ALLOCATION OF SMALL AGRI-BIODIESEL CREDIT TO PATRONS OF COOPERATIVE.—

“(A) ELECTION TO ALLOCATE.—

“(i) IN GENERAL.—In the case of a cooperative organization described in section 1381(a), any portion of the credit determined under subsection (a)(3) for the taxable year may, at the election of the organization, be apportioned pro rata among patrons of the organization on the basis of the quantity or value of business done with or for such patrons for the taxable year.

“(ii) FORM AND EFFECT OF ELECTION.—An election under clause (i) for any taxable year shall be made on a timely filed return for such year. Such election, once made, shall be irrevocable for such taxable year. Such election shall not take effect unless the organization designates the apportionment as such in a written notice mailed to its patrons during the payment period described in section 1382(d).

“(B) TREATMENT OF ORGANIZATIONS AND PATRONS.—

“(i) ORGANIZATIONS.—The amount of the credit not apportioned to patrons pursuant to subparagraph (A) shall be included in the amount determined under

subsection (a)(3) for the taxable year of the organization.

“(ii) PATRONS.—The amount of the credit apportioned to patrons pursuant to subparagraph (A) shall be included in the amount determined under such subsection for the first taxable year of each patron ending on or after the last day of the payment period (as defined in section 1382(d)) for the taxable year of the organization or, if earlier, for the taxable year of each patron ending on or after the date on which the patron receives notice from the cooperative of the apportionment.

“(iii) SPECIAL RULES FOR DECREASE IN CREDITS FOR TAXABLE YEAR.—If the amount of the credit of the organization determined under such subsection for a taxable year is less than the amount of such credit shown on the return of the organization for such year, an amount equal to the excess of—

“(I) such reduction, over

“(II) the amount not apportioned to such patrons under subparagraph (A) for the taxable year, shall be treated as an increase in tax imposed by this chapter on the organization. Such increase shall not be treated as tax imposed by this chapter for purposes of determining the amount of any credit under this chapter or for purposes of section 55.”.

(d) CONFORMING AMENDMENTS.—

(1) Paragraph (4) of section 40A(b) is amended by striking “this section” and inserting “paragraph (1) or (2) of subsection (a)”.

(2) The heading of subsection (b) of section 40A is amended by striking “and Biodiesel Credit” and inserting “, Biodiesel Credit, and Small Agri-biodiesel Producer Credit”.

(3) Paragraph (3) of section 40A(d) is amended by redesignating subparagraph (C) as subparagraph (D) and by inserting after subparagraph (B) the following new subparagraph:

“(C) PRODUCER CREDIT.—If—

“(i) any credit was determined under subsection (a)(3), and

“(ii) any person does not use such fuel for a purpose described in subsection (b)(5)(B), then there is hereby imposed on such person a tax equal to 10 cents a gallon for each gallon of such agri-biodiesel.”.

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

SEC. 1346. RENEWABLE DIESEL.

(a) IN GENERAL.—Section 40A (relating to biodiesel used as fuel), as amended by this Act, is amended by redesignating subsection (f) as subsection (g) and by inserting after subsection (e) the following new subsection:

“(f) RENEWABLE DIESEL.—For purposes of this title—

“(1) TREATMENT IN THE SAME MANNER AS BIODIESEL.—Except as provided in paragraph (2), renewable diesel shall be treated in the same manner as biodiesel.

“(2) EXCEPTIONS.—

“(A) RATE OF CREDIT.—Subsections (b)(1)(A) and (b)(2)(A) shall be applied with respect to renewable diesel by substituting ‘\$1.00’ for ‘50 cents’.

“(B) NONAPPLICATION OF CERTAIN CREDITS.—Subsections (b)(3) and (b)(5) shall not apply with respect to renewable diesel.

“(3) RENEWABLE DIESEL DEFINED.—The term ‘renewable diesel’ means diesel fuel derived from biomass (as defined in section 45K(c)(3)) using a thermal depolymerization process which meets—

“(A) 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), and

“(B) the requirements of the American Society of Testing and Materials D975 or D396.”

(b) CLERICAL AMENDMENTS.—

(1) The heading for section 40A is amended by inserting “**AND RENEWABLE DIESEL**” after “**BIODIESEL**”.

(2) The item in the table of contents for subpart D of part IV of subchapter A of chapter 1 relating to section 40A is amended to read as follows:

“Sec. 40A. Biodiesel and renewable diesel used as fuel.”

(c) EFFECTIVE DATE.—The amendment made by subsection (a) shall apply with respect to fuel sold or used after December 31, 2005.

SEC. 1347. MODIFICATION OF SMALL ETHANOL PRODUCER CREDIT.

(a) DEFINITION OF SMALL ETHANOL PRODUCER.—Section 40(g) (relating to definitions and special rules for eligible small ethanol producer credit) is amended by striking “30,000,000” each place it appears and inserting “60,000,000”.

(b) WRITTEN NOTICE OF ELECTION TO ALLOCATE CREDIT TO PATRONS.—Section 40(g)(6)(A)(ii) (relating to form and effect of election) is amended by adding at the end the following new sentence: “Such election shall not take effect unless the organization designates the apportionment as such in a written notice mailed to its patrons during the payment period described in section 1382(d).”.

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

SEC. 1348. SUNSET OF DEDUCTION FOR CLEAN-FUEL VEHICLES AND CERTAIN REFUELING PROPERTY.

Subsection (f) of section 179A (relating to termination) is amended by striking “December 31, 2006” and inserting “December 31, 2005”.

Subtitle E—Additional Energy Tax Incentives

SEC. 1351. EXPANSION OF RESEARCH CREDIT.

(a) CREDIT FOR EXPENSES ATTRIBUTABLE TO CERTAIN COLLABORATIVE ENERGY RESEARCH CONSORTIA.—

(1) IN GENERAL.—Section 41(a) (relating to credit for increasing research activities) is amended by striking “and” at the end of paragraph (1), by striking the period at the end of paragraph (2) and inserting “, and”, and by adding at the end the following new paragraph:

“(3) 20 percent of the amounts paid or incurred by the taxpayer in carrying on any trade or business of the taxpayer during the taxable year (including as contributions) to an energy research consortium.”.

(2) ENERGY RESEARCH CONSORTIUM DEFINED.—Section 41(f) (relating to special rules) is amended by adding at the end the following new paragraph:

“(6) ENERGY RESEARCH CONSORTIUM.—

“(A) IN GENERAL.—The term ‘energy research consortium’ means any organization—

“(i) which is—

“(I) described in section 501(c)(3) and is exempt from tax under section 501(a) and is organized and operated primarily to conduct energy research, or

“(II) organized and operated primarily to conduct energy research in the public interest (within the meaning of section 501(c)(3)),

“(ii) which is not a private foundation,

“(iii) to which at least 5 unrelated persons paid or incurred during the calendar year in which the taxable year of the organization begins amounts (including as contributions) to such organization for energy research, and

“(iv) to which no single person paid or incurred (including as contributions) during such calendar year an amount equal to more than 50 percent of the total amounts received by such organization during such calendar year for energy research.

“(B) TREATMENT OF PERSONS.—All persons treated as a single employer under subsection (a) or (b) of section 52 shall be treated as related persons for purposes of subparagraph (A)(iii) and as a single person for purposes of subparagraph (A)(iv).”.

(3) CONFORMING AMENDMENT.—Section 41(b)(3)(C) is amended by inserting “(other than an energy research consortium)” after “organization”.

(b) REPEAL OF LIMITATION ON CONTRACT RESEARCH EXPENSES PAID TO SMALL BUSINESSES, UNIVERSITIES, AND FEDERAL LABORATORIES.—Section 41(b)(3) (relating to contract research expenses) is amended by adding at the end the following new subparagraph:

“(D) AMOUNTS PAID TO ELIGIBLE SMALL BUSINESSES, UNIVERSITIES, AND FEDERAL LABORATORIES.—

“(i) IN GENERAL.—In the case of amounts paid by the taxpayer to—

“(I) an eligible small business,

“(II) an institution of higher education (as defined in section 3304(f)), or

“(III) an organization which is a Federal laboratory,

for qualified research which is energy research, subparagraph (A) shall be applied by substituting ‘100 percent’ for ‘65 percent’.

“(ii) ELIGIBLE SMALL BUSINESS.—For purposes of this subparagraph, the term ‘eligible small business’ means a small business with respect to which the taxpayer does not own (within the meaning of section 318) 50 percent or more of—

“(I) in the case of a corporation, the outstanding stock of the corporation (either by vote or value), and

“(II) in the case of a small business which is not a corporation, the capital and profits interests of the small business.

“(iii) SMALL BUSINESS.—For purposes of this subparagraph—

“(I) IN GENERAL.—The term ‘small business’ means, with respect to any calendar year, any person if the annual average number of employees employed by such person during either of the 2 preceding calendar years was 500 or fewer. For purposes of the preceding sentence, a preceding calendar year may be taken into account only if the person was in existence throughout the year.

“(II) STARTUPS, CONTROLLED GROUPS, AND PREDECESSORS.—Rules similar to the rules of subparagraphs (B) and (D) of section 220(c)(4) shall apply for purposes of this clause.

“(iv) FEDERAL LABORATORY.—For purposes of this subparagraph, the term ‘Federal laboratory’ has the meaning given such term by section 4(6) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3703(6)), as in effect on the date of the enactment of the Energy Tax Incentives Act of 2005.”.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to amounts paid or incurred after the date of the enactment of this Act, in taxable years ending after such date.

SEC. 1352. [26 U.S.C. 41 note] NATIONAL ACADEMY OF SCIENCES STUDY AND REPORT.

(a) STUDY.—Not later than 60 days after the date of the enactment of this Act, the Secretary of the Treasury shall enter into an agreement with the National Academy of Sciences under which the National Academy of Sciences shall conduct a study to define and evaluate the health, environmental, security, and infrastructure external costs and benefits associated with the production and con-

sumption of energy that are not or may not be fully incorporated into the market price of such energy, or into the Federal tax or fee or other applicable revenue measure related to such production or consumption.

(b) REPORT.—Not later than 2 years after the date on which the agreement under subsection (a) is entered into, the National Academy of Sciences shall submit to Congress a report on the study conducted under subsection (a).

SEC. 1353. RECYCLING STUDY.

(a) STUDY.—The Secretary of the Treasury, in consultation with the Secretary of Energy, shall conduct a study—

(1) to determine and quantify the energy savings achieved through the recycling of glass, paper, plastic, steel, aluminum, and electronic devices, and

(2) to identify tax incentives which would encourage recycling of such material.

(b) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Secretary of the Treasury shall submit to Congress a report on the study conducted under subsection (a).

Subtitle F—Revenue Raising Provisions

SEC. 1361. OIL SPILL LIABILITY TRUST FUND FINANCING RATE.

Section 4611(f) (relating to application of oil spill liability trust fund financing rate) is amended to read as follows:

“(f) APPLICATION OF OIL SPILL LIABILITY TRUST FUND FINANCING RATE.—

“(1) IN GENERAL.—Except as provided in paragraphs (2) and (3), the Oil Spill Liability Trust Fund financing rate under subsection (c) shall apply on and after April 1, 2006, or if later, the date which is 30 days after the last day of any calendar quarter for which the Secretary estimates that, as of the close of that quarter, the unobligated balance in the Oil Spill Liability Trust Fund is less than \$2,000,000,000.

“(2) FUND BALANCE.—The Oil Spill Liability Trust Fund financing rate shall not apply during a calendar quarter if the Secretary estimates that, as of the close of the preceding calendar quarter, the unobligated balance in the Oil Spill Liability Trust Fund exceeds \$2,700,000,000.

“(3) TERMINATION.—The Oil Spill Liability Trust Fund financing rate shall not apply after December 31, 2014.”

SEC. 1362. EXTENSION OF LEAKING UNDERGROUND STORAGE TANK TRUST FUND FINANCING RATE.

(a) IN GENERAL.—Paragraph (3) of section 4081(d) (relating to Leaking Underground Storage Tank Trust Fund financing rate) is amended by striking “2005” and inserting “2011”.

(b) NO EXEMPTIONS FROM TAX EXCEPT FOR EXPORTS.—

(1) IN GENERAL.—Section 4082(a) (relating to exemptions for diesel fuel and kerosene) is amended by inserting “(other than such tax at the Leaking Underground Storage Tank Trust Fund financing rate imposed in all cases other than for export)” after “section 4081”.

(2) AMENDMENTS RELATING TO SECTION 4041.—

(A) Subsections (a)(1)(B), (a)(2)(A), and (c)(2) of section 4041 are each amended by inserting “(other than such tax at the Leaking Underground Storage Tank Trust Fund financing rate)” after “section 4081”.

(B) Section 4041(b)(1)(A) is amended by striking “or (d)(1)”.

(C) Section 4041(d) is amended by adding at the end the following new paragraph:

“(5) NONAPPLICATION OF EXEMPTIONS OTHER THAN FOR EXPORTS.—For purposes of this section, the tax imposed under this subsection shall be determined without regard to subsections (f), (g) (other than with respect to any sale for export under paragraph (3) thereof), (h), and (l).”.

(3) NO REFUND.—

(A) IN GENERAL.—Subchapter B of chapter 65 is amended by adding at the end the following new section:

“SEC. 6430. TREATMENT OF TAX IMPOSED AT LEAKING UNDERGROUND STORAGE TANK TRUST FUND FINANCING RATE.

“No refunds, credits, or payments shall be made under this subchapter for any tax imposed at the Leaking Underground Storage Tank Trust Fund financing rate, except in the case of fuels destined for export.”.

(B) CLERICAL AMENDMENT.—The table of sections for subchapter B of chapter 65 is amended by adding at the end the following new item:

“Sec. 6430. Treatment of tax imposed at Leaking Underground Storage Tank Trust Fund financing rate.”.

(c) CERTAIN REFUNDS AND CREDITS NOT CHARGED TO LUST TRUST FUND.—Subsection (c) of section 9508 (relating to Leaking Underground Storage Tank Trust Fund) is amended to read as follows:

“(c) EXPENDITURES.—Amounts in the Leaking Underground Storage Tank Trust Fund shall be available, as provided in appropriation Acts, only for purposes of making expenditures to carry out section 9003(h) of the Solid Waste Disposal Act as in effect on the date of the enactment of the Superfund Amendments and Reauthorization Act of 1986.”.

(d) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as provided in paragraph (2), the amendments made by this section shall take effect on October 1, 2005.

(2) NO EXEMPTION.—The amendments made by subsection (b) shall apply to fuel entered, removed, or sold after September 30, 2005.

SEC. 1363. MODIFICATION OF RECAPTURE RULES FOR AMORTIZABLE SECTION 197 INTANGIBLES.

(a) IN GENERAL.—Subsection (b) of section 1245 (relating to gain from dispositions of certain depreciable property) is amended by adding at the end the following new paragraph:

“(9) DISPOSITION OF AMORTIZABLE SECTION 197 INTANGIBLES.—

“(A) IN GENERAL.—If a taxpayer disposes of more than 1 amortizable section 197 intangible (as defined in section

197(c)) in a transaction or a series of related transactions, all such amortizable 197 intangibles shall be treated as 1 section 1245 property for purposes of this section.

“(B) EXCEPTION.—Subparagraph (A) shall not apply to any amortizable section 197 intangible (as so defined) with respect to which the adjusted basis exceeds the fair market value.”.

(b) EFFECTIVE DATE.—The amendment made by this section shall apply to dispositions of property after the date of the enactment of this Act.

SEC. 1364. CLARIFICATION OF TIRE EXCISE TAX.

(a) IN GENERAL.—Section 4072(e) (defining super single tire) is amended by adding at the end the following: “Such term shall not include any tire designed for steering.”

(b) EFFECTIVE DATE.—The amendment made by this section shall take effect as if included in section 869 of the American Jobs Creation Act of 2004.

(c) STUDY.—

(1) IN GENERAL.—With respect to the 1-year period beginning on January 1, 2006, the Secretary of the Treasury shall conduct a study to determine—

(A) the amount of tax collected during such period under section 4071 of the Internal Revenue Code of 1986 with respect to each class of tire, and

(B) the number of tires in each such class on which tax is imposed under such section during such period.

(2) REPORT.—Not later than July 1, 2007, the Secretary of the Treasury shall submit to Congress a report on the study conducted under paragraph (1).

TITLE XIV—MISCELLANEOUS

Subtitle A—In General

SEC. 1401. SENSE OF CONGRESS ON RISK ASSESSMENTS.

Subtitle B of title XXX of the Energy Policy Act of 1992 is amended by adding at the end the following new section:

“SEC. 3022. SENSE OF CONGRESS ON RISK ASSESSMENTS.

“It is the sense of Congress that Federal agencies conducting assessments of risks to human health and the environment from energy technology, production, transport, transmission, distribution, storage, use, or conservation activities shall use sound and objective scientific practices in assessing such risks, shall consider the best available science (including peer reviewed studies), and shall include a description of the weight of the scientific evidence concerning such risks.”.

SEC. 1402. [42 U.S.C. 16491] ENERGY PRODUCTION INCENTIVES.

(a) IN GENERAL.—A State may provide to any entity—

(1) a credit against any tax or fee owed to the State under a State law, or

(2) any other tax incentive,

determined by the State to be appropriate, in the amount calculated under and in accordance with a formula determined by the State, for production described in subsection (b) in the State by the entity that receives such credit or such incentive.

(b) **ELIGIBLE ENTITIES.**—Subsection (a) shall apply with respect to the production in the State of electricity from coal mined in the State and used in a facility, if such production meets all applicable Federal and State laws and if such facility uses scrubbers or other forms of clean coal technology.

(c) **EFFECT ON INTERSTATE COMMERCE.**—Any action taken by a State in accordance with this section with respect to a tax or fee payable, or incentive applicable, for any period beginning after the date of the enactment of this Act shall—

(1) be considered to be a reasonable regulation of commerce; and

(2) not be considered to impose an undue burden on interstate commerce or to otherwise impair, restrain, or discriminate, against interstate commerce.

SEC. 1403. [42 U.S.C. 16492] REGULATION OF CERTAIN OIL USED IN TRANSFORMERS.

Notwithstanding any other provision of law, or rule promulgated by the Environmental Protection Agency, vegetable oil made from soybeans and used in electric transformers as thermal insulation shall not be regulated as an oil identified under section 2(a)(1)(B) of the Edible Oil Regulatory Reform Act (33 U.S.C. 2720(a)(1)(B)).

SEC. 1404. PETROCHEMICAL AND OIL REFINERY FACILITY HEALTH ASSESSMENT.

(a) **ESTABLISHMENT.**—The Secretary shall conduct a study of direct and significant health impacts to persons resulting from living in proximity to petrochemical and oil refinery facilities. The Secretary shall consult with the Director of the National Cancer Institute and other Federal Government bodies with expertise in the field it deems appropriate in the design of such study. The study shall be conducted according to sound and objective scientific practices and present the weight of the scientific evidence. The Secretary shall obtain scientific peer review of the draft study.

(b) **REPORT TO CONGRESS.**—The Secretary shall transmit the results of the study to Congress within 6 months of the enactment of this section.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary for activities under this section such sums as are necessary for the completion of the study.

SEC. 1405. [42 U.S.C. 16493] 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.

SEC. 1406. COLD CRACKING.

(a) **STUDY.**—The Secretary shall conduct a study of the application of radiation to petroleum at standard temperature and pressure to refine petroleum products, whose objective shall be to increase the economic yield from each barrel of oil.

(b) **GOALS.**—The goals of the study shall include—

(1) increasing the value of our current oil supply;

(2) reducing the capital investment cost for cracking oil;

(3) reducing the operating energy cost for cracking oil; and

(4) reducing sulfur content using an environmentally responsible method.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to carry out this section \$250,000 for fiscal year 2006.

SEC. 1407. [42 U.S.C. 16494] OXYGEN-FUEL.

(a) **PROGRAM.**—The Secretary shall establish a program on oxygen-fuel systems. If feasible, the program shall include renovation of at least one existing large unit and one existing small unit, and construction of one new large unit and one new small unit.

(b) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary for carrying out this section—

- (1) \$100,000,000 for fiscal year 2006;
- (2) \$100,000,000 for fiscal year 2007; and
- (3) \$100,000,000 for fiscal year 2008.

(c) **DEFINITIONS.**—For purposes of this section—

- (1) the term “large unit” means a unit with a generating capacity of 100 megawatts or more;
- (2) the term “oxygen-fuel systems” means systems that utilize fuel efficiency benefits of oil, gas, coal, and biomass combustion using substantially pure oxygen, with high flame temperatures and the exclusion of air from the boiler, in industrial or electric utility steam generating units; and
- (3) the term “small unit” means a unit with a generating capacity in the 10–50 megawatt range.

Subtitle B—Set America Free

SEC. 1421. SHORT TITLE.

This subtitle may be cited as the “Set America Free Act of 2005” or the “SAFE Act”.

SEC. 1422. PURPOSE.

The purpose of this subtitle is to establish a United States commission to make recommendations for a coordinated and comprehensive North American energy policy that will achieve energy self-sufficiency by 2025 within the three contiguous North American nation area of Canada, Mexico, and the United States.

SEC. 1423. UNITED STATES COMMISSION ON NORTH AMERICAN ENERGY FREEDOM.

(a) **ESTABLISHMENT.**—There is hereby established the United States Commission on North American Energy Freedom (in this subtitle referred to as the “Commission”). The Federal Advisory Committee Act (5 U.S.C. App.), except sections 3, 7, and 12, does not apply to the Commission.

(b) **MEMBERSHIP.**—

(1) **APPOINTMENT.**—The Commission shall be composed of 16 members appointed by the President from among individuals described in paragraph (2) who are knowledgeable on energy issues, including oil and gas exploration and production, crude oil refining, oil and gas pipelines, electricity production and transmission, coal, unconventional hydrocarbon resources, fuel cells, motor vehicle power systems, nuclear energy, renewable energy, biofuels, energy efficiency, and energy conservation. The membership of the Commission shall be balanced by

area of expertise to the extent consistent with maintaining the highest level of expertise on the Commission. Members of the Commission may be citizens of Canada, Mexico, or the United States, and the President shall ensure that citizens of all three nations are appointed to the Commission.

(2) **NOMINATIONS.**—The President shall appoint the members of the Commission within 60 days after the effective date of this Act, including individuals nominated as follows:

(A) Four members shall be appointed from amongst individuals independently determined by the President to be qualified for appointment.

(B) Four members shall be appointed from a list of eight individuals who shall be nominated by the majority leader of the Senate in consultation with the chairman of the Committee on Energy and Natural Resources of the Senate.

(C) Four members shall be appointed from a list of eight individuals who shall be nominated by the Speaker of the House of Representatives in consultation with the chairmen of the Committees on Energy and Commerce and Resources of the House of Representatives.

(D) Two members shall be appointed from a list of four individuals who shall be nominated by the minority leader of the Senate in consultation with the ranking Member of the Committee on Energy and Natural Resources of the Senate.

(E) Two members shall be appointed from a list of four individuals who shall be nominated by the minority leader of the House in consultation with the ranking Members of the Committees on Energy and Commerce and Resources of the House of Representatives.

(3) **CHAIRMAN.**—The chairman of the Commission shall be selected by the President. The chairman of the Commission shall be responsible for—

(A) the assignment of duties and responsibilities among staff personnel and their continuing supervision; and

(B) the use and expenditure of funds available to the Commission.

(4) **VACANCIES.**—Any vacancy on the Commission shall be filled in the same manner as the original incumbent was appointed.

(c) **RESOURCES.**—In carrying out its functions under this section, the Commission—

(1) is authorized to secure directly from any Federal agency or department any information it deems necessary to carry out its functions under this Act, and each such agency or department is authorized to cooperate with the Commission and, to the extent permitted by law, to furnish such information (other than information described in section 552(b)(1)(A) of title 5, United States Code) to the Commission, upon the request of the Commission;

(2) may enter into contracts, subject to the availability of appropriations for contracting, and employ such staff experts

and consultants as may be necessary to carry out the duties of the Commission, as provided by section 3109 of title 5, United States Code; and

(3) shall establish a multidisciplinary science and technical advisory panel of experts in the field of energy to assist the Commission in preparing its report, including ensuring that the scientific and technical information considered by the Commission is based on the best scientific and technical information available.

(d) STAFFING.—The chairman of the Commission may, without regard to the civil service laws and regulations, appoint and terminate an executive director and such other additional personnel as may be necessary for the Commission to perform its duties. The executive director shall be compensated at a rate not to exceed the rate payable for Level IV of the Executive Schedule under chapter 5136 of title 5, United States Code. The chairman shall select staff from among qualified citizens of Canada, Mexico, and the United States of America.

(e) MEETINGS.—

(1) ADMINISTRATION.—All meetings of the Commission shall be open to the public, except that a meeting or any portion of it may be closed to the public if it concerns matters or information described in section 552b(c) of title 5, United States Code. Interested persons shall be permitted to appear at open meetings and present oral or written statements on the subject matter of the meeting. The Commission may administer oaths or affirmations to any person appearing before it.

