

**Calendar No. 110**

111TH CONGRESS }  
*1st Session*

SENATE

{ REPORT  
111-48

**AMERICAN CLEAN ENERGY  
LEADERSHIP ACT OF 2009**

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REPORT

OF THE

COMMITTEE ON ENERGY AND  
NATURAL RESOURCES  
UNITED STATES SENATE



July 16, 2009—Ordered to be printed

Printed for the use of the  
Committee on Energy and Natural Resources

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Mr. BINGAMAN, from the Committee on Energy and Natural Resources, submitted the following

**R E P O R T**

[To accompany S. 1462]

The Committee on Energy and Natural Resources, reports an original bill (S. 1462) to promote clean energy technology development, enhanced energy efficiency, improved energy security, and energy innovation and workforce development, and for other purposes, reports favorably thereon and recommends that the bill do pass.

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PURPOSE OF THE MEASURE

The purposes of the measure are to promote the energy security of the United States by: promoting the development and deployment of clean energy technologies; improving the energy efficiency of appliances, equipment, buildings, manufacturing, and the electric grid; securing the electric grid against cyber attacks; securing petroleum product markets against supply disruptions; promoting the development of domestic sources of oil and natural gas; dem-

onstrating the large-scale geologic storage of industrial sources of carbon dioxide; promoting energy innovation and workforce development; and improving the regulation of energy markets.

#### SUMMARY OF MAJOR PROVISIONS

##### *Title I—Clean energy technology development*

Subtitle A provides federal support to private capital markets to finance the deployment of clean energy technologies by reforming the Department of Energy’s existing loan guarantee program under title XVII of the Energy Policy Act of 2005, and by establishing a new Clean Energy Deployment Administration within the Department of Energy to provide financial support through loans, loan guarantees, and other mechanisms to promote deployment of clean energy technologies.

Subtitle B strengthens the Federal Energy Regulatory Commission’s role in siting interstate electric transmission facilities. It establishes a national interstate transmission siting policy, directs the Federal Energy Regulatory Commission to coordinate regional planning to ensure that regional plans are integrated into an interconnection-wide transmission plan that achieves the national policy, authorizes the use of federal eminent domain authority to acquire rights-of-way necessary for high-priority national transmission projects if the States are unable or unwilling to provide the necessary authorization, and requires the Commission to ensure just and reasonable allocation of the cost of high-priority national transmission projects.

Subtitle C establishes a renewable electricity standard that requires sellers of electricity to obtain 15 percent of their electricity from renewable energy resources or energy efficient improvements by 2021.

Subtitle D provides for an in-depth analysis of the impact of energy development and production on the water resources of the United States, and of the use of energy in the procurement, treatment, and delivery of water.

Subtitle E promotes the deployment of advanced vehicle technologies that reduce petroleum consumption and greenhouse gas emissions. It provides financial support to State and local governments and other entities to assist in the installation of recharging facilities for electric drive vehicles; establishes a pilot program to facilitate the purchase or lease of plug-in electric vehicles by federal agencies and the installation of recharging infrastructure at federal facilities; and calls for studies and reports on advanced vehicle technology options, standards for electric drive transportation, and end-of-useful life options for motor vehicle batteries.

##### *Title II—Enhanced energy efficiency*

Subtitle A promotes greater energy efficiency and productivity in commercial and industrial manufacturing by establishing a revolving loan program to help deploy commercially available technologies and processes that significantly reduce energy intensity and improve industrial competitiveness. It also strengthens the Department of Energy’s existing energy-intensive industries program, establishes a new sustainable manufacturing initiative, authorizes the Secretary to make grants to projects demonstrating industrial

applications of energy efficient technologies or processes, and asks the National Academy of Sciences to study advanced energy technology manufacturing capabilities in the United States.

Subtitle B strengthens energy efficiency standards for appliances and equipment. It establishes procedures for people to request revisions of test procedures and standards for efficiency standards; sets new standards for portable light fixtures, certain lamps, and commercial furnaces; establishes a rebate program for the purchase of more efficient motors; and commissions studies on compliance with appliance standards, the use of direct current in certain buildings, and the need for an Energy Superstar tier in the Energy Star program.

Subtitle C improves energy efficiency in residential, commercial, and federal buildings. Part I directs the Secretary of Energy to update national model building energy codes and standards to achieve a 30 percent improvement in energy savings by 2010 and a 50 percent improvement by 2016. It also authorizes the Secretary to make grants to State or local government agencies and nonprofit organizations to increase energy efficiency in multifamily buildings and manufactured housing, and to institutions of higher education to establish building training and assessment centers. Part II reauthorizes the Low-Income Weatherization Assistance Program. Part III reauthorizes the State Energy Program. Part IV establishes a new grant program to enable States to provide grants to homeowners to retrofit their homes to make them more energy efficient. Part V strengthens Federal renewable energy purchase requirements, energy savings performance contract authority, and energy efficiency programs. Part VI establishes a voluntary energy performance information program to provide energy performance information and increase public awareness of the importance of building energy efficiency and performance. Part VII establishes a residential high performance zero-net-energy buildings initiative.

Subtitle D improves the efficiency of the national electric grid by: (1) establishing a national electric system efficiency and peak demand reduction goal that can be met through the use of smart grid and demand response technologies and practices; and (2) requiring the Federal Energy Regulatory Commission to establish a national interconnection standard.

### *Title III—Improved energy security*

Subtitle A enhances the authority of the Secretary of Energy and the Federal Energy Regulatory Commission to protect the Nation's critical electric infrastructure from cyber attacks.

Subtitle B affirms the importance of nuclear energy to the Nation's energy security by: (1) establishing a National Commission to find a solution to the nuclear waste problem; (2) directing the Secretary of Energy to continue research and development on advanced fuel recycling processes; and (3) ensuring that any advanced fuel recycling facilities that are developed will be subject to licensing and regulation by the Nuclear Regulatory Commission and applicable environmental protection standards established by the Environmental Protection Agency.

Subtitle C provides for the creation of a 30 million barrel petroleum product reserve to protect the Nation from supply shortages that may result from hurricanes, earthquakes, and other natural

disasters, and transfers the authority to draw down the Strategic Petroleum Reserve from the President to the Secretary of Energy.

Subtitle D opens the Eastern Gulf of Mexico (including the Destin Dome and Pensacola areas, but excluding a buffer zone within 45 statute miles of the Florida coast in the remaining areas) to leasing for oil and natural gas development, making over 3.8 billion barrels of new oil resources and 21.5 trillion cubic feet of new natural gas resources available for development. In addition, subtitle D ensures that the inventory of oil and natural gas resources on the Outer Continental Shelf in the Atlantic Region, the Eastern Gulf of Mexico, and the Alaska Region, which was authorized by section 357 of the Energy Policy Act of 2005, will be funded and conducted, and that any information collected on other marine resources will be made available. Subtitle D also repeals the royalty relief provisions for ultra deep gas wells and deep water production in sections 344 and 345 of the Energy Policy Act of 2005; and it provides for Senate confirmation of the Director of the Minerals Management Service.

Subtitle E promotes the development of renewable energy resources on public lands. It improves permit coordination requiring the Secretary of the Interior to establish permit processing field offices for renewable energy development in each of 12 western states, and it extends authorizations for geothermal permit coordination. It requires the Secretary of the Interior to prepare a programmatic environmental impact statement on solar energy development on land managed by the Bureau of Land Management, and the Forest Service to prepare a programmatic environmental impact statement on wind and solar energy development on National Forest System land. It asks the National Academy of Sciences to conduct a study on the siting, development, and management of wind and solar energy projects on the public lands and National Forest System lands. Finally, subtitle E establishes a pilot program under which the Secretary of the Interior is to permit the development of two sites for solar energy projects and two sites for wind energy projects through competitive leasing, rather than granting rights-of-way. The subtitle authorizes the Secretary to establish a leasing program if, on the basis of the pilot program, the Secretary determines that a leasing program provides an effective means of developing solar and wind energy on public land and is in the public interest.

Subtitle F establishes a program to demonstrate the large-scale commercial application of long-term geologic storage of carbon dioxide from industrial sources. It authorizes the Secretary to enter into cooperative agreements for up to 10 demonstration projects, and to indemnify the projects against liability, up to \$10 billion.

Subtitle G directs the Secretary of Energy to assemble a team of experts to provide technical, programmatic, and financial assistance to the Commonwealth of Puerto Rico, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau, and the United States Virgin Islands to develop and implement an energy action plan for each island to reduce its reliance on imported fossil fuels through increased efficiency and the use of indigenous clean-energy resources.



*Title IV—Energy innovation and workforce development*

Subtitle A extends the authorizations for energy research, development, demonstration, and commercial application activities authorized by title IX of the Energy Policy Act of 2005 for fiscal years 2010 through 2013, doubling the authorized level from \$3.28 billion for fiscal year 2009 under current law to \$6.58 billion in fiscal year 2013. Subtitle B establishes a Grand Energy Challenges Research Initiative to integrate basic and applied energy research programs within the Department of Energy. Subtitle C improves various Department of Energy research and development programs, including the Advanced Research Projects Agency Energy, domestic vehicle battery manufacturing research, lightweight materials research and development, methane hydrate research and development, low-Btu gas and helium resources conservation, Arctic energy research, development, and deployment, an ultra-deepwater and the unconventional natural gas and other petroleum resources program. Subtitle D provides a wide array of training programs for the energy workforce, and gives the Secretary of Energy authority to hire highly qualified scientists, engineers, or critical technical personnel and to fix the compensation for certain critical positions without regard to certain civil service laws. Subtitle E provides support for subsurface geosciences and engineering education and training programs. Subtitle F strengthens the Secretary of Energy's authority to enter into transactions with nontraditional contractors and entities, and strengthens the Secretary's marine and hydrokinetic renewable energy research and development program.

*Title V—Energy markets*

Title V strengthens the Energy Information Administration's ability to collect data on the physical holdings of the fifty largest oil traders, and on the commercial storage capacity for oil and natural gas in the United States. It also establishes a Financial Market Analysis Office within EIA, and an interagency working group on energy markets to study crude oil and refined petroleum product prices and recommend additional statutory authority that may be need to oversee and regulate energy markets. In addition, title V gives the Federal Energy Regulatory Commission authority to issue temporary emergency orders to suspend or modify tariff rates, terms, or conditions if necessary to protect electric consumers, and to issue cease-and-desist orders to prevent the manipulation of the electric or natural gas markets.

*Title VI—Policy studies and reports*

Title VI calls for various policy studies and reports assessing helium and potash resources, improving energy policy planning, addressing climate change in China and India, assessing the risk of "carbon leakage" under a cap-and-trade program, examining foreign fuel subsidies, assessing renewable energy resources, reviewing the efficiency of electric generation facilities, evaluating the emissions of alternative transportation fuels, and identifying options for reducing dependence on foreign oil.

## BACKGROUND AND NEED

For most of the past 40 years, the principal energy challenge facing the United States has been our growing dependence on foreign oil. To meet this challenge, our energy laws have been primarily written to reduce energy consumption and promote domestic sources of supply.

While dependence on foreign oil remains a major concern, the weight of scientific evidence now holds that greenhouse gases, particularly carbon dioxide, accumulating in the atmosphere are causing average temperatures to rise at a rate outside the range of natural variability and are posing a substantial risk of rising sea levels, altered patterns of atmospheric and oceanic circulation, and increased frequency and severity of floods and droughts; that human activity is a substantial cause of greenhouse gas accumulation in the atmosphere; and that steps are needed to slow or stop the growth of greenhouse gas emissions into the atmosphere.

Energy use is the principal source of man-made carbon dioxide emissions. According to the Energy Information Administration, fossil fuels supply 85 percent of the primary energy used in the United States and account for 98 percent of carbon dioxide emissions. Electricity generation consumes 40 percent of the nation's energy supply, and is responsible for 40 percent of our carbon dioxide emissions.

To address the threat of global climate change, we must find and develop new sources of energy that do not emit greenhouse gases, and we must find and develop new ways of more cleanly and efficiently using traditional sources. At the same time, we must find and develop new sources of energy to meet the demands of an expanding population, a rising standard of living, and a robust economy. The challenge before us is to develop new, cleaner, and more sustainable sources of energy, use those sources far more efficiently, and modernize the infrastructure and equipment we use to produce, deliver, and consume energy.

Congress has already taken steps to meet this challenge with the enactment of the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007. Five years in the making, the Energy Policy Act of 2005 was the first major overhaul of the nation's energy laws in over a decade. It provided a comprehensive national energy policy that would balance domestic energy production with conservation and efficiency efforts, enhance our energy security, and decrease our dependence on foreign oil. Among other things, it promoted energy efficiency, renewable energy, oil and natural gas, clean coal, and nuclear energy; it modernized energy markets and gave regulators new enforcement powers; it authorized energy research and development programs through fiscal year 2009; and it created a federal loan guarantee program to help finance innovative energy technologies.

The Energy Independence and Security Act of 2007 built upon the Energy Policy Act of 2005. It increased fuel economy standards for automobiles, increased the renewable content of transportation fuels, improved energy efficiency standards for appliances and lighting, promoted building efficiency, accelerated research and development of solar, geothermal, marine, and hydrokinetic energy,

and provided for the large-scale testing of carbon capture and geologic storage technology.

Events since the enactment of these two laws and experience with their implementation have, however, revealed their inadequacies and shortcomings. The loan guarantee program authorized by title XVII of the Energy Policy Act of 2005, for example, was designed to provide financial support for the deployment of innovative energy technologies, but has proved inadequate for the task, and must be substantially expanded, improved, and strengthened as a result. Similarly, the transmission siting provisions in title XII of the Energy Policy Act of 2005 have proved ineffectual and need to be strengthened. The Federal Energy Regulatory Commission has asked for additional enforcement tools to implement the additional responsibilities assigned to it by the 2005 Act, and additional power with which to protect critical electric infrastructure from cyber attacks. Progress in demonstrating carbon capture and geologic storage under the 2005 and 2007 statutes has been hampered by liability concerns. Authorizations for energy research and development enacted in 2005 expire this fiscal year and must now be renewed.

In addition, events since the Energy Independence and Security Act was passed two years ago have demonstrated the need for additional legislation. Hurricanes Gustave and Ike during the summer of 2008 demonstrated the vulnerability of our refinery infrastructure. Prices for crude oil, gasoline, and diesel fuel set record high levels in the summer of 2008, raising new concerns about the role of financial speculation in energy markets. President Bush lifted the executive moratorium, and Congress lifted the statutory moratorium on oil and natural gas development off the Atlantic and Pacific coasts in 2008, but the statutory moratorium on development of promising areas in the Eastern Gulf of Mexico remains in place.

For all of these reasons, additional legislation is now needed to build on previous enactments, remedy their deficiencies, and meet the growing energy challenge that faces the nation.

#### LEGISLATIVE HISTORY

The Committee on Energy and Natural Resources or its Energy Subcommittee held 19 hearings on measures or matters relating to the American Clean Energy Leadership Act between January 8 and May 14, 2009. At these hearings, the Committee received testimony on:

- Current energy security challenges (Full Committee, January 8, 2009)
- Draft Renewable Electricity Standard (Full Committee, February 10, 2009)
- The Department of Energy's loan guarantee program (Full Committee, February 12, 2009)
  - Reducing energy consumption in buildings (Full Committee, February 26, 2009)
  - Smart grid initiatives and technologies (Full Committee, March 3, 2009)
- Draft legislation on energy research and development (Full Committee, March 5, 2009)
- S. 531, the Energy and Water Integration Act of 2009 (Full Committee, March 10, 2009)

- Draft legislation on siting electric transmission lines (Full Committee, March 12, 2009)
- Energy development on public lands and the Outer Continental Shelf (Full Committee, March 17, 2009)
- Nuclear energy development (Full Committee, March 18, 2009)
- S. 598, the Appliance Standards Improvement Act of 2009 (Full Committee, March 19, 2009)
- Energy market transparency and regulation (including draft legislation which was included in S. 672, the Natural Gas and Electricity Review and Enforcement Act) (Energy Subcommittee, March 25, 2009)
- S. 661, Restoring America's Manufacturing Leadership through Energy Efficiency Act of 2009 (Full Committee, March 26, 2009)
- S. 548, Save America Energy Act (Full Committee, April 22, 2009)
- S. 949, 21st Century Energy Technology Deployment Act (Full Committee, April 28, 2009)
- Draft legislation on cyber security and critical electricity infrastructure (Full Committee, May 7, 2009)
- Net metering and distributed generation (Energy Subcommittee, May 7, 2009)
- S. 967, Strategic Petroleum Reserve Modernization Act of 2009, and S. 283 (Full Committee, May 12, 2009)
- S. 1013, Department of Energy Carbon Capture and Sequestration Program Amendments Act of 2009 (Full Committee, May 14, 2009).

The text of the American Clean Energy Leadership Act was drawn from 6 bills introduced by the Chairman, 3 of which were cosponsored by the Ranking Republican Member, and 9 chairman's marks. The 6 bills introduced were:

- S. 531, the Energy and Water Integration Act of 2009, introduced by Mr. Bingaman for himself and Ms. Murkowski on March 5, 2009, which became subtitle D of title I;
- S. 598, the Appliance Standards Improvement Act of 2009, introduced by Mr. Bingaman for himself and Ms. Murkowski on March 16, 2009, which became subtitle B of title II;
- S. 661, the Restoring America's Manufacturing Leadership through Energy Efficiency Act of 2009, introduced by Mr. Bingaman for himself, Ms. Collins, Ms. Stabenow, Ms. Snowe, Mr. Bayh, Mr. Brown, and Mr. Pryor on March 19, 2009, which became subtitle A of title II;
- S. 949, 21st Century Energy Technology Development Act, introduced by Mr. Bingaman for himself, Ms. Murkowski, Mr. Dorgan, Mr. Voinovich, Ms. Stabenow, Mr. Lugar, and Ms. Shaheen on April 30, 2009, which became subtitle A of title I;
- S. 967, the Strategic Petroleum Reserve Modernization Act of 2009, introduced by Mr. Bingaman on May 4, 2009, which became subtitle C of title III; and
- S. 1013, the Department of Energy Carbon Capture and Sequestration Program Amendments Act of 2009, introduced by Mr. Bingaman for himself, Mr. Barrasso, Mr. Dorgan, Mr. Tester, Mr. Bayh, Ms. Landrieu, Mr. Casey, and Mr. Voinovich on May 7, 2009, which became subtitle F of title III.

The nine chairman’s marks were on: energy innovation and workforce; siting of interstate electric transmission facilities; nuclear waste management; cyber security; building efficiency; federal oil and natural gas development; renewable energy development on public lands; energy markets; and policy studies and reports.

The Committee marked up the bill in 11 open business meetings on March 31, May 6, May 13, May 14, May 19, May 21, June 4, June 9, June 11, June 16, and June 17, 2009. The Committee considered 219 filed amendments (or divisions thereof), adopted 100, rejected 33, and 86 were either withdrawn or not offered. On June 17, the Committee ordered the legislation, as amended, favorably reported as an original bill.

#### COMMITTEE RECOMMENDATION AND TABULATION OF VOTES

The Senate Committee on Energy and Natural Resources, in open business session on June 17, by majority vote of a quorum present, recommends that the Senate pass an original bill, as described herein.

The rollcall vote on reporting the measure was 15 yeas, 8 nays, as follows:

YEAS	NAYS
Mr. Bingaman	Ms. Landrieu
Mr. Dorgan*	Mr. Menendez
Mr. Wyden*	Mr. Burr*
Mr. Johnson*	Mr. Barrasso
Ms. Cantwell	Mr. Risch
Mrs. Lincoln*	Mr. McCain*
Mr. Sanders*	Mr. Bennett*
Mr. Bayh	Mr. Bunning
Ms. Stabenow*	
Mr. Udall	
Ms. Shaheen	
Ms. Murkowski	
Mr. Brownback	
Mr. Sessions*	
Mr. Corker	

\* Indicates voting by proxy.

#### SECTION-BY-SECTION ANALYSIS

##### *Section 1. Short title; Table of contents*

Section 1 provides a short title and table of contents.

##### *Section 2. Definition of Secretary*

Section 2 defines “Secretary” as the Secretary of Energy.

#### TITLE I—CLEAN ENERGY TECHNOLOGY DEPLOYMENT

##### SUBTITLE A—CLEAN ENERGY FINANCING

##### *Section 101. Purpose*

Section 101 states the purpose of subtitle A.

*Section 102. Definitions*

Section 102 defines terms used in the subtitle. The Committee notes that under section 102(5)(A), pipelines that replace freight hauling may qualify as a “clean energy technology” if the pipeline reduces the need for additional energy supplies by transporting energy with greater effectiveness.

*Section 103. Improvements to existing programs*

Section 103 makes improvements in the loan guarantee program established by title XVII of the Energy Policy Act of 2005.

Subsection (a)(1) establishes the “Clean Energy Investment Fund” as a revolving fund in the Treasury for the administrative expenses needed to carry out title XVII of the Energy Policy Act of 2005. The Fund is intended to make the program stable over the long term and limit the need for annual appropriations. Subsection (a)(2)(A) makes amounts in the Fund available without fiscal year limitation. Subsection (a)(2)(B) allows up to 1.5 percent of the Fund to be used for administrative expenses. Subsection (a)(3) allows amounts collected that are not associated with the cash flows of lending activities, as defined under the Federal Credit Reform Act of 1990 (“FCRA”), to be used to support activities under title XVII.

Subsection (b)(1) amends the definition of “commercial technology” in section 1701(1) of the Energy Policy Act of 2005 to make it clear that a demonstration project or provision of a loan guarantee to a commercial-scale project does not foreclose a loan guarantee to another project or a similar technology.

Subsection (b)(2) amends section 1702(b) of the Energy Policy Act of 2005 to allow use of balances in the revolving fund to cover the cost of a loan guarantee, and to allow any combination of balances in the revolving fund or payments by the borrower to cover the cost of a loan guarantee. Paragraph (2) also waives section 504(b) of FCRA, eliminating the requirement for new budgetary authority to support loan guarantees and instead allowing balances in the fund to cover the cost of loan guarantees.

Subsection (b)(3) amends section 1702(g)(2) of the Energy Policy Act of 2005 to allow the Secretary of Energy to take a less than first lien priority against project assets. Subsection (b)(3) is intended to allow *pari passu* financing, or arrangements where the Secretary takes an equal lien position with other lenders in collateral that would give sufficient security to the United States.

Subsection (b)(4) amends section 1702(h) of the Energy Policy Act of 2005 to require the Secretary to deposit fees collected under that section in the Clean Energy Investment Fund, and to provide discretion to the Secretary to adjust the amount or manner of collection of fees in order to allow for broader availability of loan guarantees. Section 1702(h)(4) is meant to ensure that only actual administrative costs for a given project are retained in the circumstance where a conditional commitment has been entered into but final financial close does not occur. Section 1702(h)(5) gives the Secretary discretion to waive requirements for an initial credit report from an applicant if it will not materially aid the process of determining the risks or the costs to the applicant of the support. In such a circumstance, the credit report may be an unnecessary added cost that would only serve to disadvantage smaller companies while not providing any material security to the taxpayer.

Subsection (b)(5) adds a new subsection (k) to section 1702 of the Energy Policy Act of 2005. The new subsection instructs the Secretary to consolidate reviews such as environmental, credit, or due diligence reviews, to the maximum extent consistent with sound business practices, with a target completion of processing within 6 months of submission of a completed application.

Subsection (b)(6) amends section 1705(c) of the Energy Policy Act of 2005 to expand the application of the wage requirements to all of title XVII.

*Section 104. Energy technology deployment goals*

Section 104(a) requires the Secretary, after consultation with the Energy Technology Advisory Council, to develop goals for the deployment of clean energy technologies and translate the goals into short and long-term numerical targets for technology deployment in order to allow the performance of the agency to be judged.

Subsection (b) directs the Secretary to revise the goals established under subsection (a), from time to time as appropriate, to account for advances in technology and changes in energy policy.

*Section 105. Clean Energy Deployment Administration*

Section 105(a)(1) establishes the Clean Energy Deployment Administration (Administration) within the Department of Energy, under the direction of an administrator and a board of directors. Paragraph (2) provides the Administration substantial independence within the Department. Paragraph (2)(A) exempts the Administration from line reporting authority within the Department, and subparagraph (B) exempts it from the Secretary's reorganization authority under section 643 of the Department of Energy Organization Act. Subparagraph (C) creates a new Inspector General for the Administration.

Subsection (b) creates the position of Administrator to direct the Administration and sets out the duties of the Administrator. Among other things, subsection (b)(2) directs the Administrator to enhance, but not displace, private markets, and to promote a self-sustaining portfolio of investments.

Subsection (c) creates a Board of Directors to oversee the Administration.

Subsection (d) creates an Energy Technology Advisory Council to advise the Administration on technical matters. It directs the Council to create a methodology for assessing the technologies to allow for a dollar efficiency comparison of proposed projects.

Subsection (e) provides the staffing authorities of the Administrator.

*Section 106. Administration functions*

Section 106(a)(1)(A) creates a direct support unit to issue loans, loan guarantees, letters of credit, insurance products, or other financial instruments to projects employing clean energy technologies. Subparagraph (B) establishes criteria for awarding support to projects. Subparagraph (C) establishes how the Administration is to account for risk in pursuing investments. The expected loan loss reserve provides an internal mechanism for balancing risks and returns in the portfolio of investments by the Administration. Although all of the funds in the Clean Energy Investment

Fund are available for support activities, the loan loss reserve allows for the establishment of lending targets that will meet the statutory goals and guide the collection of fees or other compensation in order to allow for the long term financial self-sufficiency of the Administration. Subparagraph (D) directs the Administration to consolidate reviews. Subparagraph (E) applies the prevailing wage standards of the Davis-Bacon Act to direct support activities.

Subsection (a)(2) creates the indirect support unit to focus on financial products designed to leverage private sector participation in providing for widespread deployment of clean energy technologies. This unit will support financial products for the deployment of clean energy technologies through indirect support or aggregation of private debt into more marketable products. Subparagraph (B) gives particular guidance to develop the financial support structures necessary to achieve widespread, affordable financing for clean energy technology deployments on a residential and commercial scale. Subparagraph (D) allows the Administrator to establish classifications and pricing structures for sellers of or those who service clean energy technology debt so that transactions through such partners will be transparent and efficient. Subparagraph (F) allows the Administration to issue securities based on the debt it holds, either through acquisition or issuance. Subparagraph (G) provides the guiding objectives of the operations authorized by subparagraph (F).

*Section 107. Federal credit authority*

Section 107(a) defines the conditions for a transfer of functions of the title XVII loan guarantee program and authority over the Clean Energy Investment Fund. Effective upon enactment, the Administrator may use up to 1.5 percent of amounts in the Fund for expenses of the Administration. Upon transfer of functions and authority, a direct appropriation of \$10 billion will be transferred to the Fund.

Subsection (b) makes clear that all liabilities incurred by the Administration are to be handled in accordance with the FCRA and discharged from the appropriate credit account or the Fund, as appropriate.

Subsection (c) sets out the treatment of fees, distinct from FCRA-associated costs and cash flows, and allows them to be retained in the fund for further use. The Administration is to reduce, to the extent compatible with sound business practices, the fees charged for breakthrough technologies in order to encourage the development of those technologies. In order to compensate the Fund for reduced fees or initial subsidies of technologies, the Administration may use alternative fee arrangements as described in (c)(4) in lieu of cash transactions in order to sufficiently compensate the fund for risks.

Subsection (d) clarifies further that “costs” as defined under FCRA are treated according to the requirements of FCRA.

Subsection (e) sets out a means for acquiring temporary liquidity to support secondary market activities described in the indirect support section.