(2) NOTICE; MINUTES; PUBLIC AVAILABILITY OF DOCUMENTS.—

(A) NOTICE.—All open meetings of the Commission shall be preceded by timely public notice in the Federal Register of the time, place, and subject of the meeting.

(B) MINUTES.—Minutes of each meeting shall be kept and shall contain a record of the people present, a description of the discussion that occurred, and copies of all statements filed. Subject to section 552 of title 5, United States Code, the minutes and records of all meetings and other documents that were made available to or prepared for the Commission shall be available for public inspection and copying at a single location in the offices of the Commission.

(3) INITIAL MEETING.—The Commission shall hold its first meeting within 30 days after all 16 members have been appointed.

(f) REPORT.—Within 12 months after the effective date of this Act, the Commission shall submit to Congress and the President a final report of its findings and recommendations regarding North American energy freedom.

(g) ADMINISTRATIVE PROCEDURE FOR REPORT AND REVIEW.—Chapter 5 and chapter 7 of title 5, United States Code, do not apply to the preparation, review, or submission of the report required by subsection (f).

(h) TERMINATION.—The Commission shall cease to exist 90 days after the date on which it submits its final report.

(i) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this chapter a total of \$10,000,000 for the 2 fiscal-year period beginning with fiscal year 2005, such sums to remain available until expended.

SEC. 1424. NORTH AMERICAN ENERGY FREEDOM POLICY.

Within 90 days after receiving and considering the report and recommendations of the Commission under section 1423, the President shall submit to Congress a statement of proposals to implement or respond to the Commission's recommendations for a coordinated, comprehensive, and long-range national policy to achieve North American energy freedom by 2025.

TITLE XV—ETHANOL AND MOTOR FUELS

Subtitle A—General Provisions

SEC. 1501. RENEWABLE CONTENT OF GASOLINE.

(a) IN GENERAL.—Section 211 of the Clean Air Act (42 U.S.C. 7545) is amended—

- (1) by redesignating subsection (o) as subsection (r); and
- (2) by inserting after subsection (n) the following:

“(o) RENEWABLE FUEL PROGRAM.—

“(1) DEFINITIONS.—In this section:

“(A) CELLULOSIC BIOMASS ETHANOL.—The term ‘cellulosic biomass ethanol’ means ethanol derived from any lignocellulosic or hemicellulosic matter that is available on a renewable or recurring basis, including—

- “(i) dedicated energy crops and trees;
- “(ii) wood and wood residues;
- “(iii) plants;
- “(iv) grasses;
- “(v) agricultural residues;
- “(vi) fibers;
- “(vii) animal wastes and other waste materials;

and

“(viii) municipal solid waste.

The term also includes any ethanol produced in facilities where animal wastes or other waste materials are digested or otherwise used to displace 90 percent or more of the fossil fuel normally used in the production of ethanol.

“(B) WASTE DERIVED ETHANOL.—The term ‘waste derived ethanol’ means ethanol derived from—

- “(i) animal wastes, including poultry fats and poultry wastes, and other waste materials; or
- “(ii) municipal solid waste.

“(C) RENEWABLE FUEL.—

“(i) IN GENERAL.—The term ‘renewable fuel’ means motor vehicle fuel that—

“(I)(aa) is produced from grain, starch, oilseeds, vegetable, animal, or fish materials including fats, greases, and oils, sugarcane, sugar beets,

sugar components, tobacco, potatoes, or other biomass; or

“(bb) is natural gas produced from a biogas source, including a landfill, sewage waste treatment plant, feedlot, or other place where decaying organic material is found; and

“(II) is used to replace or reduce the quantity of fossil fuel present in a fuel mixture used to operate a motor vehicle.

“(ii) INCLUSION.—The term ‘renewable fuel’ includes—

“(I) cellulosic biomass ethanol and ‘waste derived ethanol’; and

“(II) biodiesel (as defined in section 312(f) of the Energy Policy Act of 1992 (42 U.S.C. 13220(f))) and any blending components derived from renewable fuel (provided that only the renewable fuel portion of any such blending component shall be considered part of the applicable volume under the renewable fuel program established by this subsection).

“(D) SMALL REFINERY.—The term ‘small refinery’ means a refinery for which the average aggregate daily crude oil throughput for a calendar year (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels.

“(2) RENEWABLE FUEL PROGRAM.—

“(A) REGULATIONS.—

“(i) IN GENERAL.—Not later than 1 year after the date of enactment of this paragraph, the Administrator shall promulgate regulations to ensure that gasoline sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains the applicable volume of renewable fuel determined in accordance with subparagraph (B).

“(ii) NONCONTIGUOUS STATE OPT-IN.—

“(I) IN GENERAL.—On the petition of a noncontiguous State or territory, the Administrator may allow the renewable fuel program established under this subsection to apply in the noncontiguous State or territory at the same time or any time after the Administrator promulgates regulations under this subparagraph.

“(II) OTHER ACTIONS.—In carrying out this clause, the Administrator may—

“(aa) issue or revise regulations under this paragraph;

“(bb) establish applicable percentages under paragraph (3);

“(cc) provide for the generation of credits under paragraph (5); and

“(dd) take such other actions as are necessary to allow for the application of the renewable fuels program in a noncontiguous State or territory.

“(iii) PROVISIONS OF REGULATIONS.—Regardless of the date of promulgation, the regulations promulgated under clause (i)—

“(I) shall contain compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate, to ensure that the requirements of this paragraph are met; but

“(II) shall not—

“(aa) restrict geographic areas in which renewable fuel may be used; or

“(bb) impose any per-gallon obligation for the use of renewable fuel.

“(iv) REQUIREMENT IN CASE OF FAILURE TO PROMULGATE REGULATIONS.—If the Administrator does not promulgate regulations under clause (i), the percentage of renewable fuel in gasoline sold or dispensed to consumers in the United States, on a volume basis, shall be 2.78 percent for calendar year 2006.

“(B) APPLICABLE VOLUME.—

“(i) CALENDAR YEARS 2006 THROUGH 2012.—For the purpose of subparagraph (A), the applicable volume for any of calendar years 2006 through 2012 shall be determined in accordance with the following table:

“Calendar year:	Applicable volume of renewable fuel (in billions of gallons):
2006	4.0
2007	4.7
2008	5.4
2009	6.1
2010	6.8
2011	7.4
2012	7.5.

“(ii) CALENDAR YEAR 2013 AND THEREAFTER.—Subject to clauses (iii) and (iv), for the purposes of subparagraph (A), the applicable volume for calendar year 2013 and each calendar year thereafter shall be determined by the Administrator, in coordination with the Secretary of Agriculture and the Secretary of Energy, based on a review of the implementation of the program during calendar years 2006 through 2012, including a review of—

“(I) the impact of the use of renewable fuels on the environment, air quality, energy security, job creation, and rural economic development; and

“(II) the expected annual rate of future production of renewable fuels, including cellulosic ethanol.

“(iii) MINIMUM QUANTITY DERIVED FROM CELLULOSIC BIOMASS.—For calendar year 2013 and each calendar year thereafter—

“(I) the applicable volume referred to in clause (ii) shall contain a minimum of 250,000,000 gallons that are derived from cellulosic biomass; and

“(II) the 2.5-to-1 ratio referred to in paragraph (4) shall not apply.

“(iv) MINIMUM APPLICABLE VOLUME.—For the purpose of subparagraph (A), the applicable volume for calendar year 2013 and each calendar year thereafter shall be equal to the product obtained by multiplying—

“(I) the number of gallons of gasoline that the Administrator estimates will be sold or introduced into commerce in the calendar year; and

“(II) the ratio that—

“(aa) 7,500,000,000 gallons of renewable fuel; bears to

“(bb) the number of gallons of gasoline sold or introduced into commerce in calendar year 2012.

“(3) APPLICABLE PERCENTAGES.—

“(A) PROVISION OF ESTIMATE OF VOLUMES OF GASOLINE SALES.—Not later than October 31 of each of calendar years 2005 through 2011, the Administrator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of gasoline projected to be sold or introduced into commerce in the United States.

“(B) DETERMINATION OF APPLICABLE PERCENTAGES.—

“(i) IN GENERAL.—Not later than November 30 of each of calendar years 2005 through 2012, based on the estimate provided under subparagraph (A), the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register, with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of paragraph (2) are met.

“(ii) REQUIRED ELEMENTS.—The renewable fuel obligation determined for a calendar year under clause (i) shall—

“(I) be applicable to refineries, blenders, and importers, as appropriate;

“(II) be expressed in terms of a volume percentage of gasoline sold or introduced into commerce in the United States; and

“(III) subject to subparagraph (C)(i), consist of a single applicable percentage that applies to all categories of persons specified in subclause (I).

“(C) ADJUSTMENTS.—In determining the applicable percentage for a calendar year, the Administrator shall make adjustments—

“(i) to prevent the imposition of redundant obligations on any person specified in subparagraph (B)(ii)(I); and

“(ii) to account for the use of renewable fuel during the previous calendar year by small refineries that are exempt under paragraph (9).

“(4) CELLULOSIC BIOMASS ETHANOL OR WASTE DERIVED ETHANOL.—For the purpose of paragraph (2), 1 gallon of cellulosic biomass ethanol or waste derived ethanol shall be considered to be the equivalent of 2.5 gallons of renewable fuel.

“(5) CREDIT PROGRAM.—

“(A) IN GENERAL.—The regulations promulgated under paragraph (2)(A) shall provide—

“(i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports gasoline that contains a quantity of renewable fuel that is greater than the quantity required under paragraph (2);

“(ii) for the generation of an appropriate amount of credits for biodiesel; and

“(iii) for the generation of credits by small refineries in accordance with paragraph (9)(C).

“(B) USE OF CREDITS.—A person that generates credits under subparagraph (A) may use the credits, or transfer all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

“(C) DURATION OF CREDITS.—A credit generated under this paragraph shall be valid to show compliance for the 12 months as of the date of generation.

“(D) INABILITY TO GENERATE OR PURCHASE SUFFICIENT CREDITS.—The regulations promulgated under paragraph (2)(A) shall include provisions allowing any person that is unable to generate or purchase sufficient credits to meet the requirements of paragraph (2) to carry forward a renewable fuel deficit on condition that the person, in the calendar year following the year in which the renewable fuel deficit is created—

“(i) achieves compliance with the renewable fuel requirement under paragraph (2); and

“(ii) generates or purchases additional renewable fuel credits to offset the renewable fuel deficit of the previous year.

“(6) SEASONAL VARIATIONS IN RENEWABLE FUEL USE.—

“(A) STUDY.—For each of calendar years 2006 through 2012, the Administrator of the Energy Information Administration shall conduct a study of renewable fuel blending to determine whether there are excessive seasonal variations in the use of renewable fuel.

“(B) REGULATION OF EXCESSIVE SEASONAL VARIATIONS.—If, for any calendar year, the Administrator of the Energy Information Administration, based on the study under subparagraph (A), makes the determinations specified in subparagraph (C), the Administrator of the Environmental Protection Agency shall promulgate regulations to ensure that 25 percent or more of the quantity of renewable fuel necessary to meet the requirements of

paragraph (2) is used during each of the 2 periods specified in subparagraph (D) of each subsequent calendar year.

“(C) DETERMINATIONS.—The determinations referred to in subparagraph (B) are that—

“(i) less than 25 percent of the quantity of renewable fuel necessary to meet the requirements of paragraph (2) has been used during 1 of the 2 periods specified in subparagraph (D) of the calendar year;

“(ii) a pattern of excessive seasonal variation described in clause (i) will continue in subsequent calendar years; and

“(iii) promulgating regulations or other requirements to impose a 25 percent or more seasonal use of renewable fuels will not prevent or interfere with the attainment of national ambient air quality standards or significantly increase the price of motor fuels to the consumer.

“(D) PERIODS.—The 2 periods referred to in this paragraph are—

“(i) April through September; and

“(ii) January through March and October through December.

“(E) EXCLUSION.—Renewable fuel blended or consumed in calendar year 2006 in a State that has received a waiver under section 209(b) shall not be included in the study under subparagraph (A).

“(F) STATE EXEMPTION FROM SEASONALITY REQUIREMENTS.—Notwithstanding any other provision of law, the seasonality requirement relating to renewable fuel use established by this paragraph shall not apply to any State that has received a waiver under section 209(b) or any State dependent on refineries in such State for gasoline supplies.

“(7) WAIVERS.—

“(A) IN GENERAL.—The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the requirements of paragraph (2) in whole or in part on petition by one or more States by reducing the national quantity of renewable fuel required under paragraph (2)—

“(i) based on a determination by the Administrator, after public notice and opportunity for comment, that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States; or

“(ii) based on a determination by the Administrator, after public notice and opportunity for comment, that there is an inadequate domestic supply.

“(B) PETITIONS FOR WAIVERS.—The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall approve or disapprove a State petition for a waiver of the requirements of paragraph (2) within 90 days after the date on which the petition is received by the Administrator.

“(C) TERMINATION OF WAIVERS.—A waiver granted under subparagraph (A) shall terminate after 1 year, but may be renewed by the Administrator after consultation with the Secretary of Agriculture and the Secretary of Energy.

“(8) STUDY AND WAIVER FOR INITIAL YEAR OF PROGRAM.—

“(A) IN GENERAL.—Not later than 180 days after the date of enactment of this paragraph, the Secretary of Energy shall conduct for the Administrator a study assessing whether the renewable fuel requirement under paragraph (2) will likely result in significant adverse impacts on consumers in 2006, on a national, regional, or State basis.

“(B) REQUIRED EVALUATIONS.—The study shall evaluate renewable fuel—

“(i) supplies and prices;

“(ii) blendstock supplies; and

“(iii) supply and distribution system capabilities.

“(C) RECOMMENDATIONS BY THE SECRETARY.—Based on the results of the study, the Secretary of Energy shall make specific recommendations to the Administrator concerning waiver of the requirements of paragraph (2), in whole or in part, to prevent any adverse impacts described in subparagraph (A).

“(D) WAIVER.—

“(i) IN GENERAL.—Not later than 270 days after the date of enactment of this paragraph, the Administrator shall, if and to the extent recommended by the Secretary of Energy under subparagraph (C), waive, in whole or in part, the renewable fuel requirement under paragraph (2) by reducing the national quantity of renewable fuel required under paragraph (2) in calendar year 2006.

“(ii) NO EFFECT ON WAIVER AUTHORITY.—Clause (i) does not limit the authority of the Administrator to waive the requirements of paragraph (2) in whole, or in part, under paragraph (7).

“(9) SMALL REFINERIES.—

“(A) TEMPORARY EXEMPTION.—

“(i) IN GENERAL.—The requirements of paragraph (2) shall not apply to small refineries until calendar year 2011.

“(ii) EXTENSION OF EXEMPTION.—

“(I) STUDY BY SECRETARY OF ENERGY.—Not later than December 31, 2008, the Secretary of Energy shall conduct for the Administrator a study to determine whether compliance with the requirements of paragraph (2) would impose a disproportionate economic hardship on small refineries.

“(II) EXTENSION OF EXEMPTION.—In the case of a small refinery that the Secretary of Energy determines under subclause (I) would be subject to a disproportionate economic hardship if required to comply with paragraph (2), the Adminis-

trator shall extend the exemption under clause (i) for the small refinery for a period of not less than 2 additional years.

“(B) PETITIONS BASED ON DISPROPORTIONATE ECONOMIC HARDSHIP.—

“(i) EXTENSION OF EXEMPTION.—A small refinery may at any time petition the Administrator for an extension of the exemption under subparagraph (A) for the reason of disproportionate economic hardship.

“(ii) EVALUATION OF PETITIONS.—In evaluating a petition under clause (i), the Administrator, in consultation with the Secretary of Energy, shall consider the findings of the study under subparagraph (A)(ii) and other economic factors.

“(iii) DEADLINE FOR ACTION ON PETITIONS.—The Administrator shall act on any petition submitted by a small refinery for a hardship exemption not later than 90 days after the date of receipt of the petition.

“(C) CREDIT PROGRAM.—If a small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A), the regulations promulgated under paragraph (2)(A) shall provide for the generation of credits by the small refinery under paragraph (5) beginning in the calendar year following the date of notification.

“(D) OPT-IN FOR SMALL REFINERIES.—A small refinery shall be subject to the requirements of paragraph (2) if the small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A).

“(10) ETHANOL MARKET CONCENTRATION ANALYSIS.—

“(A) ANALYSIS.—

“(i) IN GENERAL.—Not later than 180 days after the date of enactment of this paragraph, and annually thereafter, the Federal Trade Commission shall perform a market concentration analysis of the ethanol production industry using the Herfindahl-Hirschman Index to determine whether there is sufficient competition among industry participants to avoid price-setting and other anticompetitive behavior.

“(ii) SCORING.—For the purpose of scoring under clause (i) using the Herfindahl-Hirschman Index, all marketing arrangements among industry participants shall be considered.

“(B) REPORT.—Not later than December 1, 2005, and annually thereafter, the Federal Trade Commission shall submit to Congress and the Administrator a report on the results of the market concentration analysis performed under subparagraph (A)(i).”.

(b) PENALTIES AND ENFORCEMENT.—Section 211(d) of the Clean Air Act (42 U.S.C. 7545(d)) is amended—

(1) in paragraph (1)—

(A) in the first sentence, by striking “or (n)” each place it appears and inserting “(n), or (o)”; and

(B) in the second sentence, by striking “or (m)” and inserting “(m), or (o)”; and

(2) in the first sentence of paragraph (2), by striking “and (n)” each place it appears and inserting “(n), and (o)”.

(c) EXCLUSION FROM ETHANOL WAIVER.—Section 211(h) of the Clean Air Act (42 U.S.C. 7545(h)) is amended—

(1) by redesignating paragraph (5) as paragraph (6); and
(2) by inserting after paragraph (4) the following:

“(5) EXCLUSION FROM ETHANOL WAIVER.—

“(A) PROMULGATION OF REGULATIONS.—Upon notification, accompanied by supporting documentation, from the Governor of a State that the Reid vapor pressure limitation established by paragraph (4) will increase emissions that contribute to air pollution in any area in the State, the Administrator shall, by regulation, apply, in lieu of the Reid vapor pressure limitation established by paragraph (4), the Reid vapor pressure limitation established by paragraph (1) to all fuel blends containing gasoline and 10 percent denatured anhydrous ethanol that are sold, offered for sale, dispensed, supplied, offered for supply, transported, or introduced into commerce in the area during the high ozone season.

“(B) DEADLINE FOR PROMULGATION.—The Administrator shall promulgate regulations under subparagraph (A) not later than 90 days after the date of receipt of a notification from a Governor under that subparagraph.

“(C) EFFECTIVE DATE.—

“(i) IN GENERAL.—With respect to an area in a State for which the Governor submits a notification under subparagraph (A), the regulations under that subparagraph shall take effect on the later of—

“(I) the first day of the first high ozone season for the area that begins after the date of receipt of the notification; or

“(II) 1 year after the date of receipt of the notification.

“(ii) EXTENSION OF EFFECTIVE DATE BASED ON DETERMINATION OF INSUFFICIENT SUPPLY.—

“(I) IN GENERAL.—If, after receipt of a notification with respect to an area from a Governor of a State under subparagraph (A), the Administrator determines, on the Administrator’s own motion or on petition of any person and after consultation with the Secretary of Energy, that the promulgation of regulations described in subparagraph (A) would result in an insufficient supply of gasoline in the State, the Administrator, by regulation—

“(aa) shall extend the effective date of the regulations under clause (i) with respect to the area for not more than 1 year; and

“(bb) may renew the extension under item (aa) for two additional periods, each of which shall not exceed 1 year.

“(II) DEADLINE FOR ACTION ON PETITIONS.—The Administrator shall act on any petition sub-

mitted under subclause (I) not later than 180 days after the date of receipt of the petition.”.

(d) SURVEY OF RENEWABLE FUEL MARKET.—

(1) SURVEY AND REPORT.—Not later than December 1, 2006, and annually thereafter, the Administrator of the Environmental Protection Agency (in consultation with the Secretary acting through the Administrator of the Energy Information Administration) shall—

(A) conduct, with respect to each conventional gasoline use area and each reformulated gasoline use area in each State, a survey to determine the market shares of—

- (i) conventional gasoline containing ethanol;
- (ii) reformulated gasoline containing ethanol;
- (iii) conventional gasoline containing renewable fuel; and
- (iv) reformulated gasoline containing renewable fuel; and

(B) submit to Congress, and make publicly available, a report on the results of the survey under subparagraph (A).

(2) RECORDKEEPING AND REPORTING REQUIREMENTS.—The Administrator of the Environmental Protection Agency (hereinafter in this subsection referred to as the “Administrator”) may require any refiner, blender, or importer to keep such records and make such reports as are necessary to ensure that the survey conducted under paragraph (1) is accurate. The Administrator, to avoid duplicative requirements, shall rely, to the extent practicable, on existing reporting and recordkeeping requirements and other information available to the Administrator including gasoline distribution patterns that include multistate use areas.

(3) APPLICABLE LAW.—Activities carried out under this subsection shall be conducted in a manner designed to protect confidentiality of individual responses.

SEC. 1502. [42 U.S.C. 7545 note] FINDINGS.

Congress finds that—

(1) since 1979, methyl tertiary butyl ether (hereinafter in this section referred to as “MTBE”) has been used nationwide at low levels in gasoline to replace lead as an octane booster or anti-knocking agent;

(2) Public Law 101–549 (commonly known as the “Clean Air Act Amendments of 1990”) (42 U.S.C. 7401 et seq.) established a fuel oxygenate standard under which reformulated gasoline must contain at least 2 percent oxygen by weight; and

(3) the fuel industry responded to the fuel oxygenate standard established by Public Law 101–549 by making substantial investments in—

- (A) MTBE production capacity; and
- (B) systems to deliver MTBE-containing gasoline to the marketplace.

SEC. 1503. [42 U.S.C. 7545 note] CLAIMS FILED AFTER ENACTMENT.

Claims and legal actions filed after the date of enactment of this Act related to allegations involving actual or threatened con-

tamination of methyl tertiary butyl ether (MTBE) may be removed to the appropriate United States district court.

SEC. 1504. ELIMINATION OF OXYGEN CONTENT REQUIREMENT FOR REFORMULATED GASOLINE.

(a) **ELIMINATION.**—

(1) **IN GENERAL.**—Section 211(k) of the Clean Air Act (42 U.S.C. 7545(k)) is amended—

(A) in paragraph (2)—

(i) in the second sentence of subparagraph (A), by striking “(including the oxygen content requirement contained in subparagraph (B))”;

(ii) by striking subparagraph (B); and

(iii) by redesignating subparagraphs (C) and (D) as subparagraphs (B) and (C), respectively;

(B) in paragraph (3)(A), by striking clause (v); and

(C) in paragraph (7)—

(i) in subparagraph (A)—

(I) by striking clause (i); and

(II) by redesignating clauses (ii) and (iii) as clauses (i) and (ii), respectively; and

(ii) in subparagraph (C)—

(I) by striking clause (ii); and

(II) by redesignating clause (iii) as clause (ii).

(2) **APPLICABILITY.**—The amendments made by paragraph

(1) apply—

(A) in the case of a State that has received a waiver under section 209(b) of the Clean Air Act (42 U.S.C. 7543(b)), beginning on the date of enactment of this Act; and

(B) in the case of any other State, beginning 270 days after the date of enactment of this Act.

(b) **MAINTENANCE OF TOXIC AIR POLLUTANT EMISSION REDUCTIONS.**—Section 211(k)(1) of the Clean Air Act (42 U.S.C. 7545(k)(1)) is amended—

(1) by striking “Within 1 year after the enactment of the Clean Air Act Amendments of 1990,” and inserting the following:

“(A) **IN GENERAL.**—Not later than November 15, 1991,”; and

(2) by adding at the end the following:

“(B) **MAINTENANCE OF TOXIC AIR POLLUTANT EMISSIONS REDUCTIONS FROM REFORMULATED GASOLINE.**—

“(i) **DEFINITION OF PADD.**—In this subparagraph the term ‘PADD’ means a Petroleum Administration for Defense District.

“(ii) **REGULATIONS CONCERNING EMISSIONS OF TOXIC AIR POLLUTANTS.**—Not later than 270 days after the date of enactment of this subparagraph, the Administrator shall establish by regulation, for each refinery or importer (other than a refiner or importer in a State that has received a waiver under section 209(b) with respect to gasoline produced for use in that State), standards for toxic air pollutants from use of the reformulated gasoline produced or distributed

by the refiner or importer that maintain the reduction of the average annual aggregate emissions of toxic air pollutants for reformulated gasoline produced or distributed by the refiner or importer during calendar years 2001 and 2002 (as determined on the basis of data collected by the Administrator with respect to the refiner or importer).

“(iii) STANDARDS APPLICABLE TO SPECIFIC REFINERIES OR IMPORTERS.—

“(I) APPLICABILITY OF STANDARDS.—For any calendar year, the standards applicable to a refiner or importer under clause (ii) shall apply to the quantity of gasoline produced or distributed by the refiner or importer in the calendar year only to the extent that the quantity is less than or equal to the average annual quantity of reformulated gasoline produced or distributed by the refiner or importer during calendar years 2001 and 2002.

“(II) APPLICABILITY OF OTHER STANDARDS.—For any calendar year, the quantity of gasoline produced or distributed by a refiner or importer that is in excess of the quantity subject to subclause (I) shall be subject to standards for emissions of toxic air pollutants promulgated under subparagraph (A) and paragraph (3)(B).

“(iv) CREDIT PROGRAM.—The Administrator shall provide for the granting and use of credits for emissions of toxic air pollutants in the same manner as provided in paragraph (7).

“(v) REGIONAL PROTECTION OF TOXICS REDUCTION BASELINES.—

“(I) IN GENERAL.—Not later than 60 days after the date of enactment of this subparagraph, and not later than April 1 of each calendar year that begins after that date of enactment, the Administrator shall publish in the Federal Register a report that specifies, with respect to the previous calendar year—

“(aa) the quantity of reformulated gasoline produced that is in excess of the average annual quantity of reformulated gasoline produced in 2001 and 2002; and

“(bb) the reduction of the average annual aggregate emissions of toxic air pollutants in each PADD, based on retail survey data or data from other appropriate sources.

“(II) EFFECT OF FAILURE TO MAINTAIN AGGREGATE TOXICS REDUCTIONS.—If, in any calendar year, the reduction of the average annual aggregate emissions of toxic air pollutants in a PADD fails to meet or exceed the reduction of the average annual aggregate emissions of toxic air pollutants in the PADD in calendar years 2001 and

2002, the Administrator, not later than 90 days after the date of publication of the report for the calendar year under subclause (I), shall—

“(aa) identify, to the maximum extent practicable, the reasons for the failure, including the sources, volumes, and characteristics of reformulated gasoline that contributed to the failure; and

“(bb) promulgate revisions to the regulations promulgated under clause (ii), to take effect not earlier than 180 days but not later than 270 days after the date of promulgation, to provide that, notwithstanding clause (iii)(II), all reformulated gasoline produced or distributed at each refiner or importer shall meet the standards applicable under clause (iii)(I) beginning not later than April 1 of the calendar year following publication of the report under subclause (I) and in each calendar year thereafter.

“(vi) Not later than July 1, 2007, the Administrator shall promulgate final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels, as provided for in section 80.1045 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this subparagraph), and as authorized under section 202(1) of the Clean Air Act. If the Administrator promulgates by such date, final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels that achieve and maintain greater overall reductions in emissions of air toxics from reformulated gasoline than the reductions that would be achieved under section 211(k)(1)(B) of the Clean Air Act as amended by this clause, then sections 211(k)(1)(B)(i) through 211(k)(1)(B)(v) shall be null and void and regulations promulgated thereunder shall be rescinded and have no further effect.”.

(c) CONSOLIDATION IN REFORMULATED GASOLINE REGULATIONS.—Not later than 180 days after the date of enactment of this Act, the Administrator of the Environmental Protection Agency shall revise the reformulated gasoline regulations under subpart D of part 80 of title 40, Code of Federal Regulations, to consolidate the regulations applicable to VOC-Control Regions 1 and 2 under section 80.41 of that title by eliminating the less stringent requirements applicable to gasoline designated for VOC-Control Region 2 and instead applying the more stringent requirements applicable to gasoline designated for VOC-Control Region 1.

(d) SAVINGS CLAUSE.—

(1) IN GENERAL.—Nothing in this section or any amendment made by this section affects or prejudices any legal claim or action with respect to regulations promulgated by the Administrator before the date of enactment of this Act regarding—

(A) emissions of toxic air pollutants from motor vehicles; or

(B) the adjustment of standards applicable to a specific refinery or importer made under those regulations.

(2) ADJUSTMENT OF STANDARDS.—

(A) APPLICABILITY.—The Administrator may apply any adjustments to the standards applicable to a refinery or importer under subparagraph (B)(iii)(I) of section 211(k)(1) of the Clean Air Act (as added by subsection (b)(2)), except that—

(i) the Administrator shall revise the adjustments to be based only on calendar years 1999 and 2000;

(ii) any such adjustment shall not be made at a level below the average percentage of reductions of emissions of toxic air pollutants for reformulated gasoline supplied to PADD I during calendar years 1999 and 2000; and

(iii) in the case of an adjustment based on toxic air pollutant emissions from reformulated gasoline significantly below the national annual average emissions of toxic air pollutants from all reformulated gasoline—

(I) the Administrator may revise the adjustment to take account of the scope of the prohibition on methyl tertiary butyl ether imposed by a State; and

(II) any such adjustment shall require the refiner or importer, to the maximum extent practicable, to maintain the reduction achieved during calendar years 1999 and 2000 in the average annual aggregate emissions of toxic air pollutants from reformulated gasoline produced or distributed by the refiner or importer.

SEC. 1505. PUBLIC HEALTH AND ENVIRONMENTAL IMPACTS OF FUELS AND FUEL ADDITIVES.

Section 211(b) of the Clean Air Act (42 U.S.C. 7545(b)) is amended—

(1) in paragraph (2)—

(A) by striking “may also” and inserting “shall, on a regular basis,”; and

(B) by striking subparagraph (A) and inserting the following:

“(A) to conduct tests to determine potential public health and environmental effects of the fuel or additive (including carcinogenic, teratogenic, or mutagenic effects); and”;

and

(2) by adding at the end the following:

“(4) STUDY ON CERTAIN FUEL ADDITIVES AND BLENDSTOCKS.—

“(A) IN GENERAL.—Not later than 2 years after the date of enactment of this paragraph, the Administrator shall—

“(i) conduct a study on the effects on public health (including the effects on children, pregnant women,

minority or low-income communities, and other sensitive populations), air quality, and water resources of increased use of, and the feasibility of using as substitutes for methyl tertiary butyl ether in gasoline—

“(I) ethyl tertiary butyl ether;

“(II) tertiary amyl methyl ether;

“(III) di-isopropyl ether;

“(IV) tertiary butyl alcohol;

“(V) other ethers and heavy alcohols, as determined by then Administrator;

“(VI) ethanol;

“(VII) iso-octane; and

“(VIII) alkylates; and

“(ii) conduct a study on the effects on public health (including the effects on children, pregnant women, minority or low-income communities, and other sensitive populations), air quality, and water resources of the adjustment for ethanol-blended reformulated gasoline to the volatile organic compounds performance requirements that are applicable under paragraphs (1) and (3) of section 211(k); and

“(iii) submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing the results of the studies under clauses (i) and (ii).

“(B) CONTRACTS FOR STUDY.—In carrying out this paragraph, the Administrator may enter into one or more contracts with nongovernmental entities such as—

“(i) the national energy laboratories; and

“(ii) institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)).”.

SEC. 1506. ANALYSES OF MOTOR VEHICLE FUEL CHANGES.

Section 211 of the Clean Air Act (42 U.S.C. 7545) is amended by inserting after subsection (p) the following:

“(q) ANALYSES OF MOTOR VEHICLE FUEL CHANGES AND EMISSIONS MODEL.—

“(1) ANTI-BACKSLIDING ANALYSIS.—

“(A) DRAFT ANALYSIS.—Not later than 4 years after the date of enactment of this paragraph, the Administrator shall publish for public comment a draft analysis of the changes in emissions of air pollutants and air quality due to the use of motor vehicle fuel and fuel additives resulting from implementation of the amendments made by the Energy Policy Act of 2005.

“(B) FINAL ANALYSIS.—After providing a reasonable opportunity for comment but not later than 5 years after the date of enactment of this paragraph, the Administrator shall publish the analysis in final form.

“(2) EMISSIONS MODEL.—For the purposes of this section, not later than 4 years after the date of enactment of this paragraph, the Administrator shall develop and finalize an emis-

sions model that reflects, to the maximum extent practicable, the effects of gasoline characteristics or components on emissions from vehicles in the motor vehicle fleet during calendar year 2007.

“(3) PERMEATION EFFECTS STUDY.—

“(A) IN GENERAL.—Not later than 1 year after the date of enactment of this paragraph, the Administrator shall conduct a study, and report to Congress the results of the study, on the effects of ethanol content in gasoline on permeation, the process by which fuel molecules migrate through the elastomeric materials (rubber and plastic parts) that make up the fuel and fuel vapor systems of a motor vehicle.

“(B) EVAPORATIVE EMISSIONS.—The study shall include estimates of the increase in total evaporative emissions likely to result from the use of gasoline with ethanol content in a motor vehicle, and the fleet of motor vehicles, due to permeation.”.

SEC. 1507. ADDITIONAL OPT-IN AREAS UNDER REFORMULATED GASOLINE PROGRAM.

Section 211(k)(6) of the Clean Air Act (42 U.S.C. 7545(k)(6)) is amended—

(1) by striking “(6) OPT-IN AREAS.—(A) Upon” and inserting the following:

“(6) OPT-IN AREAS.—

“(A) CLASSIFIED AREAS.—

“(i) IN GENERAL.—Upon”;

(2) in subparagraph (B), by striking “(B) If” and inserting the following:

“(ii) EFFECT OF INSUFFICIENT DOMESTIC CAPACITY TO PRODUCE REFORMULATED GASOLINE.—If”;

(3) in subparagraph (A)(ii) (as redesignated by paragraph (2))—

(A) in the first sentence, by striking “subparagraph (A)” and inserting “clause (i)”;

(B) in the second sentence, by striking “this paragraph” and inserting “this subparagraph”; and

(4) by adding at the end the following:

“(B) OZONE TRANSPORT REGION.—

“(i) APPLICATION OF PROHIBITION.—

“(I) IN GENERAL.—On application of the Governor of a State in the ozone transport region established by section 184(a), the Administrator, not later than 180 days after the date of receipt of the application, shall apply the prohibition specified in paragraph (5) to any area in the State (other than an area classified as a marginal, moderate, serious, or severe ozone nonattainment area under subpart 2 of part D of title I) unless the Administrator determines under clause (iii) that there is insufficient capacity to supply reformulated gasoline.

“(II) PUBLICATION OF APPLICATION.—As soon as practicable after the date of receipt of an appli-

cation under subclause (I), the Administrator shall publish the application in the Federal Register.

“(ii) PERIOD OF APPLICABILITY.—Under clause (i), the prohibition specified in paragraph (5) shall apply in a State—

“(I) commencing as soon as practicable but not later than 2 years after the date of approval by the Administrator of the application of the Governor of the State; and

“(II) ending not earlier than 4 years after the commencement date determined under subclause (I).

“(iii) EXTENSION OF COMMENCEMENT DATE BASED ON INSUFFICIENT CAPACITY.—

“(I) IN GENERAL.—If, after receipt of an application from a Governor of a State under clause (i), the Administrator determines, on the Administrator’s own motion or on petition of any person, after consultation with the Secretary of Energy, that there is insufficient capacity to supply reformulated gasoline, the Administrator, by regulation—

“(aa) shall extend the commencement date with respect to the State under clause (ii)(I) for not more than 1 year; and

“(bb) may renew the extension under item (aa) for 2 additional periods, each of which shall not exceed 1 year.

“(II) DEADLINE FOR ACTION ON PETITIONS.—The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.”.

SEC. 1508. DATA COLLECTION.

Section 205 of the Department of Energy Organization Act (42 U.S.C. 7135) is amended by adding at the end the following:

“(m) RENEWABLE FUELS SURVEY.—(1) In order to improve the ability to evaluate the effectiveness of the Nation’s renewable fuels mandate, the Administrator shall conduct and publish the results of a survey of renewable fuels demand in the motor vehicle fuels market in the United States monthly, and in a manner designed to protect the confidentiality of individual responses. In conducting the survey, the Administrator shall collect information both on a national and regional basis, including each of the following:

“(A) The quantity of renewable fuels produced.

“(B) The quantity of renewable fuels blended.

“(C) The quantity of renewable fuels imported.

“(D) The quantity of renewable fuels demanded.

“(E) Market price data.

“(F) Such other analyses or evaluations as the Administrator finds are necessary to achieve the purposes of this section.

“(2) The Administrator shall also collect or estimate information both on a national and regional basis, pursuant to subpara-

graphs (A) through (F) of paragraph (1), for the 5 years prior to implementation of this subsection.

“(3) This subsection does not affect the authority of the Administrator to collect data under section 52 of the Federal Energy Administration Act of 1974 (15 U.S.C. 790a).”.

SEC. 1509. FUEL SYSTEM REQUIREMENTS HARMONIZATION STUDY.

(a) STUDY.—

(1) IN GENERAL.—The Administrator of the Environmental Protection Agency and the Secretary shall jointly conduct a study of Federal, State, and local requirements concerning motor vehicle fuels, including—

(A) requirements relating to reformulated gasoline, volatility (measured in Reid vapor pressure), oxygenated fuel, and diesel fuel; and

(B) other requirements that vary from State to State, region to region, or locality to locality.

(2) REQUIRED ELEMENTS.—The study shall assess—

(A) the effect of the variety of requirements described in paragraph (1) on the supply, quality, and price of motor vehicle fuels available to the consumer;

(B) the effect of the requirements described in paragraph (1) on achievement of—

(i) national, regional, and local air quality standards and goals; and

(ii) related environmental and public health protection standards and goals (including the protection of children, pregnant women, minority or low-income communities, and other sensitive populations);

(C) the effect of Federal, State, and local motor vehicle fuel regulations, including multiple motor vehicle fuel requirements, on—

(i) domestic refiners;

(ii) the fuel distribution system; and

(iii) industry investment in new capacity;

(D) the effect of the requirements described in paragraph (1) on emissions from vehicles, refiners, and fuel handling facilities;

(E) the feasibility of developing national or regional motor vehicle fuel slates for the 48 contiguous States that, while protecting and improving air quality at the national, regional, and local levels, could—

(i) enhance flexibility in the fuel distribution infrastructure and improve fuel fungibility;

(ii) reduce price volatility and costs to consumers and producers;

(iii) provide increased liquidity to the gasoline market; and

(iv) enhance fuel quality, consistency, and supply;

(F) the feasibility of providing incentives, and the need for the development of national standards necessary, to promote cleaner burning motor vehicle fuel; and

(G) the extent to which improvements in air quality and any increases or decreases in the price of motor fuel

can be projected to result from the Environmental Protection Agency's Tier II requirements for conventional gasoline and vehicle emission systems, on-road and off-road diesel rules, the reformulated gasoline program, the renewable content requirements established by this subtitle, State programs regarding gasoline volatility, and any other requirements imposed by the Federal Government, States or localities affecting the composition of motor fuel.

(b) REPORT.—

(1) IN GENERAL.—Not later than June 1, 2008, the Administrator of the Environmental Protection Agency and the Secretary shall submit to Congress a report on the results of the study conducted under subsection (a).

(2) RECOMMENDATIONS.—

(A) IN GENERAL.—The report shall contain recommendations for legislative and administrative actions that may be taken—

- (i) to improve air quality;
- (ii) to reduce costs to consumers and producers;
- and
- (iii) to increase supply liquidity.

(B) REQUIRED CONSIDERATIONS.—The recommendations under subparagraph (A) shall take into account the need to provide advance notice of required modifications to refinery and fuel distribution systems in order to ensure an adequate supply of motor vehicle fuel in all States.

(3) CONSULTATION.—In developing the report, the Administrator of the Environmental Protection Agency and the Secretary shall consult with—

- (A) the Governors of the States;
- (B) automobile manufacturers;
- (C) State and local air pollution control regulators;
- (D) public health experts;
- (E) motor vehicle fuel producers and distributors; and
- (F) the public.

SEC. 1510. [42 U.S.C. 16501] COMMERCIAL BYPRODUCTS FROM MUNICIPAL SOLID WASTE AND CELLULOSIC BIOMASS LOAN GUARANTEE PROGRAM.

(a) DEFINITION OF MUNICIPAL SOLID WASTE.—In this section, the term “municipal solid waste” has the meaning given the term “solid waste” in section 1004 of the Solid Waste Disposal Act (42 U.S.C. 6903).

(b) ESTABLISHMENT OF PROGRAM.—The Secretary shall establish a program to provide guarantees of loans by private institutions for the construction of facilities for the processing and conversion of municipal solid waste and cellulosic biomass into fuel ethanol and other commercial byproducts.

(c) REQUIREMENTS.—The Secretary may provide a loan guarantee under subsection (b) to an applicant if—

- (1) without a loan guarantee, credit is not available to the applicant under reasonable terms or conditions sufficient to finance the construction of a facility described in subsection (b);
- (2) the prospective earning power of the applicant and the character and value of the security pledged provide a reason-

able assurance of repayment of the loan to be guaranteed in accordance with the terms of the loan; and

(3) the loan bears interest at a rate determined by the Secretary to be reasonable, taking into account the current average yield on outstanding obligations of the United States with remaining periods of maturity comparable to the maturity of the loan.

(d) CRITERIA.—In selecting recipients of loan guarantees from among applicants, the Secretary shall give preference to proposals that—

(1) meet all applicable Federal and State permitting requirements;

(2) are most likely to be successful; and

(3) are located in local markets that have the greatest need for the facility because of—

(A) the limited availability of land for waste disposal;

(B) the availability of sufficient quantities of cellulosic biomass; or

(C) a high level of demand for fuel ethanol or other commercial byproducts of the facility.

(e) MATURITY.—A loan guaranteed under subsection (b) shall have a maturity of not more than 20 years.

(f) TERMS AND CONDITIONS.—The loan agreement for a loan guaranteed under subsection (b) shall provide that no provision of the loan agreement may be amended or waived without the consent of the Secretary.

(g) ASSURANCE OF REPAYMENT.—The Secretary shall require that an applicant for a loan guarantee under subsection (b) provide an assurance of repayment in the form of a performance bond, insurance, collateral, or other means acceptable to the Secretary in an amount equal to not less than 20 percent of the amount of the loan.

(h) GUARANTEE FEE.—The recipient of a loan guarantee under subsection (b) shall pay the Secretary an amount determined by the Secretary to be sufficient to cover the administrative costs of the Secretary relating to the loan guarantee.

(i) FULL FAITH AND CREDIT.—The full faith and credit of the United States is pledged to the payment of all guarantees made under this section. Any such guarantee made by the Secretary shall be conclusive evidence of the eligibility of the loan for the guarantee with respect to principal and interest. The validity of the guarantee shall be incontestable in the hands of a holder of the guaranteed loan.

(j) REPORTS.—Until each guaranteed loan under this section has been repaid in full, the Secretary shall annually submit to Congress a report on the activities of the Secretary under this section.

(k) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this section.

(l) TERMINATION OF AUTHORITY.—The authority of the Secretary to issue a loan guarantee under subsection (b) terminates on the date that is 10 years after the date of enactment of this Act.

SEC. 1511. RENEWABLE FUEL.

The Clean Air Act is amended by inserting after section 211 (42 U.S.C. 7411) the following:

“SEC. 212. RENEWABLE FUEL.

“(a) DEFINITIONS.—In this section:

“(1) MUNICIPAL SOLID WASTE.—The term ‘municipal solid waste’ has the meaning given the term ‘solid waste’ in section 1004 of the Solid Waste Disposal Act (42 U.S.C. 6903).

“(2) RFG STATE.—The term ‘RFG State’ means a State in which is located one or more covered areas (as defined in section 211(k)(10)(D)).

“(3) SECRETARY.—The term ‘Secretary’ means the Secretary of Energy.

“(b) CELLULOSIC BIOMASS ETHANOL AND MUNICIPAL SOLID WASTE LOAN GUARANTEE PROGRAM.—

“(1) IN GENERAL.—Funds may be provided for the cost (as defined in the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.)) of loan guarantees issued under title XIV of the Energy Policy Act to carry out commercial demonstration projects for cellulosic biomass and sucrose-derived ethanol.

“(2) DEMONSTRATION PROJECTS.—

“(A) IN GENERAL.—The Secretary shall issue loan guarantees under this section to carry out not more than 4 projects to commercially demonstrate the feasibility and viability of producing cellulosic biomass ethanol or sucrose-derived ethanol, including at least 1 project that uses cereal straw as a feedstock and 1 project that uses municipal solid waste as a feedstock.

“(B) DESIGN CAPACITY.—Each project shall have a design capacity to produce at least 30,000,000 gallons of cellulosic biomass ethanol each year.

“(3) APPLICANT ASSURANCES.—An applicant for a loan guarantee under this section shall provide assurances, satisfactory to the Secretary, that—

“(A) the project design has been validated through the operation of a continuous process facility with a cumulative output of at least 50,000 gallons of ethanol;

“(B) the project has been subject to a full technical review;

“(C) the project is covered by adequate project performance guarantees;

“(D) the project, with the loan guarantee, is economically viable; and

“(E) there is a reasonable assurance of repayment of the guaranteed loan.

“(4) LIMITATIONS.—

“(A) MAXIMUM GUARANTEE.—Except as provided in subparagraph (B), a loan guarantee under this section may be issued for up to 80 percent of the estimated cost of a project, but may not exceed \$250,000,000 for a project.

“(B) ADDITIONAL GUARANTEES.—

“(i) IN GENERAL.—The Secretary may issue additional loan guarantees for a project to cover up to 80 percent of the excess of actual project cost over esti-

mated project cost but not to exceed 15 percent of the amount of the original guarantee.

“(ii) **PRINCIPAL AND INTEREST.**—Subject to subparagraph (A), the Secretary shall guarantee 100 percent of the principal and interest of a loan made under subparagraph (A).

“(5) **EQUITY CONTRIBUTIONS.**—To be eligible for a loan guarantee under this section, an applicant for the loan guarantee shall have binding commitments from equity investors to provide an initial equity contribution of at least 20 percent of the total project cost.

“(6) **INSUFFICIENT AMOUNTS.**—If the amount made available to carry out this section is insufficient to allow the Secretary to make loan guarantees for 3 projects described in subsection (b), the Secretary shall issue loan guarantees for one or more qualifying projects under this section in the order in which the applications for the projects are received by the Secretary.

“(7) **APPROVAL.**—An application for a loan guarantee under this section shall be approved or disapproved by the Secretary not later than 90 days after the application is received by the Secretary.

“(c) **AUTHORIZATION OF APPROPRIATIONS FOR RESOURCE CENTER.**—There is authorized to be appropriated, for a resource center to further develop bioconversion technology using low-cost biomass for the production of ethanol at the Center for Biomass-Based Energy at the Mississippi State University and the Oklahoma State University, \$4,000,000 for each of fiscal years 2005 through 2007.

“(d) **RENEWABLE FUEL PRODUCTION RESEARCH AND DEVELOPMENT GRANTS.**—

“(1) **IN GENERAL.**—The Administrator shall provide grants for the research into, and development and implementation of, renewable fuel production technologies in RFG States with low rates of ethanol production, including low rates of production of cellulosic biomass ethanol.

“(2) **ELIGIBILITY.**—

“(A) **IN GENERAL.**—The entities eligible to receive a grant under this subsection are academic institutions in RFG States, and consortia made up of combinations of academic institutions, industry, State government agencies, or local government agencies in RFG States, that have proven experience and capabilities with relevant technologies.

“(B) **APPLICATION.**—To be eligible to receive a grant under this subsection, an eligible entity shall submit to the Administrator an application in such manner and form, and accompanied by such information, as the Administrator may specify.

“(3) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this subsection \$25,000,000 for each of fiscal years 2006 through 2010.

“(e) **CELLULOSIC BIOMASS ETHANOL CONVERSION ASSISTANCE.**—

“(1) **IN GENERAL.**—The Secretary may provide grants to merchant producers of cellulosic biomass ethanol in the United States to assist the producers in building eligible production fa-

cilities described in paragraph (2) for the production of cellulosic biomass ethanol.

“(2) ELIGIBLE PRODUCTION FACILITIES.—A production facility shall be eligible to receive a grant under this subsection if the production facility—

“(A) is located in the United States; and

“(B) uses cellulosic biomass feedstocks derived from agricultural residues or municipal solid waste.

“(3) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection—

“(A) \$250,000,000 for fiscal year 2006; and

“(B) \$400,000,000 for fiscal year 2007.”.

SEC. 1512. CONVERSION ASSISTANCE FOR CELLULOSIC BIOMASS, WASTE-DERIVED ETHANOL, APPROVED RENEWABLE FUELS.

Section 211 of the Clean Air Act (42 U.S.C. 7545) is amended by adding at the end the following:

“(r) CONVERSION ASSISTANCE FOR CELLULOSIC BIOMASS, WASTE-DERIVED ETHANOL, APPROVED RENEWABLE FUELS.—

“(1) IN GENERAL.—The Secretary of Energy may provide grants to merchant producers of cellulosic biomass ethanol, waste-derived ethanol, and approved renewable fuels in the United States to assist the producers in building eligible production facilities described in paragraph (2) for the production of ethanol or approved renewable fuels.

“(2) ELIGIBLE PRODUCTION FACILITIES.—A production facility shall be eligible to receive a grant under this subsection if the production facility—

“(A) is located in the United States; and

“(B) uses cellulosic or renewable biomass or waste-derived feedstocks derived from agricultural residues, wood residues, municipal solid waste, or agricultural byproducts.

“(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated the following amounts to carry out this subsection:

“(A) \$100,000,000 for fiscal year 2006.