Subsection (f) authorizes the issuance of debt to support the activity authorized in subsection (e).

Subsection (g) limits the total outstanding amount of debt issued under subsection (f) to \$2,000,000,000.



Subsection (h) requires an obligation to yield an appropriate rate of return, as determined by the Secretary of the Treasury.

Subsection (i) authorizes the Secretary of the Treasury to sell obligations acquired under section 107.

Subsection (j) provides that all redemptions, purchases, and sales under section 107 are to be treated as public debt transactions of the United States.

*Section 108. General provisions*

Section 108 contains general authorities governing the operation of the Administration.

SUBTITLE B—IMPROVED TRANSMISSION SITING

*Section 121. Siting of interstate electric transmission facilities*

Section 121 repeals the existing text of section 216 of the Federal Power Act (16 U.S.C. 824p), as added by section 1221 of the Energy Policy Act of 2005, and replaces it with new language.

Section 216(a), as amended, establishes the policy that the national interstate transmission system should be guided by the following goals: support for development of renewable generation; opportunities for reduced emissions; resulting cost savings; diversification of risk; enhancement of competition and mitigation of market power; ability to collocate facilities on existing rights-of-way; competing land use priorities; the needs of load-serving entities; and the contribution of demand response, energy efficiency and distributed generation.

Section 216(b), as amended, defines key terms used in section 216.

Section 216(c), as amended, requires the Federal Energy Regulatory Commission to coordinate regional planning to ensure that regional plans are integrated into an Interconnection-wide transmission plan with respect to high-priority national transmission projects that achieve the policy under subsection (a). Paragraph (2) directs the Commission to publish, within 180 days after the date of enactment, a rule to embody the policy goals and develop national electricity grid planning principles pursuant to that policy. Paragraph (3) provides that utilities, transmission organizations, regional entities, or other multistate entities or organizations may develop a regional plan that is consistent with the planning principles established by the Commission. Utilities that do not participate in the development of regional plans under this subsection must develop a plan that is consistent with the planning principles. Plans must be submitted to the Commission within 2 years of the date of enactment. The Commission may require modification of a plan to reconcile inconsistencies among plans or to achieve the policy goals under subsection (a).

Section 216(d), as amended, authorizes the Commission to designate high priority national transmission projects and delineates state and Federal roles in the siting of high-priority national transmission projects.

Section 216(e), as amended, establishes the process for application for a certificate of public convenience and necessity for construction of a high-priority national transmission project. Paragraph (2) establishes criteria that the Commission must apply to

grant such a certificate, allows the Commission to attach such reasonable terms and conditions to the issuance of a certificate as the public convenience and necessity may require, and clarifies that the Commission should use prior state work as appropriate in reviewing an application. Paragraph (3) allows the holder of a certificate, if he is unable to acquire by contract or agreement with a property owner on compensation for necessary rights-of-way, to exercise the right of eminent domain in the United States district court for the district in which the property is located or in a state court. Paragraph (4) allows state and tribal governments to recommend mitigation measures based on habitat protection, environmental considerations or cultural site protection considerations. Paragraph (5) clarifies that an applicant receiving a certificate shall not require a separate state or local authorization. Paragraph (6) requires certificate holders to comply with Federal law regarding obtaining rights-of-way on Indian lands.

Section 216(f), as amended, provides for the coordination of Federal authorizations for transmission facilities. Paragraph (1) defines "Federal authorization." Paragraph (2) provides that the Secretary of the Interior shall act as lead agency for coordinating Federal authorizations in cases where projects are on both Department of the Interior lands and other Federal lands. Paragraph (3) directs the Secretary of the Interior to coordinate Federal authorizations and reviews with the Commission, Indian tribes, state agencies and multistate entities. Paragraph (4) directs the Secretary of the Interior to establish milestones and deadlines for reviews and authorizations under Federal law, as well as provide for a preapplication mechanism to expedite processes. Paragraph (5)(A) directs the Secretary of the Interior to prepare a single environmental review document to be used as the basis for all decisions relating to the proposed project under Federal law. Paragraph (5)(B) requires the Secretaries of the Interior and Agriculture to streamline review and permitting within corridors designated under section 503 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1763) or section 368 of the Energy Policy Act of 2005 (42 U.S.C. 15926). Paragraph (6) provides that in cases where a Federal agency has denied an application or failed to act by a deadline, the applicant, or a state within which a project is located, may appeal to the President to approve or deny the application. Paragraph (7) delineates Federal lands in which the Presidential appeal does not apply. Paragraph (8) requires agencies, to the maximum extent practicable, to use corridors designated under section 368 of the Energy Policy Act of 2007 (42 U.S.C. 15926) and to designate new corridors when unable to do so. Paragraph (9) describes duration of authorizations and conditions for renewals. Paragraph (10) requires the Secretary of Energy and the Commission to consult regularly with electric reliability organizations, transmission organizations, transmission owners and users, and other interested parties. Paragraph (11) prescribes implementation of the subsection.

Section 216(g), as amended, requires the Commission to evaluate whether high-priority national transmission projects are being constructed in accordance with plans under this section, to take necessary actions, pursuant to applicable law, to address identified obstacles, and to make recommendations to Congress for further actions or authorities needed.

Section 216(h), as amended, requires the Secretary to report to Congress recommendations for further actions or authority needed to ensure development of demand response, energy storage, distributed generation, energy efficiency, and other areas necessary to carry out the stated policy.

Section 216(i), as amended, requires the Commission to develop appropriate methodologies for allocation of costs of high-priority national transmission projects, delineates cost allocation criteria, and requires the Commission to develop a methodology for collecting costs and distributing revenues to transmission owners.

Section 216(j), as amended, preserves, except as explicitly provided, Federal and State laws.

Section 216(k), as amended, expresses the policy of the United States regarding long-term transmission rights for load-serving entities to support generation investment.

Section 216(l) requires the Secretary to conduct assessments to identify areas with significant potential for development of location-constrained resources.

Section 216(m) requires the Secretary to submit studies of electric transmission congestion to Congress and defines the schedule for doing so.

Section 216(n) delineates entities subject to the authority of the Commission to approve transmission plans and allocate costs, preserves approvals for pending projects, and excludes Alaska, Hawaii, and the Electric Reliability Council of Texas from the operation of the section 216, unless the State or Council elects to participate in a cost allocation plan under the section.

SUBTITLE C—FEDERAL RENEWABLE ELECTRICITY STANDARD

*Section 131. Sense of the Congress on renewable energy and energy efficiency*

Section 131 expresses the sense of Congress that the Federal Government should continue to support the use and expansion of renewable energy and energy efficiency.

*Section 132. Federal renewable electricity standard*

Section 132 adds a new section 610 to Title VI of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.).

Section 610(a) defines key terms used in section 610.

Section 610(b)(1) requires retail sellers of electricity to obtain the following percentages of their electricity in any calendar year from renewable energy or from energy efficiency:

<i>Year</i>	<i>Percent</i>
2011–2013 .....	3
2014–2016 .....	6
2017–2018 .....	9
2019–2020 .....	12
2021–2039 .....	15

Section 610(b)(2) provides that electricity utilities may comply with the requirement of paragraph (1) by submitting renewable energy credits to the Secretary, submitting energy efficiency credits up to 26.67 percent of the requirement to the Secretary, making alternative compliance payments to the Secretary, or any combination of the above. Paragraph (3) directs Secretary of Energy to pre-

scribe a reasonable phase-in of requirements for utilities that become subject to the requirement on or after January 1, 2013.

Section 610(c)(1) requires the Secretary to establish a federal renewable energy credit trading program and a Federal energy efficiency credit trading program. Paragraph (2) describes the program for issuing of credits by the Secretary. Paragraph (3) allows credits to be used for three years from the date of issuance. Paragraph (4) allows utilities to transfer excess credits to affiliates. Paragraph (5) allows the Secretary to delegate to an appropriate market-making entity the administration of national markets for federal renewable energy credits and for federal energy efficiency credits, and to regional entities to track the dispatch of renewable generation.

Section 610(d)(1) provides for civil penalties for electric utilities that fail to meet the requirements of subsection (b). Paragraph (2) defines the amount of the penalties. Paragraph (3) authorizes the Secretary to mitigate or waive penalties and to provide waivers or variances from the requirements. Paragraph (4) requires the Secretary to assess civil penalties in accordance with procedures prescribed by section 333(d) of the Energy Policy and Conservation Act (42 U.S.C. 6303(d)).

Section 610(e)(1) allows electric utilities to comply by making alternative compliance payments in lieu of submitting credits in accordance with regulations prescribed by the Secretary. Paragraph (2) requires that payments be made directly to the State in which the utility is located, if the payments are made into a state fund within the treasury of the State for use in accordance with paragraph 3. Paragraph (3) allows the Governor of the State to expend amounts solely for the purposes of increasing the quantity of electric energy from a renewable resource in the State, including nuclear and advanced coal technologies; promoting deployment and use of electric drive vehicles; and offsetting the costs of compliance paid by electric consumers in the State through direct grants to electric consumers or energy efficiency investments. Paragraph (4) authorizes the Secretary to require the Governor to keep such accounts and records and furnish information as the Secretary determines are necessary to determine compliance with this subsection.

Section 610(f)(1) provides that electric utilities that sell less than 4,000,000 megawatt hours of electric energy per year to retail consumers are exempt, as are those in Hawaii.

Section 610(g) directs the Secretary to adjust the amount of the alternative compliance payment for inflation.

Section 610(h)(1) clarifies that this section does not diminish the right of any State to adopt or enforce any law or regulation respecting renewable energy or energy efficiency, or to regulate electric utilities. Paragraph (2) clarifies that no State law relieves any person of any requirement under this section. Paragraph (3) requires the Secretary to coordinate with State programs, to the maximum extent practicable. Paragraph (4) requires the Secretary to issue regulations to ensure appropriate issuance of Federal credits in cases where States have renewable energy requirements, to the extent that the State programs result in generation of renewable energy. The Secretary also must ensure that renewable energy credits issued pursuant to this subsection shall not be used for compliance with this section more than once.

Section 610(i)(1) defines key terms used in this subsection. Paragraph (2) requires the Secretary, when petitioned by the Governor of a State or, in the case of the Tennessee Valley Authority, the Board of Directors, to allow up to 26.67 percent of the requirement under subsection (b) to be met by submitting Federal energy efficiency credits. Paragraph (3) delineates circumstances under which the Secretary may issue Federal energy efficiency credits. Paragraph (4) requires the Secretary to issue regulations regarding measurement and verification of electricity savings under this subsection. Paragraph (5) requires the Secretary to issue regulations by which the increment of electricity output of new combined heat and power systems shall be considered electricity savings under this subsection.

Section 610(j) clarifies that the provisions of this section relating to biomass shall be administered in accordance with section 203(e) of the Energy Policy Act of 2005, as added by section 133(2) of the Act.

Section 610(k) provides for loans to electric utilities to carry out the purposes of this section.

Section 610(l) directs the Secretary, not later than January 15, 2015, and every five years thereafter, to review and make recommendations to Congress on the program.

Section 610(m) directs the Secretary to prescribe regulations implementing the section.

Section 610(n) terminates authority under section 610 on December 31, 2039.

Section 610(o) makes a conforming amendment to the table of contents of the Public Utility Regulatory Policies Act of 1978.

*Section 133. Federal purchase requirement amendment*

Section 133(1) amends the definition of “biomass” in section 203(b)(1) and the definition of “renewable energy” in section 203(b)(2) of the Energy Policy Act of 2005, and adds definitions for 6 additional terms.

Section 203(b)(1), as amended, defines the term “biomass” by specifying types of nonhazardous organic materials. Subparagraphs (A) through (H) specify types of materials that qualify under the definition without regard to the ownership of the land from which they are harvested or removed. Subparagraphs (I) and (J) specify additional types of materials that qualify under the definition if harvested from certain non-Federal or Indian land, and subparagraph (K) specifies additional qualifying materials harvested from certain Federal land. The Committee did not include biomass that is hazardous or that is contaminated with hazardous materials or organisms because of the risks to human health and the environment that are associated with transporting, storing, and converting such materials to electricity. Nothing in the definition of “biomass” (or the federal purchase requirement) prohibits or expands the authority of landowners to cultivate, harvest, or sell biomass, nor does it prohibit the production of electricity from organic materials that do not qualify as “biomass” under this definition. However, electricity produced from biomass only qualifies for purposes of meeting the purchase requirement if it falls within the definition.

Subparagraph (A) includes as “biomass” residues and byproducts from milled logs, such as bark, trimmings, sawdust, and black liquor, for example.

Subparagraph (B) includes wood, paper products that are not commonly recyclable, and vegetation that is diverted from a municipal waste stream or separated from other waste out of a municipal waste stream. Wood, vegetation, and paper products do not qualify under this subparagraph if they would not otherwise be actively disposed of as municipal waste.

Subparagraph (C) includes hazard trees, trimmings, and brush that are necessary to remove in order to maintain a utility right-of-way or a public road (not including any unpaved road within Federal land).

Subparagraph (D) includes trees, trimmings, and brush harvested from the immediate vicinity of any building, campground, or other structure in wildfire prone areas to reduce the risk to the structure or campground or to human life from wildfires.

Subparagraph (E) includes alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health if they are removed in an effort to control or eradicate the invasive species. Invasive species that are cultivated as an energy crop, for example, would not qualify under this subparagraph.

Subparagraph (F) includes animal waste (including sewage) and animal byproducts, including solids produced by micro-organisms and biogas that are derived from such waste.

Subparagraphs (G) and (H) include food waste and algae, respectively.

Subparagraph (I) includes vegetation that is harvested from non-Federal forest land or Indian forest land. On the date of enactment, vegetation from all non-Federal and Indian forest land is eligible (with certain restrictions regarding land identified as “conservation forest land”). However, vegetation from non-Federal and Indian forest land that is converted from a naturally regenerated forest to planted forest land after the date of enactment is not included in this provision (unless it was planted for the purpose of restoring a naturally regenerated forest). Vegetation that is harvested from planted forest land that—on the date of enactment—is managed as cropland, pastureland, or planted forest land is included under clause (ii).

Subparagraph (J) includes crops, crop byproducts, and crop residues from non-forested non-Federal land and Indian land that—on the date of enactment—is cultivated as cropland or pastureland.

Subparagraph (K) includes certain vegetation from most Federal land managed by the Forest Service and Bureau of Land Management. In general, the provisions of subparagraph (K) are intended to focus incentives on the materials that are appropriately removed from public lands to improve forest health and currently cannot be utilized economically (and, therefore, do not compete with higher-value products like lumber, for example). Nothing in the definition of “biomass” either restricts or expands existing land management authorities, and this subparagraph includes a provision that emphasizes that any vegetation from Federal land must be harvested in accordance with applicable law and land management plans to qualify under the definition.

Subparagraph (K)(i) includes slash, the residue left on the ground after logging (including a commercial timber sale) or accumulating on the ground as a result of storms, wildfires, girdling, or delimiting. Clause (ii) includes certain brush and trees that are byproducts of ecological restoration, disease or insect infestation control, or hazardous fuels reduction treatments. Specifically, subclause (I) includes brush and trees that do not meet the utilization standards for sawtimber that are byproducts of such treatments if they are from stands that were killed by an insect or disease epidemic or a natural disaster. Utilization standards for sawtimber generally include a component of minimum quality and minimum size. Under subclause (I), trees that are larger than the minimum size standard for sawtimber may nevertheless qualify as “biomass” if they do not meet the minimum quality standard. Under subclause (II), brush and trees that do not exceed the minimum size standards for sawtimber also are included in the definition of “biomass” if they are byproducts of such treatment. In all other cases, trees that are harvested from Federal land and that exceed the applicable minimum size standard for sawtimber are not included under subparagraph (K).

Section 203(b)(2), as amended, defines the term “conservation forest land.” Under the definition of “biomass” in paragraph (1)(D)(i)(III), vegetation from non-Federal or Indian land that is—at the time of harvest—identified as “conservation forest land” qualifies as “biomass” so long as the vegetation is “harvested in quantities and through practices that maintain or contribute toward the restoration of the species, ecological systems, and ecological communities for which the conservation forest land was identified.” Subparagraph (A) defines “conservation forest land” in a manner that is consistent with the conservation status ranks used by the State Natural Heritage Program, but places the responsibility for identifying such lands only with appropriate governmental entities, as provided by subparagraph (B).

Subparagraph (B)(iii) states that conservation forest land may be identified by the Secretary of Agriculture or the Secretary of the Interior if done in consultation with the appropriate State or Indian tribe. The Committee contemplates that States and Tribes would take the lead role in carrying out the task of identifying conservation forest land (as provided for by clauses (i) and (ii)), but nothing in this Act requires States or Tribes to do so or subjects them to any kind of enforcement action if they do not. Accordingly, as an alternative to State or Tribal identification under clauses (i) and (ii), clause (iii) provides authority for either Secretary to do so, but emphasizes that the Secretaries may only identify conservation forest land if they do so in consultation with the appropriate State or Tribe.

Subparagraph (C) removes an incentive to carry out land management practices on land identified as conservation forest land that would contribute to the elimination of the conservation values for which it was identified in order to remove the land from conservation forest land status. Accordingly, it prohibits removing land from conservation forest land status as a result of such actions.

Section 203(b)(3), as amended, defines the term “Federal land” as National Forest System land and public lands administered by the Bureau of Land Management. Some of these lands are excluded

from the definition by subparagraph (B), including National Conservation Areas, National Monuments, National Trails, Wild and Scenic Rivers, Wilderness Areas, and other areas designated by Congress to be administered for conservation purposes. Vegetation harvested from old growth and late-successional forest stands also is excluded from the provisions of section 203(b)(1)(K) unless the restrictions in clause (ii) of this subparagraph are met.

Paragraphs (4), (5), and (6) of section 203(b), as amended, define “Indian land,” “Indian Tribe,” and “Non-Federal land.”

Section 203(b)(7) defines “renewable energy” to include thermal, as well as electric energy, produced from renewable sources.

Section 203(b)(8) defines “Secretary concerned.”

Section 133(2) of the bill adds a new subsection (e) to the end of section 203 of the Energy Policy Act of 2005 (42 U.S.C. 15852). The new subsection (e)(1) delegates authority to administer the provisions of the purchase requirement that relate to the harvesting of “biomass” from Federal land and all forest land to either the Secretary of Agriculture or the Secretary of the Interior. The new subsection (e)(2) directs the Secretary of Energy to periodically conduct a study based on the best available science to assess certain impacts of biomass harvesting for energy production (including electric, fuel, and thermal energy production) and to provide appropriate recommendations to reduce such impacts.

#### SUBTITLE D—ENERGY AND WATER INTEGRATION

##### *Section 141. Energy water nexus study*

Section 141(a) requires the Secretary of Energy, in consultation with others, to enter into an arrangement with the National Academy of Sciences to conduct a study to assess the impact of energy development and production on the water resources of the United States.

Subsection (b) requires the study to assess the amount of water used to produce transportation fuels, the amount of water used to produce electricity using various types of generation, and additional impacts on water from mining and transporting fuel sources.

Subsection (c) directs the National Academy of Sciences to report the results of its study to the Secretary within 18 months of enactment of the Act.

Subsection (d) directs the National Academy of Sciences to make the results of its study available to the public.

Subsection (e) authorizes the appropriations necessary to carry out the section.

##### *Section 142. Power plant water and energy efficiency*

Section 142(a) requires the Secretary, in consultation with others, to conduct a study to identify best available technologies and other strategies to maximize water and energy efficiency in generating electricity.

Subsection (b) specifies the generation types to be included in the study.

Subsection (c) specifies the timing and content of a report to Congress.

Subsection (d) authorizes the appropriations necessary to carry out the section.



*Section 143. Reclamation water conservation and energy savings study*

Section 143(a) defines key terms used in the section.

Subsection (b) requires the Secretary of the Interior, acting through the Commissioner of Reclamation, to conduct a study evaluating the energy used in storing and delivering water from Bureau of Reclamation projects, and to identify ways to reduce such use through conservation, improved operations, and renewable energy integration.

Subsection (c) directs the Secretary to submit to Congress a report containing the results of the study within 18 months of enactment of the Act.

Subsection (d) authorizes the appropriations necessary to carry out the section.

*Section 144. Brackish groundwater national desalination research facility*

Section 144(a) defines key terms used in the section.

Subsection (b) directs the Secretary of the Interior to operate, manage, and maintain the Brackish Groundwater National Desalination Research Facility.

Subsection (c) specifies the objectives of the Facility and the activities to be conducted at the Facility, including the prioritization to develop renewable energy technologies for integration with desalination activities.

Subsection (d) provides the Secretary a broad range of specified authorities to carry out the section.

Section 144(e) authorizes the appropriations necessary to carry out the section.

*Section 145. Enhanced information on water-related energy consumption*

Section 145 amends the Department of Energy Organization Act to require the Secretary of Energy, acting through the Administrator of the Energy Information Administration, to continually report on the energy used in procuring, treating, and delivering water.

*Section 146. Energy-Water Research and Development Roadmap*

Section 146(a) directs the Secretary of Energy to develop an Energy-Water Research and Development Roadmap within 90 days of enactment of the Act.

Subsection (b) directs the Secretary to submit to Congress a report concerning the Roadmap within 120 days of enactment of the Act.

*Section 147. Energy-water clean technology program*

Section 147(a) defines key terms used in the section.

Subsection (b) directs the Secretary of Energy to carry out a competitive grant program for specified entities to demonstrate technologies that conserve significant amounts of water and energy in development projects.

Subsection (c) specifies a number of requirements associated with the grant program.

Subsection (d) authorizes appropriations to carry out the section.

*Section 148. Rural water utilities energy and water efficiency program*

Section 148(a) directs the Secretary of Energy to establish and carry out an energy and water efficiency technical assistance program for rural drinking water and wastewater utilities.

Subsection (b) authorizes appropriations to carry out the section.

*Section 149. Comprehensive water use and energy savings study*

Section 149(a) requires the Secretary of Energy, in consultation with other Federal agencies and appropriate entities, to conduct an in-depth study on the inter-related nature of water and energy as specified in the section.

Subsection (b) specifies the required components of the study.

Subsection (c) directs the Secretary to submit to Congress a report containing a description of the results of the study within 18 months of enactment of the Act.

SUBTITLE E—VEHICLE TECHNOLOGY DEPLOYMENT

*Section 151. Transportation roadmap study*

Section 151 directs the Secretary of Energy to contract with the National Academy of Sciences to conduct a comprehensive analysis of energy use by light-duty vehicles and the technology options for alternative fuels.

*Section 152. Vehicle technology and recharging infrastructure*

Section 152 adds several new subsections to section 131 of the Energy Independence and Security Act of 2007, to provide further support for the deployment of electric drive vehicles. The new section 131(e) requires the Secretary of Energy, in consultation with the Administrator of the Environmental Protection Agency and the Secretary of Transportation, to study factors that must be addressed to enable the widespread deployment of electric drive vehicles. The new section 131(f) authorizes financial support for projects to deploy electric drive vehicles and related infrastructure, in the form of grants administered through the Department and by allowing the Secretary to consult with the Administrator of the Clean Energy Deployment Administration to further the goals of the subsection.

*Section 153. Electric drive transportation standardization*

Section 153 directs the Secretary of Energy to submit a report on standards for electric drive transportation.

*Section 154. Pilot program for Federal fleet*

Section 154 adds a new subsection (h) to section 131 of the Energy and Independence and Security Act of 2007 to require the Secretary of Energy to establish, as part of the Federal Energy Management Program, a pilot program to provide grants to aid in the deployment of electric drive vehicles that have not yet reached commercial-scale production. Grants under the pilot program would be used to cover the cost differential between an electric drive vehicle and an equivalent traditionally powered vehicle, and for recharging infrastructure at federal facilities needed to support those vehicles.

*Section 155. Study of end-of-useful life options for motor vehicle batteries*

Section 155 directs the Secretary of Energy to study the end-of-useful life options for motor vehicle batteries, and to submit a report on the results of the study.

TITLE II—ENHANCED ENERGY EFFICIENCY

SUBTITLE A—MANUFACTURING ENERGY EFFICIENCY

*Section 201. State partnership industrial energy efficiency revolving loan program*

Section 201 authorizes the Department of Energy to competitively award grants to partnerships between a community and economic development lender, a State agency, and a private financial institution or other provider of loan capital for the purposes of establishing regionally based revolving loan programs to provide manufacturers with loans to implement the technologies and processes that will increase energy productivity, enable the production of clean energy technologies, and increase the industrial competitiveness of the United States.

*Section 202. Coordination of research and development of energy efficient technologies for industry*

Section 202 instructs the Secretary of Energy to establish research and development partnerships between the Industrial Technologies Program and other DOE R&D programs (e.g., Building Technologies, Advanced Batteries and Vehicles Programs, and Office of Science programs including Advanced Scientific Computing Research) to leverage expertise and transfer early stage technology development and manufacturing capabilities into industry.

*Section 203. Energy efficient technologies assessment*

Section 203 directs DOE to complete an assessment of the energy and greenhouse gas emissions savings potential and cost-competitiveness of commercially available energy efficiency technologies that are not widely implemented within U.S. energy intensive industries.

*Section 204. Future of Industry program*

Section 204(a) amends section 452 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111) to strengthen the Department of Energy's energy-intensive industries program.

Subsection (b) directs the Secretary to develop industry-specific technology roadmaps, using public-private partnerships, in order to identify the critical technologies and processes necessary to be developed to reduce energy intensity and greenhouse gas emissions. In implementing the provisions of this legislation, the Secretary should look for opportunities to integrate innovative and emerging areas of technology solutions such as information and communications technologies and automation and support services to monitor, control, and optimize process efficiency as part of its industrial energy efficiency program. These roadmaps will feed into the public/private partnership R&D program established in the Energy Inde-

pendence and Security Act of 2007 to develop and deploy these technologies in industry.

Subsection (c) amends section 452(e) of the Energy Independence and Security Act of 2007 to direct the Secretary of Energy to provide funding to establish additional Industrial Research and Assessment Centers (IACs) and to establish Centers of Excellence at the top performing IACs to serve as sources for best practices and to provide for coordination between centers. Paragraph (4) directs the IACs to coordinate with the National Institute of Standards and Technology's (NIST) Manufacturing Extension Partnership Centers, the Department of Energy's Building Technologies Program, and the National Laboratories, and it directs the IACs to identify and promote sustainable manufacturing practices. Subsection (c)(5) establishes an outreach coordinator at each Center of Excellence to leverage the efforts of the centers with those of the States and the Federal Government. Subsection (c)(6) provides for workforce training through cost-shared paid internships for students to work with industries and manufacturers to implement energy efficiency technologies. Subsection (c)(7) links IAC assessments to Small Business Administration Loans to provide fast tracking through the Small Business Administration Loan system.

*Section 205. Sustainable manufacturing initiative*

Section 205 adds a new section 376 to the Energy Policy and Conservation Act to establish a joint industry-government R&D partnership program within the Industrial Technologies program, in collaboration with NIST and any other relevant agencies, to enable industry to shift towards sustainable manufacturing and industrial processes.

*Section 206. Innovation in industry grants*

Section 206 adds a new subsection (g) to section 1008 of the Energy Policy Act of 2005 to provide cost-shared competitive grants to stimulate the development and widespread deployment of innovative energy efficient technologies and processes for manufacturing and industry. The new subsection (g)(2)(A) permits State-industry partnerships to apply for a grant. Paragraph (2)(B) requires a 50/50 cost share; and paragraph (2)(C) requires the Secretary to provide select partnerships a one-time grant of up to \$500,000 for the proposed project. Paragraphs (3) and (4) set forth criteria for evaluating and selecting eligible projects.