“(B) \$250,000,000 for fiscal year 2007.

“(C) \$400,000,000 for fiscal year 2008.

“(4) DEFINITIONS.—For the purposes of this subsection:

“(A) The term ‘approved renewable fuels’ are fuels and components of fuels that have been approved by the Department of Energy, as defined in section 301 of the Energy Policy Act of 1992 (42 U.S.C. 13211), which have been made from renewable biomass.

“(B) The term ‘renewable biomass’ is, as defined in Presidential Executive Order 13134, published in the Federal Register on August 16, 1999, any organic matter that is available on a renewable or recurring basis (excluding old-growth timber), including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, animal wastes, wood and wood residues, paper and paper residues, and other vegetative waste materials. Old-growth timber means timber of a forest from the late successional stage of forest development.”.

SEC. 1513. BLENDING OF COMPLIANT REFORMULATED GASOLINES.

Section 211 of the Clean Air Act (42 U.S.C. 7545) is amended by adding at the end the following:

“(s) BLENDING OF COMPLIANT REFORMULATED GASOLINES.—

“(1) IN GENERAL.—Notwithstanding subsections (h) and (k) and subject to the limitations in paragraph (2) of this subsection, it shall not be a violation of this subtitle for a gasoline retailer, during any month of the year, to blend at a retail location batches of ethanol-blended and non-ethanol-blended reformulated gasoline, provided that—

“(A) each batch of gasoline to be blended has been individually certified as in compliance with subsections (h) and (k) prior to being blended;

“(B) the retailer notifies the Administrator prior to such blending, and identifies the exact location of the retail station and the specific tank in which such blending will take place;

“(C) the retailer retains and, as requested by the Administrator or the Administrator’s designee, makes available for inspection such certifications accounting for all gasoline at the retail outlet; and

“(D) the retailer does not, between June 1 and September 15 of each year, blend a batch of VOC-controlled, or ‘summer’, gasoline with a batch of non-VOC-controlled, or ‘winter’, gasoline (as these terms are defined under subsections (h) and (k)).

“(2) LIMITATIONS.—

“(A) FREQUENCY LIMITATION.—A retailer shall only be permitted to blend batches of compliant reformulated gasoline under this subsection a maximum of two blending periods between May 1 and September 15 of each calendar year.

“(B) DURATION OF BLENDING PERIOD.—Each blending period authorized under subparagraph (A) shall extend for a period of no more than 10 consecutive calendar days.

“(3) SURVEYS.—A sample of gasoline taken from a retail location that has blended gasoline within the past 30 days and is in compliance with subparagraphs (A), (B), (C), and (D) of paragraph (1) shall not be used in a VOC survey mandated by 40 CFR Part 80.

“(4) STATE IMPLEMENTATION PLANS.—A State shall be held harmless and shall not be required to revise its State implementation plan under section 110 to account for the emissions from blended gasoline authorized under paragraph (1).

“(5) PRESERVATION OF STATE LAW.—Nothing in this subsection shall—

“(A) preempt existing State laws or regulations regulating the blending of compliant gasolines; or

“(B) prohibit a State from adopting such restrictions in the future.

“(6) REGULATIONS.—The Administrator shall promulgate, after notice and comment, regulations implementing this subsection within 1 year after the date of enactment of this subsection.

“(7) EFFECTIVE DATE.—This subsection shall become effective 15 months after the date of its enactment and shall apply to blended batches of reformulated gasoline on or after that date, regardless of whether the implementing regulations required by paragraph (6) have been promulgated by the Administrator by that date.

“(8) LIABILITY.—No person other than the person responsible for blending under this subsection shall be subject to an enforcement action or penalties under subsection (d) solely arising from the blending of compliant reformulated gasolines by the retailers.

“(9) FORMULATION OF GASOLINE.—This subsection does not grant authority to the Administrator or any State (or any subdivision thereof) to require reformulation of gasoline at the refinery to adjust for potential or actual emissions increases due to the blending authorized by this subsection.”.

SEC. 1514. [42 U.S.C. 16502] ADVANCED BIOFUEL TECHNOLOGIES PROGRAM.

(a) IN GENERAL.—Subject to the availability of appropriations under subsection (d), the Administrator of the Environmental Protection Agency shall, in consultation with the Secretary of Agriculture and the Biomass Research and Development Technical Advisory Committee established under section 306 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note), establish a program, to be known as the “Advanced Biofuel Technologies Program”, to demonstrate advanced technologies for the production of alternative transportation fuels.

(b) PRIORITY.—In carrying out the program under subsection (a), the Administrator shall give priority to projects that enhance the geographical diversity of alternative fuels production and utilize feedstocks that represent 10 percent or less of ethanol or biodiesel fuel production in the United States during the previous fiscal year.

(c) DEMONSTRATION PROJECTS.—

(1) IN GENERAL.—As part of the program under subsection (a), the Administrator shall fund demonstration projects—

(A) to develop not less than 4 different conversion technologies for producing cellulosic biomass ethanol; and

(B) to develop not less than 5 technologies for coproducing value-added bioproducts (such as fertilizers, herbicides, and pesticides) resulting from the production of biodiesel fuel.

(2) ADMINISTRATION.—Demonstration projects under this subsection shall be—

(A) conducted based on a merit-reviewed, competitive process; and

(B) subject to the cost-sharing requirements of section 988.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section \$110,000,000 for each of fiscal years 2005 through 2009.

SEC. 1515. WASTE-DERIVED ETHANOL AND BIODIESEL.

Section 312(f)(1) of the Energy Policy Act of 1992 (42 U.S.C. 13220(f)(1)) is amended—

(1) by striking “‘biodiesel’ means” and inserting the following: “‘biodiesel’—

“(A) means”; and

(2) in subparagraph (A) (as designated by paragraph (1)) by striking “and” at the end and inserting the following:

“(B) includes biodiesel derived from—

“(i) animal wastes, including poultry fats and poultry wastes, and other waste materials; or

“(ii) municipal solid waste and sludges and oils derived from wastewater and the treatment of wastewater; and”.

SEC. 1516. [42 U.S.C. 16503] SUGAR ETHANOL LOAN GUARANTEE PROGRAM.

(a) **IN GENERAL.**—Funds may be provided for the cost (as defined in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a)) of loan guarantees issued under title XIV to carry out commercial demonstration projects for ethanol derived from sugarcane, bagasse, and other sugarcane byproducts.

(b) **DEMONSTRATION PROJECTS.**—The Secretary may issue loan guarantees under this section to projects to demonstrate commercially the feasibility and viability of producing ethanol using sugarcane, sugarcane bagasse, and other sugarcane byproducts as a feedstock.

(c) **REQUIREMENTS.**—An applicant for a loan guarantee under this section may provide assurances, satisfactory to the Secretary, that—

(1) the project design has been validated through the operation of a continuous process facility;

(2) the project has been subject to a full technical review;

(3) the project, with the loan guarantee, is economically viable; and

(4) there is a reasonable assurance of repayment of the guaranteed loan.

(d) **LIMITATIONS.**—

(1) **MAXIMUM GUARANTEE.**—Except as provided in paragraph (2), a loan guarantee under this section—

(A) may be issued for up to 80 percent of the estimated cost of a project; but

(B) shall not exceed \$50,000,000 for any 1 project.

(2) **ADDITIONAL GUARANTEES.**—

(A) **IN GENERAL.**—The Secretary may issue additional loan guarantees for a project to cover—

(i) up to 80 percent of the excess of actual project costs; but

(ii) not to exceed 15 percent of the amount of the original loan guarantee.

(B) **PRINCIPAL AND INTEREST.**—Subject to subparagraph (A), the Secretary shall guarantee 100 percent of the principal and interest of a loan guarantee made under subparagraph (A).

Subtitle B—Underground Storage Tank Compliance

SEC. 1521. [42 U.S.C. 6901 note] SHORT TITLE.

This subtitle may be cited as the “Underground Storage Tank Compliance Act”.

SEC. 1522. LEAKING UNDERGROUND STORAGE TANKS.

(a) IN GENERAL.—Section 9004 of the Solid Waste Disposal Act (42 U.S.C. 6991c) is amended by adding at the end the following:

“(f) TRUST FUND DISTRIBUTION.—

“(1) IN GENERAL.—

“(A) AMOUNT AND PERMITTED USES OF DISTRIBUTION.—

The Administrator shall distribute to States not less than 80 percent of the funds from the Trust Fund that are made available to the Administrator under section 9014(2)(A) for each fiscal year for use in paying the reasonable costs, incurred under a cooperative agreement with any State for—

“(i) corrective actions taken by the State under section 9003(h)(7)(A);

“(ii) necessary administrative expenses, as determined by the Administrator, that are directly related to State fund or State assurance programs under subsection (c)(1); or

“(iii) enforcement, by a State or a local government, of State or local regulations pertaining to underground storage tanks regulated under this subtitle.

“(B) USE OF FUNDS FOR ENFORCEMENT.—In addition to the uses of funds authorized under subparagraph (A), the Administrator may use funds from the Trust Fund that are not distributed to States under subparagraph (A) for enforcement of any regulation promulgated by the Administrator under this subtitle.

“(C) PROHIBITED USES.—Funds provided to a State by the Administrator under subparagraph (A) shall not be used by the State to provide financial assistance to an owner or operator to meet any requirement relating to underground storage tanks under subparts B, C, D, H, and G of part 280 of title 40, Code of Federal Regulations (as in effect on the date of enactment of this subsection).

“(2) ALLOCATION.—

“(A) PROCESS.—Subject to subparagraphs (B) and (C), in the case of a State with which the Administrator has entered into a cooperative agreement under section 9003(h)(7)(A), the Administrator shall distribute funds from the Trust Fund to the State using an allocation process developed by the Administrator.

“(B) DIVERSION OF STATE FUNDS.—The Administrator shall not distribute funds under subparagraph (A)(iii) of subsection (f)(1) to any State that has diverted funds from a State fund or State assurance program for purposes other than those related to the regulation of underground storage tanks covered by this subtitle, with the exception

of those transfers that had been completed earlier than the date of enactment of this subsection.

“(C) REVISIONS TO PROCESS.—The Administrator may revise the allocation process referred to in subparagraph (A) after—

“(i) consulting with State agencies responsible for overseeing corrective action for releases from underground storage tanks; and

“(ii) taking into consideration, at a minimum, each of the following:

“(I) The number of confirmed releases from federally regulated leaking underground storage tanks in the States.

“(II) The number of federally regulated underground storage tanks in the States.

“(III) The performance of the States in implementing and enforcing the program.

“(IV) The financial needs of the States.

“(V) The ability of the States to use the funds referred to in subparagraph (A) in any year.

“(3) DISTRIBUTIONS TO STATE AGENCIES.—Distributions from the Trust Fund under this subsection shall be made directly to a State agency that—

“(A) enters into a cooperative agreement referred to in paragraph (2)(A); or

“(B) is enforcing a State program approved under this section.”.

(b) WITHDRAWAL OF APPROVAL OF STATE FUNDS.—Section 9004(c) of the Solid Waste Disposal Act (42 U.S.C. 6991c(c)) is amended by inserting the following new paragraph at the end thereof:

“(6) WITHDRAWAL OF APPROVAL.—After an opportunity for good faith, collaborative efforts to correct financial deficiencies with a State fund, the Administrator may withdraw approval of any State fund or State assurance program to be used as a financial responsibility mechanism without withdrawing approval of a State underground storage tank program under section 9004(a).”.

(c) ABILITY TO PAY.—Section 9003(h)(6) of the Solid Waste Disposal Act (42 U.S.C. 6591a(h)(6)) is amended by adding the following new subparagraph at the end thereof:

“(E) INABILITY OR LIMITED ABILITY TO PAY.—

“(i) IN GENERAL.—In determining the level of recovery effort, or amount that should be recovered, the Administrator (or the State pursuant to paragraph (7)) shall consider the owner or operator’s ability to pay. An inability or limited ability to pay corrective action costs must be demonstrated to the Administrator (or the State pursuant to paragraph (7)) by the owner or operator.

“(ii) CONSIDERATIONS.—In determining whether or not a demonstration is made under clause (i), the Administrator (or the State pursuant to paragraph (7)) shall take into consideration the ability of the owner

or operator to pay corrective action costs and still maintain its basic business operations, including consideration of the overall financial condition of the owner or operator and demonstrable constraints on the ability of the owner or operator to raise revenues.

“(iii) INFORMATION.—An owner or operator requesting consideration under this subparagraph shall promptly provide the Administrator (or the State pursuant to paragraph (7)) with all relevant information needed to determine the ability of the owner or operator to pay corrective action costs.

“(iv) ALTERNATIVE PAYMENT METHODS.—The Administrator (or the State pursuant to paragraph (7)) shall consider alternative payment methods as may be necessary or appropriate if the Administrator (or the State pursuant to paragraph (7)) determines that an owner or operator cannot pay all or a portion of the costs in a lump sum payment.

“(v) MISREPRESENTATION.—If an owner or operator provides false information or otherwise misrepresents their financial situation under clause (ii), the Administrator (or the State pursuant to paragraph (7)) shall seek full recovery of the costs of all such actions pursuant to the provisions of subparagraph (A) without consideration of the factors in subparagraph (B).”.

SEC. 1523. INSPECTION OF UNDERGROUND STORAGE TANKS.

(a) INSPECTION REQUIREMENTS.—Section 9005 of the Solid Waste Disposal Act (42 U.S.C. 6991d) is amended by inserting the following new subsection at the end thereof:

“(c) INSPECTION REQUIREMENTS.—

“(1) UNINSPECTED TANKS.—In the case of underground storage tanks regulated under this subtitle that have not undergone an inspection since December 22, 1998, not later than 2 years after the date of enactment of this subsection, the Administrator or a State that receives funding under this subtitle, as appropriate, shall conduct on-site inspections of all such tanks to determine compliance with this subtitle and the regulations under this subtitle (40 CFR 280) or a requirement or standard of a State program developed under section 9004.

“(2) PERIODIC INSPECTIONS.—After completion of all inspections required under paragraph (1), the Administrator or a State that receives funding under this subtitle, as appropriate, shall conduct on-site inspections of each underground storage tank regulated under this subtitle at least once every 3 years to determine compliance with this subtitle and the regulations under this subtitle (40 CFR 280) or a requirement or standard of a State program developed under section 9004. The Administrator may extend for up to one additional year the first 3-year inspection interval under this paragraph if the State demonstrates that it has insufficient resources to complete all such inspections within the first 3-year period.

“(3) INSPECTION AUTHORITY.—Nothing in this section shall be construed to diminish the Administrator’s or a State’s authorities under section 9005(a).”.

(b) STUDY OF ALTERNATIVE INSPECTION PROGRAMS.—The Administrator of the Environmental Protection Agency, in coordination with a State, shall gather information on compliance assurance programs that could serve as an alternative to the inspection programs under section 9005(c) of the Solid Waste Disposal Act (42 U.S.C. 6991d(c)) and shall, within 4 years after the date of enactment of this Act, submit a report to the Congress containing the results of such study.

SEC. 1524. OPERATOR TRAINING.

(a) IN GENERAL.—Section 9010 of the Solid Waste Disposal Act (42 U.S.C. 6991i) is amended to read as follows:

“SEC. 9010. OPERATOR TRAINING.

“(a) GUIDELINES.—

“(1) IN GENERAL.—Not later than 2 years after the date of enactment of the Underground Storage Tank Compliance Act, in consultation and cooperation with States and after public notice and opportunity for comment, the Administrator shall publish guidelines that specify training requirements for—

“(A) persons having primary responsibility for on-site operation and maintenance of underground storage tank systems;

“(B) persons having daily on-site responsibility for the operation and maintenance of underground storage tanks systems; and

“(C) daily, on-site employees having primary responsibility for addressing emergencies presented by a spill or release from an underground storage tank system.

“(2) CONSIDERATIONS.—The guidelines described in paragraph (1) shall take into account—

“(A) State training programs in existence as of the date of publication of the guidelines;

“(B) training programs that are being employed by tank owners and tank operators as of the date of enactment of the Underground Storage Tank Compliance Act;

“(C) the high turnover rate of tank operators and other personnel;

“(D) the frequency of improvement in underground storage tank equipment technology;

“(E) the nature of the businesses in which the tank operators are engaged;

“(F) the substantial differences in the scope and length of training needed for the different classes of persons described in subparagraphs (A), (B), and (C) of paragraph (1); and

“(G) such other factors as the Administrator determines to be necessary to carry out this section.

“(b) STATE PROGRAMS.—

“(1) IN GENERAL.—Not later than 2 years after the date on which the Administrator publishes the guidelines under subsection (a)(1), each State that receives funding under this sub-

title shall develop State-specific training requirements that are consistent with the guidelines developed under subsection (a)(1).

“(2) REQUIREMENTS.—State requirements described in paragraph (1) shall—

“(A) be consistent with subsection (a);

“(B) be developed in cooperation with tank owners and tank operators;

“(C) take into consideration training programs implemented by tank owners and tank operators as of the date of enactment of this section; and

“(D) be appropriately communicated to tank owners and operators.

“(3) FINANCIAL INCENTIVE.—The Administrator may award to a State that develops and implements requirements described in paragraph (1), in addition to any funds that the State is entitled to receive under this subtitle, not more than \$200,000, to be used to carry out the requirements.

“(c) TRAINING.—All persons that are subject to the operator training requirements of subsection (a) shall—

“(1) meet the training requirements developed under subsection (b); and

“(2) repeat the applicable requirements developed under subsection (b), if the tank for which they have primary daily on-site management responsibilities is determined to be out of compliance with—

“(A) a requirement or standard promulgated by the Administrator under section 9003; or

“(B) a requirement or standard of a State program approved under section 9004.”.

(b) STATE PROGRAM REQUIREMENT.—Section 9004(a) of the Solid Waste Disposal Act (42 U.S.C. 6991c(a)) is amended by striking “and” at the end of paragraph (7), by striking the period at the end of paragraph (8) and inserting “; and”, and by adding the following new paragraph at the end thereof:

“(9) State-specific training requirements as required by section 9010.”.

(c) ENFORCEMENT.—Section 9006(d)(2) of such Act (42 U.S.C. 6991e) is amended as follows:

(1) By striking “or” at the end of subparagraph (B).

(2) By adding the following new subparagraph after subparagraph (C):

“(D) the training requirements established by States pursuant to section 9010 (relating to operator training); or”.

(d) TABLE OF CONTENTS.—The item relating to section 9010 in the table of contents for the Solid Waste Disposal Act is amended to read as follows:

“Sec. 9010. Operator training.”.

SEC. 1525. REMEDIATION FROM OXYGENATED FUEL ADDITIVES.

Section 9003(h) of the Solid Waste Disposal Act (42 U.S.C. 6991b(h)) is amended as follows:

(1) In paragraph (7)(A)—

(A) by striking “paragraphs (1) and (2) of this subsection” and inserting “paragraphs (1), (2), and (12)”; and

(B) by striking “and including the authorities of paragraphs (4), (6), and (8) of this subsection” and inserting “and the authority under sections 9011 and 9012 and paragraphs (4), (6), and (8).”.

(2) By adding at the end the following:

“(12) REMEDIATION OF OXYGENATED FUEL CONTAMINATION.—

“(A) IN GENERAL.—The Administrator and the States may use funds made available under section 9014(2)(B) to carry out corrective actions with respect to a release of a fuel containing an oxygenated fuel additive that presents a threat to human health or welfare or the environment.

“(B) APPLICABLE AUTHORITY.—The Administrator or a State shall carry out subparagraph (A) in accordance with paragraph (2), and in the case of a State, in accordance with a cooperative agreement entered into by the Administrator and the State under paragraph (7).”.

SEC. 1526. RELEASE PREVENTION, COMPLIANCE, AND ENFORCEMENT.

(a) RELEASE PREVENTION AND COMPLIANCE.—Subtitle I of the Solid Waste Disposal Act (42 U.S.C. 6991 et seq.) is amended by adding at the end the following:

“SEC. 9011. USE OF FUNDS FOR RELEASE PREVENTION AND COMPLIANCE.

“Funds made available under section 9014(2)(D) from the Trust Fund may be used to conduct inspections, issue orders, or bring actions under this subtitle—

“(1) by a State, in accordance with a grant or cooperative agreement with the Administrator, of State regulations pertaining to underground storage tanks regulated under this subtitle; and

“(2) by the Administrator, for tanks regulated under this subtitle (including under a State program approved under section 9004).”.

(b) GOVERNMENT-OWNED TANKS.—Section 9003 of the Solid Waste Disposal Act (42 U.S.C. 6991b) is amended by adding at the end the following:

“(i) GOVERNMENT-OWNED TANKS.—

“(1) STATE COMPLIANCE REPORT.—(A) Not later than 2 years after the date of enactment of this subsection, each State that receives funding under this subtitle shall submit to the Administrator a State compliance report that—

“(i) lists the location and owner of each underground storage tank described in subparagraph (B) in the State that, as of the date of submission of the report, is not in compliance with section 9003; and

“(ii) specifies the date of the last inspection and describes the actions that have been and will be taken to ensure compliance of the underground storage tank listed under clause (i) with this subtitle.

“(B) An underground storage tank described in this subparagraph is an underground storage tank that is—

“(i) regulated under this subtitle; and

“(ii) owned or operated by the Federal, State, or local government.

“(C) The Administrator shall make each report, received under subparagraph (A), available to the public through an appropriate media.

“(2) FINANCIAL INCENTIVE.—The Administrator may award to a State that develops a report described in paragraph (1), in addition to any other funds that the State is entitled to receive under this subtitle, not more than \$50,000, to be used to carry out the report.

“(3) NOT A SAFE HARBOR.—This subsection does not relieve any person from any obligation or requirement under this subtitle.”.

(c) PUBLIC RECORD.—Section 9002 of the Solid Waste Disposal Act (42 U.S.C. 6991a) is amended by adding at the end the following:

“(d) PUBLIC RECORD.—

“(1) IN GENERAL.—The Administrator shall require each State that receives Federal funds to carry out this subtitle to maintain, update at least annually, and make available to the public, in such manner and form as the Administrator shall prescribe (after consultation with States), a record of underground storage tanks regulated under this subtitle.

“(2) CONSIDERATIONS.—To the maximum extent practicable, the public record of a State, respectively, shall include, for each year—

“(A) the number, sources, and causes of underground storage tank releases in the State;

“(B) the record of compliance by underground storage tanks in the State with—

“(i) this subtitle; or

“(ii) an applicable State program approved under section 9004; and

“(C) data on the number of underground storage tank equipment failures in the State.”.

(d) INCENTIVE FOR PERFORMANCE.—Section 9006 of the Solid Waste Disposal Act (42 U.S.C. 6991e) is amended by adding at the end the following:

“(e) INCENTIVE FOR PERFORMANCE.—Both of the following may be taken into account in determining the terms of a civil penalty under subsection (d):

“(1) The compliance history of an owner or operator in accordance with this subtitle or a program approved under section 9004.

“(2) Any other factor the Administrator considers appropriate.”.

(e) TABLE OF CONTENTS.—The table of contents for such subtitle I is amended by adding the following new item at the end thereof:

“Sec. 9011. Use of funds for release prevention and compliance.”.

SEC. 1527. DELIVERY PROHIBITION.

(a) **IN GENERAL.**—Subtitle I of the Solid Waste Disposal Act (42 U.S.C. 6991 et seq.) is amended by adding at the end the following:

“SEC. 9012. DELIVERY PROHIBITION.

“(a) REQUIREMENTS.—

“(1) PROHIBITION OF DELIVERY OR DEPOSIT.—Beginning 2 years after the date of enactment of this section, it shall be unlawful to deliver to, deposit into, or accept a regulated substance into an underground storage tank at a facility which has been identified by the Administrator or a State implementing agency to be ineligible for such delivery, deposit, or acceptance.

“(2) GUIDANCE.—Within 1 year after the date of enactment of this section, the Administrator shall, in consultation with the States, underground storage tank owners, and product delivery industries, publish guidelines detailing the specific processes and procedures they will use to implement the provisions of this section. The processes and procedures include, at a minimum—

“(A) the criteria for determining which underground storage tank facilities are ineligible for delivery, deposit, or acceptance of a regulated substance;

“(B) the mechanisms for identifying which facilities are ineligible for delivery, deposit, or acceptance of a regulated substance to the underground storage tank owning and fuel delivery industries;

“(C) the process for reclassifying ineligible facilities as eligible for delivery, deposit, or acceptance of a regulated substance;

“(D) one or more processes for providing adequate notice to underground storage tank owners and operators and supplier industries that an underground storage tank has been determined to be ineligible for delivery, deposit, or acceptance of a regulated substance; and

“(E) a delineation of, or a process for determining, the specified geographic areas subject to paragraph (4).

“(3) COMPLIANCE.—States that receive funding under this subtitle shall, at a minimum, comply with the processes and procedures published under paragraph (2).

“(4) CONSIDERATION.—

“(A) RURAL AND REMOTE AREAS.—Subject to subparagraph (B), the Administrator or a State may consider not treating an underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated substance if such treatment would jeopardize the availability of, or access to, fuel in any rural and remote areas unless an urgent threat to public health, as determined by the Administrator, exists.

“(B) APPLICABILITY.—Subparagraph (A) shall apply only during the 180-day period following the date of a determination by the Administrator or the appropriate State under subparagraph (A).

“(b) EFFECT ON STATE AUTHORITY.—Nothing in this section shall affect or preempt the authority of a State to prohibit the de-

livery, deposit, or acceptance of a regulated substance to an underground storage tank.

“(c) DEFENSE TO VIOLATION.—A person shall not be in violation of subsection (a)(1) if the person has not been provided with notice pursuant to subsection (a)(2)(D) of the ineligibility of a facility for delivery, deposit, or acceptance of a regulated substance as determined by the Administrator or a State, as appropriate, under this section.”.

(b) ENFORCEMENT.—Section 9006(d)(2) of such Act (42 U.S.C. 6991e(d)(2)) is amended as follows:

(1) By adding the following new subparagraph after subparagraph (D):

“(E) the delivery prohibition requirement established by section 9012.”.

(2) By adding the following new sentence at the end thereof: “Any person making or accepting a delivery or deposit of a regulated substance to an underground storage tank at an ineligible facility in violation of section 9012 shall also be subject to the same civil penalty for each day of such violation.”.

(c) TABLE OF CONTENTS.—The table of contents for such subtitle I is amended by adding the following new item at the end thereof:

“Sec. 9012. Delivery prohibition.”.

SEC. 1528. FEDERAL FACILITIES.

Section 9007 of the Solid Waste Disposal Act (42 U.S.C. 6991f) is amended to read as follows:

“SEC. 9007. FEDERAL FACILITIES.

“(a) IN GENERAL.—Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any underground storage tank or underground storage tank system, or (2) engaged in any activity resulting, or which may result, in the installation, operation, management, or closure of any underground storage tank, release response activities related thereto, or in the delivery, acceptance, or deposit of any regulated substance to an underground storage tank or underground storage tank system shall be subject to, and comply with, all Federal, State, interstate, and local requirements, both substantive and procedural (including any requirement for permits or reporting or any provisions for injunctive relief and such sanctions as may be imposed by a court to enforce such relief), respecting underground storage tanks in the same manner, and to the same extent, as any person is subject to such requirements, including the payment of reasonable service charges. The Federal, State, interstate, and local substantive and procedural requirements referred to in this subsection include, but are not limited to, all administrative orders and all civil and administrative penalties and fines, regardless of whether such penalties or fines are punitive or coercive in nature or are imposed for isolated, intermittent, or continuing violations. The United States hereby expressly waives any immunity otherwise applicable to the United States with respect to any such substantive or procedural requirement (including, but not limited to, any injunctive relief, administrative order or civil or administrative penalty or fine referred to

in the preceding sentence, or reasonable service charge). The reasonable service charges referred to in this subsection include, but are not limited to, fees or charges assessed in connection with the processing and issuance of permits, renewal of permits, amendments to permits, review of plans, studies, and other documents, and inspection and monitoring of facilities, as well as any other nondiscriminatory charges that are assessed in connection with a Federal, State, interstate, or local underground storage tank regulatory program. Neither the United States, nor any agent, employee, or officer thereof, shall be immune or exempt from any process or sanction of any State or Federal Court with respect to the enforcement of any such injunctive relief. No agent, employee, or officer of the United States shall be personally liable for any civil penalty under any Federal, State, interstate, or local law concerning underground storage tanks with respect to any act or omission within the scope of the official duties of the agent, employee, or officer. An agent, employee, or officer of the United States shall be subject to any criminal sanction (including, but not limited to, any fine or imprisonment) under any Federal or State law concerning underground storage tanks, but no department, agency, or instrumentality of the executive, legislative, or judicial branch of the Federal Government shall be subject to any such sanction. The President may exempt any underground storage tank of any department, agency, or instrumentality in the executive branch from compliance with such a requirement if he determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to lack of appropriation unless the President shall have specifically requested such appropriation as a part of the budgetary process and the Congress shall have failed to make available such requested appropriation. Any exemption shall be for a period not in excess of 1 year, but additional exemptions may be granted for periods not to exceed 1 year upon the President's making a new determination. The President shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year, together with his reason for granting each such exemption.

“(b) REVIEW OF AND REPORT ON FEDERAL UNDERGROUND STORAGE TANKS.—

“(1) REVIEW.—Not later than 12 months after the date of enactment of the Underground Storage Tank Compliance Act, each Federal agency that owns or operates one or more underground storage tanks, or that manages land on which one or more underground storage tanks are located, shall submit to the Administrator, the Committee on Energy and Commerce of the United States House of Representatives, and the Committee on the Environment and Public Works of the Senate a compliance strategy report that—

“(A) lists the location and owner of each underground storage tank described in this paragraph;

“(B) lists all tanks that are not in compliance with this subtitle that are owned or operated by the Federal agency;

“(C) specifies the date of the last inspection by a State or Federal inspector of each underground storage tank owned or operated by the agency;

“(D) lists each violation of this subtitle respecting any underground storage tank owned or operated by the agency;

“(E) describes the operator training that has been provided to the operator and other persons having primary daily on-site management responsibility for the operation and maintenance of underground storage tanks owned or operated by the agency; and

“(F) describes the actions that have been and will be taken to ensure compliance for each underground storage tank identified under subparagraph (B).

“(2) NOT A SAFE HARBOR.—This subsection does not relieve any person from any obligation or requirement under this subtitle.”.

SEC. 1529. TANKS ON TRIBAL LANDS.

(a) IN GENERAL.—Subtitle I of the Solid Waste Disposal Act (42 U.S.C. 6991 et seq.) is amended by adding the following at the end thereof:

“SEC. 9013. TANKS ON TRIBAL LANDS.

“(a) STRATEGY.—The Administrator, in coordination with Indian tribes, shall, not later than 1 year after the date of enactment of this section, develop and implement a strategy—

“(1) giving priority to releases that present the greatest threat to human health or the environment, to take necessary corrective action in response to releases from leaking underground storage tanks located wholly within the boundaries of—

“(A) an Indian reservation; or

“(B) any other area under the jurisdiction of an Indian tribe; and

“(2) to implement and enforce requirements concerning underground storage tanks located wholly within the boundaries of—

“(A) an Indian reservation; or

“(B) any other area under the jurisdiction of an Indian tribe.

“(b) REPORT.—Not later than 2 years after the date of enactment of this section, the Administrator shall submit to Congress a report that summarizes the status of implementation and enforcement of this subtitle in areas located wholly within—

“(1) the boundaries of Indian reservations; and

“(2) any other areas under the jurisdiction of an Indian tribe.

The Administrator shall make the report under this subsection available to the public.

“(c) NOT A SAFE HARBOR.—This section does not relieve any person from any obligation or requirement under this subtitle.

“(d) STATE AUTHORITY.—Nothing in this section applies to any underground storage tank that is located in an area under the jurisdiction of a State, or that is subject to regulation by a State, as of the date of enactment of this section.”.

(b) TABLE OF CONTENTS.—The table of contents for such subtitle I is amended by adding the following new item at the end thereof:

“Sec. 9013. Tanks on Tribal lands.”.

SEC. 1530. ADDITIONAL MEASURES TO PROTECT GROUNDWATER.

(a) IN GENERAL.—Section 9003 of the Solid Waste Disposal Act (42 U.S.C. 6991b) is amended by adding the following new subsection at the end:

“(i) ADDITIONAL MEASURES TO PROTECT GROUNDWATER FROM CONTAMINATION.—The Administrator shall require each State that receives funding under this subtitle to require one of the following:

“(1) TANK AND PIPING SECONDARY CONTAINMENT.—(A) Each new underground storage tank, or piping connected to any such new tank, installed after the effective date of this subsection, or any existing underground storage tank, or existing piping connected to such existing tank, that is replaced after the effective date of this subsection, shall be secondarily contained and monitored for leaks if the new or replaced underground storage tank or piping is within 1,000 feet of any existing community water system or any existing potable drinking water well.

“(B) In the case of a new underground storage tank system consisting of one or more underground storage tanks and connected by piping, subparagraph (A) shall apply to all underground storage tanks and connected pipes comprising such system.

“(C) In the case of a replacement of an existing underground storage tank or existing piping connected to the underground storage tank, subparagraph (A) shall apply only to the specific underground storage tank or piping being replaced, not to other underground storage tanks and connected pipes comprising such system.

“(D) Each installation of a new motor fuel dispenser system, after the effective date of this subsection, shall include under-dispenser spill containment if the new dispenser is within 1,000 feet of any existing community water system or any existing potable drinking water well.

“(E) This paragraph shall not apply to repairs to an underground storage tank, piping, or dispenser that are meant to restore a tank, pipe, or dispenser to operating condition.

“(F) As used in this subsection:

“(i) The term ‘secondarily contained’ means a release detection and prevention system that meets the requirements of 40 CFR 280.43(g), but shall not include under-dispenser spill containment or control systems.

“(ii) The term ‘underground storage tank’ has the meaning given to it in section 9001, except that such term does not include tank combinations or more than a single underground pipe connected to a tank.

“(iii) The term ‘installation of a new motor fuel dispenser system’ means the installation of a new motor fuel dispenser and the equipment necessary to connect the dispenser to the underground storage tank system, but does

not mean the installation of a motor fuel dispenser installed separately from the equipment need to connect the dispenser to the underground storage tank system.

“(2) EVIDENCE OF FINANCIAL RESPONSIBILITY AND CERTIFICATION.—

“(A) MANUFACTURER AND INSTALLER FINANCIAL RESPONSIBILITY.—A person that manufactures an underground storage tank or piping for an underground storage tank system or that installs an underground storage tank system is required to maintain evidence of financial responsibility under section 9003(d) in order to provide for the costs of corrective actions directly related to releases caused by improper manufacture or installation unless the person can demonstrate themselves to be already covered as an owner or operator of an underground storage tank under section 9003.

“(B) INSTALLER CERTIFICATION.—The Administrator and each State that receives funding under this subtitle, as appropriate, shall require that a person that installs an underground storage tank system is—

“(i) certified or licensed by the tank and piping manufacturer;

“(ii) certified or licensed by the Administrator or a State, as appropriate;

“(iii) has their underground storage tank system installation certified by a registered professional engineer with education and experience in underground storage tank system installation;

“(iv) has had their installation of the underground storage tank inspected and approved by the Administrator or the State, as appropriate;

“(v) compliant with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer’s instructions; or

“(vi) compliant with another method that is determined by the Administrator or a State, as appropriate, to be no less protective of human health and the environment.

“(C) SAVINGS CLAUSE.—Nothing in subparagraph (A) alters or affects the liability of any owner or operator of an underground storage tank.”.

(b) EFFECTIVE DATE.—This subsection shall take effect 18 months after the date of enactment of this subsection.

(c) PROMULGATION OF REGULATIONS OR GUIDELINES.—The Administrator shall issue regulations or guidelines implementing the requirements of this subsection, including guidance to differentiate between the terms “repair” and “replace” for the purposes of section 9003(i)(1) of the Solid Waste Disposal Act.

(d) PENALTIES.—Section 9006(d)(2) of such Act (42 U.S.C. 6991e(d)(2)) is amended as follows:

(1) By striking “or” at the end of subparagraph (B).

(2) By inserting “; or” at the end of subparagraph (C).

(3) By adding the following new subparagraph after subparagraph (C):

“(D) the requirements established in section 9003(i),”.

SEC. 1531. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—Subtitle I of the Solid Waste Disposal Act (42 U.S.C. 6991 et seq.) is amended by adding at the end the following:

“SEC. 9014. AUTHORIZATION OF APPROPRIATIONS.

“There are authorized to be appropriated to the Administrator the following amounts:

“(1) To carry out subtitle I (except sections 9003(h), 9005(c), 9011, and 9012) \$50,000,000 for each of fiscal years 2005 through 2009.

“(2) From the Trust Fund, notwithstanding section 9508(c)(1) of the Internal Revenue Code of 1986—

“(A) to carry out section 9003(h) (except section 9003(h)(12)) \$200,000,000 for each of fiscal years 2005 through 2009;

“(B) to carry out section 9003(h)(12), \$200,000,000 for each of fiscal years 2005 through 2009;

“(C) to carry out sections 9003(i), 9004(f), and 9005(c) \$100,000,000 for each of fiscal years 2005 through 2009; and

“(D) to carry out sections 9010, 9011, 9012, and 9013 \$55,000,000 for each of fiscal years 2005 through 2009.”.

(b) TABLE OF CONTENTS.—The table of contents for such subtitle I is amended by adding the following new item at the end thereof:

“Sec. 9014. Authorization of appropriations.

* * * * *

SEC. 1532. CONFORMING AMENDMENTS.

(a) IN GENERAL.—Section 9001 of the Solid Waste Disposal Act (42 U.S.C. 6991) is amended as follows:

(1) By striking “For the purposes of this subtitle—” and inserting “In this subtitle:”.

(2) By redesignating paragraphs (1), (2), (3), (4), (5), (6), (7), and (8) as paragraphs (10), (7), (4), (3), (8), (5), (2), and (6), respectively.

(3) By inserting before paragraph (2) (as redesignated by paragraph (2) of this subsection) the following:

“(1) INDIAN TRIBE.—

“(A) IN GENERAL.—The term ‘Indian tribe’ means any Indian tribe, band, nation, or other organized group or community that is recognized as being eligible for special programs and services provided by the United States to Indians because of their status as Indians.

“(B) INCLUSIONS.—The term ‘Indian tribe’ includes an Alaska Native village, as defined in or established under the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.); and”.

(4) By inserting after paragraph (8) (as redesignated by paragraph (2) of this subsection) the following:

“(9) TRUST FUND.—The term ‘Trust Fund’ means the Leaking Underground Storage Tank Trust Fund established by section 9508 of the Internal Revenue Code of 1986.”.

(b) CONFORMING AMENDMENTS.—The Solid Waste Disposal Act (42 U.S.C. 6901 and following) is amended as follows:

(1) Section 9003(f) (42 U.S.C. 6991b(f)) is amended—

(A) in paragraph (1), by striking “9001(2)(B)” and inserting “9001(7)(B)”; and

(B) in paragraphs (2) and (3), by striking “9001(2)(A)” each place it appears and inserting “9001(7)(A)”.

(2) Section 9003(h) (42 U.S.C. 6991b(h)) is amended in paragraphs (1), (2)(C), (7)(A), and (11) by striking “Leaking Underground Storage Tank Trust Fund” each place it appears and inserting “Trust Fund”.

(3) Section 9009 (42 U.S.C. 6991h) is amended—

(A) in subsection (a), by striking “9001(2)(B)” and inserting “9001(7)(B)”; and

(B) in subsection (d), by striking “section 9001(1) (A) and (B)” and inserting “subparagraphs (A) and (B) of section 9001(10)”.

SEC. 1533. TECHNICAL AMENDMENTS.

The Solid Waste Disposal Act is amended as follows:

(1) Section 9001(4)(A) (42 U.S.C. 6991(4)(A)) is amended by striking “sustances” and inserting “substances”.

(2) Section 9003(f)(1) (42 U.S.C. 6991b(f)(1)) is amended by striking “subsection (c) and (d) of this section” and inserting “subsections (c) and (d)”.

(3) Section 9004(a) (42 U.S.C. 6991c(a)) is amended by striking “in 9001(2) (A) or (B) or both” and inserting “in subparagraph (A) or (B) of section 9001(7)”.

(4) Section 9005 (42 U.S.C. 6991d) is amended—

(A) in subsection (a), by striking “study taking” and inserting “study, taking”;

(B) in subsection (b)(1), by striking “relevent” and inserting “relevant”; and

(C) in subsection (b)(4), by striking “Environmental” and inserting “Environmental”.

Subtitle C—Boutique Fuels

SEC. 1541. REDUCING THE PROLIFERATION OF BOUTIQUE FUELS.

(a) TEMPORARY WAIVERS DURING SUPPLY EMERGENCIES.—Section 211(c)(4)(C) of the Clean Air Act (42 U.S.C. 7545(c)(4)(C)) is amended by inserting “(i)” after “(C)” and by adding the following new clauses at the end thereof:

“(ii) The Administrator may temporarily waive a control or prohibition respecting the use of a fuel or fuel additive required or regulated by the Administrator pursuant to subsection (c), (h), (i), (k), or (m) of this section or prescribed in an applicable implementation plan under section 110 approved by the Administrator under clause (i) of this subparagraph if, after consultation with, and concurrence by, the Secretary of Energy, the Administrator determines that—

“(I) extreme and unusual fuel or fuel additive supply circumstances exist in a State or region of the Nation which prevent the distribution of an adequate supply of the fuel or fuel additive to consumers;

“(II) such extreme and unusual fuel and fuel additive supply circumstances are the result of a natural disaster, an Act of God, a pipeline or refinery equipment failure, or another event that could not reasonably have been foreseen or prevented and not the lack of prudent planning on the part of the suppliers of the fuel or fuel additive to such State or region; and

“(III) it is in the public interest to grant the waiver (for example, when a waiver is necessary to meet projected temporary shortfalls in the supply of the fuel or fuel additive in a State or region of the Nation which cannot otherwise be compensated for).

“(iii) If the Administrator makes the determinations required under clause (ii), such a temporary extreme and unusual fuel and fuel additive supply circumstances waiver shall be permitted only if—

“(I) the waiver applies to the smallest geographic area necessary to address the extreme and unusual fuel and fuel additive supply circumstances;

“(II) the waiver is effective for a period of 20 calendar days or, if the Administrator determines that a shorter waiver period is adequate, for the shortest practicable time period necessary to permit the correction of the extreme and unusual fuel and fuel additive supply circumstances and to mitigate impact on air quality;

“(III) the waiver permits a transitional period, the exact duration of which shall be determined by the Administrator (but which shall be for the shortest practicable period), after the termination of the temporary waiver to permit wholesalers and retailers to blend down their wholesale and retail inventory;

“(IV) the waiver applies to all persons in the motor fuel distribution system; and

“(V) the Administrator has given public notice to all parties in the motor fuel distribution system, and local and State regulators, in the State or region to be covered by the waiver. The term ‘motor fuel distribution system’ as used in this clause shall be defined by the Administrator through rulemaking.

“(iv) Within 180 days of the date of enactment of this clause, the Administrator shall promulgate regulations to implement clauses (ii) and (iii).

“(v) Nothing in this subparagraph shall—

“(I) limit or otherwise affect the application of any other waiver authority of the Administrator pursuant to this section or pursuant to a regulation promulgated pursuant to this section; and

“(II) subject any State or person to an enforcement action, penalties, or liability solely arising from actions taken pursuant to the issuance of a waiver under this subparagraph.”.

(b) LIMIT ON NUMBER OF BOUTIQUE FUELS.—Section 211(c)(4)(C) of the Clean Air Act (42 U.S.C. 7545(c)(4)(C)), as amended by subsection (a), is further amended by adding at the end the following:

“(v)(I) The Administrator shall have no authority, when considering a State implementation plan or a State implementation plan revision, to approve under this paragraph any fuel included in such plan or revision if the effect of such approval increases the total number of fuels approved under this paragraph as of September 1, 2004, in all State implementation plans.

“(II) The Administrator, in consultation with the Secretary of Energy, shall determine the total number of fuels approved under this paragraph as of September 1, 2004, in all State implementation plans and shall publish a list of such fuels, including the States and Petroleum Administration for Defense District in which they are used, in the Federal Register for public review and comment no later than 90 days after enactment.

“(III) The Administrator shall remove a fuel from the list published under subclause (II) if a fuel ceases to be included in a State implementation plan or if a fuel in a State implementation plan is identical to a Federal fuel formulation implemented by the Administrator, but the Administrator shall not reduce the total number of fuels authorized under the list published under subclause (II).

“(IV) Subclause (I) shall not limit the Administrator’s authority to approve a control or prohibition respecting any new fuel under this paragraph in a State implementation plan or revision to a State implementation plan if such new fuel—

“(aa) completely replaces a fuel on the list published under subclause (II); or

“(bb) does not increase the total number of fuels on the list published under subclause (II) as of September 1, 2004.

In the event that the total number of fuels on the list published under subclause (II) at the time of the Administrator’s consideration of a control or prohibition respecting a new fuel is lower than the total number of fuels on such list as of September 1, 2004, the Administrator may approve a control or prohibition respecting a new fuel under this subclause if the Administrator, after consultation with the Secretary of Energy, publishes in the Federal Register after notice and comment a finding that, in the Administrator’s judgment, such control or prohibition respecting a new fuel will not cause fuel supply or distribution interruptions or have a significant adverse impact on fuel producibility in the affected area or contiguous areas.

“(V) The Administrator shall have no authority under this paragraph, when considering any particular State’s implementation plan or a revision to that State’s implementation plan, to approve any fuel unless that fuel was, as of the date of such consideration, approved in at least one State implementation plan in the applicable Petroleum Administration for Defense District. However, the Administrator may approve as part of a State implementation plan or State implementation plan revision a fuel with a summertime Reid Vapor Pressure of 7.0 psi. In no event shall such approval by the Administrator cause an increase in the total number of fuels on the list published under subclause (II).

“(VI) Nothing in this clause shall be construed to have any effect regarding any available authority of States to require the use of any fuel additive registered in accordance with subsection (b), including any fuel additive registered in accordance with subsection (b) after the enactment of this subclause.”.

(c) STUDY AND REPORT TO CONGRESS ON BOUTIQUE FUELS.—

(1) JOINT STUDY.—The Administrator of the Environmental Protection Agency and the Secretary shall undertake a study of the effects on air quality, on the number of fuel blends, on fuel availability, on fuel fungibility, and on fuel costs of the State plan provisions adopted pursuant to section 211(c)(4)(C) of the Clean Air Act (42 U.S.C. 7545(c)(4)(C)).

(2) FOCUS OF STUDY.—The primary focus of the study required under paragraph (1) shall be to determine how to develop a Federal fuels system that maximizes motor fuel fungibility and supply, addresses air quality requirements, and reduces motor fuel price volatility including that which has resulted from the proliferation of boutique fuels, and to recommend to Congress such legislative changes as are necessary to implement such a system. The study should include the impacts on overall energy supply, distribution, and use as a result of the legislative changes recommended.

(3) CONDUCT OF STUDY.—In carrying out their joint duties under this section, the Administrator and the Secretary shall use sound science and objective science practices, shall consider the best available science, shall use data collected by accepted means and shall consider and include a description of the weight of the scientific evidence. The Administrator and the Secretary shall coordinate the study required by this section with other studies required by the Act.

(4) RESPONSIBILITY OF ADMINISTRATOR.—In carrying out the study required by this section, the Administrator shall coordinate obtaining comments from affected parties interested in the air quality impact assessment portion of the study.

(5) RESPONSIBILITY OF SECRETARY.—In carrying out the study required by this section, the Secretary shall coordinate obtaining comments from affected parties interested in the fuel availability, number of fuel blends, fuel fungibility, and fuel costs portion of the study.

(6) REPORT TO CONGRESS.—The Administrator and the Secretary jointly shall submit the results of the study required by this section in a report to the Congress not later than 12 months after the date of the enactment of this Act, together with any recommended regulatory and legislative changes. Such report shall be submitted to the Committee on Energy and Commerce of the United States House of Representatives and the Committees on Energy and Natural Resources and on Environment and Public Works of the Senate.

(7) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated jointly to the Administrator and the Secretary \$500,000 for the completion of the study required under this subsection.

(d) DEFINITIONS.—In this section:

(1) The term “Administrator” means the Administrator of the Environmental Protection Agency.

(2) The term “fuel” means gasoline, diesel fuel, and any other liquid petroleum product commercially known as gasoline and diesel fuel for use in highway and nonroad motor vehicles.

(3) The term “a control or prohibition respecting a new fuel” means a control or prohibition on the formulation, composition, or emissions characteristics of a fuel that would require the increase or decrease of a constituent in gasoline or diesel fuel.

TITLE XVI—CLIMATE CHANGE

Subtitle A—National Climate Change Technology Deployment

SEC. 1601. 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) ADVISORY COMMITTEE.—The term ‘Advisory Committee’ means the Climate Change Technology Advisory Committee established under subsection (f)(1).

“(2) 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.

“(3) COMMITTEE.—The term ‘Committee’ means the Committee on Climate Change Technology established under subsection (b)(1).

“(4) DEVELOPING COUNTRY.—The term ‘developing country’ has the meaning given the term in section 1608(m).

“(5) GREENHOUSE GAS.—The term ‘greenhouse gas’ means—

- “(A) carbon dioxide;
- “(B) methane;
- “(C) nitrous oxide;
- “(D) hydrofluorocarbons;
- “(E) perfluorocarbons; and
- “(F) sulfur hexafluoride.

“(6) GREENHOUSE GAS INTENSITY.—The term ‘greenhouse gas intensity’ means the ratio of greenhouse gas emissions to economic output.

“(7) NATIONAL LABORATORY.—The term ‘National Laboratory’ has the meaning given the term in section 3(3) of the Energy Policy Act of 2005.