*Section 207. Study of advanced energy technology manufacturing capabilities in the United States*

Section 207 directs the Secretary of Energy to enter into an arrangement with the National Academy of Sciences to develop a report evaluating the opportunities and roadblocks to the development of advanced manufacturing capabilities for advanced energy technologies in the United States. The report is designed to look at the necessity of developing critical elements of and capabilities for the clean technology supply chain in the U.S. in order to capture the production of high value products and prevent their production from being shifted overseas.

*Section 208. Industrial technologies steering committee*

Section 208 establishes an advisory steering committee to provide recommendations to the Secretary on planning and implementation of the Industrial Technologies Program of the Department of Energy.

*Section 209. Authorization of appropriations*

Section 209 authorizes such sums as are necessary to carry out subtitle A.

SUBTITLE B—IMPROVED EFFICIENCY IN APPLIANCES AND EQUIPMENT

*Section 221. Test procedure petition process*

Section 221(a) amends sections 323 and 343 of the Energy Policy and Conservation Act to establish a process under which a person may petition the Secretary to conduct a rulemaking to prescribe or amend a test procedure for covered consumer and industrial products, and make a decision on any such petition within 180 days. Subsection (b) amends section 343 of the Energy Policy and Conservation Act to require the Secretary, at least once every 7 years, to review test procedures for certain industrial equipment and either publish an amended test procedure for any covered equipment or a notice of a decision not to amend a test procedure.

*Section 222. Energy Star program*

Section 222 amends section 324A of the Energy Policy and Conservation Act to make several operational changes to the joint DOE–EPA Energy Star program. First, it would require the Secretary of Energy and the Administrator of the Environmental Protection Agency to update their cooperative agreement within 180 days. Second, the section would require the Secretary and the Administrator to review each product category at least once every 3 years, or when market share for an Energy Star product category reaches 35 percent. Based on this review, the Secretary and the Administrator are required to update and publish new Energy Star product criteria for that category, or publish a finding that no update is justified. Third, it would clarify that DOE shall assume all responsibility for the implementation of an Energy Star program for solid state lighting, including any test methods and procedures. Fourth, it would require a demonstration of compliance with the Energy Star criteria by qualified products. Such demonstration shall be conducted in accordance with methods determined by the Secretary or the Administrator, who may exempt specific products, if justified. Finally, this section would provide specific DOE and EPA authorization levels for the program.

*Section 223. Petition for amended standards*

Section 223 amends section 325(n) of the Energy Policy and Conservation Act to establish a deadline of 180 days after receiving a petition to conduct a rulemaking for the Secretary to grant or deny the petition. It would also establish a 3-year deadline after the date of granting such a petition for the Secretary to publish a final rule on the new or amended standard, or to publish a determination that new or amended standards are unnecessary.

*Section 224. Portable light fixtures*

Section 224 amends sections 321, 322, 323, and 325 of the Energy Policy and Conservation Act to establish definitions, exclusions, test procedures, and minimum energy efficiency standards for portable light fixtures (plug-in table and floor lamps) to take effect on January 1, 2016. Subsection (d) amends section 325 of the Energy Policy and Conservation Act to require the Secretary to review the criteria and standards established under section 325 to determine if revised standards are technologically feasible and economically justified, and to publish amended standards, or a determination that no amended standards are justified, not later than January 1, 2014.

*Section 225. GU-24 base lamps*

Section 225(a) amends section 321 of the Energy Policy and Conservation Act to establish definitions for “GU-24” lamp sockets, “GU-24 Adaptor,” and “GU-24 Base Lamp.” Section 225(b) amends section 325 of the Energy Policy and Conservation Act to establish a standard for the next-generation, GU-24 lamp sockets, so that they cannot be used for older, much less efficient incandescent lamps.

*Section 226. Standards for certain incandescent reflector lamps and reflector lamps*

Section 226 amends section 325(i) of the Energy Policy and Conservation Act to direct the Secretary to publish a final rule establishing standards for incandescent bulged reflector (BR) lamp types which are currently exempt from regulation. This section would require that these BR standards be developed in the context of developing amended standards for all reflector lamps, including incandescent reflector lamps, and are to be published to later than January 1, 2015.

*Section 227. Standards for commercial furnaces*

Section 227 amends section 342 of the Energy Policy and Conservation Act to establish definitions and minimum energy efficiency standards for large (225,000 Btu/hr or more) gas-fired and oil-fired air furnaces manufactured after January 1, 2011.

*Section 228. Motor efficiency rebate program*

Section 228 adds a new section 347 to the Energy Policy and Conservation Act to direct the Secretary to establish, not later than January 1, 2010, a program to provide rebates for expenditures made by entities to purchase and install certain large new electric motors. The new section 347(b)(1) requires an entity, to be eligible, to submit to the Secretary: (1) evidence that the entity purchased an eligible motor to replace an installed motor; (2) evidence that the previously installed motor has been removed from service and has been properly disposed of; and (3) the actual nameplate from the previously installed motor. Section 347(b)(2) authorizes the Secretary to pay rebates in proportion to the horsepower of the motor. Section 347(b)(3) authorizes the Secretary to make payments to motor distributors to assist in the disposal costs of the replaced motors. Section 347(c) authorizes \$350 million to fund the rebate program for fiscal years 2010 through 2014.

*Section 229. Study of compliance with energy standards for appliances*

Section 229 directs the Secretary to conduct, and submit to Congress within 18 months, a study on the degree of compliance with energy standards for appliances including an investigation of compliance rates, and options for improving compliance including enforcement.

*Section 230. Study of direct current electricity supply in certain buildings*

Section 230 directs the Secretary to conduct, and submit to Congress within 1 year, a study of the costs and benefits of requiring high-quality, direct current electricity supply in certain buildings and to determine, if this requirement is imposed, what the policy and role of the Federal Government should be.

*Section 231. Motor market assessment and commercial awareness program*

Section 231 directs the Secretary to assess the U.S. electric motor market including ways to improve the efficiency of motor systems. Subsection (d) requires the Secretary to: develop recommendations to periodically update this information; estimate the savings attributable to the Save Energy Now Program; make recommendations to the Census Bureau on surveys to support DOE's motor activities; and prepare an update to the Motor Master+ program of DOE. Subsection (e) directs the Secretary, based on the assessment and recommendations, to establish a program to: increase awareness of the savings opportunities of using higher efficiency motors; improve motor system procurement practices; and establish criteria for making decisions regarding electric motor systems.

*Section 232. Study regarding Energy Superstar concept*

Section 232 adds a new subsection (e) to section 324A of the Energy Policy and Conservation Act to direct the Secretary and EPA Administrator to jointly study the feasibility and advisability of adding an Energy Superstar tier" to the Energy Star Program. This tier would recognize the products and buildings as "Superstars" that constitute the approximately 5 percent most-efficient products in a market. The new section 324A(e)(2) requires the Secretary and EPA Administrator to jointly submit a report to Congress no later than 1 year after enactment on whether the Energy Superstar tier should be established, and if so, propose a schedule and budget for its establishment.

*Section 233. Technical amendment*

Section 233 would make a technical amendment to section 324(a) of the Energy Policy and Conservation Act, updating the name change of an industry association that is cited in the law.

## SUBTITLE C—BUILDING EFFICIENCY

## PART I—BUILDING CODES

*Section 241. Greater energy efficiency in building codes*

Section 241(a) amends section 304 of the Energy Conservation and Production Act.

Section 304(a)(1)(A), as amended, directs the Secretary to set energy savings targets for both the residential and commercial national model building energy codes. The target for 2010 requires a 30 percent improvement in energy savings compared to the 2006 International Energy Conservation Code (IECC) for residences and the ASHRAE Standard 90.1—2004 code for commercial buildings. The target for codes issued after 2016 requires a 50 percent improvement over the reference codes.

Section 304(a)(1)(B) authorizes the Secretary, before 2013, to adjust the 50 percent target date for one or both codes if he determines that a 50 percent target cannot be met in 2016. The Secretary is to set energy savings targets at the maximum level of energy efficiency that is technologically feasible and life-cycle cost-effective and on a path to achieving net-zero-energy buildings.

Section 304(a)(1)(C) directs the Secretary to provide technical assistance to model code-setting and standards development organizations and to submit proposals to enable the model codes and standards to meet these targets.

Section 304(a)(2) requires the Secretary, within one year after the new codes are updated, to determine whether the codes meet the efficiency targets; if not, the Secretary shall propose modifications to the codes to meet the targets. Subparagraph (B) requires the codes and standards organizations to incorporate the proposed changes within 180 days. Subparagraph (D) requires the Secretary to provide notice and public comment on targets, determinations, and modified codes.

Section 304(b) provides that each State shall certify whether or not it has reviewed the model codes and updated the provisions of state codes regarding energy efficiency. The certification shall come within 2 years after the Secretary determines that the model energy codes meet the energy savings targets. The certification shall include a demonstration that the codes meet the targets in section 304(a).

Section 304(c) requires States to certify, within 3 years of a determination by the Secretary, whether or not they have achieved compliance with the model energy codes. Compliance is considered achieved if at least 90 percent of new and renovated building space meets the energy efficiency requirements of the code or achieves an equivalent level of energy savings. A State has made significant progress toward achieving compliance if it has developed and is implementing a plan to achieve compliance within 8 years. Technical assistance shall be provided to the States by the Secretary.

Section 304(d) provides that a State that has not made a certification under subsection (b) or (c) shall submit a report to the Secretary on the status of the State with regard to meeting the requirements and a plan for submittal of the certification.

Section 304(e) authorizes the Secretary to provide funding to States to improve and implement State energy efficiency codes and



increase compliance. In determining the amount of funding, the Secretary shall consider the actions proposed by the State. Of the amounts made available under this subsection, the state may use up to \$500,000 to train State and local building code officials in order to improve compliance with building energy codes.

Section 241(b) adds a definition of the acronym for the International Energy Conservation Code to section 303 of the Energy Conservation and Production Act.

*Section 242. Multifamily and manufactured housing energy efficiency grant program*

Section 242 establishes a competitive grant program in the Department of Energy to provide funding for innovative approaches to increase energy efficiency in multifamily buildings and manufactured housing. Examples of programs for multifamily buildings include building renovations and replacement of inefficient appliances and equipment with Energy Star products. Owners of pre-1976 manufactured housing could receive rebates to purchase new Energy Star-rated manufactured housing.

*Section 243. Building Training and Assessment Centers*

Section 243 authorizes the Secretary to provide grants to institutions of higher education to establish building training and assessment centers, in coordination with existing programs of the Department of Energy and other Federal agencies. Such centers will train building engineers, building energy permitting and enforcement officials, and building technicians. This training will provide practical experience in conducting energy assessments on buildings. These assessments will identify recommended efficiency improvements to building owners and help these owners reduce their energy bills.

PART II—WEATHERIZATION ASSISTANCE FOR LOW-INCOME PERSONS

*Section 251. Reauthorization of the low-income weatherization assistance program*

Section 251 reauthorizes the weatherization program under part A, title IV, of the Energy Conservation and Protection Act (42 U.S.C. 6861–6872) through fiscal year 2015.

PART III—STATE ENERGY PROGRAM

*Section 255. Reauthorization of the state energy program*

Section 255 reauthorizes the state energy conservation program grant under part D, title III, of the Energy Policy Conservation Act (42 U.S.C. 6321–6326) through fiscal year 2015.

PART IV—STATE ENERGY EFFICIENCY GRANTS PROGRAM

*Section 261. Definitions*

Section 261 defines terms used in sections 261–265.

*Section 262. State energy efficiency retrofit programs*

Section 262(a) directs the Secretary to make grants to States to carry out energy efficiency retrofit programs in accordance with this section.

Subsection (b) directs the Secretary to apply performance-based criteria in awarding grants, including cost-effectiveness, jobs created, energy and water saved, a plan for evaluation, measurement and verification of energy savings, and other criteria.

Subsection (c) authorizes the Secretary to award competitive grants to the States to carry out energy efficiency retrofit programs for residential and commercial buildings. The grants may be implemented through the State, a unit of local government, or a third party.

Subsection (d)(1) authorizes a State to provide a grant to a homeowner for an energy efficiency retrofit carried out in accordance with a prescriptive option or a performance based option.

Subsection (d)(2) specifies the requirements of the prescriptive option and directs the Secretary to establish a list of approved energy savings measures that may be installed in the home. The provision specifies the amount of the grants available for the prescriptive option and the process for verification of energy savings. Federal incentives under the prescriptive approach are to be \$1,000 for 10 percent savings and \$2,000 for 20 percent savings. Energy savings must be verified by the contractor. The Secretary is authorized to discontinue the prescriptive option one year after the date of enactment.

Subsection (d)(3)(A) specifies that a performance-based retrofit option shall achieve whole home energy savings. Subparagraph (B) sets the grant amount at \$3,000 for a 20 percent reduction in whole home energy consumption, and which can increase up to the lower of \$12,000 or 50 percent of the total retrofit cost if savings are higher. Subparagraph (C) requires energy savings to be documented through a Home Energy Rating System rating or the use of approved whole-home simulation software. Subsection (D) permits the Administrator to adjust the minimum number of retrofits (initially set at 15 percent) randomly selected for third party verification, and the appropriate number of contractor certifications.

Subsection (e)(1) authorizes States to provide incentives for energy efficiency retrofits to commercial buildings, including sub-metered areas within buildings.

Subsection (e)(2) provides that a State may provide commercial building incentives if the retrofits improve energy performance by at least 20 percent compared to the previous year, adjusting for factors such as changes in occupancy. Energy savings shall be determined by the Administrator using an established energy benchmarking tool.

Subsection (e)(3) describes the incentives available for commercial building retrofits based on energy savings per square foot of the retrofitted space and are limited to 50 percent of the cost of the project. Incentives range from \$0.15 to \$3.00 per square foot. The commercial building owner receives part of the incentive payment after the retrofit has been completed, and the remainder of the payment is remitted after energy savings are verified.

Subsection (f) allows historic buildings to receive incentives of up to 120 percent of the amounts in subsections (d) and (e).

Subsection (g) requires States receiving grants under this section to submit a detailed report on the use of the funds to the Secretary.

*Section 263. Administrative and technical support*

Section 263 authorizes the Secretary to provide administrative and technical support to the States.

*Section 264. Regulations*

Section 264 directs the Secretary to prescribe such regulations as are necessary to carry out this part.

*Section 265. Funding*

Section 265(a) authorizes appropriations for the State energy efficiency grants program. Subsection (b) allocates the funding appropriated for this part as follows: 45 percent for home efficiency retrofits; 45 percent for commercial efficiency retrofits; and 10 percent for administrative and technical support. Subsection (c) limits use of the grants for administration and for measurement and verification.

*Section 266. Home energy retrofit finance program*

Section 266(a) defines terms used in this section.

Subsection (b) authorizes grants to the States for establishing or expanding a State revolving finance fund to support financing offered by municipalities and utilities to existing homes and residential buildings under 5 stories.

Subsection (c) authorizes the Secretary to provide funds to the States to capitalize revolving finance funds and increase participation in associated financing programs.

Subsection (d) requires that to be eligible to participate in the program, a qualified program delivery entity shall establish a method for eligible participants to pay for the financed cost of energy efficiency and renewable energy improvements over a period of time.

Subsection (e) directs the Secretary to allocate funds using the formula for State Energy Programs under Part D of Title III of the Energy Policy and Conservation Act.

Subsection (f) provides that not more than 20 percent of the amount of funds in a State revolving finance fund may be used for interest rate reductions.

Subsection (g) provides that, upon repayment, funds made available by qualified program delivery entities shall be deposited back into the applicable State revolving finance fund to support further financing for energy efficiency measures and renewable energy improvements.

Subsection (h) requires that home energy retrofits receiving financing through the program be carried out in accordance with the Home Retrofit program in section 262.

Subsection (i) requires a program evaluation and report to the Senate Committee on Energy and Natural Resources and the House Committee on Energy and Commerce 3 years after the date of enactment.

Subsection (j) authorizes appropriations for carrying out the section.

## PART V—FEDERAL EFFICIENCY AND RENEWABLES

*Section 271. Amendment to Federal renewable purchase requirement*

Section 271(1) amends the federal renewable purchase requirement in section 203 of the Energy Policy Act of 2005 (42 U.S.C. 15852) to allow renewable thermal energy (such as solar hot water) to qualify for the federal renewable energy purchase requirement. Current law allows only renewable electric energy to qualify. Paragraph (3) amends section 203 to add a new subsection (d) to authorize agencies to receive one credit towards their federal renewable purchase requirement if they generate or consume renewable energy on-site. Paragraph (4) authorizes federal agencies to enter into long term contracts (up to 30 years) for the purchase of renewable energy.

*Section 272. Competition requirements for Energy Savings Performance Contracts*

Section 272 amends the Energy Services Performance Contract (ESPC) in section 801(a) of the National Energy Conservation Policy Act to set forth competition requirements for “task or delivery orders” issued to qualified contractors under the ESPC program. The section makes it clear that complying with these specifically tailored competition provisions satisfies the enhanced competition requirements for task and delivery order contracts enacted in the National Defense Authorization Act for Fiscal Year 2008.

*Section 273. Funding flexibility*

Section 273 amends section 801(a)(2)(E) of the National Energy Conservation Policy Act to clarify that, notwithstanding any other law, a Federal agency may use any combination of appropriated funds and private financing under an ESPC, to carry out a contract under title VIII of the National Energy Conservation Policy Act.

*Section 274. Definition of energy savings*

Section 274 amends section 804(2)(B) of the National Energy Conservation Policy Act to codify a Department of Energy policy statement in 2006 that allows energy savings performance contracts to be used for energy efficiency and conservation measures that consist of or include renewable energy systems.

*Section 275. National energy efficiency improvement goals*

Section 275(a) establishes the goal of achieving an improvement of the nation’s overall energy productivity (measured as GDP per unit of energy input) of at least 2.5 percent annually by 2012, and each year thereafter through 2030. Subsection (b) requires a strategic plan to ensure compliance with the national goals within one year of enactment. Subsection (c) specifies the strategic plan’s contents. Subsection (d) requires the plan to be updated biennially. Subsection (e) requires the Secretary to submit the strategic plans and each updated plan to Congress.

*Section 276. Energy sustainability and efficiency grants and loans for institutions*

Section 276 amends section 399A of the Energy Policy and Conservation Act (42 U.S.C. 6371–1) to add not-for-profit hospitals and not-for-profit inpatient health care facilities to the list of entities eligible for grants under section 399A.

*Section 277. Federal implementation strategy for energy-efficient information and communications technologies*

Section 277 adds a new subsection (h) to section 543 of the National Energy Conservation Policy Act to require that federal agencies collaborate with the Director of the Office of Management and Budget to create a comprehensive strategy for the purchase and use of energy efficient information and communications technologies. The new section 543(h)(3) requires the Director to set performance goals for measuring increased efficiency. New section 543(h)(4) requires the Director to report to Congress on new and emerging technologies and the progress of each agency in reducing energy use through its comprehensive strategy.

*Section 278. Incentives for Federal agencies to participate in energy efficiency programs*

Section 278 amends section 546(c) of the National Energy Conservation Policy Act to add independent system operators, State agencies, and third parties implementing efficiency programs, to the entities (electric and gas utilities) that can offer federal agencies incentives to participate in demand response and energy efficiency programs.

PART VI—ENERGY EFFICIENCY INFORMATION FOR BUILDINGS

*Section 281. Building energy performance information program*

Section 281(a) defines key terms used in this section.

Subsection (b) directs the EPA Administrator to establish a voluntary energy performance information program applicable to buildings nationwide to provide timely and accurate information on comparative energy performance and to increase public awareness of the importance of building energy performance through public education.

Subsection (c) directs the Secretary to submit a report to Congress describing building types for which data exists that can serve as the basis for information on building energy performance, additional resources that will be required, and the timeline for completion of the data requirement.

Subsection (d) directs the Secretary to support improvements to the Commercial Buildings Energy Consumption Survey to characterize the achieved performance of existing buildings and to cover additional building types. While conducting the Residential Energy Consumption Survey, the Secretary may also evaluate whether the data is appropriate for developing achieved measurement formats for residential buildings within 5 years of the date of enactment.

Subsection (e) directs the Administrator to establish methods to measure achieved energy performance and designed energy performance and to establish formats for the display of building energy performance. The Administrator shall consider existing public

and private programs in developing the formats and shall publish the final specifications for information. The Administrator shall review and may modify the building energy information program at least once every five years.

Subsection (f) directs the Secretary, in consultation with the Administrator, to establish an education program to increase awareness of the importance of building energy efficiency.

Subsection (g) authorizes the Administrator, in consultation with the Secretary, to conduct demonstration projects for different building types to evaluate the sufficiency of the model formats and specifications. The Secretary shall coordinate demonstration projects with the Zero-Net Commercial Buildings Initiative.

Subsection (h) authorizes the Secretary, at the request of a State or local government, to coordinate on the development of a building energy performance information program and to provide technical assistance and information on best practices. The Secretary may also provide a grant for initial program administration, if key elements are included.

Subsection (i) requires Federal agencies with covered building types to implement the program within 3 years of enactment, as well as newly constructed buildings to be owned by State and local governments that receive federal assistance.

Subsection (j) authorizes the Administrator to develop a voluntary Energy Star program that recognizes high efficiency retrofits of existing commercial and residential buildings.

Subsection (k) authorizes appropriations.

*Section 282. National protocols for evaluation, measurement and verification of energy savings*

Section 282 directs the Secretary of Energy, not later than 2 years after the date of enactment of this Act, to prescribe uniform rules to document the energy savings and avoided greenhouse gas emissions of energy efficiency programs that receive funding from government entities or public utilities, are required to achieve specific levels of energy reductions, or are eligible for allowances or allowance proceeds based on energy savings and greenhouse gas emission reductions under climate change regulations.

PART VII—RESIDENTIAL HIGH-PERFORMANCE ZERO-NET-ENERGY BUILDINGS INITIATIVE

*Section 291. Residential high-performance zero-net-energy buildings initiative*

Section 291(a) defines terms used in the section.

Subsection (b) directs the Secretary to establish the “Residential High-Performance Zero-Net-Energy Buildings Initiative.”

Subsection (c) directs the Secretary to appoint a Director to carry out the Initiative.

Subsection (d) requires the Director to enter into one or more agreements with the existing competitively selected Building America Industry Consortia and one or more additional Consortia to develop and carry out the Initiative for 5 years.

Subsection (e) sets forth the goals of the Initiative.

Subsection (f) describes the activities the Initiative may undertake.

Subsection (g) requires cost sharing in accordance to section 988 of the Energy Policy Act of 2005.

Subsection (h) authorizes appropriations for the Initiative.

#### SUBTITLE D—ELECTRIC GRID

##### *Section 295. National electric system efficiency and peak demand reduction goal*

Section 295 sets a national electric system efficiency goal to optimize and make more efficient the planning and operation of national and local electricity systems with particular focus on reducing the frequency and severity of peak demand periods. This goal would be achieved through the reduction of overall electricity demand through: the adoption of energy-efficient technologies or conservation practices, the use of demand response technologies, and the use of smart grid technologies. Within 180 days after the date of enactment, the Secretary, in cooperation with the Federal Energy Regulatory Commission, Regional Transmission Organizations, the National Association of Regulatory Utility Commissioners, and heads of other appropriate Federal agencies, shall develop an action plan to achieve or exceed the national goal.

##### *Section 296. Uniform national standards for interconnection of certain small power production facilities.*

Section 296 adds a new section 118 to the Public Utility Regulatory Policies Act of 1978 to direct the Federal Energy Regulatory Commission to establish a national interconnection standard for small power production facilities of 15 kilowatts or less. The new section 118(a) requires each electric utility selling electricity to electric consumers to offer interconnection service to their electric consumers consistent with this standard. Section 118(b)(1) provides for Commission enforcement of the national interconnection standard. Section 118(b)(2) allows the Commission to discontinue enforcing the national standard in a State if the State regulatory authority agrees to enforce a consistent State standard. Section 118(c) requires the Commission to submit a report to Congress within 3 years on whether the standard should be amended to apply to facilities that generate up to 50 kilowatts. Section 118(d) directs the Commission to develop a model standard for facilities up to 20 megawatts for the consideration of State regulatory authorities.

#### TITLE III—IMPROVED ENERGY SECURITY

##### SUBTITLE A—CYBER SECURITY OF THE ELECTRIC TRANSMISSION GRID

##### *Section 301. Critical electric infrastructure*

Section 301 amends Part II of the Federal Power Act (16 U.S.C. 824 et seq.) by adding a new section 224 to give the Secretary of Energy and the Federal Energy Regulatory Commission additional authority to protect critical electrical infrastructure.

Section 224(a) defines key terms in the new section.

Section 224(b)(1) directs the Commission to issue rules or orders as necessary to protect critical electric infrastructure from cyber security vulnerabilities. Paragraph (2) permits the Commission to issue the rules or orders without prior notice or hearing if it determines that the rule or order must be issued immediately to protect

against a cyber security vulnerability. Paragraph (3) directs the Commission, to the extent practicable, to consult with officials at other Federal agencies, and with entities subject to the jurisdiction of the Commission. Paragraph (4) provides that rules or orders issued under subsection (b) shall expire on the effective date of a standard developed and approved pursuant to section 215 of the Federal Power Act to address the vulnerability.

Section 224(c) authorizes the Secretary of Energy to require, if immediate action is necessary to protect against a cyber security threat, that entities subject to the jurisdiction of the Commission take actions to protect against the threat. Paragraph (2) encourages the Secretary to consult and coordinate with appropriate officials in Canada and Mexico. Paragraph (3) requires the Secretary, to the extent practicable, to consult with officials at other Federal agencies, and with entities subject to the jurisdiction of the Commission under this section prior to exercising the authority under this subsection. Paragraph (4) requires the Commission to establish a mechanism that permits recovery of prudently incurred costs required to comply with orders of the Secretary under this subsection.

Section 224(d) provides that orders or rules issued without prior notice or hearing under section 224 shall remain in effect for not more than 90 days unless the Commission gives interested persons an opportunity to submit written data, views or arguments and affirms, amends or repeals the rule or order.

Section 224(e) provides that any entity that owns, controls, or operates critical electric infrastructure shall be subject to the jurisdiction of the Commission for purposes of carrying out section 224, or applying enforcement authorities of the Federal Power Act with respect to section 224, but subsection (e) does not subject an electric utility or other entity to the jurisdiction of the Commission for any other purpose. Except as provided in subsection (f), the States of Alaska and Hawaii are exempted from provisions of section 224.

Section 224(f) provides for a plan to protect the electric power supply of the national defense facilities in the States of Alaska and Hawaii, and in the Territory of Guam.

Section 224(g)(1) provides that section 214 of the Critical Infrastructure Information Act of 2002 (6 U.S.C. 133) shall apply to information submitted to the Commission or the Secretary either voluntarily or involuntarily under this section to the same extent as that section applies to information voluntarily submitted to the Department of Homeland Security under that Act (6 U.S.C. 131 et seq.). Paragraph (2) directs the Secretary and the Commission to issue regulations prohibiting disclosure of information that would be detrimental to the security of critical electric infrastructure. Paragraph (3) directs the Secretary and the Commission to establish procedures on the release of critical infrastructure information to entities subject to this section, to the extent necessary to enable the entities to implement rules or orders of the Commission or Secretary. The procedures shall limit dissemination of information, ensure security and confidentiality of information, protect constitutional and statutory rights, and provide data integrity through timely removal and destruction of obsolete or erroneous names and information.