“(b) COMMITTEE ON CLIMATE CHANGE TECHNOLOGY.—

“(1) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the President shall establish a Committee on Climate Change Technology to—

“(A) integrate current Federal climate reports; and

“(B) coordinate Federal climate change technology activities and programs carried out in furtherance of the strategy developed under subsection (c)(1).

“(2) MEMBERSHIP.—The Committee shall be composed of at least 7 members, including—

“(A) the Secretary, who shall chair the Committee;

“(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;

“(F) the Secretary of Transportation;

“(G) the Director of the Office of Science and Technology Policy; and

“(H) other representatives as may be determined by the President.

“(3) STAFF.—The members of the Committee shall provide such personnel as are necessary to enable the Committee to perform its duties.

“(c) NATIONAL CLIMATE CHANGE TECHNOLOGY POLICY.—

“(1) IN GENERAL.—Not later than 18 months after the date of enactment of this section, the Committee 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, institutions of higher education, and the private sector.

“(2) UPDATES.—The Committee shall—

“(A) at the time of submission of the strategy to the President under paragraph (1), also make the strategy available to the public; and

“(B) update the strategy every 5 years, or more frequently as the Committee determines to be necessary.

“(d) CLIMATE CHANGE TECHNOLOGY PROGRAM.—Not later than 180 days after the date on which the Committee is established under subsection (b)(1), the Secretary, in consultation with the Committee, shall establish within the Department of Energy the Climate Change Technology Program to—

“(1) assist the Committee in the interagency coordination of climate change technology research, development, demonstration, and deployment to reduce greenhouse gas intensity; and

“(2) carry out the programs authorized under this section.

“(e) TECHNOLOGY INVENTORY.—

“(1) IN GENERAL.—The Secretary shall conduct and make public 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, institutions of higher education, and the pri-

vate 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 Congress a report that includes the results of the completed inventory and any recommendations of the Secretary.

“(3) USE.—The Secretary 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), including when determined necessary by the Committee; and

“(B) make the updated inventory available to the public.

“(f) CLIMATE CHANGE TECHNOLOGY ADVISORY COMMITTEE.—

“(1) IN GENERAL.—The Secretary, in consultation with the Committee, may establish under section 624 of the Department of Energy Organization Act (42 U.S.C. 7234) a Climate Change Technology Advisory Committee 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 Advisory Committee 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 institutions of higher education 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 Advisory Committee shall submit to the Committee a report that describes—

“(A) the findings of the Advisory Committee; and

“(B) any recommendations of the Advisory Committee for the removal or reduction of barriers to commercialization, deployment, and increasing the use of greenhouse gas intensity reducing technologies and practices.

“(g) GREENHOUSE GAS INTENSITY REDUCING TECHNOLOGY DEPLOYMENT.—

“(1) IN GENERAL.—Based on the strategy developed under subsection (c)(1), the technology inventory conducted under

subsection (e)(1), the greenhouse gas intensity reducing technology study report submitted under subsection (e)(2), and reports under subsection (f)(3), if any, the Committee shall develop recommendations 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 recommendations 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) DEMONSTRATION PROJECTS.—In developing recommendations under paragraph (1), the Committee may identify the need for climate change technology demonstration projects.

“(4) 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 demonstration projects.

“(5) UPDATES.—The Committee shall—

“(A) at the time of submission of the report to Congress under paragraph (4), also make the report available to the public; and

“(B) update the report every 5 years, or more frequently as the Committee determines to be necessary.

“(h) PROCEDURES FOR CALCULATING, MONITORING, AND ANALYZING GREENHOUSE GAS INTENSITY.—The Secretary, in collaboration with the Committee and the National Institute of Standards and Technology, and after public notice and opportunity for comment, shall develop standards and best practices for calculating, monitoring, and analyzing greenhouse gas intensity.

“(i) DEMONSTRATION PROJECTS.—

“(1) IN GENERAL.—The Secretary shall, subject to the availability of appropriations, support demonstration projects that—

“(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.

“(2) COST SHARING.—In supporting a demonstration project under this subsection, the Secretary shall require cost-sharing in accordance with section 988 of the Energy Policy Act of 2005.

“(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as are necessary to carry out this subsection.

“(j) COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS.—In carrying out greenhouse gas intensity reduction research and technology deployment activities under this subtitle, 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).”.

Subtitle B—Climate Change Technology Deployment in Developing Countries

SEC. 1611. 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 devel-

oping countries that are the largest 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 Energy, in coordination with the Secretary of State 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;

“(5) a designee of the Secretary of Commerce; and

“(6) a designee of the Administrator of the Environmental Protection Agency.

“(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.

“SEC. 739. EFFECTIVE DATE.

“Except as otherwise provided in this part, this part takes effect on October 1, 2005.”.

TITLE XVII—INCENTIVES FOR INNOVATIVE TECHNOLOGIES

SEC. 1701. [42 U.S.C. 16511] DEFINITIONS.

In this title:

(1) COMMERCIAL TECHNOLOGY.—

(A) IN GENERAL.—The term “commercial technology” means a technology in general use in the commercial marketplace.

(B) INCLUSIONS.—The term “commercial technology” does not include a technology solely by use of the technology in a demonstration project funded by the Department.

(2) COST.—The term “cost” has the meaning given the term “cost of a loan guarantee” within the meaning of section

502(5)(C) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(C)).

(3) ELIGIBLE PROJECT.—The term “eligible project” means a project described in section 1703.

(4) GUARANTEE.—

(A) IN GENERAL.—The term “guarantee” has the meaning given the term “loan guarantee” in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a), except that a loan guarantee may guarantee any debt obligation of a non-Federal borrower to any Eligible Lender (as defined in section 609.2 of title 10, Code of Federal Regulations).

(B) INCLUSION.—The term “guarantee” includes a loan guarantee commitment (as defined in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a)).

(5) OBLIGATION.—The term “obligation” means the loan or other debt obligation that is guaranteed under this section.

(6) STATE.—The term “State” has the meaning given the term in section 202 of the Energy Conservation and Production Act (42 U.S.C. 6802).

(7) STATE ENERGY FINANCING INSTITUTION.—

(A) IN GENERAL.—The term “State energy financing institution” means a quasi-independent entity or an entity within a State agency or financing authority established by a State—

(i) to provide financing support or credit enhancements, including loan guarantees and loan loss reserves, for eligible projects; and

(ii) to create liquid markets for eligible projects, including warehousing and securitization, or take other steps to reduce financial barriers to the deployment of existing and new eligible projects.

(B) INCLUSION.—The term “State energy financing institution” includes an entity or organization established to achieve the purposes described in clauses (i) and (ii) of subparagraph (A) by an Indian Tribal entity or an Alaska Native Corporation.

SEC. 1702. [42 U.S.C. 16512] TERMS AND CONDITIONS.

(a) IN GENERAL.—Except for division C of Public Law 108–324, the Secretary shall make guarantees under this or any other Act for projects, including projects receiving financial support or credit enhancements from a State energy financing institution, on such terms and conditions as the Secretary determines, after consultation with the Secretary of the Treasury, only in accordance with this section.

(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—

(1) IN GENERAL.—Except as provided in paragraph (2), the cost of a guarantee shall be paid by the Secretary using an appropriation made for the cost of the guarantee, subject to the availability of such an appropriation.

(2) INSUFFICIENT APPROPRIATIONS.—If sufficient appropriated funds to pay the cost of a guarantee are not available, then the guarantee shall not be made unless—

(A) the Secretary has received from the borrower a payment in full for the cost of the guarantee and deposited the payment into the Treasury; or

(B) a combination of one or more appropriations and one or more payments from the borrower under this subsection has been made that is sufficient to cover the cost of the guarantee.

(3) SOURCE OF PAYMENTS.—The source of a payment received from a borrower under subparagraph (A) or (B) of paragraph (2) may not be a loan or other debt obligation that is made or guaranteed by the Federal Government.

(c) AMOUNT.—Unless otherwise provided by law, a guarantee by the Secretary shall not exceed an amount equal to 80 percent of the project cost of the facility that is the subject of the guarantee, as estimated at the time at which the guarantee is issued.

(d) REPAYMENT.—

(1) REQUIREMENT.—

(A) IN GENERAL.—No guarantee, including a guarantee for a project receiving financial support or credit enhancements from a State energy financing institution, shall be made unless the Secretary determines that there is reasonable prospect of repayment of the principal and interest on the obligation by the borrower.

(B) REASONABLE PROSPECT OF REPAYMENT.—The Secretary shall base a determination of whether there is reasonable prospect of repayment under subparagraph (A) on a comprehensive evaluation of whether the borrower has a reasonable prospect of repaying the guaranteed obligation for the eligible project, including, as applicable, an evaluation of—

(i) the strength of the contractual terms of the eligible project (if commercially reasonably available);

(ii) the forecast of noncontractual cash flows supported by market projections from reputable sources, as determined by the Secretary;

(iii) cash sweeps and other structure enhancements;

(iv) the projected financial strength of the borrower—

(I) at the time of loan close; and

(II) throughout the loan term after the project is completed;

(v) the financial strength of the investors and strategic partners of the borrower, if applicable; and

(vi) other financial metrics and analyses that are relied on by the private lending community and nationally recognized credit rating agencies, as determined appropriate by the Secretary.

(2) AMOUNT.—No guarantee shall be made unless the Secretary determines that the amount of the obligation (when combined with amounts available to the borrower from other sources) will be sufficient to carry out the project.

(3) SUBORDINATION.—The obligation shall be subject to the condition that the obligation, including any reorganization, re-

structuring, or termination thereof, shall not at any time be subordinate to other financing.

(e) **INTEREST RATE.**—An obligation shall bear interest at a rate that does not exceed a level that the Secretary determines appropriate, taking into account the prevailing rate of interest in the private sector for similar loans and risks.

(f) **TERM.**—The term of an obligation shall require full repayment over a period not to exceed the lesser of—

- (1) 30 years; or
- (2) 90 percent of the projected useful life of the physical asset to be financed by the obligation (as determined by the Secretary).

(g) **DEFAULTS.**—

(1) **PAYMENT BY SECRETARY.**—

(A) **IN GENERAL.**—If a borrower defaults on the obligation (as defined in regulations promulgated by the Secretary and specified in the guarantee contract), the holder of the guarantee shall have the right to demand payment of the unpaid amount from the Secretary.

(B) **PAYMENT REQUIRED.**—Within such period as may be specified in the guarantee or related agreements, the Secretary shall pay to the holder of the guarantee the unpaid interest on, and unpaid principal of the obligation as to which the borrower has defaulted, unless the Secretary finds that there was no default by the borrower in the payment of interest or principal or that the default has been remedied.

(C) **FORBEARANCE.**—Nothing in this subsection precludes any forbearance by the holder of the obligation for the benefit of the borrower which may be agreed upon by the parties to the obligation and approved by the Secretary.

(2) **SUBROGATION.**—

(A) **IN GENERAL.**—If the Secretary makes a payment under paragraph (1), the Secretary shall be subrogated to the rights of the recipient of the payment as specified in the guarantee or related agreements including, where appropriate, the authority (notwithstanding any other provision of law) to—

(i) complete, maintain, operate, lease, or otherwise dispose of any property acquired pursuant to such guarantee or related agreements; or

(ii) permit the borrower, pursuant to an agreement with the Secretary, to continue to pursue the purposes of the project if the Secretary determines this to be in the public interest.

(B) **SUPERIORITY OF RIGHTS.**—The rights of the Secretary, with respect to any property acquired pursuant to a guarantee or related agreements, shall be superior to the rights of any other person with respect to the property.

(C) **TERMS AND CONDITIONS.**—A guarantee agreement shall include such detailed terms and conditions as the Secretary determines appropriate to—

(i) protect the interests of the United States in the case of default; and

(ii) have available all the patents and technology necessary for any person selected, including the Secretary, to complete and operate the project.

(3) PAYMENT OF PRINCIPAL AND INTEREST BY SECRETARY.—With respect to any obligation guaranteed under this section, the Secretary may enter into a contract to pay, and pay, holders of the obligation, for and on behalf of the borrower, from funds appropriated for that purpose, the principal and interest payments which become due and payable on the unpaid balance of the obligation if the Secretary finds that—

(A)(i) the borrower is unable to meet the payments and is not in default;

(ii) it is in the public interest to permit the borrower to continue to pursue the purposes of the project; and

(iii) the probable net benefit to the Federal Government in paying the principal and interest will be greater than that which would result in the event of a default;

(B) the amount of the payment that the Secretary is authorized to pay shall be no greater than the amount of principal and interest that the borrower is obligated to pay under the agreement being guaranteed; and

(C) the borrower agrees to reimburse the Secretary for the payment (including interest) on terms and conditions that are satisfactory to the Secretary.

(4) ACTION BY ATTORNEY GENERAL.—

(A) NOTIFICATION.—If the borrower defaults on an obligation, the Secretary shall notify the Attorney General of the default.

(B) RECOVERY.—On notification, the Attorney General shall take such action as is appropriate to recover the unpaid principal and interest due from—

(i) such assets of the defaulting borrower as are associated with the obligation; or

(ii) any other security pledged to secure the obligation.

(h) FEES.—

(1) IN GENERAL.—The Secretary shall charge, and collect on or after the date of the financial close of an obligation, a fee for a guarantee in an amount that the Secretary determines is sufficient to cover applicable administrative expenses (including any costs associated with third-party consultants engaged by the Secretary).

(2) AVAILABILITY.—Fees collected under this subsection shall—

(A) be deposited by the Secretary into the Treasury; and

(B) remain available until expended, subject to such other conditions as are contained in annual appropriations Acts.

(3) REDUCTION IN FEE AMOUNT.—Notwithstanding paragraph (1) and subject to the availability of appropriations, the

Secretary may reduce the amount of a fee for a guarantee under this subsection.

(i) RECORDS; AUDITS.—

(1) IN GENERAL.—A recipient of a guarantee shall keep such records and other pertinent documents as the Secretary shall prescribe by regulation, including such records as the Secretary may require to facilitate an effective audit.

(2) ACCESS.—The Secretary and the Comptroller General of the United States, or their duly authorized representatives, shall have access, for the purpose of audit, to the records and other pertinent documents.

(j) FULL FAITH AND CREDIT.—The full faith and credit of the United States is pledged to the payment of all guarantees issued under this section with respect to principal and interest.

(k) WAGE RATE REQUIREMENTS.—All laborers and mechanics employed by contractors and subcontractors in the performance of construction work financed in whole or in part by a loan guaranteed under this title shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. With respect to the labor standards in this subsection, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

(l) RESTRUCTURING OF LOAN GUARANTEES.—The Secretary shall consult with the Secretary of the Treasury regarding any restructuring of the terms or conditions of a guarantee issued pursuant to this title, including with respect to any deviations from the financial terms of the guarantee.

(m) WRITTEN ANALYSIS.—

(1) REQUIREMENT.—The Secretary may not make a guarantee under this title until the Secretary of the Treasury has transmitted to the Secretary, and the Secretary has taken into consideration, a written analysis of the financial terms and conditions of the proposed guarantee.

(2) TRANSMISSION.—Not later than 30 days after receiving information on a proposed guarantee from the Secretary, the Secretary of the Treasury shall transmit the written analysis of the financial terms and conditions of the proposed guarantee required under paragraph (1) to the Secretary.

(3) EXPLANATION.—If the Secretary makes a guarantee the financial terms and conditions of which are not consistent with the written analysis required under this subsection, not later than 30 days after making such guarantee, the Secretary shall submit to the Committee on Energy and Commerce and the Committee on Science, Space, and Technology of the House of Representatives, and the Committee on Energy and Natural Resources of the Senate, a written explanation of any material inconsistencies.

(n) APPLICATION STATUS.—

(1) REQUEST.—If the Secretary does not make a final decision on an application for a guarantee under this title by the date that is 180 days after receipt of the application by the

Secretary, the applicant may request, on or after that date and not more than once every 60 days thereafter until a final decision is made, that the Secretary provide to the applicant a response described in paragraph (2).

(2) RESPONSE.—Not later than 10 days after receiving a request from an applicant under paragraph (1), the Secretary shall provide to the applicant a response that includes—

(A) a description of the current status of review of the application;

(B) a summary of any factors that are delaying a final decision on the application, a list of what items are required in order to reach a final decision, citations to authorities stating the reasons why such items are required, and a list of actions the applicant can take to expedite the process; and

(C) an estimate of when a final decision on the application will be made.

(o) OUTREACH.—In carrying out this title, the Secretary shall—

(1) provide assistance with the completion of applications for a guarantee under this title;

(2) conduct outreach, including through conferences and online programs, to disseminate information to potential applicants;

(3) conduct outreach to encourage participation of supporting finance institutions and private lenders in eligible projects and projects described in section 1706(a).

(p) COORDINATION.—In carrying out this title, the Secretary shall coordinate activities under this title with activities of other relevant offices with the Department.

(q) REPORT.—Not later than 2 years after the date of the enactment of this subsection and every 3 years thereafter, the Secretary shall submit to Congress a report on the status of applications for, and projects receiving, guarantees under this title, including—

(1) a list of such projects, including the guarantee amount, construction status, and financing partners of each such project;

(2) the status of each such project's loan repayment, including interest paid and future repayment projections;

(3) an estimate of the air pollutant or greenhouse gas emissions avoided or reduced from each such project;

(4) data regarding the number of direct and indirect jobs retained, restored, or created by such projects;

(5) identification of—

(A) technologies deployed by projects that have received guarantees that have subsequently been deployed commercially without guarantees; and

(B) novel technologies that have been deployed by such projects and deployed in the commercial energy market;

(6) the number of new projects projected to receive a guarantee under this title during the next 2 years and the aggregate guarantee amount;

(7) the number of outreach engagements conducted with potential applicants;

(8) the number of applications received and currently pending for each open solicitation; and

(9) any other metrics the Secretary finds appropriate.

(r)⁹ CONFLICTS OF INTEREST.—For each project selected for a guarantee under this title, the Secretary shall certify that political influence did not impact the selection of the project.

(r)⁹ STATE ENERGY FINANCING INSTITUTIONS.—

(1) ELIGIBILITY.—To be eligible for a guarantee under this title, a project receiving financial support or credit enhancements from a State energy financing institution—

(A) shall meet the requirements of section 1703(a)(1); and

(B) shall not be required to meet the requirements of section 1703(a)(2).

(2) PARTNERSHIPS AUTHORIZED.—In carrying out a project receiving a loan guarantee under this title, State energy financing institutions may enter into partnerships with private entities, Tribal entities, and Alaska Native corporations.

SEC. 1703. [42 U.S.C. 16513] ELIGIBLE PROJECTS.

(a) IN GENERAL.—The Secretary may make guarantees under this section only for projects that—

(1) avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and

(2) employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued, including projects that employ elements of commercial technologies in combination with new or significantly improved technologies.

(b) CATEGORIES.—Projects from the following categories shall be eligible for a guarantee under this section:

(1) Renewable energy systems.

(2) Advanced fossil energy technology (including coal gasification meeting the criteria in subsection (d)).

(3) Hydrogen fuel cell technology for residential, industrial, or transportation applications.

(4) Advanced nuclear energy facilities, including manufacturing of nuclear supply components for advanced nuclear reactors.

(5) Carbon capture, utilization, and sequestration practices and technologies, including—

(A) agricultural and forestry practices that store and sequester carbon; and

(B) synthetic technologies to remove carbon from the air and oceans.

(6) Efficient electrical generation, transmission, and distribution technologies.

(7) Efficient end-use energy technologies.

(8) Production facilities for the manufacture of fuel efficient vehicles or parts of those vehicles, including electric drive vehicles and advanced diesel vehicles.

(9) Pollution control equipment.

⁹So in law. Subsections (a)(3) and (c)(2)(C) of section 40401 of Division D of Public Law 117-58 both added a subsection (r) to section 1702.

(10) Refineries, meaning facilities at which crude oil is refined into gasoline.

(11) Energy storage technologies for residential, industrial, transportation, and power generation applications.

(12) Technologies or processes for reducing greenhouse gas emissions from industrial applications, including iron, steel, cement, and ammonia production, hydrogen production, and the generation of high-temperature heat.

(13) Projects that increase the domestically produced supply of critical minerals (as defined in section 7002(a) of the Energy Act of 2020 (30 U.S.C. 1606(a)), including through the production, processing, manufacturing, recycling, or fabrication of mineral alternatives.

(c) GASIFICATION PROJECTS.—The Secretary may make guarantees for the following gasification projects:

(1) INTEGRATED GASIFICATION COMBINED CYCLE PROJECTS.—Integrated gasification combined cycle plants meeting the emission levels under subsection (d), including—

(A) projects for the generation of electricity—

(i) for which, during the term of the guarantee—
(I) coal, biomass, petroleum coke, or a combination of coal, biomass, and petroleum coke will account for at least 65 percent of annual heat input; and

(II) electricity will account for at least 65 percent of net useful annual energy output;

(ii) that have a design that is determined by the Secretary to be capable of accommodating the equipment likely to be necessary to capture the carbon dioxide that would otherwise be emitted in flue gas from the plant;

(iii) that have an assured revenue stream that covers project capital and operating costs (including servicing all debt obligations covered by the guarantee) that is approved by the Secretary and the relevant State public utility commission; and

(iv) on which construction commences not later than the date that is 3 years after the date of the issuance of the guarantee;

(B) a project to produce energy from coal (of not more than 13,000 Btu/lb and mined in the western United States) using appropriate advanced integrated gasification combined cycle technology that minimizes and offers the potential to sequester carbon dioxide emissions and that—

(i) may include repowering of existing facilities;

(ii) may be built in stages;

(iii) shall have a combined output of at least 100 megawatts;

(iv) shall be located in a western State at an altitude greater than 4,000 feet; and

(v) shall demonstrate the ability to use coal with an energy content of not more than 9,000 Btu/lb;

(C) a project located in a taconite-producing region of the United States that is entitled under the law of the

State in which the plant is located to enter into a long-term contract approved by a State public utility commission to sell at least 450 megawatts of output to a utility;

(D) facilities that—

(i) generate one or more hydrogen-rich and carbon monoxide-rich product streams from the gasification of coal or coal waste; and

(ii) use those streams to facilitate the production of ultra clean premium fuels through the Fischer-Tropsch process; and

(E) a project to produce energy and clean fuels, using appropriate coal liquefaction technology, from Western bituminous or subbituminous coal, that—

(i) is owned by a State government; and

(ii) may include tribal and private coal resources.

(2) INDUSTRIAL GASIFICATION PROJECTS.—Facilities that gasify coal, biomass, or petroleum coke in any combination to produce synthesis gas for use as a fuel or feedstock and for which electricity accounts for less than 65 percent of the useful energy output of the facility.

(3) PETROLEUM COKE GASIFICATION PROJECTS.—The Secretary is encouraged to make loan guarantees under this title available for petroleum coke gasification projects.

(4) LIQUEFACTION PROJECT.—Notwithstanding any other provision of law, funds awarded under the Department of Energy's Clean Coal Power Initiative for Fischer-Tropsch coal-to-oil liquefaction projects may be used to finance the cost of loan guarantees for projects awarded such funds.

(d) EMISSION LEVELS.—In addition to any other applicable Federal or State emission limitation requirements, a project shall attain at least—

(1) total sulfur dioxide emissions in flue gas from the project that do not exceed 0.05 lb/MMBtu;

(2) a 90-percent removal rate (including any fuel pretreatment) of mercury from the coal-derived gas, and any other fuel, combusted by the project;

(3) total nitrogen oxide emissions in the flue gas from the project that do not exceed 0.08 lb/MMBtu; and

(4) total particulate emissions in the flue gas from the project that do not exceed 0.01 lb/MMBtu.

(e) QUALIFICATION OF FACILITIES RECEIVING TAX CREDITS.—A project that receives tax credits for clean coal technology shall not be disqualified from receiving a guarantee under this title.

(f) REGIONAL VARIATION.—Notwithstanding subsection (a)(2), the Secretary may, if regional variation significantly affects the deployment of a technology, make guarantees under this title for up to 6 projects that employ the same or similar technology as another project, provided no more than 2 projects that use the same or a similar technology are located in the same region of the United States.

SEC. 1704. [42 U.S.C. 16514] AUTHORIZATION OF APPROPRIATIONS.

(a) **IN GENERAL.**—There are authorized to be appropriated such sums as are necessary to provide the cost of guarantees under this title.

(b) **USE OF OTHER APPROPRIATED FUNDS.**—The Department may use amounts awarded under the Clean Coal Power Initiative to carry out the project described in section 1703(c)(1)(C), on the request of the recipient of such award, for a loan guarantee, to the extent that the amounts have not yet been disbursed to, or have been repaid by, the recipient.

(c) **ADMINISTRATIVE AND OTHER EXPENSES.**—There are authorized to be appropriated—

(1) \$32,000,000 for each of fiscal years 2021 through 2025 to carry out this title; and

(2) for fiscal year 2021, in addition to amounts authorized under paragraph (1), \$25,000,000, to remain available until expended, for administrative expenses described in section 1702(h)(1) that are not covered by fees collected pursuant to section 1702(h).