## SUBTITLE B—NUCLEAR ENERGY

*Section 311. National Commission on Nuclear Waste*

Section 311 establishes a National Commission on Nuclear Waste to study alternative means of safely managing or disposing of spent nuclear fuel and high-level radioactive waste from both civilian nuclear activity and atomic energy defense activity, and to recommend to Congress any legislative or other action it believes may be necessary to manage or dispose of spent nuclear fuel and high-level radioactive waste successfully and safely.

Section 311 establishes the National Commission by adding a new title VI to the Nuclear Waste Policy Act of 1982. Section 601 of the new title in the Nuclear Waste Policy Act establishes the National Commission. Section 602 states the purposes of the Commission. Section 603 provides for its composition. Section 604 describes its functions. Section 605 provides administrative authorities. Section 606 requires the Commission to submit a report to the President and Congress within 2 years after the date of enactment. Section 607 provides funds for the Commission, and section 608 terminates the Commission 60 days after it submits its final report.

*Section 312. Sense of Congress regarding the strategic role of nuclear energy*

Section 312 makes certain findings with respect to the importance of nuclear energy, the obligation of the Federal Government to provide for the safe disposal of spent nuclear fuel and high-level radioactive waste, and advanced spent fuel recycling and advanced reactors. The section also expresses the sense of Congress that the Federal Government should reaffirm the policy of the United States to support the use and expansion of nuclear energy and fulfill the Federal Government's obligation with respect to spent nuclear fuel and high-level radioactive waste.

*Section 313. Advanced fuel recycling process development*

Section 313 amends section 953 of the Energy Policy Act of 2005, which authorizes the Secretary of Energy to conduct an advanced fuel recycling technology research, development, and demonstration program. Paragraph (1) of section 313 corrects the reference to the Nuclear Energy Advisory Committee in section 953(b) of the Energy Policy Act of 2005 to reflect a change in the committee's name, which was made after the Energy Policy Act of 2005 was enacted.

Paragraph (2) adds three new subsections to section 953 of the Energy Policy Act of 2005. A new subsection 953(e) directs the Secretary of Energy to take certain steps to address gaps in technology development and regulatory policy related to the development and regulation of advanced spent nuclear fuel recycle facilities. A new subsection 953(f) provides that the Nuclear Regulatory Commission will have licensing and regulatory authority over any facilities that use an advanced fuel recycling process pursuant to the Atomic Energy Act, and directs the Nuclear Regulatory Commission and the Environmental Protection Agency to establish necessary radiation protection standards. A new subsection 953(g) requires the Nuclear Energy Advisory Committee and the Nuclear Waste Technical Review Board to evaluate and report on the readiness of the advanced

fuel cycle program for detailed design, engineering, licensing, and deployment.

SUBTITLE C—IMPROVING UNITED STATES STRATEGIC RESERVES

*Section 321. Petroleum product reserve*

Section 321(a) amends section 154(a) of the Energy Policy and Conservation Act to require the Department of Energy to include at least 30 million barrels of refined petroleum products within the Strategic Petroleum Reserve (SPR).

Subsection (b) adds a new section 155 to the Energy Policy and Conservation Act to require the Secretary to submit to the President and to Congress, not later than 180 days after enactment, a plan to implement the requirement in subsection (a).

Subsection (c) amends section 161 of the Energy Policy and Conservation Act to give the Secretary the authority to drawdown and sell oil from the SPR, and defines “severe energy market supply disruption” as the threshold for determining when an SPR drawdown and sale is appropriate.

*Section 322. Petroleum exchange authority*

Section 322(a) amends 160(a) of the Energy Policy and Conservation Act to allow DOE to receive money, rather than oil, for exchanges that accrue oil in excess of the rated capacity of the SPR.

Subsection (b) amends section 167(b) of the Energy Policy Act to direct any monies accrued under subsection (a) to the SPR Petroleum Account.

SUBTITLE D—FEDERAL OIL AND GAS DEVELOPMENT

PART I—OIL AND GAS LEASING

*Section 331. Oil and gas permit processing improvement fund*

Section 331 adds a new paragraph (4) to section 35(c) of the Mineral Leasing Act to extend the current oil and gas permit processing pilot offices by an additional five years by authorizing \$20,000,000 for each of fiscal years 2016 through 2020. The new paragraph (4) clarifies and makes explicit that funds may be used for the oil and gas inspection and enforcement program as well as for permit processing.

*Section 332. Facilitation of coproduction of geothermal energy on oil and gas leases*

Section 332 adds a new paragraph (4) to section 4(b) of the Geothermal Steam Act of 1970 to provide that a lease for the development of geothermal energy may be available on a noncompetitive basis to the holder of an oil and gas lease for lands subject to an approved permit to drill oil and gas where production is occurring under the existing federal oil and gas lease: (1) if the Secretary determines that geothermal energy will be produced from a well producing or capable of producing oil and gas and the public interest will be served thereby; and (2) in order to provide for the coproduction of geothermal energy with oil and gas.

## PART II—OUTER CONTINENTAL SHELF

*Section 341. Implementation of inventory of Outer Continental Shelf resources*

Section 341(a) amends section 357 of the Energy Policy Act of 2005, which requires an inventory of Outer Continental Shelf (OCS) oil and gas resources, to require a seismic inventory of oil and natural gas and a summary of other marine resources (including present and potential uses of those resources for alternative energy production, navigation, fisheries, aquaculture, recreation, habitat, conservation, and military purposes), with the latter prepared with the assistance of and based on information provided by the heads of appropriate Federal agencies.

Subsection (a)(1)(A) amends section 357(a) to require the inventory and summary be undertaken for waters of the OCS in the Atlantic Region, the Eastern Gulf of Mexico, and the Alaska Region. Subparagraph (B) amends section 357(a)(2) to clarify that 2-D as well as 3-D seismic may be used.

Subsection (a)(2) amends section 357(b) to require the Secretary to carry out the inventory in three phases, with priority given to all or part of the planning areas of the OCS as stated, and adds a new subsection (c). The new section 357(c)(1) requires that not later than 90 days after the date of enactment the Secretary must submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Natural Resources of the House of Representatives a report that provides a plan for executing the seismic inventories required under this section and an estimate of costs to complete the seismic inventory by region and environmental and permitting activities to facilitate expeditious completion. Paragraphs (2) and (3) of the new section 357(c) require that the first phase of the inventory be within completed two years after the date of enactment, with the second and third phases to be completed two and four years thereafter, respectively. Section 357(c)(4) requires the inventory to be made publicly available and updated at least every five years.

Subsection (b) states that undertaking the inventory shall not be considered to require, authorize, or provide a basis or justification for delay of the issuance of any OCS leasing program or amended program or any lease sale.

Subsection (c) states that nothing in the section or the amendment made by the section precludes the issuance by the Secretary of the Interior of a permit to conduct geological or geophysical exploration of the OCS in accordance with applicable law.

Subsection (d) amends section 999H(d) of the Energy Policy Act of 2005 to provide that amounts made available from the Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund shall be used to carry out section 357 of the Energy Policy Act of 2005, with a priority given to completion of programmatic environmental impact statements necessary to carry out the seismic inventory and the use of seismic technology to obtain accurate resource estimates.

Subsection (e) authorizes additional appropriations to carry out section 341.

*Section 342. Alaska OCS permit processing coordination office*

Section 342(a) requires the Secretary of the Interior to establish a regional joint OCS lease and permit processing office for the Alaska OCS region.

Subsection (b)(1) requires the Secretary of the Interior to enter into a memorandum of understanding (MOU) with the Secretary of Commerce, the Chief of Engineers, the Administrator of the Environmental Protection Agency, and other federal agencies that may have a role in permitting activities. Subsection (b)(2) requires the Secretary of the Interior to request that the Governor of Alaska sign the MOU.

Subsection (c) requires that not later than 30 days after the signing of the MOU, each federal agency is to assign, if appropriate, an employee to the coordination office to be responsible for all issues relating to the jurisdiction of the employee's home office or agency and to participate as part of a team of personnel working on proposed oil and gas permitting.

Subsection (d) allows the Secretary to transfer funds to the participating federal agencies and the State of Alaska for purposes of permit coordination and processing.

Subsection (e) sets forth a savings provision.

Subsection (f) authorizes appropriations of \$2,000,000 per year for each of fiscal years 2009 through 2019 to carry out the section.

*Section 343. Moratorium of oil and gas leasing in certain areas of the Gulf of Mexico*

Section 343(a) amends section 104 of the Gulf of Mexico Energy Security Act of 2006 by providing that effective during the period beginning on the date of enactment of the Act and ending on June 30, 2022, the Secretary shall not offer for leasing, preleasing, or any related activity any area in the Eastern Planning Area that is within 45 statute miles of the coastline of the State of Florida, except that the Secretary may offer for leasing any area in the Destin Dome or the Pensacola Area as described in the subsection.

Subsection (b) amends section 12(d) of the Outer Continental Shelf Lands Act to require the Secretary of Defense to review annually areas of the OCS that have been designated as restricted from exploration and operations to determine whether the areas should remain under restriction, and make recommendations to the President based on the review.

Subsection (c) requires that not later than 180 days after the date on which any necessary environmental analyses are completed under the National Environmental Policy Act of 1969, the Secretary of the Interior shall offer for leasing under the Outer Continental Shelf Lands Act in accordance with the completed environmental analyses any areas made available for leasing as a result of this subtitle. Notwithstanding the omission of the areas made available from the applicable 5-year plan, the areas shall be offered for leasing under this section in accordance with the completed environmental analyses.

Subsection (d) makes a conforming amendment.

*Section 344. Repeal of Outer Continental Shelf deep water and deep gas royalty relief*

Section 344(a) repeals sections 344 and 345 of the Energy Policy Act of 2005, relating to royalty relief for production from certain ultra deep gas wells and certain deep water oil and gas production in the Gulf of Mexico.

Subsection (b) provides that the Secretary of the Interior is not required to provide for royalty relief in the lease sale terms beginning with the first lease sale held on or after the date of enactment of this Act for which a final notice of sale has not been published.

PART III—MISCELLANEOUS

*Section 351. Minerals Management Service*

Section 351 requires that any Director of the Minerals Management Service be appointed by the President, by and with the advice and consent of the Senate.

*Section 352. Preservation of geological and geophysical data*

Section 352 amends section 351(k) of the Energy Policy Act of 2005 to extend the authorization for the National Geological and Geophysical Data Preservation Program through fiscal year 2020.

*Section 353. Alaska natural gas pipeline*

Section 353 amends section 116 of the Alaska Natural Gas Pipeline Act to allow a certificate holder to request the Secretary to extend the period to issue Federal guarantee instruments for up to 180 days following resolution of any proceeding relating to the certificate. The section increases the amount of the federal guarantee from \$18,000,000,000 to \$30,000,000,000. The section provides that an issued loan guarantee applies to not less than 80 percent of the project costs unless by previous consent of the borrower. The section relieves the Secretary of Energy of the statutory obligation to determine eligibility of lenders who issue the guaranteed loan, to make it consistent with Title 17 loan guarantees, which have no such requirement.

*Section 354. Denali National Park and Preserve natural gas pipeline*

Section 354(a) defines terms used in the section.

Subsection (b) authorizes the Secretary of the Interior to issue rights-of-way permits for a high-pressure natural gas transmission pipeline in non-wilderness areas within the boundary of Denali National Park within, along, or near the approximately 7-mile segment of the George Parks Highway that runs through the Park and for any distribution and transmission pipeline including appurtenances that the Secretary determines to be necessary to provide natural gas supply to the Park.

Subsection (c) sets forth terms and conditions of the permit, including requirements that it must comply with applicable regulations, the Alaska National Interest Lands Conservation Act and National Environmental Policy Act.

*Section 355. Exemption of Trans-Alaska Oil Pipeline System from certain requirements*

Section 355 adds a new section 208 to the Trans-Alaska Pipeline Authorization Act to provide that no part of the trans-Alaska oil pipeline shall be considered to be a district, site, building, structure, or object for purposes of section 106 of the National Historic Preservation Act (16 U.S.C. 470f), regardless of whether all or part of the pipeline system may be listed on, or eligible for, the National Register of Historic Places. The new section 208(b) authorizes the Secretary of the Interior to identify up to 3 sections of the pipeline that shall be considered historic sites. In doing so, the Secretary shall consider the views of the pipeline owners, the State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Federal Coordinator for Alaska Natural Gas Transportation Projects. The new section 208(c) provides that the owners of the trans-Alaska oil pipeline system may carry out construction, maintenance, restoration, or rehabilitation activities on or for a section of the system considered to be a historic site pursuant to this section.

*Section 356. Procurement and acquisition of alternative fuels*

Section 356 amends section 526 of the Energy Independence and Security Act of 2007 to provide for three exceptions to the procurement guidelines for federal agencies laid out in that section. The exceptions are: (1) the contract does not require fuels from a non-conventional petroleum source, (2) the purpose of the contract is not to obtain fuel from a nonconventional petroleum source, and (3) the contract does not provide incentive for a refinery expansion or upgrade to increase the use of nonconventional petroleum sources.

*Section 357. Geologic materials archiving grant program*

Section 357(a) sets forth findings regarding the importance of storing and maintaining geologic materials.

Subsection (b) establishes a grant program, administered by the Secretary of the Interior, to support States, State Geologic Surveys, or Regional Consortiums in building, maintaining, and operating facilities to store geologic materials. Entities must submit an application to the Secretary and agree to maintain any facility for at least 20 years. The maximum grant amount is \$15,000,000.

Subsection (c) authorizes appropriations of \$100,000,000 to carry out the section.

SUBTITLE E—PUBLIC LAND RENEWABLE ENERGY DEPLOYMENT

*Section 361. Renewable energy Federal permit coordination*

Section 361 adds a new subsection (k) to section 365 of the Energy Policy Act of 2005 to require the Secretary of the Interior to designate one field office in each of the States of Alaska, Arizona, California, Colorado, Idaho, Oregon, New Mexico, Nevada, Montana, Utah, Washington, and Wyoming, to serve as a renewable energy project office for coordination of federal permits for authorizations for renewable energy, defined as energy derived from a wind, solar, or geothermal source, on federal lands.

New section 357(k)(3) provides that within 90 days after the date of enactment the Secretary is to enter into an amended memo-

randum of understanding to provide for the inclusion of the additional Renewable Energy Pilot Project Offices in the Pilot Project. Paragraphs (4) and (5) of the new subsection (k) provide for the assignment of employees of signatory federal agencies and participating states to the coordination offices. Subsection (k)(6) authorizes the Secretary of the Interior to transfer funds to participating federal agencies and states in order to coordinate and process renewable energy authorizations on federal land. Subsection (k)(7)(A) provides that the federal share of any royalties, fees, rentals, bonus bids, or other payments from wind or solar development on federal lands shall be deposited in a special fund in the Treasury to be known as the “BLM Wind and Solar Energy Permit Processing Fund”. Subsection (k)(7)(B) authorizes appropriations from the Fund (or the General Treasury to the extent amounts are not available in the Fund), of \$10 million per year for each of fiscal years 2009 through 2019 for purposes of carrying out the section.

*Section 362. Extension of funding for implementation of Geothermal Steam Act of 1970*

Section 362 amends section 234 of the Energy Policy Act of 2005 to provide that through fiscal year 2020, amounts received by the United States as geothermal rentals, royalties and other payments (excluding amounts required to be paid to state and county governments) shall be deposited into a separate account in the Treasury. Under current law, through fiscal year 2010, these amounts are available without further appropriation. As amended by section 362, starting in fiscal year 2011, these amounts shall be available to the Secretary of the Interior, subject to appropriation, to implement the Geothermal Steam Act and the Energy Policy Act of 2005.

*Section 363. Programmatic environmental impact statements and land use planning*

Section 363(a) requires the Secretary of the Interior to complete a programmatic environmental impact statement (PEIS) in accordance with the National Environmental Policy Act of 1969 within 1 year of the date of enactment of the Act to analyze the impacts of a program to develop solar energy on land administered by the Bureau of Land Management and any necessary land use plan amendments. Subsection (b) requires the Secretary of Agriculture to complete a PEIS within 18 months after the date of enactment of this Act analyzing the impacts of a program to develop solar and wind energy on National Forest System land administered by the Secretary and any necessary land use plan amendments. Subsections (a) and (b) require the Secretaries to amend any land use plans as appropriate to provide for the development of renewable energy in areas considered appropriate by the respective Secretaries. Subsection (c) provides that the requirement for completion of PEISs under this section shall not result in any delay in processing applications for wind or solar energy development.

*Section 364. Report*

Section 364(a)(1) requires, not later than 180 days after the date of enactment, the Secretary of the Interior, in consultation with the Secretary of Agriculture, to enter into an arrangement with the National Academy of Sciences to conduct a study on the siting, de-

velopment, and management of projects for the development of wind and solar projects on land administered by the Bureau of Land Management and the Forest Service. Paragraph (2) requires the study to address and make recommendations regarding the effectiveness of laws in facilitating the development of wind and solar energy, ensuring that the public receives fair market value, discouraging speculation, requiring best management practices, the advantages and disadvantages of using rights-of-way and a competitive or noncompetitive leasing program for wind or solar development, and other matters as specified.

Subsection (b) requires that the study analyze the matters and make recommendations as specified.

Subsection (c) requires the National Academy of Sciences to submit its study to the Secretaries of the Interior and Agriculture not later than 18 months after enactment and to make the study available to the public.

Subsection (d) requires the Secretary of the Interior, in consultation with the Secretary of Agriculture, to submit to Congress a report, containing the items specified, on the findings and recommendations of the study not later than 180 days after receiving the report.

*Section 365. Renewable energy development on brownfield sites*

Section 365(a) defines terms used in the section.

Subsection (b) requires the Secretary of Energy, in conjunction with the Administrator of the Environmental Protection Agency, and in partnership with the National Renewable Energy Laboratory, to identify opportunities to prioritize renewable energy development on brownfield sites and provide resources and technical assistance as specified.

Subsection (c) requires the Secretary and the Administrator, not later than 1 year after the date of enactment, to submit to Congress a report including the matters specified.

Subsection (d) requires the Secretary in conjunction with the Administrator to conduct regional stakeholder forums.

Subsection (e) states that the section does not affect existing federal efforts to promote the reuse and redevelopment of brownfield sites.

Subsection (f) authorizes appropriations.

*Section 366. Development of solar and wind energy on public land*

Section 366(a) defines terms used in the section.

Subsection (b) requires the Secretary of the Interior not later than 180 days after the date of enactment to establish a wind and solar leasing pilot program, under which the Secretary is to select 4 sites as specified to offer for competitive leasing to qualified bidders with lease terms and conditions considered appropriate by the Secretary. Paragraph (4) requires the Secretary to comply with all applicable environmental and other laws. Paragraph (5) requires the Secretary to compile a report of the results of each lease sale. Paragraph (6) provides that, during the pendency of the pilot program, the Secretary is to continue to issue rights-of-way for other available sites in accordance with authority in effect on the date of enactment.



Subsection (c) requires that not later than 30 months after the date of enactment, the Secretary is to make a determination as to whether to establish a leasing program under this section for wind or solar energy using the criteria specified. In making the determination, the Secretary is to consult with heads of Federal agencies, states and tribes, representatives of the solar and wind industries, representatives of the environmental and conservation community, and the public. The Secretary is to consider the results of the report required by section 364 and the results of the pilot program. The Secretary is to issue regulations not later than 180 days after a decision to establish a leasing program. If the Secretary determines that a leasing program should not be established, the Secretary shall submit a report to Congress not later than 60 days after the determination describing the reasons for the determination.

Subsection (d) provides for the transition to a leasing program in the event the Secretary determines that a leasing program should be established.

Subsection (e) requires that any leasing program conform to the requirements of subsections (f) through (l).

Subsection (f) sets forth the general rule that leases for wind or solar energy development shall be issued on a competitive basis with a single round of bidding. The subsection also sets forth exceptions to the requirement for competitive leasing.

Subsection (g) addresses payments to be made under the leasing program.

Subsection (h) sets forth the requirements for eligibility to hold a lease.

Subsection (i) sets forth additional requirements for activity under a leasing program.

Subsection (j) provides that the Secretary is to establish requirements regarding certain lease terms and conditions.

Subsection (k) provides that the Secretary shall require security and provide for reclamation and restoration of the area covered by a lease and require compliance with other requirements considered necessary by the Secretary.

Subsection (l) provides that the Secretary shall provide for the payment of 5 percent of the revenues received by the Federal Government as a result of leasing or the issuance of rights-of-way for wind or solar development to the State within which the boundaries of the leased land or right-of-way are located.

#### SUBTITLE F—CARBON CAPTURE

##### *Section 371. Large-scale carbon storage program*

Section 371 adds a new section 963A to the Energy Policy Act of 2005 to provide for financial and technical assistance for up to 10 large-scale carbon dioxide geologic storage demonstration projects.

The new section 963A(a) defines key terms used in the section.

Section 963A(b) directs the Secretary of Energy to carry out a program, in addition to the program already authorized under section 963 of the Energy Policy Act of 2005, to demonstrate the commercial application of long-term geologic storage of carbon dioxide from industrial sources.

Section 963A(c) authorizes the Secretary to enter into cooperative agreements for up to 10 demonstration projects.

Sections 963A(d) and (e) specify selection criteria, terms, and conditions for demonstration projects receiving assistance under section 963A, to ensure that certain requirements have been met and that the project will be conducted in a manner that minimizes the potential liability exposure of the Federal government under any indemnity provided pursuant to section 963A(g).

Section 963A(f) lays out the requirement for closure of demonstration project sites. Only after these requirements are met can title for the site, and responsibility for its long-term stewardship, transfer to the Federal government. The criteria are science based, and must be met for a period of 10 years, beginning after the carbon dioxide plume has come into equilibrium with the geological formation (as measured by pressure changes within the formation, for example). Thus, for example, if it takes 25 years for such equilibration to take place, then the earliest the land could move into post-closure would be 35 years after injection activities cease.

Section 963A(g) authorizes the Secretary of Energy to indemnify large-scale demonstration projects from liability for personal, property, and environmental damages in excess of their insurance coverage or other financial protection that they may be required to maintain. Liability resulting from the project operator's intentional misconduct or gross negligence is expressly excluded. The Secretary is required to charge a fee for providing indemnification, in an amount that reflects the net present value of the payments that the Government may have to make, taking into account the likelihood of an incident requiring the Government to make indemnification payments. In addition, subsection (g) permits the Secretary to enter into indemnification agreements in advance of appropriations and authorizes the Attorney General to defend or settle claims against project operators if it is determined that the Government may have to make payments under the indemnity agreement. The Secretary is required to make a determination on project selection within one year of receiving each application. There is a limitation on the amount of indemnification for each demonstration project of \$10,000,000,000 (adjusted every five years for inflation).

Section 963A(h) allows projects under this section to be sited on Federal land, subject to relevant conditions by the Secretary of Agriculture or the Secretary of the Interior (with respect to lands under their jurisdiction).

Section 963A(i) allows the Secretary of Energy to take title (or administrative transfer) of lands containing closed geological storage sites from the projects under this section, for long-term stewardship. It also includes mandatory spending to cover the costs associated with maintaining these sites for purposes of public health and safety protection, in perpetuity.

Section 371(b) makes technical and conforming changes to section 963 of the Energy Policy Act of 2005 and sections 703 and 704 of the Energy Independence and Security Act of 2007.

#### *Section 372. Training program for state agencies*

Section 372 authorizes a grant program to provide State agencies involved in carbon storage projects to help train personnel in the regulatory and site managerial aspects of carbon storage.

## SUBTITLE G—ISLAND ENERGY

*Section 381. Affiliated island energy independence team*

Section 381 directs the Secretary of Energy, in consultation with the Secretary of the Interior and the Secretary of State, to establish a team of technical, policy and financial experts to address the energy needs of the eight U.S.-affiliated island jurisdictions.

Subsection (c)(1)(A) directs the team to assist in the development and implementation of an Energy Action Plan for each island jurisdiction to reduce the reliance on imported fossil fuels through increased efficiency and the use of indigenous clean-energy resources. Subsection (c)(1)(B) requires that each Action Plan, among other things, provide for: studies to assess efficiency and clean-energy opportunities; the identification of the most cost-effective strategies and projects; education and training to improve local capacity to plan for, maintain, and operate the energy infrastructure; leveraging the expertise and resources of international entities, DOE, DOI, and regional utilities; and the identification, and development of research-based and private-public, partnerships to implement the Action Plan.

Subsection (c)(2) requires the team to report annually to the Secretary. Subsection (d) requires the Secretary to consider including regional utility organizations in the team and providing assistance through regional utility organizations. Subsection (e) requires the Secretary to report annually to Congress. Subsection (e) authorizes appropriations to carry out the section.

## TITLE IV—ENERGY INNOVATION AND WORKFORCE DEVELOPMENT

## SUBTITLE A—FUNDING

*Section 401. Authorization*

Section 401 reauthorizes the research and development programs carried out by the Department of Energy under title IX of the Energy Policy Act of 2005 through fiscal year 2013. The current authorizations in title IX expire in fiscal year 2009.

Subsection (a) authorizes appropriations for research, development, demonstration, and commercial application programs carried out by the Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) and by the Office of Electricity and Energy Reliability (OE). Although efficiency, renewable, and electricity programs were authorized separately in title IX of the Energy Policy Act of 2005, subsection (a) combines them in a single authorization.

Subsection (b) authorizes appropriations for research, development, demonstration, and commercial application programs carried out by the Office of Nuclear Energy (NE).

Subsection (c) authorizes appropriations for research, development, demonstration, and commercial application programs carried out by the Office of Fossil Energy (FE).

Subsection (d) authorizes appropriations for research, development, demonstration, and commercial application programs carried out by the Office of Science (OS). The Office of Science continues a trajectory set out under the America COMPETES Act (Public Law 110-69) of doubling the authorization over seven years. The authorization assumes the normal appropriation cycle and does not

take into account the American Recovery and Reinvestment Act of 2009 (Public Law 111–5).

SUBTITLE B—GRAND CHALLENGES RESEARCH INITIATIVE

*Section 411. Establishment*

Section 411 directs the Secretary to establish a “Grand Challenges Research Initiative” to integrate basic and applied energy research and development to overcome critical challenges in Energy through multi-disciplinary consortia which no one single investigator could accomplish. Such grand challenges are defined in annual reports by the Office of Science and energy-related grand challenges by the National Academy of Sciences.

SUBTITLE C—IMPROVEMENTS TO EXISTING ENERGY RESEARCH AND DEVELOPMENT PROGRAMS

*Section 421. Amendments to Advanced Research Agency—Energy (ARPA–E)*

Section 421 amends section 5012 of the America COMPETES Act (42 U.S.C. 16538) to give contracting authority to ARPA–E separate from the Department and makes technical corrections to reporting requirements, and authorizes ARPA–E through fiscal year 2020.

*Section 422. Domestic vehicle battery manufacturing research*

Section 422 amends the United States Energy Storage and Competitiveness Act of 2007 (42 U.S.C. 17231) to authorize a research program on battery manufacturing.

*Section 423. Lightweight materials research and development*

Section 423 amends section 651 of the Energy Independence and Security Act (42 U.S.C. 17241) to accelerate the development of composite and ceramic and other lightweight materials to make automobiles energy efficient by increasing the authorization from \$80,000,000 to \$100,000,000 annually.

*Section 424. Amendments to the Methane Hydrate Research and Development Act of 2000*

Section 424 amends section 2 of the Methane Hydrate Research and Development Act of 2000 (30 U.S.C. 2001) to expand the existing program to include research in the areas of environmental impacts of methane hydrate degassing and exploration and authorizes further production tests in the field. The program is reauthorized through 2015.

*Section 425. Programs to exploit low BTU gas and conserve helium resources*

Section 425 creates a new program to focus on developing new separation technologies for the extraction of helium from stranded low BTU gas to further the goal of increased production of low BTU gas throughout the United States. The section also establishes a new industrial helium program within the Department of Energy to focus on recycling and reuse of helium for industrial applications.

*Section 426. Office of Arctic Energy*

Section 426(a) adds a new section 218 to the Department of Energy Organization Act to reestablish the Office of Arctic Energy and expand its role to include research in the areas of alternative energy research, including wind, geothermal, fuel cells, biomass, ocean hydrokinetic energy, and solar energy. Subsection (b) repeals the current authorization of the Office in section 3197 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001.

*Section 427. Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Resources Program*

Section 427 amends subtitle J of title IX of the Energy Policy Act of 2005 relating to the Unconventional Domestic Natural Gas and Other Petroleum Resources Program. Subsection (a) amends section 999A(a) of the Energy Policy Act to give the program an official name.

Subsection (b) adds a new subsection 999A(e) to clarify the purposes of the program. Subsection (c) amends section 999B(e) to require the Secretary to submit the annual plan required by that section be submitted by February 1 of each year. Subsection (d) adds a new paragraph to section 999B(f) to authorize the program consortium to make awards in the form of grants, contracts, cooperative agreements, or other transactions. Subsection (e) amends section 999F to terminate the program on September 30, 2017, rather than 2014. Subsection (f) amends the definition of program administration funds in section 999G(3) to limit administrative spending not more than \$4 million. Subsection (g) amends section 999H(e) to increase the authorization of appropriations from \$100 million to \$350 million.

SUBTITLE D—ENERGY WORKFORCE DEVELOPMENT

*Section 431. Best practices for energy career academies*

Section 431 amends section 3161 of the Department of Energy Science and Education Enhancement Act (42 U.S.C. 7381a) to establish energy career academies in public secondary schools within the energy related fields defined as “Skilled Technical Personnel” as found in section 1101 of the Energy Policy Act of 2005 (42 U.S.C. 16411), either through entry level positions or apprenticeships.

*Section 432. Energy career academies*

Section 432 establishes a grant program to State departments of education for energy career academies at public secondary schools using primarily non-federal funding sources. Specific grant criteria include how the State department of education will partner with the DOE, industry, community colleges and other entities with workforce experience. The grants must be widely distributed on a geographic basis.

*Section 433. Energy utilities trades program*

Section 433 adds a new section 5006 to the Protecting America’s Competitive Edge Through Energy Act (42 U.S.C. 16531) to establish an electric utility trades grant program to expand and enhance the educational capabilities of community colleges to prepare stu-

dents for careers in trades relevant to the electric utility industry. Criteria include the ability for hands-on learning opportunities in the electric utility sector, partnering with high schools and industry and sustainability absent federal funding.

*Section 434. Student awareness of energy career opportunities*

Section 434 amends section 1101 the Energy Policy Act of 2005 (42 U.S.C. 16411) to enhance the ability of guidance counselors at secondary schools and career development offices at community colleges and institutions of higher education for outreach on energy related workforce trends and opportunities. As amended, section 1101 directs the Secretary of Energy, in consultation with the Secretary of Labor, to provide information on careers in energy technology industries through the so-called Federal Trio programs under the Higher Education Act, the Gaining Early Awareness and Readiness for Undergraduate Program under the Higher Education Amendments Act of 1998, or similar programs.

*Section 435. Coordination of workforce training*

Section 435 directs the Director of the Office of Science and Technology Policy to submit to Congress a coordinated plan outlining the various energy related training programs across the federal government with a 5-year integrated funding profile.

*Section 436. Direct hire authority*

Section 436(a) authorizes the Secretary of Energy to hire highly qualified scientists, engineers, or critical technical personnel into the competitive service without regard to certain hiring provisions of the civil service laws in the event of a severe shortage of candidates or a critical hiring need for particular positions.

Subsection (b) provides that the so-called “direct hire” authority under subsection (a) will not apply to positions in the excepted service or the Senior Executive Service.

Subsection (c) requires the Secretary to comply with the merit principles of section 2301 of title 5, United States Code, and the public notice requirements of section 3327 of title 5, United States Code, in exercising direct hire authority under subsection (a).

Subsection (d) terminates the Secretary’s direct hire authority two years after the date of enactment of the Act.

*Section 437. Critical pay authority*

Section 437(a) authorizes the Secretary of Energy to appoint individuals to certain critical positions needed to carry out the functions of the Department of Energy and to fix their rate of pay without regard to critical pay provision in section 5377 of title 5, United States Code, or the pay provisions of chapters 51 and 53 of title 5, United States Code.

Subsection (b) limits the critical pay authority afforded by subsection (a) to not more than 40 critical positions at one time, limits the term of an appointment to not more than four years, limits the highest annual compensation payable under the section to the amount of the annual salary of the Vice President of the United States.

Subsection (c) requires the Secretary to provide Congress a list of each person appointed under the section each year.

*Section 438. Rehire authority*

Section 438(a) authorizes the Secretary of Energy to rehire retired employees of the Department of Energy to carry out a critical function of the Department for which other suitably qualified candidates without impacting their retirement annuity, notwithstanding regulations of the Office of Personnel Management relating to the reemployment of civilian retirees.

Subsection (b) provides certain limitations on the use of the authority afforded by subsection (a).

Subsection (c) limits the term of employment of any person rehired under subsection (a) to not more than two years, with an additional two-year extension under exceptional circumstances.

*Section 439. Sustainable energy training program*

Section 439 authorizes a program of workforce training and education in energy related technologies at community colleges as defined by section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

SUBTITLE E—STRENGTHENING EDUCATION AND TRAINING IN THE SUBSURFACE GEOSCIENCES AND ENGINEERING FOR ENERGY DEVELOPMENT

*Section 451. Definitions.*

Section 451 defines terms used in the subtitle.

*Section 452. Policy*

Section 452 establishes a policy to maintain and expand the human capital needed to preserve and foster the security of economically viable clean energy, ground water, and mineral resources through financial assistance for science and technology programs.

*Section 453. Research personnel and programs*

Section 453 directs the Secretary of the Interior to provide research funds to institutions of higher education to assist education and research with the objective of increasing undergraduate and graduate enrollments in the subsurface geosciences, engineering and supporting disciplines. The emphasis of this program will be on applied research, supported by basic research necessary to achieve scientific and engineering breakthroughs.

*Section 454. Scholarships and fellowships*

Section 454 makes available funding to institutions of higher education for merit-based undergraduate and graduate scholarships and fellowships in subsurface geosciences and engineering programs. Acceptance of these awards requires a commitment by the recipient to continue in the program and maintain good academic standing.

*Section 455. Career technical and community college education*

Section 455 provides support for community college subsurface geoscience and engineering programs. At present 9 percent of Masters students and 4 percent of Doctoral students in the geosciences also possess an Associates degree conferred by a community college.

*Section 456. Use of funds by institutions*

Section 456(a) requires appropriate cost-sharing for applied research, but not for basic or fundamental research. Subsection (b) prohibits the use of program funds to purchase or lease real property, or for the purchase, lease, construction, preservation, or repair of any building. Subsection (c) permits the use of program funds to maintain or upgrade laboratories and equipment related to the funded research, with the approval of the Secretary, and for the maintenance and upgrading of certain mines, oil and gas drilling rigs, and other equipment used for training.

*Section 457. Advisory committee*

Section 457 directs the Secretary of the Interior to establish an Advisory Committee on Geosciences and Geoengineering Education to be chaired by the Deputy Secretary of the Interior.

*Section 458. Office; Regulations*

Section 458 directs the Secretary of the Interior to establish a separate office within the Department of the Interior to administer the program within one year after the date of enactment of the Act to administer the program.

*Section 459. Authorization of appropriations*

Section 459 authorizes \$200,000,000 to be appropriated to carry out the subtitle in each of fiscal years 2010 through 2020.

*Section 460. Study of availability of skilled workers*

Section 460 amends section 1830 of the Energy Policy Act of 2005 for a study on the short and long-term availability of skilled energy workers.

## SUBTITLE F—MISCELLANEOUS

*Section 471. Other transactions authority*

Section 471 amends 646(g) of the Department of Energy Organization Act (42 U.S.C. 7256(g)) to permit the Secretary to enter into other transactions with innovative non-traditional contractors or entities who would not normally work with the government. Such transactions shall be competitive and merit based. The Secretary is authorized to protect information from these transactions for a period of up to 5 years. Standard Departmental cost sharing applies with the requirement that awards shall be delegated by the Secretary to officers of the Department who are appointed by the President with the advice and consent of the Senate.

*Section 472. Technical correction*

Section 471 updates section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801(3)) to change the name of the Stanford Linear Accelerator Center to the “SLAC National Accelerator Laboratory”.

*Section 473. Protection of results*

Section 473 authorizes the Secretary of Energy to protect proprietary data that results from any transaction entered into by the Secretary under title IV (or any amendment made by title IV).



*Section 474. Marine and hydrokinetic renewable energy research and development*

Section 474 adds systems engineering, technology transfer, and standards development to section 633 of the Energy Independence and Security Act of 2007 (42 U.S.C. 7212), which addresses research and development for marine and hydrokinetic renewable energy systems; authorizes a program to test and evaluate to verify performance, reliability, maintainability, and cost of emerging technologies and designs in marine and hydrokinetic systems; and authorizes a program to collect environmental effects data during demonstration and deployment of marine and hydrokinetic renewable energy systems; which will be necessary as the technology advances and is deployed in larger numbers.

TITLE V—ENERGY MARKETS

*Section 501. Enhanced information on critical energy supplies*

Section 501 amends section 205 of the Department of Energy Organization Act to add three new requirements for the Energy Information Administration to: (1) collect data on the physical oil assets owned by the 50 largest traders of oil, as determined by the Commodity Futures Trading Commission; (2) collect data quantifying the commercial storage capacity for oil and natural gas in the United States; and (3) create a new Financial Market Analysis Office, which is responsible for analysis of the financial aspects of energy markets.

*Section 502. Working Group on Energy Markets*

Section 502(a) establishes a working group on energy markets.

Subsection (b) provides that the working group is to consist of the Secretaries of Energy and the Treasury, the Chairmen of the Federal Energy Regulatory Commission, the Federal Trade Commission, the Securities and Exchange Commission, and the Commodity Futures Trading Commission, and the Administrator of Energy Information Administration.

Subsection (c) provides that the Secretary of Energy will chair the working group.

Subsection (d) provides that the members of the working group serve without additional compensation for their work on the working group.

Subsection (e) sets forth the purpose and functions of the working group.

Subsections (f), (g), and (h) contain administrative provisions.

*Section 503. Study of regulatory framework for energy markets*

Section 503 requires the working group established in section 502 study and report to Congress on the formation of oil prices, the regulatory structure for oil markets, and the degree to which regulatory changes have contributed to price formation.

*Section 504. Metadata formats for energy prices*

Section 504(a) states the purpose of the section. Subsection (b) expands the Department of Energy's Tariff Analysis Project. Subsection (c) directs the Secretary of Energy and the Federal Energy Regulatory Commission to: (1) develop a metadata format for elec-

tric utility tariffs; (2) assist the States in implementing meta-data formats; (3) develop an online database and associated procedures and supporting software for compiling and publishing in electronic format tariff data and associated metadata formats.

*Section 505. Emergency orders under the Federal Power Act*

Section 505 amends section 202 of the Federal Power Act to give the Federal Energy Regulatory Commission authority to order the temporary suspension or modification of any rate, term, or condition of service on file with the Commission in an emergency if necessary to ensure reliable service or protect electric consumers from potential abuse of market power or market manipulation in wholesale electric markets regulated by the Commission. It defines an “emergency” to mean a substantial disruption of service, or threat thereof, or a sudden and excessive price fluctuation in wholesale electric markets regulated by the Commission; limits emergency orders to an initial period of not more than 10 days, which can be extended for additional periods of not more than 10 days, up to a total period of not more than 30 days; provides for judicial review of emergency orders in the United States Courts of Appeals pursuant to section 313(b) of the Federal Power Act; and permits the President to order the Commission to terminate an emergency order. Section 505 is modeled after section 12(k) of the Securities Exchange Act of 1934 (15 U.S.C. 78l(k)).

*Section 506. Cease-and-desist authority under the Federal Power Act*

Section 506 amends section 222 of the Federal Power Act to give the Federal Energy Regulatory Commission authority to issue cease and desist orders. Under section 222(c) of the Federal Power Act, as added by section 506, the Commission is authorized to order an entity to cease and desist from a violation of the Commission’s market manipulation rules under section 222(a) of the Federal Power Act, after notice and an opportunity for a hearing, and upon a proper showing that the entity has violated a market manipulation rule and that there is a likelihood of future violations in the absence of an order. In addition, section 222(d) permits the Commission to issue temporary cease and desist orders and order an entity to take actions to prevent dissipation or conversion of assets, significant harm to electric consumers, or substantial harm to the public interest if it finds that a violation of a market manipulation rule is likely to result in significant dissipation or conversion of assets, significant harm to electric consumers, or substantial harm to the public interest. The Commission may issue temporary orders without a hearing if it determines that notice and hearing prior to entry would be impracticable or contrary to the public interest (as those terms have been interpreted under the “good cause” exception in section 553(b)(B) of title 5, United States Code). Paragraphs (4) and (5) of section 222(d) provide that temporary orders are subject to review by the Commission and the United States district courts.

*Section 507. Cease-and-desist authority under the Natural Gas Act*

Section 507 amends section 4A of the Natural Gas Act to give the Federal Energy Regulatory Commission authority to order entities

to cease and desist from violations of the Commission's market manipulation rules under section 4A of the Natural Gas Act and to issue temporary orders to prevent the dissipation or conversion of assets. The amendments to the Natural Gas Act made by section 507 mirror the amendments to the Federal Power Act made by section 506. Both section 506 and section 507 are modeled on the authority Congress has previously granted the Securities and Exchange Commission under section 8A of the Securities Act of 1933 (15 U.S.C. 77h-1) and section 21C of the Securities Exchange Act of 1934 (15 U.S.C. 78u-3).

*Section 508. De novo review of civil penalties under the Natural Gas Act*

Section 508 clarifies that a civil penalty assessed by the Federal Energy Regulatory Commission pursuant to section 22 of the Natural Gas Act, like a civil penalty assessed by the Commission pursuant to section 316A of the Federal Power Act, is subject to de novo review in the United States district courts, rather than review under the substantial evidence standard in the United States Courts of Appeals. Section 508 clarifies that de novo review is available under section 22 of the Natural Gas Act by adding the same cross reference to the de novo review authority in section 31(d) of the Federal Power Act (governing civil penalties under the hydroelectric power provision of the Federal Power Act) that is found in section 316A of the Federal Power Act. Without the reference to section 31(d), the Commission has taken the position that the Natural Gas Act does not allow de novo review in the district court.

TITLE VI—POLICY STUDY AND REPORTS

*Section 601. Helium gas resource assessment*

Section 601 directs the Secretary of the Interior, within two years after the date of enactment of the Act, to conduct a national assessment of proven and probable helium resources that occur naturally within oil and gas reservoirs.

*Section 602. Potash mineral resource assessment*

Section 602(a) directs the Secretary of the Interior to conduct an assessment, within two years after the date of enactment of the Act, to determine the quantity and grade of potash deposits in the United States.

Subsection (b) authorizes the Secretary, as part of the assessment required under subsection (a), to conduct a drilling program to supplement the geological data that is needed to make a determination as to the existence of potash. Subsection (c) directs the Secretary, in consultation with the National Academies, to review the current methodology used to determine reserves of potash and provide recommendations for updating the existing methodology using the best available technology.

Subsection (d) requires the Secretary to submit a report on the results of the assessment; and subsection (e) authorizes appropriations for the assessment.

*Section 603. Better energy strategy for tomorrow*

Section 603 amends the Department of Energy Organization Act to require that future energy plans consider and analyze Federal policies that encourage domestic energy production, energy efficiency in the U.S., atmospheric greenhouse gas reduction, and the reduction of air pollutants. The National Academy of Sciences is also directed to assist in the preparation and review of any future proposed energy plans that are created under the DOE Organization Act.

*Section 604. Addressing climate change in India and China*

Section 604 requires the Secretary of Energy, in consultation with the heads of appropriate Federal departments and agencies, to prepare an interagency report on climate change and energy policy in China and India. The report shall include national plans, policies, programs, laws, regulations, incentives and other measures that could result in reductions in energy use and greenhouse gas emissions. Not later than 6 months after the date of enactment, the Secretary shall submit the report to Congress.

*Section 605. Carbon leakage mitigation study*

Section 605 requires the Secretary of Energy, in consultation with the heads of appropriate Federal departments and agencies, to conduct a study that characterizes the relative risk of carbon leakage and changes in output and investment in the United States industrial sectors caused by potential cap-and-trade program implementation in the United States. The Secretary is also directed to conduct a study evaluating the impact of potential measures, such as emission allowance allocation, border tax adjustments, or other measures, to prevent carbon leakage resulting from a cap-and-trade program. The first study is to be completed within 180 days of enactment. The second study is to be completed within 180 days following the completion of the first study.

*Section 606. Study of foreign fuel subsidies*

Section 606 requires the Secretary of Energy, in consultation with the Secretaries of State and Commerce, to conduct a study and report to Congress on the impact of foreign fuel subsidies. Not later than 18 months after enactment, the Secretary shall submit a report on the impacts of foreign fuel subsidies on global energy supply and demand, and the global economy. The report shall also recommend actions that should be taken to minimize these impacts.

*Section 607. Assessment of renewable energy resources*

Section 607 amends section 201(b) of the Energy Policy Act of 2005. As amended, section 201(b) will require the Secretary of Energy, as part of the annual assessment of renewable energy resources he is currently required to perform, to assess the quantity of biomass needed for thermal applications, biofuels, and biomass-based electricity; the highest efficiency energy use of biomass resources; and the requirements and costs associated with the deployment for each of these applications; and to estimate the market penetration for each renewable energy resource that could be accomplished by 2030 by investigating multiple scenarios.

*Section 608. Efficiency review of electric generation facilities*

Section 608 requires the Secretary of Energy to complete an efficiency review to quantify the efficiencies of, and annual emissions from, electric generation facilities in the United States. The Secretary is required to complete the review within 120 days after the date of enactment. Subsection (c) requires the Secretary to submit a report to the relevant committees of Congress within 120 days of completion of the assessment, identifying, among other things, the technologies that may be deployed to increase the efficiency of the electric generation facilities and any obstacles that could impede the deployment of those technologies.

*Section 609. Report on emissions of alternative transportation fuels*

Section 609 requires the Secretary of Energy, in cooperation with the Administrator of the Environmental Protection Agency, the Secretary of Defense, the Administrator of the Federal Aviation Administration, and the Secretary of Health and Human Services, to carry out a research and development program focused on evaluating the emissions from the use of alternative transportation fuels, and to evaluate the effect of using alternative transportation fuels on air quality and public health. It requires the Secretary to file an interim report within 6 months after the date of enactment, and a final report within one year after the date of enactment.

*Section 610. Oil savings*

Section 610 (a) makes four findings related to the negative economic and national security implications of U.S. dependence on foreign oil.

Subsection (b) states that it is the policy of the United States to reduce its dependence on foreign oil.

Subsection (c)(1) requires the Secretary to submit a report to Congress describing options for agency actions that would reduce forecasted U.S. oil consumption by specified volumes between 2016 and 2030. Paragraph (1) requires the report to analyze the expected oil savings from increases in Corporate Average Fuel Economy and the Renewable Fuel Standard, as enacted in 2007, to determine whether options identified by the study combined with savings attributable to the 2007 policies are sufficient to realize the reduction of the specified volumes between 2016 and 2030. Paragraph (2) requires the report to be consistent with the policy statement of paragraph (b), include only options directly related to reduced oil consumption, include a description of the advantages and disadvantages for each option, and not include options that would increase lifecycle greenhouse gas emissions.

Subsection (d) requires the Secretary to submit annual reports to Congress quantifying oil saved by measures implemented in the previous year.

Subsection (e) stipulates that nothing in the section affects the authority provided or responsibility delegated under any other law.

#### COST AND BUDGETARY CONSIDERATIONS

The Congressional Budget Office estimate of the costs of this measure has been requested but was not received at the time the

report was filed. When the Congressional Budget Office completes its cost estimate, it will be posted on the Internet at *www.cbo.gov*.

#### REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of Rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out the American Clean Energy Leadership Act.

##### *Economic impacts*

Section 132 of the bill establishes a renewable electricity standard on an estimated 300 electricity utilities that sell electricity to electric consumers (including an estimated 240 investor-owned utilities, 60 State or municipally owned utilities, and 5 cooperatives), which will require the utilities to submit to the Secretary of Energy renewable energy credits obtained either by purchase or by generating electricity from renewable energy sources, or by paying alternative compliance payments. Compliance with the renewable electricity standard may increase the cost paid by some electric utilities to generate or purchase electricity, which they may pass through to their consumers in their retail electric rates. Section 132 caps any such cost increases at 2.1 cent per kilowatt-hour (adjusted for inflation) through an alternative compliance mechanism, and at not more than 4 percent per retail customer in any year. Section 132 further limits any cost increase by enabling utilities to satisfy part of the requirement through efficiency improvements, and to obtain waivers and variances. In addition, the Committee expects any cost increases to be offset, in whole or in part, by reducing demand for conventional energy sources, and by the use of alternative compliance payments to make direct grants to electric consumers and invest in energy efficiency.

Section 222 amends the existing Energy Star energy efficiency labeling program to require manufacturers wishing to participate in the program to demonstrate compliance with Energy Star performance criteria. Demonstration of compliance is likely to impose some additional expense on manufacturers participating in the program, but participation is voluntary, and section 222 authorizes the Secretary of Energy and the Administrator of the Environmental Protection Agency, which jointly administer the program, to exempt products from the requirement if the burdens of verifying product performance substantially exceed the benefits.

Sections 224 through 227 amends title III of the Energy Policy and Conservation Act to impose energy efficiency standards on certain light fixtures, lamp sockets, light bulbs, and commercial furnaces under the Department of Energy's existing regulatory program. Although these sections may impose an additional regulatory burden on manufacturers, importers, and sellers of these products, the Committee does not expect the incremental regulatory impact for these products to be different in kind or degree from the impact of meeting efficiency standards on similar products already covered by title III of the Energy Policy and Conservation Act.

Section 241 requires the International Code Council and the American Society of Heating, Refrigerator and Air-Conditioning Engineers to update the national model building energy codes and standards at least every three years, but the Committee does not

expect the new requirement to require them to revise their codes faster or more frequently than they otherwise would.

Section 296 requires the Federal Energy Regulatory Commission to establish a uniform national standard by which every electric utility must, upon request, connect small power production facilities of 15 kilowatts or less (such as rooftop solar panels) owned by any electric consumers it serves to the utility's electric distribution system. This requirement may impose additional burdens on utilities that do not now provide interconnection service to their customers voluntarily, in the 15 States that do not now require interconnection service as a matter of State law, and it may alter in some degree the burdens on utilities in the 35 States that already have state interconnection requirements.

Finally, section 301 authorizes the Secretary of Energy and the Federal Energy Regulatory Commission to impose temporary emergency requirements on the operators of critical electric infrastructure to protect the nation's electrical infrastructure from cyber attack. The Committee expects any economic burden occasioned by the requirements to be more than offset by the damage to the electric grid and the disruption to the national economy that will be avoided by such emergency measures.

#### *Personal privacy*

No personal information would be collected in administering programs authorized under the bill. Therefore, there would be no impact on personal privacy.

#### *Paperwork requirements*

Implementation of the renewable electricity standard under section 132 will involve the operation of a credit trading program, which will require electric utilities to keep records and report information to the Department of Energy.

Some additional paperwork and recordkeeping will also be required of companies manufacturing, importing, or selling appliances and equipment subject to efficiency standards under sections 224 through 227, contractors certified to retrofit homes under the State energy efficiency retrofit program under section 262, and companies participating in the Energy Star program under section 222, the Electric Motor Rebate Program under section 228, and the Electric Motor Market Assessment Program under section 231.

In addition, the bill requires the Environmental Protection Agency to establish a voluntary energy performance information program for buildings, urges the Secretary of Energy to improve the existing Commercial Buildings Energy Consumption Survey, and directs the Energy Information Administration to collect additional information about oil inventories and storage and transportation capacity from the 50 largest oil traders.

The Committee does not expect any of the bill's information-collecting requirements to impose substantial additional paperwork or recordkeeping burdens, in either time or financial cost, on private industry or individuals.

## CONGRESSIONALLY DIRECTED SPENDING

The bill, as reported, does not contain any congressionally directed spending items, limited tax benefits, or limited tariff benefits as defined in Rule XLIV of the Standing Rules of the Senate.

## EXECUTIVE COMMUNICATIONS

Executive communications on the original bill have not been received.

## CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as ordered reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italics, existing law in which no change is proposed is shown in roman):

## TABLE OF EXISTING LAWS PROPOSED TO BE CHANGED

1. Mineral Leasing Act, Act of February 25, 1920, chapter 85, as amended
2. Federal Power Act, Act of June 10, 1920, chapter 285, as amended
3. Natural Gas Act, Act of June 21, 1938, chapter 556, as amended
4. Outer Continental Shelf Lands Act, Act of August 7, 1953, chapter 345, as amended
5. Geothermal Steam Act of 1970, Public Law 91-581, as amended
6. Trans-Alaska Pipeline Authorization Act, Public Law 93-153, as amended
7. Energy Policy and Conservation Act, Public Law 94-63, as amended
8. Energy Conservation and Production Act, Public Law 94-385, as amended
9. Department of Energy Organization Act, Public Law 95-91, as amended
10. Inspector General Act of 1978, Public Law 95-452, as amended
11. Public Utility Regulatory Policies Act, 95-617, as amended
12. National Energy Conservation Policy Act, Public Law 95-619, as amended
13. Nuclear Waste Policy Act of 1982, Public Law 97-425, as amended
14. Federal Oil and Gas Royalty Management Act of 1982, Public Law 97-451, as amended
15. Department of Energy Science Education Program Enhancement Act, Public Law 101-510, as amended
16. Methane Hydrate Research and Development Act of 2000, Public Law 106-193, as amended
17. Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Public Law 106-398



18. Alaska Natural Gas Pipeline Act, Division C of the Military Construction Appropriations and Emergency Hurricane Supplemental Appropriations Act, 2005, Public Law 108-324

19. Energy Policy Act of 2005, Public Law 109-58, as amended

20. Department of the Interior, Environment, and Related Agencies Appropriations Act, 2006, Public Law 109-54

21. Gulf of Mexico Energy Security Act of 2006, Public Law 109-432

22. America COMPETES Act, Public Law 110-69

23. Energy Independence and Security Act of 2007, Public Law 110-140

**MINERAL LEASING ACT**

Act of February 25, 1920, Chapter 85, as Amended

AN ACT To promote the mining of coal, phosphate, oil, oil shale, gas, and sodium on the public domain

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That deposits of coal, phosphate, sodium, potassium, oil, oil shale, gilsonite including all vein-type solid hydrocarbons), or gas, and lands containing such deposits owned by the United States, including those in national forests, but excluding lands acquired under the Act known as the Appalachian Forest Act, approved March 1, 1911 (36 Stat. 961), and those in incorporated cities, towns, and villages and in national parks and monuments, those acquired under other Acts subsequent to February 25, 1920, and lands within the naval petroleum and oil-shale reserves, except as hereinafter provided, shall be subject to disposition in the form and manner provided by this Act to citizens of the United States, or to associations of such citizens, or to any corporation organized under the laws of the United States, or of any State or Territory thereof, or in the case of coal, oil, oil shale, or gas, to municipalities.