SEC. 1705. [42 U.S.C. 16516] TEMPORARY PROGRAM FOR RAPID DEPLOYMENT OF RENEWABLE ENERGY AND ELECTRIC POWER TRANSMISSION PROJECTS.

(a) **IN GENERAL.**—Notwithstanding section 1703, the Secretary may make guarantees under this section only for the following categories of projects that commence construction not later than September 30, 2011:

(1) Renewable energy systems, including incremental hydropower, that generate electricity or thermal energy, and facilities that manufacture related components.

(2) Electric power transmission systems, including upgrading and reconditioning projects.

(3) Leading edge biofuel projects that will use technologies performing at the pilot or demonstration scale that the Secretary determines are likely to become commercial technologies and will produce transportation fuels that substantially reduce life-cycle greenhouse gas emissions compared to other transportation fuels.

(b) **FACTORS RELATING TO ELECTRIC POWER TRANSMISSION SYSTEMS.**—In determining to make guarantees to projects described in subsection (a)(2), the Secretary may consider the following factors:

(1) The viability of the project without guarantees.

(2) The availability of other Federal and State incentives.

(3) The importance of the project in meeting reliability needs.

(4) The effect of the project in meeting a State or region's environment (including climate change) and energy goals.

(c) **WAGE RATE REQUIREMENTS.**—The Secretary shall require that each recipient of support under this section provide reasonable assurance that all laborers and mechanics employed in the performance of the project for which the assistance is provided, including those employed by contractors or subcontractors, will be paid wages at rates not less than those prevailing on similar work in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of part A of subtitle II of title 40,

United States Code (commonly referred to as the “Davis-Bacon Act”).

(d) **LIMITATION.**—Funding under this section for projects described in subsection (a)(3) shall not exceed \$500,000,000.

(e) **SUNSET.**—The authority to enter into guarantees under this section shall expire on September 30, 2011.

SEC. 1706. [42 U.S.C. 16517] ENERGY INFRASTRUCTURE REINVESTMENT FINANCING.

(a) **IN GENERAL.**—Notwithstanding section 1703, the Secretary may make guarantees, including refinancing, under this section only for projects that—

(1) retool, repower, repurpose, or replace energy infrastructure that has ceased operations;

(2) enable operating energy infrastructure to increase capacity or output; or

(3) support or enable the provision of known or forecastable electric supply at time intervals necessary to maintain or enhance grid reliability or other system adequacy needs.

(b) **INCLUSION.**—A project under subsection (a) may include the remediation of environmental damage associated with energy infrastructure.

(c) **APPLICATION.**—To apply for a guarantee under this section, an applicant shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require, including—

(1) a detailed plan describing the proposed project; and

(2) in the case of an applicant that is an electric utility, an assurance that the electric utility shall pass on any financial benefit from the guarantee made under this section to the customers of, or associated communities served by, the electric utility.

(d) **TERM.**—Notwithstanding section 1702(f), the term of an obligation shall require full repayment over a period not to exceed 30 years.

(e) **DEFINITION OF ENERGY INFRASTRUCTURE.**—In this section, the term “energy infrastructure” means a facility, and associated equipment, used for enabling the identification, leasing, development, production, processing, transportation, transmission, refining, and generation needed for energy and critical minerals.

(f) **FUNDING.**—

(1) **IN GENERAL.**—In addition to amounts otherwise available, there is appropriated to the Secretary for fiscal year 2025, out of any money in the Treasury not otherwise appropriated, \$1,000,000,000, to remain available through September 30, 2028, to carry out activities under this section.

(2) **ADMINISTRATIVE COSTS.**—Of the amount made available under paragraph (1), the Secretary shall use not more than 3 percent for administrative expenses.

TITLE XVIII—STUDIES

SEC. 1801. STUDY ON INVENTORY OF PETROLEUM AND NATURAL GAS STORAGE.

(a) DEFINITION.—For purposes of this section “petroleum” means crude oil, motor gasoline, jet fuel, distillates, and propane.

(b) STUDY.—The Secretary shall conduct a study on petroleum and natural gas storage capacity and operational inventory levels, nationwide and by major geographical regions.

(c) CONTENTS.—The study shall address—

(1) historical normal ranges for petroleum and natural gas inventory levels;

(2) historical and projected storage capacity trends;

(3) estimated operation inventory levels below which outages, delivery slowdown, rationing, interruptions in service, or other indicators of shortage begin to appear;

(4) explanations for inventory levels dropping below normal ranges; and

(5) the ability of industry to meet United States demand for petroleum and natural gas without shortages or price spikes, when inventory levels are below normal ranges.

(d) REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit a report to Congress on the results of the study, including findings and any recommendations for preventing future supply shortages.

SEC. 1802. STUDY OF ENERGY EFFICIENCY STANDARDS.

The Secretary shall contract with the National Academy of Sciences for a study, to be completed within 1 year after the date of enactment of this Act, to examine whether the goals of energy efficiency standards are best served by measurement of energy consumed, and efficiency improvements, at the actual site of energy consumption, or through the full fuel cycle, beginning at the source of energy production. The Secretary shall submit the report to Congress.

SEC. 1803. TELECOMMUTING STUDY.

(a) STUDY REQUIRED.—The Secretary, in consultation with the Commission, the Director of the Office of Personnel Management, the Administrator of General Services, and the Administrator of NTIA, shall conduct a study of the energy conservation implications of the widespread adoption of telecommuting by Federal employees in the United States.

(b) REQUIRED SUBJECTS OF STUDY.—The study required by subsection (a) shall analyze the following subjects in relation to the energy saving potential of telecommuting by Federal employees:

(1) Reductions of energy use and energy costs in commuting and regular office heating, cooling, and other operations.

(2) Other energy reductions accomplished by telecommuting.

(3) Existing regulatory barriers that hamper telecommuting, including barriers to broadband telecommunications services deployment.

(4) Collateral benefits to the environment, family life, and other values.

(c) **REPORT REQUIRED.**—The Secretary shall submit to the President and Congress a report on the study required by this section not later than 6 months after the date of enactment of this Act. Such report shall include a description of the results of the analysis of each of the subjects described in subsection (b).

(d) **DEFINITIONS.**—As used in this section:

(1) **COMMISSION.**—The term “Commission” means the Federal Communications Commission.

(2) **NTIA.**—The term “NTIA” means the National Telecommunications and Information Administration of the Department of Commerce.

(3) **TELECOMMUTING.**—The term “telecommuting” means the performance of work functions using communications technologies, thereby eliminating or substantially reducing the need to commute to and from traditional worksites.

(4) **FEDERAL EMPLOYEE.**—The term “Federal employee” has the meaning provided the term “employee” by section 2105 of title 5, United States Code.

SEC. 1804. LIHEAP REPORT.

Not later than 1 year after the date of enactment of this Act, the Secretary of Health and Human Services shall transmit to Congress a report on how the Low-Income Home Energy Assistance Program could be used more effectively to prevent loss of life from extreme temperatures. In preparing such report, the Secretary shall consult with appropriate officials in all 50 States and the District of Columbia.

SEC. 1805. OIL BYPASS FILTRATION TECHNOLOGY.

The Secretary and the Administrator of the Environmental Protection Agency shall—

(1) conduct a joint study of the benefits of oil bypass filtration technology in reducing demand for oil and protecting the environment;

(2) examine the feasibility of using oil bypass filtration technology in Federal motor vehicle fleets; and

(3) include in such study, prior to any determination of the feasibility of using oil bypass filtration technology, the evaluation of products and various manufacturers.

SEC. 1806. TOTAL INTEGRATED THERMAL SYSTEMS.

The Secretary shall—

(1) conduct a study of the benefits of total integrated thermal systems in reducing demand for oil and protecting the environment; and

(2) examine the feasibility of using total integrated thermal systems in Department of Defense and other Federal motor vehicle fleets.

SEC. 1807. [42 U.S.C. 16521] REPORT ON ENERGY INTEGRATION WITH LATIN AMERICA.

The Secretary shall submit an annual report to the Committee on Energy and Commerce of the United States House of Representatives and to the Committee on Energy and Natural Resources of

the Senate concerning the status of energy export development in Latin America and efforts by the Secretary and other departments and agencies of the United States to promote energy integration with Latin America. The report shall contain a detailed analysis of the status of energy export development in Mexico and a description of all significant efforts by the Secretary and other departments and agencies to promote a constructive relationship with Mexico regarding the development of that nation's energy capacity. In particular this report shall outline efforts the Secretary and other departments and agencies have made to ensure that regulatory approval and oversight of United States/Mexico border projects that result in the expansion of Mexican energy capacity are effectively coordinated across departments and with the Mexican government.

SEC. 1808. [42 U.S.C. 16522] LOW-VOLUME GAS RESERVOIR STUDY.

(a) **STUDY.**—The Secretary shall make a grant to an organization of oil and gas producing States, specifically those containing significant numbers of marginal oil and natural gas wells, for conducting an annual study of low-volume natural gas reservoirs. Such organization shall work with the State geologist of each State being studied.

(b) **CONTENTS.**—The studies under this section shall—

(1) determine the status and location of marginal wells and gas reservoirs;

(2) gather the production information of these marginal wells and reservoirs;

(3) estimate the remaining producible reserves based on variable pipeline pressures;

(4) locate low-pressure gathering facilities and pipelines;

(5) recommend incentives which will enable the continued production of these resources;

(6) produce maps and literature to disseminate to States to promote conservation of natural gas reserves; and

(7) evaluate the amount of natural gas that is being wasted through the practice of venting or flaring of natural gas produced in association with crude oil well production.

(c) **DATA ANALYSIS.**—Data development and analysis under this section shall be performed by an institution of higher education with GIS capabilities. If the organization receiving the grant under subsection (a) does not have GIS capabilities, such organization shall contract with one or more entities with—

(1) technological capabilities and resources to perform advanced image processing, GIS programming, and data analysis; and

(2) the ability to—

(A) process remotely sensed imagery with high spatial resolution;

(B) deploy global positioning systems;

(C) process and synthesize existing, variable-format gas well, pipeline, gathering facility, and reservoir data;

(D) create and query GIS databases with infrastructure location and attribute information;

(E) write computer programs to customize relevant GIS software;

(F) generate maps, charts, and graphs which summarize findings from data research for presentation to different audiences; and

(G) deliver data in a variety of formats, including Internet Map Server for query and display, desktop computer display, and access through handheld personal digital assistants.

(d) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary for carrying out this section—

(1) \$1,500,000 for fiscal year 2006; and

(2) \$450,000 for each of the fiscal years 2007 through 2010.

(e) **DEFINITIONS.**—For purposes of this section, the term “GIS” means geographic information systems technology that facilitates the organization and management of data with a geographic component.

SEC. 1809. INVESTIGATION OF GASOLINE PRICES.

(a) **INVESTIGATION.**—Not later than 90 days after the date of enactment of this Act, the Federal Trade Commission shall conduct an investigation to determine if the price of gasoline is being artificially manipulated by reducing refinery capacity or by any other form of market manipulation or price gouging practices.

(b) **EVALUATION AND ANALYSIS.**—The Secretary shall direct the National Petroleum Council to conduct an evaluation and analysis to determine whether, and to what extent, environmental and other regulations affect new domestic refinery construction and significant expansion of existing refinery capacity.

(c) **REPORTS TO CONGRESS.**—

(1) **INVESTIGATION.**—On completion of the investigation under subsection (a), the Federal Trade Commission shall submit to Congress a report that describes—

(A) the results of the investigation; and

(B) any recommendations of the Federal Trade Commission.

(2) **EVALUATION AND ANALYSIS.**—On completion of the evaluation and analysis under subsection (b), the Secretary shall submit to Congress a report that describes—

(A) the results of the evaluation and analysis; and

(B) any recommendations of the National Petroleum Council.

SEC. 1810. [42 U.S.C. 16523] ALASKA NATURAL GAS PIPELINE.

Not later than 180 days after the date of enactment of this Act, and every 180 days thereafter until the Alaska natural gas pipeline commences operation, the Federal Energy Regulatory Commission shall submit to Congress a report describing—

(1) the progress made in licensing and constructing the pipeline; and

(2) any issue impeding that progress.

SEC. 1811. COAL BED METHANE STUDY.

(a) **STUDY.**—

(1) **IN GENERAL.**—The Secretary of the Interior, in consultation with the Administrator of the Environmental Protec-

tion Agency, shall enter into an arrangement under which the National Academy of Sciences shall conduct a study on the effect of coal bed natural gas production on surface and ground water resources, including ground water aquifers, in the States of Montana, Wyoming, Colorado, New Mexico, North Dakota, and Utah.

(2) MATTERS TO BE ADDRESSED.—The study shall address the effectiveness of—

(A) the management of coal bed methane produced water;

(B) the use of best management practices; and

(C) various production techniques for coal bed methane natural gas in minimizing impacts on water resources.

(b) DATA ANALYSIS.—The study shall analyze available hydrologic, geologic and water quality data, along with—

(1) production techniques, produced water management techniques, best management practices, and other factors that can mitigate effects of coal bed methane development;

(2) the costs associated with mitigation techniques;

(3) effects on surface or ground water resources, including drinking water, associated with surface or subsurface disposal of waters produced during extraction of coal bed methane; and

(4) any other significant effects on surface or ground water resources associated with production of coal bed methane.

(c) RECOMMENDATIONS.—The study shall analyze the effectiveness of current mitigation practices of coal bed methane produced water handling in relation to existing Federal and State laws and regulations, and make recommendations as to changes, if any, to Federal law necessary to address adverse impacts to surface or ground water resources associated with coal bed methane development.

(d) COMPLETION OF STUDY.—The National Academy of Sciences shall submit the findings and recommendations of the study to the Secretary of the Interior and the Administrator of the Environmental Protection Agency within 12 months after the date of enactment of this Act, and shall upon completion make the results of the study available to the public.

(e) REPORT TO CONGRESS.—The Secretary of the Interior and the Administrator of the Environmental Protection Agency, after consulting with States, shall report to the Congress within 6 months after receiving the results of the study on—

(1) the findings and recommendations of the study;

(2) the agreement or disagreement of the Secretary of the Interior and the Administrator of the Environmental Protection Agency with each of its findings and recommendations; and

(3) any recommended changes in funding to address the effects of coal bed methane production on surface and ground water resources.

SEC. 1812. BACKUP FUEL CAPABILITY STUDY.

(a) STUDY.—

(1) IN GENERAL.—The Secretary shall conduct a study of the effect of obtaining and maintaining liquid and other fuel backup capability at—

- (A) gas-fired power generation facilities; and
- (B) other gas-fired industrial facilities.

(2) CONTENTS.—The study under paragraph (1) shall address—

(A) the costs and benefits of adding a different fuel capability to a power gas-fired power generating or industrial facility, taking into consideration regional differences;

(B) methods of the Federal Government and State governments to encourage gas-fired power generators and industries to develop the capability to power the facilities using a backup fuel;

(C) the effect on the supply and cost of natural gas of—

(i) a balanced portfolio of fuel choices in power generation and industrial applications; and

(ii) State regulations that permit agencies in the State to carry out policies that encourage the use of other backup fuels in gas-fired power generation; and

(D) changes required in the Clean Air Act (42 U.S.C. 7401 et seq.) to allow natural gas generators to add clean backup fuel capabilities.

(b) REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report on the results of the study under subsection (a), including recommendations regarding future activity of the Federal Government relating to backup fuel capability.

SEC. 1813. INDIAN LAND RIGHTS-OF-WAY.

(a) STUDY.—

(1) IN GENERAL.—The Secretary and the Secretary of the Interior (referred to in this section as the “Secretaries”) shall jointly conduct a study of issues regarding energy rights-of-way on tribal land (as defined in section 2601 of the Energy Policy Act of 1992 (as amended by section 503)) (referred to in this section as “tribal land”).

(2) CONSULTATION.—In conducting the study under paragraph (1), the Secretaries shall consult with Indian tribes, the energy industry, appropriate governmental entities, and affected businesses and consumers.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretaries shall submit to Congress a report on the findings of the study, including—

(1) an analysis of historic rates of compensation paid for energy rights-of-way on tribal land;

(2) recommendations for appropriate standards and procedures for determining fair and appropriate compensation to Indian tribes for grants, expansions, and renewals of energy rights-of-way on tribal land;

(3) an assessment of the tribal self-determination and sovereignty interests implicated by applications for the grant, expansion, or renewal of energy rights-of-way on tribal land; and

(4) an analysis of relevant national energy transportation policies relating to grants, expansions, and renewals of energy rights-of-way on tribal land.

SEC. 1814. MOBILITY OF SCIENTIFIC AND TECHNICAL PERSONNEL.

Not later than the year of the Interior and the Administrator of the Environmental Protection Agency, after consulting with States, shall report to the Congress within 6 months after receiving the results of the study on—

- (1) the findings and recommendations of the study;
- (2) the agreement or disagreement of the Secretary of the Interior and the Administrator of the Environmental Protection Agency with each of its findings and recommendations; and
- (3) any recommended changes in funding to address the effects of coal bed methane production on surface and ground water resources.

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(a) STUDY.—

(1) IN GENERAL.—The Secretary shall conduct a study of the effect of obtaining and maintaining liquid and other fuel backup capability at—

- (A) gas-fired power generation facilities; and
- (B) other gas-fired industrial facilities.

(2) CONTENTS.—The study under paragraph (1) shall address—

(A) the costs and benefits of adding a different fuel capability to a power gas-fired power generating or industrial facility, taking into consideration regional differences;

(B) methods of the Federal Government and State governments to encourage gas-fired power generators and industries to develop the capability to power the facilities using a backup fuel;

(C) the effect on the supply and cost of natural gas of—

(i) a balanced portfolio of fuel choices in power generation and industrial applications; and

(ii) State regulations that permit agencies in the State to carry out policies that encourage the use of other backup fuels in gas-fired power generation; and

(D) changes required in the Clean Air Act (42 U.S.C. 7401 et seq.) to allow natural gas generators to add clean backup fuel capabilities.

(b) REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report on the results of the study under subsection (a), including recommendations regarding future activity of the Federal Government relating to backup fuel capability.

SEC. 1813. INDIAN LAND RIGHTS-OF-WAY.

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Act of 1992 (as amended by section 503)) (referred to in this section as “tribal land”).

(2) CONSULTATION.—In conducting the study under paragraph (1), the Secretaries shall consult with Indian tribes, the energy industry, appropriate governmental entities, and affected businesses and consumers.

(b) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretaries shall submit to Congress a report on the findings of the study, including—

(1) an analysis of historic rates of compensation paid for energy rights-of-way on tribal land;

(2) recommendations for appropriate standards and procedures for determining fair and appropriate compensation to Indian tribes for grants, expansions, and renewals of energy rights-of-way on tribal land;

(3) an assessment of the tribal self-determination and sovereignty interests implicated by applications for the grant, expansion, or renewal of energy rights-of-way on tribal land; and

(4) an analysis of relevant national energy transportation policies relating to grants, expansions, and renewals of energy rights-of-way on tribal land.

SEC. 1814. MOBILITY OF SCIENTIFIC AND TECHNICAL PERSONNEL.

Not later than 2 years after the date of enactment of this section, the Secretary shall transmit to Congress a report that—

(1) identifies any policies or procedures of a contractor operating a National Laboratory or single-purpose research facility that create disincentives to the temporary or permanent transfer of scientific and technical personnel among the contractor-operated National Laboratories or contractor-operated single-purpose research facilities; and

(2) provides recommendations for improving interlaboratory exchange of scientific and technical personnel.

SEC. 1815. INTERAGENCY REVIEW OF COMPETITION IN THE WHOLESALE AND RETAIL MARKETS FOR ELECTRIC ENERGY.

(a) TASK FORCE.—There is established an inter-agency task force, to be known as the “Electric Energy Market Competition Task Force” (referred to in this section as the “task force”), consisting of five members—

(1) one of whom shall be an employee of the Department of Justice, to be appointed by the Attorney General of the United States;

(2) one of whom shall be an employee of the Federal Energy Regulatory Commission, to be appointed by the Chairperson of that Commission;

(3) one of whom shall be an employee of the Federal Trade Commission, to be appointed by the Chairperson of that Commission;

(4) one of whom shall be an employee of the Department, to be appointed by the Secretary; and

(5) one of whom shall be an employee of the Rural Utilities Service, to be appointed by the Secretary of Agriculture.

(b) STUDY AND REPORT.—

(1) **STUDY.**—The task force shall conduct a study and analysis of competition within the wholesale and retail market for electric energy in the United States.

(2) **REPORT.**—

(A) **FINAL REPORT.**—Not later than 1 year after the date of enactment of this Act, the task force shall submit to Congress a final report on the findings of the task force under paragraph (1).

(B) **PUBLIC COMMENT.**—Not later than the date that is 60 days before a final report is submitted to Congress under subparagraph (A), the task force shall—

(i) publish in the Federal Register a draft of the report; and

(ii) provide an opportunity for public comment on the report.

(c) **CONSULTATION.**—In conducting the study under subsection (b), the task force shall consult with and solicit comments from any advisory entity of the task force, the States, representatives of the electric power industry, and the public.

SEC. 1816. STUDY OF RAPID ELECTRICAL GRID RESTORATION.

(a) **STUDY.**—

(1) **IN GENERAL.**—The Secretary shall conduct a study of the benefits of using mobile transformers and mobile substations to rapidly restore electrical service to areas subjected to blackouts as a result of—

(A) equipment failure;

(B) natural disasters;

(C) acts of terrorism; or

(D) war.

(2) **CONTENTS.**—The study under paragraph (1) shall contain an analysis of—

(A) the feasibility of using mobile transformers and mobile substations to reduce dependence on foreign entities for key elements of the electrical grid system of the United States;

(B) the feasibility of using mobile transformers and mobile substations to rapidly restore electrical power to—

(i) military bases;

(ii) the Federal Government;

(iii) communications industries;

(iv) first responders; and

(v) other critical infrastructures, as determined by the Secretary;

(C) the quantity of mobile transformers and mobile substations necessary—

(i) to eliminate dependence on foreign sources for key electrical grid components in the United States;

(ii) to rapidly deploy technology to fully restore full electrical service to prioritized Governmental functions; and

(iii) to identify manufacturing sources in existence on the date of enactment of this Act that have pre-

viously manufactured specialized mobile transformer or mobile substation products for Federal agencies.

(b) REPORT.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to the President and Congress a report on the study under subsection (a).

(2) INCLUSION.—The report shall include a description of the results of the analysis under subsection (a)(2).

SEC. 1817. STUDY OF DISTRIBUTED GENERATION.

(a) STUDY.—

(1) IN GENERAL.—

(A) POTENTIAL BENEFITS.—The Secretary, in consultation with the Federal Energy Regulatory Commission, shall conduct a study of the potential benefits of cogeneration and small power production.

(B) RECIPIENTS.—The benefits described in subparagraph (A) include benefits that are received directly or indirectly by—

(i) an electricity distribution or transmission service provider;

(ii) other customers served by an electricity distribution or transmission service provider; and

(iii) the general public in the area served by the public utility in which the cogenerator or small power producer is located.

(2) INCLUSIONS.—The study shall include an analysis of—

(A) the potential benefits of—

(i) increased system reliability;

(ii) improved power quality;

(iii) the provision of ancillary services;

(iv) reduction of peak power requirements through onsite generation;

(v) the provision of reactive power or volt-ampere reactives;

(vi) an emergency supply of power;

(vii) offsets to investments in generation, transmission, or distribution facilities that would otherwise be recovered through rates;

(viii) diminished land use effects and right-of-way acquisition costs; and

(ix) reducing the vulnerability of a system to terrorism; and

(B) any rate-related issue that may impede or otherwise discourage the expansion of cogeneration and small power production facilities, including a review of whether rates, rules, or other requirements imposed on the facilities are comparable to rates imposed on customers of the same class that do not have cogeneration or small power production.

(3) VALUATION OF BENEFITS.—In carrying out the study, the Secretary shall determine an appropriate method of valuing potential benefits under varying circumstances for individual cogeneration or small power production units.

(b) **REPORT.**—Not later than 18 months after the date of enactment of this Act, the Secretary shall—

- (1) complete the study;
- (2) provide an opportunity for public comment on the results of the study; and
- (3) submit to the President and Congress a report describing—
 - (A) the results of the study; and
 - (B) information relating to the public comments received under paragraph (2).

(c) **PUBLICATION.**—After submission of the report under subsection (b) to the President and Congress, the Secretary shall publish the report.

SEC. 1818. NATURAL GAS SUPPLY SHORTAGE REPORT.

(a) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a report on natural gas supplies and demand.

(b) **PURPOSE.**—The purpose of the report under subsection (a) is to develop recommendations for achieving a balance between natural gas supply and demand in order to—

- (1) provide residential consumers with natural gas at reasonable and stable prices;
- (2) accommodate long-term maintenance and growth of domestic natural gas-dependent industrial, manufacturing, and commercial enterprises;
- (3) facilitate the attainment of national ambient air quality standards under the Clean Air Act (43 U.S.C. 7401 et seq.);
- (4) achieve continued progress in reducing the emissions associated with electric power generation; and
- (5) support the development of the preliminary phases of hydrogen-based energy technologies.