\* \* \* \* \*

**SEC. 35**

\* \* \* \* \*

(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 on-

shore Federal land under the jurisdiction of the Pilot Project offices identified in section 365(d) of the Energy Policy Act of 2005.

(4) *AUTHORIZATION OF APPROPRIATIONS.*—*There is authorized to be appropriated from the Fund, or to the extent adequate funds in the Fund are not available from miscellaneous receipts of the Treasury, for the coordination and processing of oil and gas use authorizations and for oil and gas inspection and enforcement on onshore Federal land under the jurisdiction of the Pilot Project offices described in section 365(d) of the Energy Policy Act of 2005 (42 U.S.C. 15924(d)) \$20,000,000 for each of fiscal years 2016 through 2020, to remain available until expended.*

\* \* \* \* \*

**FEDERAL POWER ACT**

The Act of June 10, 1920, Chapter 285, as Amended

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

\* \* \* \* \*

**PART II—REGULATION OF ELECTRIC UTILITY COMPANIES ENGAGED IN INTERSTATE COMMERCE**

\* \* \* \* \*

**SEC. 202. INTERCONNECTION AND COORDINATION OF FACILITIES; EMERGENCIES; TRANSMISSION TO FOREIGN COUNTRIES.**

(a) For the purpose of assuring an abundant supply of electric energy throughout the United States with the greatest possible economy and with regard to the proper utilization and conservation of natural resources, the Commission is empowered and directed to divide the country into regional districts for the voluntary interconnection and coordination of facilities for the generation, transmission, and sale of electric energy, and it may at any time thereafter, upon its own motion or upon application, make such modifications thereof as in its judgment will promote the public interest. Each such district shall embrace an area which, in the judgment of the Commission, can economically be served by such interconnected and coordinated electric facilities. It shall be the duty of the Commission to promote and encourage such interconnection and coordination within each such district and between such districts. Before establishing any such district and fixing or modifying the boundaries thereof the Commission shall give notice to the State commission of each State situated wholly or in part within such district, and shall afford each such State commission reasonable opportunity to present its views and recommendations, and shall receive and consider such views and recommendations.

\* \* \* \* \*

(h) *EMERGENCY ORDERS.*—

(1) *DEFINITION OF EMERGENCY.*—*In this subsection, the term “emergency” means a major disturbance in wholesale electric markets regulated by the Commission that—*

*(A) substantially disrupts, or threatens to substantially disrupt, the reliability of service to electric consumers; or*

(B) is characterized by sudden and excessive price fluctuations in wholesale electric markets regulated by the Commission.

(2) *ORDERS.*—In an emergency, the Commission may, either on the motion of the Commission or on complaint, without notice or hearing, require by order the temporary suspension or modification of any rate, term, or condition of service on file with the Commission pursuant to this Act that the Commission determines to be necessary—

(A) to ensure reliability of service to electric consumers;

or

(B) to protect electric consumers from potential abuse of market power or market manipulation in wholesale electric markets regulated by the Commission.

(3) *EFFECTIVE PERIOD.*—An order under this subsection may remain in effect for not more than 10 days unless extended under paragraph (4).

(4) *EXTENSION.*—An order under this subsection may be extended for additional periods of not more than 10 days if the Commission determines that—

(A) the emergency still exists; and

(B) the continuation of the order is necessary—

(i) to ensure reliability of service to electric consumers; or

(ii) to protect electric consumers from potential abuse of market power or market manipulation in wholesale electric markets regulated by the Commission.

(5) *LIMITATION.*—In no event shall an order of the Commission under this subsection continue in effect for more than 30 days.

(6) *REVIEW OF ORDERS.*—

(A) *IN GENERAL.*—An order under this subsection shall be subject to review as provided in section 313(b).

(B) *STANDARD OF REVIEW.*—The reviewing court shall not enter a stay, writ of mandamus, or similar relief unless the court finds, after notice and hearing before a panel of the court, that the action of the Commission is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.

(7) *TERMINATION BY PRESIDENT.*—The President may direct that action taken by the Commission under this subsection shall not continue in effect.

\* \* \* \* \*

#### **[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 Man-

agement 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 au-

thorization 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 interstate 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).]

**SEC. 216. SITING OF INTERSTATE ELECTRIC TRANSMISSION FACILITIES.**

(a) *POLICY.—It is the policy of the United States that the national interstate transmission system should be guided by the goal of maximizing the net benefits of the electricity system, taking into consideration—*

(1) *support for the development of new renewable energy generation capacity, including renewable energy generation located distant from load centers and other location-constrained resources;*

(2) *opportunities for reduced emissions from regional power production;*



- (3) *cost savings resulting from—*
- (A) *reduced transmission congestion;*
  - (B) *enhanced opportunities for intraregional and inter-regional electricity trades;*
  - (C) *reduced line losses;*
  - (D) *generation resource-sharing; and*
  - (E) *enhanced fuel diversity;*
- (4) *reliability benefits, including satisfying reliability standards and guidelines for resource adequacy and system security;*
- (5) *diversification of risk relating to events affecting fuel supply or generating resources in a particular region;*
- (6) *the enhancement of competition in electricity markets and mitigation of market power;*
- (7) *the ability to collocate facilities on existing rights-of-way;*
- (8) *competing land use priorities, including land protected under Federal or State law;*
- (9) *the requirements of section 217(b)(4); and*
- (10) *the contribution of demand side management (including energy efficiency and demand response), energy storage, distributed generation resources, and smart grid investments.*
- (b) *DEFINITIONS.—In this section:*
- (1) *HIGH-PRIORITY NATIONAL TRANSMISSION PROJECT.—The term ‘high-priority national transmission project’ means an overhead or underground transmission facility, consisting of conductors or cables, towers, manhole duct systems, phase shifting transformers, reactors, capacitors, and any ancillary facilities and equipment necessary for the proper operation of the facility, that—*
- (A)(i) *operates at or above a voltage of—*
    - (I) *345 kilovolts alternating current; or*
    - (II) *300 kilovolts direct current;*
  - (ii) *is a very high current conductor or superconducting cable that operates at or above a power equivalent to the power of a conventional transmission cable operating at or above 345 kilovolts alternating current or 300 kilovolts direct current; or*
  - (iii) *is a renewable feeder line that transmits electricity directly to a transmission facility under clause (i) or (ii); and*
- (B) *is included in a regional plan pursuant to subsection (c).*
- (2) *INDIAN LAND.—The ‘Indian land’ means land—*
- (A) *the title to which is held by the United States in trust for an Indian tribe or individual Indian; or*
  - (B) *that is held by an Indian tribe or individual Indian subject to a restriction by the United States against alienation or encumbrance.*
- (3) *INDIAN TRIBE.—The term ‘Indian tribe’ means any Indian tribe, band, nation, or other organized group or community, including any Alaska 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.)), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.*

(4) *LOAD-SERVING ENTITY.*—*Except as otherwise provided in this section, the term ‘load-serving entity’ means any person, Federal, State, or local agency or instrumentality, or electric co-operative that delivers electric energy to end-use customers.*

(5) *LOCATION-CONSTRAINED RESOURCE.*—

(A) *IN GENERAL.*—*The term ‘location-constrained resource’ means a low-carbon resource used to produce electricity that is geographically constrained such that the resource cannot be relocated to an existing transmission line.*

(B) *INCLUSIONS.*—*The term ‘location-constrained resource’ includes the following types of resources described in subparagraph (A):*

(i) *Renewable energy, including offshore resources.*

(ii) *A fossil fuel electricity plant equipped with carbon capture technology that is located at a site that is appropriate for carbon storage or beneficial reuse.*

(6) *RENEWABLE ENERGY.*—*The term ‘renewable energy’ means electric energy generated from—*

(A) *solar energy;*

(B) *wind energy;*

(C) *marine and hydrokinetic renewable energy;*

(D) *geothermal energy;*

(E) *hydropower;*

(F) *biomass; or*

(G) *landfill gas.*

(7) *RENEWABLE FEEDER LINE.*—*The term ‘renewable feeder line’ means a transmission line that—*

(A) *operates at a voltage of 100 kilovolts or greater; and*

(B) *is identified in the applicable Interconnection-wide transmission plan or by the Commission as a facility that is to be developed to facilitate collection of electric energy produced by renewable energy.*

(8) *SECRETARY.*—*The term ‘Secretary’ means the Secretary of Energy.*

(c) *PLANS FOR NATIONAL INTERSTATE TRANSMISSION SYSTEM.*—

(1) *IN GENERAL.*—*The Commission shall coordinate regional planning to ensure that regional plans are integrated into an Interconnection-wide transmission plan with respect to high-priority national transmission projects, that achieves the policy established under subsection (a).*

(2) *PLANNING PRINCIPLES.*—

(A) *IN GENERAL.*—*Not later than 180 days after the date of enactment of the American Clean Energy Leadership Act of 2009, the Commission shall issue, by rule, after notice and opportunity for comment, national electricity grid planning principles pursuant to the policy established under subsection (a).*

(B) *CONTENT.*—*The principles shall—*

(i) *address how the utilities should fully incorporate consideration of the need for high-priority national transmission projects into planning efforts;*

(ii) *address how the utilities should coordinate with each other, States, Indian tribes, and other planning efforts in the applicable Interconnection to effectively develop an Interconnection-wide analysis to identify*

*needed additions or modifications to high-priority national transmission projects, with particular attention to identifying needs that can be most efficiently and effectively addressed with high-priority national transmission projects that cross multiple utilities, Regional Transmission Organizations, or Independent System Operators; and*

*(iii)(I) address alternatives to high-priority national transmission projects, based on the factors described in subparagraph (C)(iii); and*

*(II) determine whether alternative investments can provide a more expedient means of improving electricity system capacity or reliability or reduced costs for end-users; and*

*(iv) include mechanisms for soliciting input from the Secretary, Federal transmitting utilities, the Secretary of the Interior, States, Indian tribes, electric reliability organizations, regional entities, entities described in section 201(f), generators, load-serving entities, other interested parties, and the public.*

*(C) FACTORS.—Plans for the development and improvement of high-priority national transmission projects into a national high-capacity transmission grid shall take into consideration—*

*(i) the location of load centers;*

*(ii) the location of generation and potential generation development, including location-constrained resources;*

*(iii) existing and potential demand side management (including energy efficiency and demand response), energy storage, distributed generation resources, and smart grid investments;*

*(iv) the plans of Regional Transmission Organizations, Independent System Operators, State authorities, Indian tribes, transmission owners, load-serving entities, and others in the region;*

*(v) the needs and long-term rights described in section 217(b); and*

*(vi) costs to consumers of high priority national transmission projects, including considering the cost of reasonable alternatives.*

**(3) SUBMISSION OF PLANS.—**

**(A) IN GENERAL.—**

*(i) IN GENERAL.—One or more public utilities, transmitting utilities, Regional Transmission Organizations, Independent System Operators, regional entities (as defined in section 215(a)), or other multistate organizations or entities (including entities described in section 201(f)) may develop a regional plan relating to 1 or more high-priority national transmission projects that is consistent with the planning principles established by the Commission.*

**(ii) OTHER PLANS.—**

*(I) IN GENERAL.—Any public utility or transmitting utility that does not participate in 1 of the re-*

gional plans developed under clause (i) shall develop its own plan relating to any high priority national transmission project planned for the system of the utility.

(II) *PLANNING PRINCIPLES.*—The plan shall be consistent with the planning principles established by the Commission.

(iii) *TIMING.*—Any plan developed under clause (i) or (ii) shall be submitted to the Commission—

(I) as soon as practicable, but not later than 2 years, after the date of enactment of the American Clean Energy Leadership Act of 2009; and

(II) periodically thereafter as prescribed by the Commission.

(B) *COORDINATION.*—

(i) *JOINT SUBMISSIONS.*—The requirements of subparagraph (A) may be satisfied by a joint submission.

(ii) *SINGLE INTERCONNECTION-WIDE PLAN.*—The Commission shall encourage coordination that would permit submission of a single Interconnection-wide plan for high priority national transmission projects.

(C) *MODIFICATIONS.*—The Commission may require modification of a submitted plan to the extent that the Commission determines that the modification is necessary—

(i) to reconcile inconsistencies between plans submitted; or

(ii) to achieve the policy goals established under subsection (a).

(4) *APPLICABILITY.*—The transmission planning principles and requirements of this subsection shall apply to each transmission owner and transmission planning entity in the United States portion of the Eastern and Western Interconnections, including an entity described in section 201(f).

(d) *SITING.*—

(1) *PURPOSES.*—The purpose of this subsection is to ensure that high-priority national transmission projects are in the public interest and advance the policy established under subsection (a).

(2) *DESIGNATION OF ELIGIBILITY.*—The Commission may grant an applicant that submits an application for a proposed project a designation of eligibility for consideration under this subsection if the Commission finds that the proposed project is a high-priority national transmission project.

(3) *STATE REVIEW OF PROJECT SITING.*—

(A) *IN GENERAL.*—No developer of a high-priority national transmission project may seek a certificate for construction under subsection (e) unless the developer first seeks authorization to construct the high-priority national transmission project under applicable State law concerning authorization and routing of transmission facilities.

(B) *FEDERAL AUTHORITY.*—The Commission may authorize, in accordance with subsection (e), construction of a high-priority national transmission project that the Com-

mission finds to be in the public interest and in accordance with this section if a State—

(i) fails to approve construction and authorize routing of a high-priority national transmission project not later than 1 year after the date the applicant submits a completed application for authorization to the State;

(ii) rejects the application for a high-priority national transmission project; or

(iii) authorizes the high-priority national transmission project subject to conditions that unreasonably interfere with the development of a high-priority national transmission project contrary to the purposes of this section.

(e) CONSTRUCTION.—

(1) APPLICATION FOR CERTIFICATE.—

(A) IN GENERAL.—An applicant for a high-priority national transmission project may apply to the Commission for a certificate of public convenience and necessity with respect to construction of the high-priority national transmission project within a State affected by the high-priority national transmission project if the State—

(i) fails to authorize construction of the high-priority national transmission project under State law not later than 1 year after the date the developer submits a completed application for authorization to the State;

(ii) rejects the application for the high-priority national transmission project; or

(iii) authorizes the high-priority national transmission project subject to conditions that unreasonably interfere with the development of a high-priority national transmission project contrary to the purposes of this section.

(B) FORM.—The application for a certificate shall be made in writing in such form and containing such information as the Commission may by regulation require.

(C) HEARING.—On receipt of an application under this paragraph, the Commission—

(i) shall provide notice to interested persons and opportunity for hearing; and

(ii) may approve (with or without conditions) or disapprove the application, in accordance with paragraph (2).

(2) GRANT OF CERTIFICATE.—

(A) IN GENERAL.—A certificate shall be issued to a qualified applicant for a certificate authorizing the whole or partial operation, construction, acquisition, or modification covered by the application, only if the Commission determines that—

(i) the applicant is able and willing—

(I) to do the acts and to perform the service proposed; and

(II) to comply with this Act (including regulations);

(ii) the proposed operation, construction, acquisition, or modification, to the extent authorized by the certifi-

cate, is or will be required by the present or future public convenience and necessity.

(B) *TERMS AND CONDITIONS.*—The Commission shall have the power to attach to the issuance of a certificate under this paragraph and to the exercise of the rights granted under the certificate such reasonable terms and conditions as the public convenience and necessity may require.

(C) *USE OF STATE WORK.*—If 1 or more States reject or fail to act on a high-priority national transmission project and the Commission has siting authority for the high-priority national transmission project under this section, the Commission shall give due weight to—

(i) the environmental record and results of the siting process of a State that did complete the siting process of the State under this section; and

(ii) the information that had been submitted by an applicant to the State under this section.

(D) *EVALUATION OF ABILITIES OF APPLICANT.*—

(i) *IN GENERAL.*—In evaluating the ability of an applicant described in subparagraph (A)(i), the Commission shall consider whether the financial and technical capabilities of the applicant are adequate to support construction and operation of the high-priority national transmission project proposed in the application.

(ii) *JOINT OWNERSHIP PROJECTS.*—In evaluating applications under paragraph (1), the Commission shall consider benefits from the greater diversification of financial risk inherent in the applications involving joint ownership projects by multiple load-serving entities.

(E) *PUBLIC CONVENIENCE AND NECESSITY.*—In making a determination with respect to public convenience and necessity described in subparagraph (A)(ii), the Commission shall—

(i) consider whether the facilities covered by an application are included in an Interconnection-wide transmission grid plan for a high-priority national transmission project developed pursuant to subsection (c); and

(ii) determine whether the facilities covered by the application are in the public interest.

(3) *RIGHT OF EMINENT DOMAIN.*—If any holder of a certificate issued under paragraph (2) cannot acquire by contract, or is unable to agree with the owner of property on the compensation to be paid for, the necessary right-of-way to construct, operate, and maintain the high-priority national transmission project to which the certificate relates, and the necessary land or other property necessary to the proper operation of the high-priority national transmission project, the holder may acquire the right-of-way by the exercise of the right of eminent domain in—

(A) the United States district court for the district in which the property is located; or

(B) a State court.

(4) *STATE AND TRIBAL RECOMMENDATIONS.*—*In granting a certificate under paragraph (2), the Commission shall—*

(A) *permit State regulatory agencies and affected Indian tribes to recommend mitigation measures, based on habitat protection, environmental considerations, or cultural site protection; and*

(B)(i) *incorporate those identified mitigation measures as conditions on the certificate; or*

(ii) *if the Commission determines that a recommended mitigation measure is inconsistent with the purposes of this section, infeasible, or not cost-effective—*

(I) *consult with State regulatory agencies and affected Indian tribes to seek to resolve the issue;*

(II) *incorporate as conditions on the certificate such recommended mitigation measures as are determined to be appropriate by the Commission, based on consultation by the Commission with State regulatory agencies and affected Indian tribes, the purposes of this section, and the record before the Commission; and*

(III) *if, after consultation, the Commission does not adopt in whole or in part a recommendation of an agency or affected Indian tribe, publish a statement of a finding that the adoption of the recommendation is infeasible, not cost-effective, or inconsistent with this section or other applicable provisions of law.*

(5) *STATE OR LOCAL AUTHORIZATIONS.*—*An applicant receiving a certificate under this subsection with respect to construction or modification of a high-priority national transmission project in a State shall not require a separate siting authorization from the State or any local authority within the State.*

(6) *RIGHTS-OF-WAY OVER INDIAN LAND.*—*Notwithstanding paragraph (3), in the case of siting, construction, operation, and maintenance of a transmission facility to be located on or over Indian land, a certificate holder under this section shall comply with the requirements of Federal law for obtaining rights-of-way on or over Indian land.*

(f) *COORDINATION OF FEDERAL AUTHORIZATIONS FOR TRANSMISSION FACILITIES.*—

(1) *DEFINITION OF FEDERAL AUTHORIZATION.*—*In this subsection, the term “Federal authorization” means any authorization required under Federal law in order to site a transmission facility on Federal land, including 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) *LEAD AGENCY.*—*If a Federal authorization for a high-priority national transmission project involves land under the jurisdiction of the Department of the Interior and any other Federal agency, the Secretary of the Interior shall act as the lead agency for purposes of coordinating all applicable Federal authorizations and related environmental reviews.*

(3) *COORDINATION.*—*To the maximum extent practicable under applicable Federal law, the Secretary of the Interior shall coordinate the Federal authorization and review process under this subsection with the Commission, and 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) MILESTONES AND DEADLINES.—

(A) IN GENERAL.—As the lead agency, the Secretary of the Interior, in consultation with the Commission and any other agency 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 high-priority national transmission project.

(B) DEADLINE.—The Secretary of the Interior shall ensure that, once an application has been submitted with such data as the Commission and the Secretaries with jurisdiction over the affected land consider necessary, all permit decisions and related environmental reviews under all applicable Federal laws shall be completed not later than 1 year after the date of submission.

(C) PREAPPLICATION INFORMATION.—The Secretary of the Interior, in consultation with the Commission, shall provide an expeditious preapplication 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) ENVIRONMENTAL REVIEW DOCUMENT.—

(A) IN GENERAL.—As lead agency, the Secretary of the Interior, in consultation with the Commission and any affected agency, shall prepare a single environmental review document, which shall be used as the basis for all decisions on the proposed high-priority national transmission project under Federal law.

(B) STREAMLINING.—The Secretary of the Interior and the Secretary of Agriculture, in consultation with the Commission, shall streamline the review and permitting of transmission within corridors designated under section 503 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1763) or section 368 of the Energy Policy Act of 2005 (42 U.S.C. 15926) by fully taking into account prior analyses and decisions relating to the corridors.

(C) COMMENTS.—If the high-priority national transmission project includes Federal land that is not under the jurisdiction of the Department of the Interior, the document shall include comments made by the Secretary with jurisdiction over the affected land on matters necessary for the protection of the land or required under applicable law.



(6) *ISSUANCE OR DENIAL OF AUTHORIZATION BY PRESIDENT.*—

(A) *IN GENERAL.*—Subject to paragraph (7), if any agency has denied a Federal authorization required for a transmission facility within an energy right-of-way corridor on Federal land designated pursuant to section 368 of the Energy Policy Act of 2005 (42 U.S.C. 15926), or has failed to act by the deadline established by the Secretary of the Interior 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) *OPTIONS.*—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) *DEADLINE.*—The President shall issue a decision not later than 90 days after the date of the filing of the appeal.

(D) *FEDERAL REQUIREMENTS.*—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. 1600 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) *ISSUANCE OR DENIAL OF AUTHORIZATION BY PRESIDENT.*—  
Paragraph (6) shall not apply to—

(A) a unit of the National Park System;

(B) a unit of the National Wildlife Refuge System;

(C) a component of the National Wild and Scenic Rivers System;

(D) a component of the National Trails System;

(E) a component of the National Wilderness Preservation System;

(F) a National Monument;

(G) any part of the National Landscape Conservation System;

(H) a National Preserve;

(I) a National Scenic Area; or

(J) a National Recreation Area.

(8) *ENERGY RIGHT-OF-WAY CORRIDORS ON FEDERAL LAND.*—

(A) *IN GENERAL.*—In carrying out this subsection, the Secretary with jurisdiction over the land shall, to the maximum extent practicable, use the energy right-of-way corridors designated in accordance with section 368 of the Energy Policy Act of 2005 (42 U.S.C. 15926).

(B) *ADDITIONAL CORRIDORS.*—*If the Secretary is unable to use an energy right-of-way corridor described in subparagraph (A), the Secretary shall establish an additional corridor in accordance with section 368(c) of the Energy Policy Act of 2005 (42 U.S.C. 15926(c)).*

(9) *DURATION.*—

(A) *IN GENERAL.*—*Each Federal land use authorization for an electricity transmission facility shall be issued—*

(i) *for a duration, as determined by the Secretary with jurisdiction over the land, commensurate with the anticipated use of the facility;*

(ii) *with appropriate authority to manage the right-of-way for reliability and environmental protection; and*

(iii) *consistent with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) and other applicable law.*

(B) *RENEWAL.*—*On the expiration of the authorization (including an authorization issued before the date of enactment of the American Clean Energy Leadership Act of 2009), the authorization shall be reviewed for renewal—*

(i) *taking fully into account reliance on the electricity infrastructure; and*

(ii) *recognizing the importance of the authorization for public health, safety, and economic welfare and as a legitimate use of Federal land.*

(10) *CONSULTATION.*—*In exercising the responsibilities under this section, the Secretary of the Interior and the Commission shall consult regularly with—*

(A) *electric reliability organizations (including related regional entities) approved by the Commission;*

(B) *Transmission Organizations approved by the Commission; and*

(C) *transmission owners and users and other interested parties.*

(11) *IMPLEMENTATION.*—

(A) *REGULATIONS.*—*Not later than 18 months after the date of enactment of the American Clean Energy Leadership Act of 2009, the Secretary of the Interior and the Commission shall issue any regulations necessary to carry out this subsection.*

(B) *FEDERAL STAFF AND RESOURCES.*—*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.*

(g) *EVALUATION AND RECOMMENDATIONS.*—*The Commission shall—*

(1) *periodically evaluate whether high-priority national transmission projects are being constructed in accordance with the Interconnection-wide transmission grid plan for high-priority national transmission projects for both the Western and Eastern Interconnection areas;*

(2) take any necessary actions, pursuant to applicable law, to address any identified obstacles to investment, siting, and construction of high-priority national transmission projects identified as needed under an Interconnection-wide plan; and

(3) not later than 2 years after the date of enactment of the American Clean Energy Leadership Act of 2009, submit to Congress recommendations for any further actions or authority needed to ensure the effective and timely development of—

(A) high-priority national transmission projects; and

(B) transmission projects to access regional and offshore renewable energy generation.

(h) *REPORT OF SECRETARY.*—Not later than 2 years after the date of enactment of the American Clean Energy Leadership Act of 2009, the Secretary shall submit to Congress recommendations for any further actions or authority needed to ensure the effective and timely development of—

(1) demand response;

(2) energy storage;

(3) distributed generation;

(4) energy efficiency; and

(5) other areas necessary to carry out the policy established under subsection (a).

(i) *COST ALLOCATION.*—

(1) *IN GENERAL.*—Not later than 270 days after the date of enactment of the American Clean Energy Leadership Act of 2009, the Commission—

(A) shall establish by rule an appropriate methodology for allocation of the costs of high-priority national transmission projects, subject to the requirement that any cost allocation methodology, and any rates affected by the cost allocation methodology, shall be just, reasonable, and not unduly discriminatory or preferential;

(B) may permit allocation of costs for high-priority national transmission projects to load-serving entities within all or a part of a region, except that costs shall not be allocated to a region, or subregion, unless the costs are reasonably proportionate to measurable economic and reliability benefits;

(C) may permit allocation of costs to generators of electricity connected by a high-priority national transmission project; and

(D) shall provide for due deference to cost allocation proposals supported by broad agreement among affected States.

(2) *MECHANISM FOR COLLECTION OF COSTS.*—The Commission shall adopt such rules and require inclusion of such provisions in transmission tariffs as are required to provide for—

(A) the efficient collection of allocated costs for development and operation of high-priority national transmission projects; and

(B) the distribution of those revenues to owners of the high-priority national transmission projects.

(j) *RELATIONSHIP TO OTHER LAWS.*—

(1) *IN GENERAL.*—Except as specifically provided in this section, nothing in this section affects any requirement of an envi-

ronmental or historic preservation law of the United States, including—

(A) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*);

(B) the Wilderness Act (16 U.S.C. 1131 *et seq.*); or

(C) the National Historic Preservation Act (16 U.S.C. 470 *et seq.*).

(2) STATE LAW.—Nothing in this section precludes any person from constructing or modifying any transmission facility in accordance with State law.

(k) TRANSMISSION RIGHTS TO SUPPORT NEW GENERATION DEVELOPMENT.—Subject to section 217(b)(4), it is the policy of the United States that long-term transmission rights of firmness and duration sufficient to support generation investment (or equivalent tradable or financial long-term transmission rights), shall be available under appropriate terms and conditions to load-serving entities (as defined in section 217(a)(2)) for long-term power supply arrangements for new generation facilities using renewable energy.

(l) RESOURCE ASSESSMENTS.—

(1) IN GENERAL.—The Secretary shall conduct nationwide assessments to identify areas with a significant potential for the development of location-constrained resources.

(2) FORMATS.—The resource assessments shall be made available to the public in multiple formats, including in a Geographical Information System compatible format.

(3) TIMING.—The Secretary shall—

(A) make the initial resource assessment required under this subsection not later than 180 days after the date of enactment of the American Clean Energy Leadership Act of 2009; and

(B) refine the resource assessment on a regular basis that is consistent with regional planning cycles.

(4) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance to regional planning authorities, on request, to assist the authorities in carrying out this subsection.

(m) CONGESTION STUDIES.—Not later than 1 year after the date of enactment of the American Clean Energy Leadership Act of 2009 and every 3 years thereafter, the Secretary, in consultation with affected States and Indian tribes, shall—

(1) conduct a study of electric transmission congestion; and

(2) submit to the appropriate committees of Congress a report that describes the results of the study.

(n) APPLICABILITY.—

(1) IN GENERAL.—Except as otherwise provided in this subsection, the authority of the Commission under this section to approve transmission plans and to allocate costs incurred pursuant to the plans applies to all transmission providers, generators, and users, owners, and operators of the power system within the Eastern and Western Interconnections of the United States, including entities described in section 201(f).

(2) REGIONAL PLANNING ENTITIES.—The Commission shall have authority over regional planning entities to the extent necessary to carry out this section.

(3) PROJECT DEVELOPERS.—Nothing in this section precludes the development, subject to applicable regulatory requirements,

of transmission projects that are not included in plans developed under this section.

(4) *COMMISSION-APPROVED PLANNING PROCESSES.*—Nothing in this section affects the approval, siting, or cost allocation for a project that is authorized pursuant to planning processes that have been approved by the Commission.

(5) *EXCLUSIONS.*—This section does not apply in the State of Alaska or Hawaii or to the Electric Reliability Council of Texas, unless the State or the Council voluntarily elects to participate in a cost allocation plan under this section.

\* \* \* \* \*

**SEC. 222. PROHIBITION OF ENERGY MARKET MANIPULATION.**

\* \* \* \* \*

(b) *NO PRIVATE RIGHT OF ACTION.*—Nothing in this section shall be construed to create a private right of action.

(c) *CEASE-AND-DESIST ORDERS.*—

(1) *IN GENERAL.*—If the Commission finds, on a proper showing, after notice and opportunity for a hearing, that any entity is manipulating or attempting to manipulate or has manipulated or attempted to manipulate any market for the sale of electric energy at wholesale in interstate commerce in violation of a rule or regulation prescribed by the Commission under subsection (a), the Commission may enter an order requiring the entity to cease and desist from committing the violation.

(2) *PROPER SHOWING REQUIRED.*—For purposes of this subsection, a proper showing is made by demonstrating that—

(A) an entity has violated a rule or regulation under subsection (a); and

(B) there is a likelihood of future violations in the absence of an order under this subsection.

(d) *TEMPORARY ORDERS.*—

(1) *IN GENERAL.*—If, in any proceeding under subsection (c), the Commission finds that a violation of a rule or regulation prescribed under subsection (a) is likely to result in significant dissipation or conversion of assets, significant harm to electric consumers, or substantial harm to the public interest, the Commission may enter a temporary order requiring the respondent—

(A) to cease and desist from the violation; and

(B) to take such action as the Commission determines appropriate pending completion of the proceeding—

(i) to prevent the violation; and

(ii) to prevent dissipation or conversion of assets, significant harm to electric consumers, or substantial harm to the public interest.

(2) *NOTICE AND HEARING.*—A temporary order under this subsection shall be entered only after notice and opportunity for a hearing unless the Commission determines that notice and hearing prior to entry would be impracticable or contrary to the public interest.

(3) *EFFECTIVE DATE.*—A temporary order shall—

(A) become effective on the date of service on the respondent; and

(B) unless set aside, limited, or suspended by the Commission or a court of competent jurisdiction, remain effective and enforceable pending the completion of the proceedings.

(4) COMMISSION REVIEW.—

(A) IN GENERAL.—At any time after the respondent has been served with a temporary order under this subsection, the respondent may apply to the Commission to have the order set aside, limited, or suspended.

(B) TEMPORARY ORDERS WITHOUT HEARINGS.—If the respondent has been served with a temporary order entered without a prior Commission hearing—

(i) the respondent may, within 10 days after the date on which the order was served, request a hearing on the application; and

(ii) the Commission shall hold a hearing and render a decision on the application at the earliest possible time.

(5) JUDICIAL REVIEW.—

(A) IN GENERAL.—The respondent may apply to an appropriate United States district court for an order setting aside, limiting, or suspending the effectiveness or enforcement of the order, within—

(i) 10 days after the date the respondent was served with a temporary order entered with a prior Commission hearing; or

(ii) 10 days after the Commission renders a decision on an application and hearing under paragraph (4) with respect to any temporary order entered without a prior Commission hearing.

(B) JURISDICTION.—The United States District Court for the district in which the respondent resides or has its principal place of business, or for the District of Columbia, shall have jurisdiction to enter an order under this paragraph.

\* \* \* \* \*

**SEC. 223. JOINT BOARDS ON ECONOMIC DISPATCH.**

\* \* \* \* \*

(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.

**SEC. 224. CRITICAL ELECTRIC INFRASTRUCTURE.**

(a) DEFINITIONS.—In this section:

(1) CRITICAL ELECTRIC INFRASTRUCTURE.—The term ‘critical electric infrastructure’ means systems and assets, whether physical or virtual, used for the generation, transmission, or distribution of electric energy affecting interstate commerce that, as determined by the Commission or the Secretary (as appropriate), are so vital to the United States that the incapacity or

*destruction of the systems and assets would have a debilitating impact on national security, national economic security, or national public health or safety.*

(2) *CRITICAL ELECTRIC INFRASTRUCTURE INFORMATION.*—The term ‘critical electric infrastructure information’ means critical infrastructure information relating to critical electric infrastructure.

(3) *CRITICAL INFRASTRUCTURE INFORMATION.*—The term ‘critical infrastructure information’ has the meaning given the term in section 212 of the Critical Infrastructure Information Act of 2002 (6 U.S.C. 131).

(4) *CYBER SECURITY THREAT.*—The term ‘cyber security threat’ means the imminent danger of an act that disrupts, attempts to disrupt, or poses a significant risk of disrupting the operation of programmable electronic devices or communications networks (including hardware, software, and data) essential to the reliable operation of critical electric infrastructure.

(5) *CYBER SECURITY VULNERABILITY.*—The term ‘cyber security vulnerability’ means a weakness or flaw in the design or operation of any programmable electronic device or communication network that exposes critical electric infrastructure to a cyber security threat.

(6) *SECRETARY.*—The term ‘Secretary’ means the Secretary of Energy.

(b) *AUTHORITY OF COMMISSION.*—

(1) *IN GENERAL.*—The Commission shall issue such rules or orders as are necessary to protect critical electric infrastructure from cyber security vulnerabilities.

(2) *EXPEDITED PROCEDURES.*—The Commission may issue a rule or order without prior notice or hearing if the Commission determines the rule or order must be issued immediately to protect critical electric infrastructure from a cyber security vulnerability.

(3) *CONSULTATION.*—Before issuing a rule or order under paragraph (2), to the extent practicable, taking into account the nature of the threat and urgency of need for action, the Commission shall consult with the entities described in subsection (e)(1) and with officials at other Federal agencies, as appropriate, regarding implementation of actions that will effectively address the identified cyber security vulnerabilities.

(4) *TERMINATION OF RULES OR ORDERS.*—A rule or order issued to address a cyber security vulnerability under this subsection shall expire on the effective date of a standard developed and approved pursuant to section 215 to address the cyber security vulnerability.

(c) *EMERGENCY AUTHORITY OF SECRETARY.*—

(1) *IN GENERAL.*—If the Secretary determines that immediate action is necessary to protect critical electric infrastructure from a cyber security threat, the Secretary may require, by order, with or without notice, persons subject to the jurisdiction of the Commission under this section to take such actions as the Secretary determines will best avert or mitigate the cyber security threat.

(2) *COORDINATION WITH CANADA AND MEXICO.*—In exercising the authority granted under this subsection, the Secretary is en-

*couraged to consult and coordinate with the appropriate officials in Canada and Mexico responsible for the protection of cyber security of the interconnected North American electricity grid.*

*(3) CONSULTATION.—Before exercising the authority granted under this subsection, to the extent practicable, taking into account the nature of the threat and urgency of need for action, the Secretary shall consult with the entities described in subsection (e)(1) and with officials at other Federal agencies, as appropriate, regarding implementation of actions that will effectively address the identified cyber security threat.*

*(4) COST RECOVERY.—The Commission shall establish a mechanism that permits public utilities to recover prudently incurred costs required to implement immediate actions ordered by the Secretary under this subsection.*

*(d) DURATION OF EXPEDITED OR EMERGENCY RULES OR ORDERS.—Any rule or order issued by the Commission without prior notice or hearing under subsection (b)(2) or any order issued by the Secretary under subsection (c) shall remain effective for not more than 90 days unless, during the 90 day-period, the Commission—*

*(1) gives interested persons an opportunity to submit written data, views, or arguments (with or without opportunity for oral presentation); and*

*(2) affirms, amends, or repeals the rule or order.*

*(e) JURISDICTION.—*

*(1) IN GENERAL.—Notwithstanding section 201, this section shall apply to any entity that owns, controls, or operates critical electric infrastructure.*

*(2) COVERED ENTITIES.*

*(A) IN GENERAL.—An entity described in paragraph (1) shall be subject to the jurisdiction of the Commission for purposes of—*

*(i) carrying out this section; and*

*(ii) applying the enforcement authorities of this Act with respect to this section.*

*(B) JURISDICTION.—This subsection shall not make an electric utility or any other entity subject to the jurisdiction of the Commission for any other purpose.*

*(3) ALASKA AND HAWAII EXCLUDED.—Except as provided in subsection (f), nothing in this section shall apply in the State of Alaska or Hawaii.*

*(f) DEFENSE FACILITIES.—Not later than 1 year after the date of enactment of this section, the Secretary of Defense shall prepare, in consultation with the Secretary, the States of Alaska and Hawaii, the Territory of Guam, and the electric utilities that serve national defense facilities in those States and Territory, a comprehensive plan that identifies the emergency measures or actions that will be taken to protect the reliability of the electric power supply of the national defense facilities located in those States and Territory in the event of an imminent cybersecurity threat.*

*(g) PROTECTION OF CRITICAL ELECTRIC INFRASTRUCTURE INFORMATION.—*

*(1) IN GENERAL.—Section 214 of the Critical Infrastructure Information Act of 2002 (6 U.S.C. 133) shall apply to critical electric infrastructure information submitted to the Commission*



or the Secretary under this section to the same extent as that section applies to critical infrastructure information voluntarily submitted to the Department of Homeland Security under that Act (6 U.S.C. 131 et seq.).

(2) **RULES PROHIBITING DISCLOSURE.**—Notwithstanding section 552 of title 5, United States Code, the Secretary and the Commission shall prescribe regulations prohibiting disclosure of information obtained or developed in ensuring cyber security under this section if the Secretary or Commission, as appropriate, decides disclosing the information would be detrimental to the security of critical electric infrastructure.

(3) **PROCEDURES FOR SHARING INFORMATION.**—

(A) **IN GENERAL.**—The Secretary and the Commission shall establish procedures on the release of critical infrastructure information to entities subject to this section, to the extent necessary to enable the entities to implement rules or orders of the Commission or the Secretary.

(B) **REQUIREMENTS.**—The procedures shall—

(i) limit the redissemination of information described in subparagraph (A) to ensure that the information is not used for an unauthorized purpose;

(ii) ensure the security and confidentiality of the information;

(iii) protect the constitutional and statutory rights of any individuals who are subjects of the information; and

(iv) provide data integrity through the timely removal and destruction of obsolete or erroneous names and information.

## NATURAL GAS ACT

Act of June 21, 1938, Chapter 556, as Amended

AN ACT To regulate the transportation and sale of natural gas in interstate commerce, and for other purposes

\* \* \* \* \*

[SEC. 4A. It]

### **SEC. 4A. PROHIBITION ON MARKET MANIPULATION.**

(a) **IN GENERAL.**—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.

(b) **CEASE-AND-DESIST ORDERS.**—

(1) **IN GENERAL.**—If the Commission finds, on a proper showing, after notice and opportunity for a hearing, that any entity is manipulating or attempting to manipulate or has manipulated or attempted to manipulate the market for the purchase or sale of natural gas or the purchase or sale of transportation

services subject to the jurisdiction of the Commission in violation of a rule or regulation prescribed by the Commission under subsection (a), the Commission may make and enter an order requiring the entity to cease and desist from committing the violation.

(2) *PROPER SHOWING REQUIRED.*—For purposes of this subsection, a proper showing is made by demonstrating that—

(A) an entity has violated a rule or regulation under subsection (a); and

(B) there is a likelihood of future violations in the absence of an order under this subsection.

(c) *TEMPORARY ORDERS.*—

(1) *IN GENERAL.*—If, in any proceeding under subsection (b), the Commission finds that a violation of a rule or regulation prescribed under subsection (a) is likely to result in significant dissipation or conversion of assets, significant harm to natural gas consumers, or substantial harm to the public interest, the Commission may enter a temporary order requiring the respondent—

(A) to cease and desist from the violation; and

(B) to take such action as the Commission determines appropriate pending completion of the proceeding—

(i) to prevent the violation; and

(ii) to prevent dissipation or conversion of assets, significant harm to natural gas consumers, or substantial harm to the public interest.

(2) *NOTICE AND HEARING.*—A temporary order under this subsection shall be entered only after notice and opportunity for a hearing unless the Commission determines that notice and hearing prior to entry would be impracticable or contrary to the public interest.

(3) *EFFECTIVE DATE.*—A temporary order shall—

(A) become effective on the date of service on the respondent; and

(B) unless set aside, limited, or suspended by the Commission or a court of competent jurisdiction, remain effective and enforceable pending the completion of the proceedings.

(4) *COMMISSION REVIEW.*—

(A) *IN GENERAL.*—At any time after the respondent has been served with a temporary order under this subsection, the respondent may apply to the Commission to have the order set aside, limited, or suspended.

(B) *TEMPORARY ORDERS WITHOUT HEARINGS.*—If the respondent has been served with a temporary order entered without a prior Commission hearing

(i) the respondent may, within 10 days after the date on which the order was served, request a hearing on the application; and

(ii) the Commission shall hold a hearing and render a decision on such application at the earliest possible time.

(5) *JUDICIAL REVIEW.*—

(A) *IN GENERAL.*—The respondent may apply to an appropriate United States district court for an order setting

*aside, limiting, or suspending the effectiveness or enforcement of the order, within—*

*(i) 10 days after the date the respondent was served with a temporary order entered with a prior Commission hearing; or*

*(ii) 10 days after the Commission renders a decision on an application and hearing under paragraph (4) with respect to any temporary order entered without a prior Commission hearing.*

*(B) JURISDICTION.—The United States District Court for the district in which the respondent resides or has its principal place of business, or for the District of Columbia, shall have jurisdiction to enter an order under this paragraph.*

\* \* \* \* \*

**SEC. 22. CIVIL PENALTY AUTHORITY**

\* \* \* \* \*

(b) The penalty shall be assessed by the Commission after notice and opportunity for public hearing, *in accordance with the same provisions as are applicable under section 31(d) of the Federal Power Act (16 U.S.C. 823b(d)) in the case of civil penalties assessed under section 31 of the Federal Power Act (16 U.S.C. 823b).*

\* \* \* \* \*

**OUTER CONTINENTAL SHELF LANDS ACT**

Act of August 7, 1953, Chapter 345, as Amended

AN ACT To provide for the jurisdiction of the United States over the submerged lands of the outer Continental Shelf, and to authorize the Secretary of the Interior to lease such lands for certain purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Outer Continental Shelf Lands Act".*

\* \* \* \* \*

**SEC. 12. RESERVATIONS.**

(a) The President of the United States may, from time to time, withdraw from disposition any of the unleased lands of the outer Continental Shelf.

(b) In time of war, or when the President shall so prescribe, the United States shall have the right of first refusal to purchase at the market price all or any portion of any mineral produced from the outer Continental Shelf.

(c) All leases issued under this Act, and leases, the maintenance and operation of which are authorized under this Act, shall contain or be construed to contain a provision whereby authority is vested in the Secretary, upon a recommendation of the Secretary of Defense, during a state of war or national emergency declared by the Congress or the President of the United States after the effective date of this Act, to suspend operations under any lease; and all such leases shall contain or be construed to contain provisions for the payment of just compensation to the lessee whose operations are thus suspended.

(d) **[The United States]**

(1) *IN GENERAL.*—*The United States reserves and retains the right to designate by and through the Secretary of Defense, with the approval of the President, as areas restricted from exploration and operation that part of the outer Continental Shelf needed for national defense; and so long as such designation remains in effect no exploration or operations may be conducted on any part of the surface of such area except with the concurrence of the Secretary of Defense; and if operations or production under any lease theretofore issued on lands within any such restricted area shall be suspended, any payment of rentals, minimum royalty, and royalty prescribed by such lease likewise shall be suspended during such period of suspension of operation and production, and the term of such lease shall be extended by adding thereto any such suspension period, and the United States shall be liable to the lessee for such compensation as is required to be paid under the Constitution of the United States.*

(2) *REVIEW.*—*Annually, the Secretary of Defense shall—*

*(A) review the areas of the outer Continental Shelf that have been designated as restricted from exploration and operation to determine whether the areas should remain under restriction; and*

*(B) based on the review under subparagraph (A), make recommendations to the President.*

\* \* \* \* \*

**GEOHERMAL STEAM ACT OF 1970**

Public Law 91-581, Approved December 24, 1970, as Amended

AN ACT To authorize the Secretary of the Interior to make disposition of geothermal steam and associated geothermal resources, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Geothermal Steam Act of 1970".*

\* \* \* \* \*

**SEC. 4. LEASING PROCEDURES.**

\* \* \* \* \*

(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.*

(4) *LAND SUBJECT TO OIL AND GAS LEASE.*—Land under an oil and gas lease issued pursuant to the Mineral Leasing Act (30 U.S.C. 181 et seq.) or the Mineral Leasing Act for Acquired Lands (30 U.S.C. 351 et seq.) that is subject to an approved application for permit to drill and from which oil and gas production is occurring may be available for leasing under subsection (c) by the holder of the oil and gas lease.—

(A) on a determination that—

(i) geothermal energy will be produced from a well producing or capable of producing oil and gas; and

(ii) the public interest will be served by the issuance of such a lease; and

(B) in order to provide for the coproduction of geothermal energy with oil and gas.

\* \* \* \* \*

**THE TRANS-ALASKA PIPELINE AUTHORIZATION ACT**

Public Law 93–153, Approved November 16, 1973, as Amended

AN ACT To amend Section 28 of the Mineral Leasing Act of 1920, and to authorize a Trans-Alaska Oil Pipeline, and for other purposes

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

\* \* \* \* \*

**TITLE II**

**SEC. 201. SHORT TITLE.**

This title may be cited as the “Trans-Alaska Pipeline Authorization Act”.

\* \* \* \* \*

**SEC. 208. EXEMPTION OF TRANS-ALASKA OIL PIPELINE SYSTEM FROM CERTAIN REQUIREMENTS.**

(a) *IN GENERAL.*—Except as provided in subsection (b), no part of the trans-Alaska oil pipeline system shall be considered to be a district, site, building, structure, or object for purposes of section 106 of the National Historic Preservation Act (16 U.S.C. 470f), regardless of whether all or part of the trans-Alaska oil pipeline system may otherwise be listed on, or eligible for listing on, the National Register of Historic Places.

(b) *INDIVIDUAL ELEMENTS.*—

(1) *IN GENERAL.*—Subject to subsection (c), the Secretary of the Interior may identify up to 3 sections of the trans-Alaska oil pipeline system that possess national or exceptional historic significance, and that should remain after the pipeline is no longer used for the purpose of oil transportation.

(2) *HISTORIC SITE.*—Any sections identified under paragraph (1) shall be considered to be a historic site.

(3) *VIEWS.*—In making the identification under this subsection, the Secretary shall consider the views of—

(A) the owners of the pipeline;

(B) the State Historic Preservation Officer;

(C) the Advisory Council on Historic Preservation; and

(D) the Federal Coordinator for Alaska Natural Gas Transportation Projects.  
 (c) CONSTRUCTION, MAINTENANCE, RESTORATION, AND REHABILITATION ACTIVITIES.—Subsection (b) does not prohibit the owners of the trans-Alaska oil pipeline system from carrying out construction, maintenance, restoration, or rehabilitation activities on or for a section of the system described in subsection (b).

\* \* \* \* \*

**ENERGY POLICY AND CONSERVATION ACT**

Public Law 94–163, Approved December 22, 1975, as Amended

AN ACT To increase domestic energy supplies and availability; to restrain energy demand; to prepare for energy emergencies; and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the “Energy Policy and Conservation Act”.*

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 \* \* \* \* \*

**SEC. 154. STRATEGIC PETROLEUM RESERVE**  
 (a) A Strategic Petroleum Reserve for the storage of up to [1 billion barrels of petroleum products] 1,000,000,000 barrels of petroleum products (including at least 30,000,000 barrels of refined petroleum products shall be created pursuant to this part.  
 \* \* \* \* \*

**SEC. 155. PLAN.**

Not later than 180 days after the date of enactment of this section, the Secretary shall submit to the President and, if the President approves, to Congress, a plan to include refined petroleum products in the Strategic Petroleum Reserve, including a description of—

(1) the disposition of refined petroleum products that shall be stored in the Reserve, which shall be selected—

(A) to alleviate shortages that might be expected to result from hurricanes, earthquakes, or other acts of nature; and

(B) to minimize the number of different kinds of refined petroleum products that shall be stored;

(2) the method of acquisition of refined petroleum products for storage in the Reserve, which shall

(A) be intended to minimize both the cost and market disruption associated with the acquisition; and

(B) include—

(i) an analysis of the option of exchanging crude oil from the Reserve for refined petroleum products; and

(ii) the anticipated time requirement for building the inventory of refined petroleum products;

(3) storage facility options for the storage of refined petroleum products, including the anticipated location of existing or new facilities;

(4) the estimated costs of establishment, maintenance, and operation of the refined petroleum product component of the Reserve;

(5) efforts the Department will take to ensure that distributors and importers are not discouraged from maintaining and increasing supplies of refined petroleum products; and

(6) actions that will be taken to ensure quality of refined petroleum products in the Reserve, including the rotation of products stored.

\* \* \* \* \*

**SEC. 160. (a)** The Secretary may acquire, place in storage, transport, or exchange—

**[(1) crude oil produced from Federal lands**

**[(2) crude oil which the United States is entitled to receive in kind as royalties from production on Federal lands; and**

**[(3) petroleum products acquired by purchase, exchange, or otherwise.]**

**SEC. 160. PETROLEUM PRODUCTS FOR STORAGE IN THE RESERVE**

**(a) AUTHORITY OF SECRETARY.—**

**(1) IN GENERAL.—**The Secretary may acquire, place in storage, transport, or exchange—

**(A) crude oil produced from Federal lands;**

**(B) crude oil which the United States is entitled to receive in kind as royalties from production on Federal lands; and**

**(C) in accordance with paragraph (2.) petroleum products acquired by purchase, exchange, or otherwise.**

**(2) MONETARY COMPENSATION.—**In acquiring petroleum products under paragraph (1)(C), the Secretary may accept monetary compensation for differences in volume, quality, or time of delivery as a result of—

- (A) exchanges or deferrals of deliveries in the event that the reserve inventory is at the rated capacity of the reserve inventory; or*
- (B) discrepancies in delivered volumes with respect to contractual volumes.*

\* \* \* \* \*

**SEC. 161. DRAWDOWN AND SALE OF PETROLEUM PRODUCTS**

\* \* \* \* \*

[(d)(1) Drawdown and sale of petroleum products from the Strategic Petroleum Reserve may not be made unless the President has found drawdown and sale are required by a severe energy supply interruption or by obligations of the United States under the international energy program.

[(2) For purposes of this section, in addition to the circumstances set forth in section 3(8), a severe energy supply interruption shall be deemed to exist if the President determines that—

- [(A) an emergency situation exists and there is a significant reduction in supply which is of significant scope and duration;
- [(B) a severe increase in the price of petroleum products has resulted from such emergency situation; and
- [(C) such price increase is likely to cause a major adverse impact on the national economy.]

(d) *LIMITATION ON DRAWDOWN AND SALE.*—

*(1) IN GENERAL.—The drawdown and sale of petroleum products from the Strategic Petroleum Reserve may not be made unless the Secretary determines that—*

- (A) the drawdown and sale are required by—*
  - (i) a severe energy market supply disruption; or*
  - (ii) obligations of the United States under the international energy program; or*
- (B) in the case of the refined petroleum product component of the Reserve, a sale of refined petroleum products will mitigate the impacts of weather-related events or other acts of nature that have resulted in a severe energy market supply disruption.*

*(2) SEVERE ENERGY MARKET SUPPLY DISRUPTION.—For purpose of this subsection, a severe energy market supply disruption shall be considered to exist if the Secretary determines that—*

- (A) an emergency situation exists and there is a disruption in global oil markets of significant scope and duration;*
- (B) a severe increase in the price of petroleum products has resulted, or is likely to result, from the emergency situation; and*
- (C) the price increase is likely to cause a major adverse impact on the national economy.*

(e)(1) The Secretary shall sell petroleum products withdrawn from the Strategic Petroleum Reserve at public sale to the highest qualified bidder in the amounts, for the period, and after a notice of sale considered appropriate by the Secretary, and without regard to Federal, State, or local regulations controlling sales of petroleum products.

\* \* \* \* \*



(h)(1) If **the President** *the Secretary* finds that—

(A) a circumstance, other than those described in subsection (d), exists that constitutes, or is likely to become, a domestic or international energy supply shortage of significant scope or duration;

\* \* \* \* \*

(i) Notwithstanding any other law, **the President** *the Secretary* may permit any petroleum products withdrawn from the Strategic Petroleum Reserve in accordance with this section to be sold and delivered for refining or exchange outside of the United States, in connection with an arrangement for the delivery of refined petroleum products to the United States.

\* \* \* \* \*

**SEC. 167. SPR PETROLEUM ACCOUNT**

\* \* \* \* \*

(b) Amounts in the Account may be obligated by the Secretary of Energy for the acquisition, transportation, and injection of petroleum products into the Strategic Petroleum Reserve, for test sales of petroleum products from the Reserve, and for the drawdown, sale, and delivery of petroleum products from the Reserve—

**[(2)]** (1) in the case of any fiscal year, subject to section 660 of the Department of Energy Organization Act, in such aggregate amounts as may be appropriated in advance in appropriation Acts**;** and**;**

**[(3)]** (2) in the case of any fiscal year, notwithstanding section 660 of the Department of Energy Organization Act, in an aggregate amount equal to the aggregate amount of the receipts to the United States from the sale of petroleum products in any drawdown and distribution of the Strategic Petroleum Reserve under section 161, including a drawdown and distribution carried out under subsection (g) of such section, or from the sale of petroleum products under section 160(f). Funds available to the Secretary of Energy for obligation under this subsection may remain available without fiscal year limitation**;** and

(3) *notwithstanding section 660 of the Department of Energy Organization Act (42 U.S.C. 7270), for each fiscal year, in an aggregate amount equal to the aggregate amount of the receipts to the United States from any exchange of petroleum products or discrepancies in delivered volume under section 160 (including section 160(a)(1)(C)).*

\* \* \* \* \*

**TITLE III—IMPROVING ENERGY EFFICIENCY**

\* \* \* \* \*

**PART B—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS OTHER THAN AUTOMOBILES**

**SEC. 321. DEFINITIONS.**

\* \* \* \* \*

(67) *ART WORK LIGHT FIXTURE.*—The term “art work light fixture” means a light fixture designed only to be mounted directly to an art work and for the purpose of illuminating that art work.