(c) **COMPREHENSIVE ANALYSIS.**—The report shall include a comprehensive analysis of, for the period beginning on January 1, 2004, and ending on December 31, 2015, natural gas supply and demand in the United States, including—

- (1) estimates of annual domestic demand for natural gas, taking into consideration the effect of Federal policies and actions that are likely to increase or decrease the demand for natural gas;
- (2) projections of annual natural gas supplies, from domestic and foreign sources, under Federal policies in existence on the date of enactment of this Act;
- (3) an identification of estimated natural gas supplies that are not available under those Federal policies;
- (4) scenarios for decreasing natural gas demand and increasing natural gas supplies that compare the relative economic and environmental impacts of Federal policies that—
 - (A) encourage or require the use of natural gas to meet air quality, carbon dioxide emission reduction, or energy security goals;
 - (B) encourage or require the use of energy sources other than natural gas, including coal, nuclear, and renewable sources;

- (C) support technologies to develop alternative sources of natural gas and synthetic gas, including coal gasification technologies;
- (D) encourage or require the use of energy conservation and demand side management practices; and
- (E) affect access to domestic natural gas supplies; and
- (5) recommendations for Federal actions to achieve the purposes described in subsection (b), including recommendations that—
 - (A) encourage or require the use of energy sources other than natural gas, including coal, nuclear, and renewable sources;
 - (B) encourage or require the use of energy conservation or demand side management practices;
 - (C) support technologies for the development of alternative sources of natural gas and synthetic gas, including coal gasification technologies; and
 - (D) would improve access to domestic natural gas supplies.
- (d) CONSULTATION.—In preparing the report under subsection (a), the Secretary shall consult with—
 - (1) experts in natural gas supply and demand; and
 - (2) representatives of—
 - (A) State and local governments;
 - (B) tribal organizations; and
 - (C) consumer and other organizations.
- (e) HEARINGS.—In preparing the report under subsection (a), the Secretary may hold public hearings and provide other opportunities for public comment, as the Secretary considers appropriate.

SEC. 1819. HYDROGEN PARTICIPATION STUDY.

Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report evaluating methodologies to ensure the widest participation practicable in setting goals and milestones under the hydrogen program of the Department, including international participants.

SEC. 1820. OVERALL EMPLOYMENT IN A HYDROGEN ECONOMY.

- (a) STUDY.—
 - (1) IN GENERAL.—The Secretary shall carry out a study of the likely effects of a transition to a hydrogen economy on overall employment in the United States.
 - (2) CONTENTS.—In completing the study, the Secretary shall take into consideration—
 - (A) the replacement effects of new goods and services;
 - (B) international competition;
 - (C) workforce training requirements;
 - (D) multiple possible fuel cycles, including usage of raw materials;
 - (E) rates of market penetration of technologies; and
 - (F) regional variations based on geography.
- (b) REPORT.—Not later than 18 months after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the findings, conclusions, and recommendations of the study under subsection (a).

SEC. 1821. STUDY OF BEST MANAGEMENT PRACTICES FOR ENERGY RESEARCH AND DEVELOPMENT PROGRAMS.

(a) **IN GENERAL.**—The Secretary shall enter into an arrangement with the National Academy of Public Administration under which the Academy shall conduct a study to assess management practices for research, development, and demonstration programs at the Department.

(b) **SCOPE OF THE STUDY.**—The study shall consider—

(1) management practices that act as barriers between the Office of Science and offices conducting mission-oriented research;

(2) recommendations for management practices that would improve coordination and bridge the innovation gap between the Office of Science and offices conducting mission-oriented research;

(3) the applicability of the management practices used by the Department of Defense Advanced Research Projects Agency to research programs at the Department;

(4) the advisability of creating an agency within the Department modeled after the Department of Defense Advanced Research Projects Agency;

(5) recommendations for management practices that could best encourage innovative research and efficiency at the Department; and

(6) any other relevant considerations.

(c) **REPORT.**—Not later than 18 months after the date of enactment of this Act, the Secretary shall submit to Congress a report on the study conducted under this section.

SEC. 1822. EFFECT OF ELECTRICAL CONTAMINANTS ON RELIABILITY OF ENERGY PRODUCTION SYSTEMS.

Not later than 180 days after the date of enactment of this Act, the Secretary shall enter into a contract with the National Academy of Sciences under which the National Academy of Sciences shall determine the effect that electrical contaminants (such as tin whiskers) may have on the reliability of energy production systems, including nuclear energy.

SEC. 1823. ALTERNATIVE FUELS REPORTS.

(a) **IN GENERAL.**—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress reports on the potential for each of biodiesel and hythane to become major, sustainable, alternative fuels.

(b) **BIODIESEL REPORT.**—The report relating to biodiesel submitted under subsection (a) shall—

(1) provide a detailed assessment of—

(A) potential biodiesel markets and manufacturing capacity; and

(B) environmental and energy security benefits with respect to the use of biodiesel;

(2) identify any impediments, especially in infrastructure needed for production, distribution, and storage, to biodiesel becoming a substantial source of fuel for conventional diesel and heating oil applications;

(3) identify strategies to enhance the commercial deployment of biodiesel; and

(4) include an examination and recommendations, as appropriate, of the ways in which biodiesel may be modified to be a cleaner-burning fuel.

(c) **HYTHANE REPORT.**—The report relating to hythane submitted under subsection (a) shall—

(1) provide a detailed assessment of potential hythane markets and the research and development activities that are necessary to facilitate the commercialization of hythane as a competitive, environmentally friendly transportation fuel;

(2) address—

(A) the infrastructure necessary to produce, blend, distribute, and store hythane for widespread commercial purposes; and

(B) other potential market barriers to the commercialization of hythane;

(3) examine the viability of producing hydrogen using energy-efficient, environmentally friendly methods so that the hydrogen can be blended with natural gas to produce hythane; and

(4) include an assessment of the modifications that would be required to convert compressed natural gas vehicle engines to engines that use hythane as fuel.

(d) **GRANTS FOR REPORT COMPLETION.**—The Secretary may use such sums as are available to the Secretary to provide, to one or more colleges or universities selected by the Secretary, grants for use in carrying out research to assist the Secretary in preparing the reports required to be submitted under subsection (a).

SEC. 1824. FINAL ACTION ON REFUNDS FOR EXCESSIVE CHARGES.

The Federal Energy Regulatory Commission (FERC) shall—

(1) seek to conclude its investigation into the unjust or unreasonable charges incurred by California during the 2000–2001 electricity crisis as soon as possible;

(2) seek to ensure that refunds the Commission determines are owed to the State of California are paid to the State of California; and

(3) submit to Congress a report by December 31, 2005, describing the actions taken by the Commission to date under this section and timetables for further actions.

SEC. 1825. FUEL CELL AND HYDROGEN TECHNOLOGY STUDY.

(a) **IN GENERAL.**—As soon as practicable after the date of enactment of this Act, the Secretary shall enter into a contract with the National Academy of Sciences and the National Research Council to carry out a study of fuel cell technologies that provides a budget roadmap for the development of fuel cell technologies and the transition from petroleum to hydrogen in a significant percentage of the vehicles sold by 2020.

(b) **REQUIREMENTS.**—In carrying out the study, the National Academy of Sciences and the National Research Council shall—

(1) establish as a goal the maximum percentage practicable of vehicles that the National Academy of Sciences and the National Research Council determines can be fueled by hydrogen by 2020;

(2) determine the amount of Federal and private funding required to meet the goal established under paragraph (1);

(3) determine what actions are required to meet the goal established under paragraph (1);

(4) examine the need for expanded and enhanced Federal research and development programs, changes in regulations, grant programs, partnerships between the Federal Government and industry, private sector investments, infrastructure investments by the Federal Government and industry, educational and public information initiatives, and Federal and State tax incentives to meet the goal established under paragraph (1);

(5) consider whether other technologies would be less expensive or could be more quickly implemented than fuel cell technologies to achieve significant reductions in carbon dioxide emissions;

(6) take into account any reports relating to fuel cell technologies and hydrogen-fueled vehicles, including—

(A) the report prepared by the National Academy of Engineering and the National Research Council in 2004 entitled “Hydrogen Economy: Opportunities, Costs, Barriers, and R&D Needs”; and

(B) the report prepared by the U.S. Fuel Cell Council in 2003 entitled “Fuel Cells and Hydrogen: The Path Forward”;

(7) consider the challenges, difficulties, and potential barriers to meeting the goal established under paragraph (1); and

(8) with respect to the budget roadmap—

(A) specify the amount of funding required on an annual basis from the Federal Government and industry to carry out the budget roadmap; and

(B) specify the advantages and disadvantages to moving toward the transition to hydrogen in vehicles in accordance with the timeline established by the budget roadmap.

SEC. 1826. PASSIVE SOLAR TECHNOLOGIES.

(a) **DEFINITION OF PASSIVE SOLAR TECHNOLOGY.**—In this section, the term “passive solar technology” means a passive solar technology, including daylighting, that—

(1) is used exclusively to avoid electricity use; and

(2) can be metered to determine energy savings.

(b) **STUDY.**—The Secretary shall conduct a study to determine—

(1) the range of levelized costs of avoided electricity for passive solar technologies;

(2) the quantity of electricity displaced using passive solar technologies in the United States as of the date of enactment of this Act; and

(3) the projected energy savings from passive solar technologies in 5, 10, 15, 20, and 25 years after the date of enactment of this Act if—

(A) incentives comparable to the incentives provided for electricity generation technologies were provided for passive solar technologies; and

(B) no new incentives for passive solar technologies were provided.

(c) REPORT.—Not later than 120 days after the date of enactment of this Act, the Secretary shall submit to Congress a report that describes the results of the study under subsection (b).

SEC. 1827. STUDY OF LINK BETWEEN ENERGY SECURITY AND INCREASES IN VEHICLE MILES TRAVELED.

(a) IN GENERAL.—The Secretary shall enter into an arrangement with the National Academy of Sciences under which the Academy shall conduct a study to assess the implications on energy use and efficiency of land development patterns in the United States.

(b) SCOPE.—The study shall consider—

(1) the correlation, if any, between land development patterns and increases in vehicle miles traveled;

(2) whether petroleum use in the transportation sector can be reduced through changes in the design of development patterns;

(3) the potential benefits of—

(A) information and education programs for State and local officials (including planning officials) on the potential for energy savings through planning, design, development, and infrastructure decisions;

(B) incorporation of location efficiency models in transportation infrastructure planning and investments; and

(C) transportation policies and strategies to help transportation planners manage the demand for the number and length of vehicle trips, including trips that increase the viability of other means of travel; and

(4) such other considerations relating to the study topic as the National Academy of Sciences finds appropriate.

(c) REPORT.—Not later than 2 years after the date of enactment of this Act, the National Academy of Sciences shall submit to the Secretary and Congress a report on the study conducted under this section.

SEC. 1828. SCIENCE STUDY ON CUMULATIVE IMPACTS OF MULTIPLE OFFSHORE LIQUEFIED NATURAL GAS FACILITIES.

(a) IN GENERAL.—The Secretary (in consultation with the National Oceanic Atmospheric Administration, the Commandant of the Coast Guard, affected recreational and commercial fishing industries, and affected energy and transportation stakeholders) shall carry out a study and compile existing science (including studies and data) to determine the risks or benefits presented by cumulative impacts of multiple offshore liquefied natural gas facilities reasonably assumed to be constructed in an area of the Gulf of Mexico using the open-rack vaporization system.

(b) ACCURACY.—In carrying out subsection (a), the Secretary shall verify the accuracy of available science and develop a science-based evaluation of significant short-term and long-term cumulative impacts, both adverse and beneficial, of multiple offshore liquefied natural gas facilities reasonably assumed to be constructed in an area of the Gulf of Mexico using or proposing the open-rack

vaporization system on the fisheries and marine populations in the vicinity of the facility.

SEC. 1829. ENERGY AND WATER SAVING MEASURES IN CONGRESSIONAL BUILDINGS.

(a) **IN GENERAL.**—The Architect of the Capitol, as part of the process of updating the Master Plan Study for the Capitol complex, shall—

(1) 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—

(A) by using unconventional and renewable energy resources;

(B) 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

(C) in a manner that would enable the Capitol complex to have reliable utility service in the event of power fluctuations, shortages, or outages;

(2) 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—

(A) 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

(B) 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).

(b) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to the Architect of the Capitol to carry out this section \$2,000,000 for each of fiscal years 2006 through 2010.

SEC. 1830. STUDY OF AVAILABILITY OF SKILLED WORKERS.

(a) **IN GENERAL.**—The Secretary shall enter into an arrangement with the National Academy of Sciences under which the National Academy of Sciences shall conduct a study of the short-term and long-term availability of skilled workers to meet the energy and mineral security requirements of the United States.

(b) **INCLUSIONS.**—The study shall include an analysis of—

- (1) the need for and availability of workers for the oil, gas, and mineral industries;
- (2) the availability of skilled labor at both entry level and more senior levels; and
- (3) recommendations for future actions needed to meet future labor requirements.

(c) **REPORT.**—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report that describes the results of the study.

SEC. 1831. REVIEW OF ENERGY POLICY ACT OF 1992 PROGRAMS.

(a) **IN GENERAL.**—Not later than 180 days after the date of enactment of this section, the Secretary shall complete a study to determine the effect that titles III, IV, and V of the Energy Policy Act of 1992 (42 U.S.C. 13211 et seq.) have had on—

- (1) the development of alternative fueled vehicle technology;
- (2) the availability of that technology in the market; and
- (3) the cost of alternative fueled vehicles.

(b) **TOPICS.**—As part of the study under subsection (a), the Secretary shall specifically identify—

- (1) the number of alternative fueled vehicles acquired by fleets or covered persons required to acquire alternative fueled vehicles;
- (2) the quantity, by type, of alternative fuel actually used in alternative fueled vehicles acquired by fleets or covered persons;
- (3) the quantity of petroleum displaced by the use of alternative fuels in alternative fueled vehicles acquired by fleets or covered persons;
- (4) the direct and indirect costs of compliance with requirements under titles III, IV, and V of the Energy Policy Act of 1992 (42 U.S.C. 13211 et seq.), including—

- (A) vehicle acquisition requirements imposed on fleets or covered persons;
- (B) administrative and recordkeeping expenses;
- (C) fuel and fuel infrastructure costs;
- (D) associated training and employee expenses; and
- (E) any other factors or expenses the Secretary determines to be necessary to compile reliable estimates of the overall costs and benefits of complying with programs under those titles for fleets, covered persons, and the national economy;

- (5) the existence of obstacles preventing compliance with vehicle acquisition requirements and increased use of alternative fuel in alternative fueled vehicles acquired by fleets or covered persons; and

(6) the projected impact of amendments to the Energy Policy Act of 1992 made by this title.

(c) REPORT.—Upon completion of the study under this section, the Secretary shall submit to Congress a report that describes the results of the study and includes any recommendations of the Secretary for legislative or administrative changes concerning the alternative fueled vehicle requirements under titles III, IV and V of the Energy Policy Act of 1992 (42 U.S.C. 13211 et seq.).

SEC. 1832. [42 U.S.C. 16524] STUDY ON THE BENEFITS OF ECONOMIC DISPATCH.

(a) STUDY.—The Secretary, in coordination and consultation with the States, shall conduct a study on—

(1) the procedures currently used by electric utilities to perform economic dispatch;

(2) identifying possible revisions to those procedures to improve the ability of nonutility generation resources to offer their output for sale for the purpose of inclusion in economic dispatch; and

(3) the potential benefits to residential, commercial, and industrial electricity consumers nationally and in each state if economic dispatch procedures were revised to improve the ability of nonutility generation resources to offer their output for inclusion in economic dispatch.

(b) DEFINITION.—The term “economic dispatch” when used in this section means the operation of generation facilities to produce energy at the lowest cost to reliably serve consumers, recognizing any operational limits of generation and transmission facilities.

(c) REPORT TO CONGRESS AND THE STATES.—Not later than 90 days after the date of enactment of this Act, and on a yearly basis following, the Secretary shall submit a report to Congress and the States on the results of the study conducted under subsection (a), including recommendations to Congress and the States for any suggested legislative or regulatory changes.

SEC. 1833. RENEWABLE ENERGY ON FEDERAL LAND.

(a) NATIONAL ACADEMY OF SCIENCES STUDY.—Not later than 90 days after the date of enactment of this Act, the Secretary of the Interior shall enter into a contract with the National Academy of Sciences under which the National Academy of Sciences shall—

(1) study the potential of developing wind, solar, and ocean energy resources (including tidal, wave, and thermal energy) on Federal land available for those uses under current law and the outer Continental Shelf;

(2) assess any Federal law (including regulations) relating to the development of those resources that is in existence on the date of enactment of this Act; and

(3) recommend statutory and regulatory mechanisms for developing those resources.

(b) SUBMISSION TO CONGRESS.—Not later than 2 years after the date of enactment of this Act, the Secretary of the Interior shall submit to Congress the results of the study under subsection (a).

SEC. 1834. INCREASED HYDROELECTRIC GENERATION AT EXISTING FEDERAL FACILITIES.

(a) **IN GENERAL.**—The Secretary of the Interior, the Secretary, and the Secretary of the Army shall jointly conduct a study of the potential for increasing electric power production capability at federally owned or operated water regulation, storage, and conveyance facilities.

(b) **CONTENT.**—The study under this section shall include identification and description in detail of each facility that is capable, with or without modification, of producing additional hydroelectric power, including estimation of the existing potential for the facility to generate hydroelectric power.

(c) **REPORT.**—The Secretaries shall submit to the Committees on Energy and Commerce, Resources, and Transportation and Infrastructure of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report on the findings, conclusions, and recommendations of the study under this section by not later than 18 months after the date of the enactment of this Act. The report shall include each of the following:

(1) The identifications, descriptions, and estimations referred to in subsection (b).

(2) A description of activities currently conducted or considered, or that could be considered, to produce additional hydroelectric power from each identified facility.

(3) A summary of prior actions taken by the Secretaries to produce additional hydroelectric power from each identified facility.

(4) The costs to install, upgrade, or modify equipment or take other actions to produce additional hydroelectric power from each identified facility and the level of Federal power customer involvement in the determination of such costs.

(5) The benefits that would be achieved by such installation, upgrade, modification, or other action, including quantified estimates of any additional energy or capacity from each facility identified under subsection (b).

(6) A description of actions that are planned, underway, or might reasonably be considered to increase hydroelectric power production by replacing turbine runners, by performing generator upgrades or rewinds, or construction of pumped storage facilities.

(7) The impact of increased hydroelectric power production on irrigation, water supply, fish, wildlife, Indian tribes, river health, water quality, navigation, recreation, fishing, and flood control.

(8) Any additional recommendations to increase hydroelectric power production from, and reduce costs and improve efficiency at, federally owned or operated water regulation, storage, and conveyance facilities.

SEC. 1835. SPLIT-ESTATE FEDERAL OIL AND GAS LEASING AND DEVELOPMENT PRACTICES.

(a) **REVIEW.**—In consultation with affected private surface owners, oil and gas industry, and other interested parties, the Secretary of the Interior shall undertake a review of the current policies and practices with respect to management of Federal sub-

surface oil and gas development activities and their effects on the privately owned surface. This review shall include—

(1) a comparison of the rights and responsibilities under existing mineral and land law for the owner of a Federal mineral lease, the private surface owners and the Department;

(2) a comparison of the surface owner consent provisions in section 714 of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1304) concerning surface mining of Federal coal deposits and the surface owner consent provisions for oil and gas development, including coalbed methane production; and

(3) recommendations for administrative or legislative action necessary to facilitate reasonable access for Federal oil and gas activities while addressing surface owner concerns and minimizing impacts to private surface.

(b) REPORT.—The Secretary of the Interior shall report the results of such review to Congress not later than 180 days after the date of enactment of this Act.

SEC. 1836. RESOLUTION OF FEDERAL RESOURCE DEVELOPMENT CONFLICTS IN THE POWDER RIVER BASIN.

(a) REVIEW.—The Secretary of the Interior shall review Federal and State laws in existence on the date of enactment of this Act in order to resolve any conflict relating to the Powder River Basin in Wyoming and Montana between—

(1) the development of Federal coal; and

(2) the development of Federal and non-Federal coalbed methane.

(b) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary of the Interior shall submit to Congress a report that—

(1) describes methods of resolving a conflict described in subsection (a); and

(2) identifies a method preferred by the Secretary of the Interior, including proposed legislative language, if any, required to implement the method.

SEC. 1837. NATIONAL SECURITY REVIEW OF INTERNATIONAL ENERGY REQUIREMENTS.

(a) STUDY.—The Secretary, in consultation with the Secretary of Defense and Secretary of Homeland Security, shall conduct a study of the growing energy requirements of the People's Republic of China and the implications of such growth on the political, strategic, economic, or national security interests of the United States, including—

(1) an assessment of the type, nationality, and location of energy assets that have been sought for investment by entities located in the People's Republic of China;

(2) an assessment of the extent to which investment in energy assets by entities located in the People's Republic of China has been on market-based terms and free from subsidies from the People's Republic of China;

(3) an assessment of the effect of investment in energy assets by entities located in the People's Republic of China on the control by the United States of dual-use and export-controlled

technologies, including the effect on current and future access to foreign and domestic sources of rare earth elements used to produce such technologies;

(4) an assessment of the relationship between the Government of the People's Republic of China and energy-related businesses located in the People's Republic of China;

(5) an assessment of the impact on the world energy market of the common practice of entities located in the People's Republic of China of removing the energy assets owned or controlled by such entities from the competitive market, with emphasis on the effect if such practice expands along with the growth in energy consumption of the People's Republic of China;

(6) an examination of the United States energy policy and foreign policy as it relates to ensuring a competitive global energy market;

(7) an examination of the relationship between the United States and the People's Republic of China as it relates to pursuing energy interests in a manner that avoids conflicts; and

(8) a comparison of the appropriate laws and regulations of other nations to determine whether a United States company would be permitted to purchase, acquire, merge, or otherwise establish a joint relationship with an entity whose primary place of business is in that other nation, including the laws and regulations of the People's Republic of China.

(b) **REPORT AND RECOMMENDATIONS.**—Not later than 120 days after the date of the enactment of this Act, the Secretary, in consultation with the Secretary of Defense, shall report to the President and the Congress on the findings of the study described in subsection (a) and any recommendations the Secretaries consider appropriate.

(c) **REGULATORY EFFECT.**—Notwithstanding any other provision of law, any instrumentality of the United States vested with authority to review a transaction that includes an investment in a United States domestic corporation may not conclude a national security review related to an investment in the energy assets of a United States domestic corporation by an entity owned or controlled by the government of the People's Republic of China for 21 days after the report to the President and the Congress, and until the President certifies that he has received the report described in subsection (b).

SEC. 1838. USED OIL RE-REFINING STUDY.

The Secretary, in consultation with the Administrator of the Environmental Protection Agency, shall undertake a study of the energy and environmental benefits of the re-refining of used lubricating oil and report to Congress within 90 days after enactment of this Act including recommendations of specific steps that can be taken to improve collections of used lubricating oil and increase re-refining and other beneficial re-use of such oil.

SEC. 1839. TRANSMISSION SYSTEM MONITORING.

Within 6 months after the date of enactment of this Act, the Secretary and the Federal Energy Regulatory Commission shall study and report to Congress on the steps which must be taken to

establish a system to make available to all transmission system owners and Regional Transmission Organizations (as defined in the Federal Power Act) within the Eastern and Western Interconnections real-time information on the functional status of all transmission lines within such Interconnections. In such study, the Commission shall assess technical means for implementing such transmission information system and identify the steps the Commission or Congress must take to require the implementation of such system.

SEC. 1840. REPORT IDENTIFYING AND DESCRIBING THE STATUS OF POTENTIAL HYDROPOWER FACILITIES.

(a) **REPORT REQUIREMENT.**—Not later than 90 days after the date of enactment of this Act, the Secretary of the Interior, acting through the Bureau of Reclamation, shall submit to the Committee on Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report identifying and describing the status of potential hydropower facilities included in water surface storage studies undertaken by the Secretary for projects that have not been completed or authorized for construction.

(b) **REPORT CONTENTS.**—The report shall include the following:

(1) Identification of all surface storage studies authorized by Congress since the enactment of the Reclamation Project Act of 1939 (43 U.S.C. 485 et seq.).

(2) The purposes of each project included within each study identified under paragraph (1).

(3) The status of each study identified under paragraph (1), including for each study—

(A) whether the study is completed or, if not completed, still authorized;

(B) the level of analyses conducted at the feasibility and reconnaissance levels of review;

(C) identifiable environmental impacts of each project included in the study, including to fish and wildlife, water quality, and recreation;

(D) projected water yield from each such project;

(E) beneficiaries of each such project;

(F) the amount authorized and expended;

(G) projected funding needs and timelines for completing the study (if applicable);

(H) anticipated costs of each such project; and

(I) other factors that might interfere with construction of any such project.

(4) An identification of potential hydroelectric facilities that might be developed pursuant to each study identified under paragraph (1).

(5) Applicable costs and benefits associated with potential hydroelectric production pursuant to each study.