(68) *LED LIGHT ENGINE.*—The term “LED light engine” or “LED light engine with integral heat sink” means a subsystem of an LED light fixture that—

(A) includes 1 or more LED components, including—

(i) an LED driver power source with electrical and mechanical interfaces; and

(ii) an integral heat sink to provide thermal dissipation; and

(B) may be designed to accept additional components that provide aesthetic, optical, and environmental control.

(69) *LED LIGHT FIXTURE.*—The term “LED light fixture” means a complete lighting unit consisting of

(A) an LED light source with 1 or more LED lamps or LED light engines; and

(B) parts—

(i) to distribute the light;

(ii) to position and protect the light source; and

(iii) to connect the light source to electrical power.

(70) *LIGHT FIXTURE.*—The term “light fixture” means a product designed to provide light that includes

(A) at least 1 lamp socket; and

(B) parts—

(i) to distribute the light;

(ii) to position and protect 1 or more lamps; and

(iii) to connect 1 or more lamps to a power supply.

(71) *PORTABLE LIGHT FIXTURE.*—

(A) *IN GENERAL.*—The term “portable light fixture” means a light fixture that has a flexible cord and an attachment plug for connection to a nominal 120-volt circuit that—

(i) allows the user to relocate the product without any rewiring; and

(ii) typically can be controlled with a switch located on the product or the power cord of the product.

(B) *EXCLUSIONS.*—The term “portable light fixture” does not include—

(i) direct plug-in night lights, sun or heat lamps, medical or dental lights, portable electric hand lamps, signs or commercial advertising displays, photographic lamps, germicidal lamps, or light fixtures for marine use or for use in hazardous locations (as those terms are defined in ANSI/NFPA 70 of the National Electrical Code); or

(ii) decorative lighting strings, decorative lighting outfits, or electric candles or candelabra without lamp shades that are covered by Underwriter Laboratories (UL) standard 588, “Seasonal and Holiday Decorative Products.”

(72) *GU-24.*—The term “GU-24” means the designation of a lamp socket, based on a coding system by the International Electrotechnical Commission, under which—

- (A) "G" indicates a holder and socket type with 2 or more projecting contacts, such as pins or posts;
- (B) "U" distinguishes between lamp and holder designs of similar type that are not interchangeable due to electrical or mechanical requirements; and
- (C) 24 indicates the distance in millimeters between the electrical contact posts.

(73) GU-24 ADAPTOR.—

(A) IN GENERAL.—The term "GU-24 Adaptor" means a 1-piece device, pig-tail, wiring harness, or other such socket or base attachment that—

- (i) connects to a GU-24 socket on 1 end and provides a different type of socket or connection on the other end; and
- (ii) does not alter the voltage.

(B) EXCLUSION.—The term "GU-24 Adaptor" does not include a fluorescent ballast with a GU-24 base.

(74) GU-24 BASE LAMP. The term "GU-24 base lamp" means a light bulb designed to fit in a GU-24 socket.

\* \* \* \* \*

**SEC. 322. COVERAGE.**

(a) IN GENERAL.—The following consumer products, excluding those consumer products designed solely for use in recreational vehicles and other mobile equipment, are covered products:

- (17) Water closets.
- (18) Urinals.
- (19) Metal halide lamp fixtures.
- (20) Portable light fixtures.

[(20)] (21) Any other type of consumer product which the Secretary classifies as a covered product under subsection (b).

\* \* \* \* \*

**SEC. 323. TEST PROCEDURES.**

\* \* \* \* \*

(b) AMENDED AND NEW PROCEDURES.—

(1) TEST PROCEDURES.—

(A) AMENDMENT.—At least once every 7 years, the Secretary shall review test procedures for all covered products and—

- (i) [amend] publish in the Federal Register amended test procedures with respect to any covered product, if the Secretary determines that amended test procedures would more accurately or fully comply with the requirements of paragraph (3); or
- (ii) publish notice in the Federal Register of any determination not to amend a test procedure.

(B) PETITIONS.—

(i) IN GENERAL.—In the case of any covered product, any person may petition the Secretary to conduct a rulemaking—

- (I) to prescribe a test procedure for the covered product; or

(II) to amend the test procedures applicable to the covered product to more accurately or fully comply with paragraph (3).

(ii) DETERMINATION.—The Secretary shall—

(I) not later than 90 days after the date of receipt of the petition, publish the petition in the Federal Register; and

(II) not later than 180 days after the date of receipt of the petition, grant or deny the petition.

(iii) BASIS.—The Secretary shall grant a petition if the Secretary finds that the petition contains evidence that, assuming no other evidence was considered, provides an adequate basis for determining that an amended test method would more accurately or fully comply with paragraph.

(iv) EFFECT ON OTHER REQUIREMENTS.—The granting of a petition by the Secretary under this subparagraph shall create no presumption with respect to the determination of the Secretary that the proposed test procedure meets the requirements of paragraph (3).

(v) RULEMAKING.—

(I) IN GENERAL.—Except as provided in subclause (II), not later than the end of the 18-month period beginning on the date of granting a petition, the Secretary shall publish an amended test method or a determination not to amend the test method.

(II) EXTENSION.—The Secretary may extend the period described in subclause (I) for 1 additional year.

(III) DIRECT FINAL RULE. The Secretary may adopt a consensus test procedure in accordance with the direct final rule procedure established under section 325(p)(4).

\* \* \* \* \*

(18) METAL HALIDE LAMP BALLASTS.—Test procedures for metal halide lamp ballasts shall be based on ANSI Standard C82.6–2005, entitled “Ballasts for High Intensity Discharge Lamps—Method of Measurement”.

(19) LED FIXTURES AND LED LIGHT ENGINES.—Test procedures for LED fixtures and LED light engines shall be based on Illuminating Engineering Society of North America test procedure LM–79, Approved Method for Electrical and Photometric Testing of Solid-State Lighting Devices and an IES-approved test procedure for testing LED light engines.

\* \* \* \* \*

**SEC. 324A. ENERGY STAR PROGRAM.**

\* \* \* \* \*

(b) DIVISION OF RESPONSIBILITIES.—[Responsibilities]

(1) IN GENERAL.—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; and

(2) *UPDATE.*—Not later than 180 days after the date of enactment of this paragraph, the Secretary and the Administrator shall update the agreements described in paragraph (1), including agreements on provisions that provide—

(A) a clear delineation of the roles and responsibilities of each agency that is based on the resources and areas of expertise of each agency;

(B) a formal process for high-level decision making that allows each agency to make specific programmatic decisions based on the program approaches of each agency;

(C) a facilitated annual planning meeting that establishes strategic priorities and goals for the coming year;

(D) a prescribed course of action to work through differences and disagreements;

(E) a facilitated biannual program review conducted by a third party that—

(i) incorporates an assessment of program progress, partner acceptance, the achievement of program goals, and future strategic planning; and

(ii) is evaluated by the Council on Environmental Quality, which shall appraise the findings in the review and work with the agencies to resolve any negative findings; and

(F) a sunset date for the new agreement and a timetable for establishing future agreements based on priorities at that time.

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

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

\* \* \* \* \*

(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**[.]**;

(8)(A) review each product category—

(i) at least once every 3 years; or

(ii) when market share for an Energy Star product category reaches 35 percent;

(B) based on the review—

(i) update and publish the Energy Star product criteria for the category; or

(ii) publish a finding that no update is justified with the explanation for the finding; and

(C) require that—

(i) industry consensus test methods established by the Department of Energy shall—

(I) take into consideration test procedures or rating procedures developed by industry standards organizations; and

(II) be used for all solid-state lighting products, including—

- (aa) integral luminaries;
- (bb) integral replacement lamps;
- (cc) light engines; and

(ii) in accordance with the commercialization support provisions of section 912 of the Energy Policy Act of 2005 (42 U.S.C 16192), the Department of Energy shall assume all responsibility for the implementation of an Energy Star program for solid-state lighting; and

(D) during the initial review for each product category, establish an alternative market share to trigger subsequent reviews, based on product-specific technology and market attributes;

(9) require a demonstration of compliance with the Energy Star criteria by qualified products, except that—

(A) the demonstration shall be conducted in accordance with appropriate methods determined for each product type by the Secretary or the Administrator of the Environmental Protection Agency (as appropriate), including—

- (i) third-party verification;
- (ii) third-party certification;
- (iii) purchase and testing of products from the market; or
- (iv) other verified testing and compliance approaches;

and

(B) the Secretary or the Administrator may exempt specific types of products from the requirements of this subparagraph if the Secretary or Administrator finds that—

- (i) the benefits to the Energy Star program of verifying product performance are substantially exceeded by the burdens; or
- (ii) there are no benefits to the Energy Star program;

and

(10) develop and publish standardized building energy audit methods.

\* \* \* \* \*

**SEC. 324A. ENERGY STAR PROGRAM.**

\* \* \* \* \*

(e) **STUDY REGARDING ENERGY SUPERSTAR CONCEPT.—**

(1) **STUDY.—**

(A) **IN GENERAL.—**As soon as practicable after the date of enactment of this subsection, in accordance with subparagraph (B), the Secretary and the Administrator of the Environmental Protection Agency (referred to in this subsection as the ‘heads of the Federal agencies concerned’) shall carry out jointly a study to determine the feasibility and advisability of adding to the Energy Star program of the Environmental Protection Agency and the Department of Energy a component to be known as the ‘Energy Superstar tier’ under which—

(i) the tier would recognize the top performing products and buildings (which would include the top approximately 5 percent of the market) that are determined to be products that are cost-effective to consumers; and

(ii) at least a portion of the Energy Star product categories would be included under the tier.

(B) REQUIREMENTS. In carrying out the study under subparagraph (A), the heads of the Federal agencies concerned shall—

(i) examine the costs and benefits, and advantages and disadvantages, of establishing the Energy Superstar tier;

(ii) survey a sample of program participants (including builders, manufacturers, energy efficiency program operators and other interested parties) to determine the opinions of the program participants regarding the potential usefulness of the Energy Superstar tier; and

(iii) conduct an examination to determine whether the Energy Superstar tier will cause an undesirable dilution of the Energy Star brand.

(2) REPORT.—Not later than 1 year after the date of enactment of this subsection, the heads of the Federal agencies concerned shall jointly submit to the appropriate committees of Congress a report that contains each recommendation of the heads of the Federal agencies concerned regarding—

(A) whether the Energy Superstar tier should be established; and

(B) if the heads of the Federal agencies concerned recommend the establishment of the Energy Superstar tier under subparagraph (A), a proposed schedule and budget for the establishment and implementation of the Energy Superstar tier.

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

(1) to the Department of Energy \$25,000,000 for each fiscal year; and

(2) to the Environmental Protection Agency \$100,000,000 for each fiscal year.

\* \* \* \* \*

**SEC. 325. ENERGY CONSERVATION STANDARDS.**

\* \* \* \* \*

(i) GENERAL SERVICE FLUORESCENT LAMPS, GENERAL SERVICE INCANDESCENT LAMPS, INTERMEDIATE BASE INCANDESCENT LAMPS, CANDELABRA BASE INCANDESCENT LAMPS, AND INCANDESCENT REFLECTOR LAMPS.—

\* \* \* \* \*

(8) Not later than the date on which standards established pursuant to this subsection become effective, or, with respect to high-intensity discharge lamps covered under section 346, the effective date of standards established pursuant to such section, each manufacturer of a product to which such standards are applicable shall file with the Secretary a laboratory

report certifying compliance with the applicable standard for each lamp type. Such report shall include the lumen output and wattage consumption for each lamp type as an average of measurements taken over the preceding 12-month period. With respect to lamp types which are not manufactured during the 12-month period preceding the date such standards become effective, such report shall be filed with the Secretary not later than the date which is 12 months after the date manufacturing is commenced and shall include the lumen output and wattage consumption for each such lamp type as an average of measurements taken during such 12-month period.

(9) CERTAIN INCANDESCENT REFLECTOR LAMPS.—

(A) IN GENERAL.—Not later than July 1, 2011, the Secretary shall publish a final rule establishing standards for incandescent reflector lamp types described in paragraph (1)(C).

(B) EFFECTIVE DATE.—The standards described in subparagraph (A) shall take effect on July 1, 2013.

(C) STANDARDS.—In conducting a rulemaking for incandescent reflector lamps under this paragraph after the date of enactment of this paragraph, the Secretary shall consider the standards for all incandescent reflector lamps, including lamp types described in paragraph(1)(C).

(10) REFLECTOR LAMPS.—

(A) IN GENERAL.—Not later than January 1, 2015, the Secretary shall publish a final rule establishing and amending standards for reflector lamps, including incandescent reflector lamps.

(B) ADMINISTRATION.—In conducting the rulemaking for reflector lamps under this paragraph, the Secretary shall consider—

- (i) incandescent and nonincandescent technologies; and
- (ii) a new metric, other than lumens per watt, that is based on the photometric distribution of those lamps.

(C) EFFECTIVE DATE.—The standards described in subparagraph (A) shall take effect not earlier than the date that is 3 years after the date of publication of the final rule, as determined by the Secretary.

\* \* \* \* \*

(1) STANDARDS FOR OTHER COVERED PRODUCTS.—(1) The Secretary may prescribe an energy conservation standard for any type (or class) of covered products of a type specified in [paragraph (19)] paragraph (21) of section 322(a) if the requirements—

\* \* \* \* \*

(2) Any new or amended standard for covered products of a type specified in [paragraph (19)] paragraph (21) of section 322(a) shall not apply to products manufactured within five years after the publication of a final rule establishing such standard.

\* \* \* \* \*

(n) PETITION FOR AN AMENDED STANDARD.—

\* \* \* \* \*



(2) The Secretary shall grant a petition if he finds that it contains evidence which, assuming no other evidence were considered, provides an adequate basis for amending the standards under the following criteria—

(A) amended standards will result in significant conservation of energy;

(B) amended standards are technologically feasible; and

(C) amended standards are cost effective as described in subsection (o)(2)(B)(i)(II).

The grant of a petition by the Secretary under this subsection creates no presumption with respect to the Secretary's determination of any of the criteria in a rulemaking under this section.

(3) *NOTICE OF DECISION.*—Not later than 180 days after the date of receiving a petition, the Secretary shall publish in the Federal Register a notice of, and explanation for, the decision of the Secretary to grant or deny the petition.

(4) *NEW OR AMENDED STANDARDS.*—Not later than 3 years after the date of granting a petition for new or amended standards, the Secretary shall publish in the Federal Register—

(A) a final rule that contains the new or amended standards; or

(B) a determination that no new or amended standards are necessary.

[(3)] (5) An amendment prescribed under this subsection shall apply to products manufactured after a date which is 5 years after—

(A) the effective date of the previous amendment pursuant to this part; or

(B) if the previous final rule published under this part did not amend the standard, the earliest date by which a previous amendment could have been in effect, except that in no case may an amended standard apply to products manufactured within 3 years (for refrigerators, refrigerator-freezers, and freezers, room air conditioners, dishwashers, clothes washers, clothes dryers, fluorescent lamp ballasts, general service fluorescent lamps, incandescent reflector lamps, and kitchen ranges and ovens) or 5 years (for central air conditioners and heat pumps, water heaters, pool heaters, direct heating equipment and furnaces) after publication of the final rule establishing a standard.

\* \* \* \* \*

(hh)(4) *DESIGN AND PERFORMANCE REQUIREMENTS.*—Notwithstanding any other provision of law, any standard established pursuant to this subsection may contain both design and performance requirements.

(ii) *PORTABLE LIGHT FIXTURES.*—

(1) *IN GENERAL.*—Subject to paragraphs (2) and (3), portable light fixtures manufactured on or after January 1, 2012, shall meet 1 or more of the following requirements:

(A) Be a fluorescent light fixture that meets the requirements of the Energy Star Program for Residential Light Fixtures, Version 4.2.

(B) Be equipped with only 1 or more GU-24 line-voltage sockets, not be rated for use with incandescent lamps of any

type (as defined in ANSI standards), and meet the requirements of version 4.2 of the Energy Star program for residential light fixtures.

(C) Be an LED light fixture or a light fixture with an LED light engine and comply with the following minimum requirements:

(i) Minimum light output: 200 lumens (initial).

(ii) Minimum LED light engine efficacy: 40 lumens/watt installed in fixtures that meet the minimum light fixture efficacy of 29 lumens/watt or, alternatively, a minimum LED light engine efficacy of 60 lumens/watt for fixtures that do not meet the minimum light fixture efficacy of 29 lumens/watt.

(iii) All portable fixtures shall have a minimum LED light fixture efficacy of 29 lumens/watt and a minimum LED light engine efficacy of 60 lumens/watt by January 1, 2016.

(iv) Color Correlated Temperature (CCT): 2700K through 4000K.

(v) Minimum Color Rendering Index (CRI): 75.

(vi) Power factor equal to or greater than 0.70.

(vii) Portable luminaires that have internal power supplies shall have zero standby power when the luminaire is turned off.

(viii) LED light sources shall deliver at least 70 percent of initial lumens for at least 25,000 hours.

(D)(i) Be equipped with an ANSI-designated E12, E17, or E26 screw-based socket and be prepackaged and sold together with a screw-based compact fluorescent lamp or screw-based LED lamp for each screw-based socket on the portable light fixture.

(ii) The compact fluorescent or LED lamps prepackaged with the light fixture shall be fully compatible with any light fixture controls incorporated into the light fixture (for example, light fixtures with dimmers shall be packed with dimmable lamps).

(iii) Compact fluorescent lamps prepackaged with light fixtures shall meet the requirements of the Energy Star Program for CFLs Version 4.0.

(iv) Screw-based LED lamps shall comply with the minimum requirements described in subparagraph (C).

(E) Be equipped with 1 or more single ended, non-screw based halogen lamp sockets (line or low voltage), a dimmer control or high low control, and be rated for a maximum of 100 watts.

(2) REVIEW.—

(A) REVIEW.—The Secretary shall review the criteria and standards established under paragraph (1) to determine if revised standards are technologically feasible and economically justified.

(B) COMPONENTS.—The review shall include consideration of—

(i) whether a separate compliance procedure is still needed for halogen fixtures described in subparagraph

(E) and, if necessary, what an appropriate standard for halogen fixtures shall be;

(ii) which of the specific technical criteria described in subparagraphs (A), (C), and (D)(iii) should be modified; and

(iii) which fixtures should be exempted from the light fixture efficacy standard as of January 1, 2016, because the fixtures are primarily decorative in nature (as defined by the Secretary) and, even if exempted, are likely to be sold in limited quantities.

(C) TIMING.—

(i) DETERMINATION.—Not later than January 1, 2014, the Secretary shall publish amended standards, or a determination that no amended standards are justified, under this subsection.

(ii) STANDARDS.—Any standards under this subsection take effect on January 1, 2016.

(3) ART WORK LIGHT FIXTURES.—Art work light fixtures manufactured on or after January 1, 2012, shall—

(A) comply with paragraph (1); or

(B)(i) contain only ANSI-designated E12 screw-based line-voltage sockets;

(ii) have not more than 3 sockets;

(iii) be controlled with an integral high/low switch;

(iv) be rated for not more than 25 watts if fitted with 1 socket; and

(v) be rated for not more than 15 watts per socket if fitted with 2 or 3 sockets.

(4) EXCEPTION FROM PREEMPTION.—Notwithstanding section 327, Federal preemption shall not apply to a regulation concerning portable light fixtures adopted by the California Energy Commission on or before January 1, 2014.

(jj) GU-24 BASE LAMPS.—

(1) IN GENERAL.—A GU-24 base lamp shall not be an incandescent lamp as defined by ANSI.

(2) GU-24 ADAPTORS.—GU-24 adaptors shall not adapt a GU-24 socket to any other line voltage socket.

[(ii)] (kk) 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 (hh) 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 (hh) take effect.

\* \* \* \* \*

PART C—CERTAIN INDUSTRIAL EQUIPMENT

\* \* \* \* \*

**SEC. 342. STANDARDS.**

(a) SMALL, LARGE, AND VERY LARGE COMMERCIAL PACKAGE AIR CONDITIONING AND HEATING EQUIPMENT, PACKAGED TERMINAL AIR CONDITIONERS AND HEAT PUMPS, WARM-AIR FURNACES, PACKAGED BOILERS, STORAGE WATER HEATERS, INSTANTANEOUS WATER HEATERS, AND UNFIRED HOT WATER STORAGE TANKS.—

\* \* \* \* \*

(10) SINGLE PACKAGE VERTICAL AIR CONDITIONERS AND SINGLE PACKAGE VERTICAL HEAT PUMPS.—

\* \* \* \* \*

(B) REVIEW.—Not later than 3 years after the date of enactment of this paragraph, the Secretary shall review the most recently published ASHRAE/IES Standard 90.1 with respect to single package vertical air conditioners and single package vertical heat pumps in accordance with the procedures established under paragraph (6).

(11) *Warm air furnaces with an input rating of 225,000 Btu per hour or more and manufactured after January 1, 2011, shall meet the following standard levels:*

(A) *Gas-fired units shall—*

- (i) *have a minimum combustion efficiency of 80 percent;*
- (ii) *include an interrupted or intermittent ignition device;*
- (iii) *have jacket losses not exceeding 0.75 percent of the input rating; and*
- (iv) *have power venting or a flue damper.*

(B) *Oil-fired units shall have—*

- (i) *a minimum thermal efficiency of 81 percent;*
- (ii) *jacket losses not exceeding 0.75 percent of the input rating; and*
- (iii) *power venting or a flue damper.*

\* \* \* \* \*

**SEC. 343. TEST PROCEDURES.**

(a) PRESCRIPTION BY SECRETARY; REQUIREMENTS.—

[(1) TEST PROCEDURES.—

[(A) AMENDMENT.—At least once every 7 years, the Secretary shall conduct an evaluation of each class of covered equipment and—

- [(i) if the Secretary determines that amended test procedures would more accurately or fully comply with the requirements of paragraphs (2) and (3), shall prescribe test procedures for the class in accordance with this section; or
- [(ii) shall publish notice in the Federal Register of any determination not to amend a test procedure.]

(1) AMENDMENT AND PETITION PROCESS.—

(A) IN GENERAL.—At least once every 7 years, the Secretary shall review test procedures for all covered equipment and—

(i) publish in the Federal Register amended test procedures with respect to any covered equipment, if the Secretary determines that amended test procedures would more accurately or fully comply with paragraphs (2) and (3); or

(ii) publish notice in the Federal Register of any determination not to amend a test procedure.

(B) PETITIONS.—

(i) IN GENERAL.—In the case of any class or category of covered equipment, any person may petition the Secretary to conduct a rulemaking—

(I) to prescribe a test procedure for the covered equipment; or

(II) to amend the test procedures applicable to the covered equipment to more accurately or fully comply with paragraphs (2) and (3).

(ii) DETERMINATION.—The Secretary shall—

(I) not later than 90 days after the date of receipt of the petition, publish the petition in the Federal Register; and

(II) not later than 180 days after the date of receipt of the petition, grant or deny the petition.

(iii) BASIS.—The Secretary shall grant a petition if the Secretary finds that the petition contains evidence that, assuming no other evidence was considered, provides an adequate basis for determining that an amended test method would more accurately promote energy or water use efficiency.

(iv) EFFECT ON OTHER REQUIREMENTS.—The granting of a petition by the Secretary under this paragraph shall create no presumption with respect to the determination of the Secretary that the proposed test procedure meets the requirements of paragraphs (2) and (3).

(v) RULEMAKING.—

(I) IN GENERAL.—Except as provided in subclause (II), not later than the end of the 18-month period beginning on the date of granting a petition, the Secretary shall publish an amended test method or a determination not to amend the test method.

(II) EXTENSION.—The Secretary may extend the period described in subclause (I) for 1 additional year.

(III) DIRECT FINAL RULE.—The Secretary may adopt a consensus test procedure in accordance with the direct final rule procedure established under section 325(p).

\* \* \* \* \*

(4)(A) With respect to small commercial package air conditioning and heating equipment, large commercial package air conditioning and heating equipment, very large commercial package air conditioning and heating equipment, packaged terminal air conditioners, packaged terminal heat pumps, warm-air furnaces, packaged boilers, storage water heaters, instantaneous water heaters, and unfired hot water storage tanks to

which standards are applicable under section 342, the test procedures shall be those generally accepted industry testing procedures or rating procedures developed or recognized by the **【Air-Conditioning and Refrigeration Institute】** *Air-Conditioning, Heating, and Refrigeration Institute* by the American Society of Heating, Refrigerating and Air Conditioning Engineers, as referenced in ASHRAE/IES Standard 90.1 and in effect on June 30, 1992.

\* \* \* \* \*

(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】** *Air-Conditioning, Heating, and Refrigeration Institute*—Standard 810–2003, as in effect on January 1, 2005.

(B)(i) If **【Air-Conditioning and Refrigeration Institute】** *Air-Conditioning, Heating, 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】** *Air-Conditioning, Heating, 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).

\* \* \* \* \*

(b) Before prescribing any final test procedures under this section, the Secretary shall—

- (1) publish proposed test procedures in the Federal Register; and
- (2) afford interested persons an opportunity (of not less than 45 days' duration) to present oral and written data, views, and arguments on the proposed test procedures.

**【(c)(1) The Secretary shall, not later than 3 years after the date of prescribing a test procedure under this section (and from time to time thereafter), conduct a reevaluation of such procedure and, on the basis of such reevaluation, shall determine if such test procedure should be amended. In conducting such reevaluation, the Secretary shall take into account such information as he deems relevant, including technological developments relating to the energy efficiency of the type (or class) of covered equipment involved.**

**【(2) If the Secretary determines under paragraph (1) that a test procedure should be amended, he shall promptly publish in the Federal Register proposed test procedures incorporating such amendments and afford interested persons an opportunity to present oral and written data, views, and arguments. Such comment period shall not be less than 45 days' duration.】**

**【(d) (c)(1) Effective 180 days (or, in the case of small commercial package air conditioning and heating equipment,**

\* \* \* \* \*

[(e)] (d) The Secretary may direct the National Bureau of Standards to provide such assistance as the Secretary deems necessary to carry out his responsibilities under this part, including the development of test procedures.

\* \* \* \* \*

**SEC. 347. MOTOR EFFICIENCY REBATE PROGRAM.**

(a) *ESTABLISHMENT.*—By not later than January 1, 2010, in accordance with subsection (b), the Secretary shall establish a program to provide rebates for expenditures made by entities—

(1) for the purchase and installation of a new electric motor that has a nominal full load efficiency that is not less than the nominal full load efficiency as defined in—

(A) table 12–12 of NEMA Standards Publication MG 1–2006 for random wound motors rated 600 volts or lower; or

(B) table 12–13 of NEMA Standards Publication MG 1–2006 for form wound motors rated 5000 volts or lower; and

(2) to replace an installed motor of the entity the specifications of which are established by the Secretary by a date that is not later than 90 days after the date of enactment of this section.

(b) *REQUIREMENTS.*—

(1) *APPLICATION.*—To be eligible to receive a rebate under this section, an entity shall submit to the Secretary an application in such form, at such time, and containing such information as the Secretary may require, including—

(A) demonstrated evidence that the entity purchased an electric motor described in subsection (a)(1) to replace an installed motor described in subsection (a)(2);

(B) demonstrated evidence that the entity—

(i) removed the installed motor of the entity from service; and

(ii) properly disposed the installed motor of the entity; and

(C) the physical nameplate of the installed motor of the entity.

(2) *AUTHORIZED AMOUNT OF REBATE.*—The Secretary may provide to an entity that meets each requirement under paragraph (1) a rebate the amount of which shall be equal to the product obtained by multiplying—

(A) the nameplate horsepower of the electric motor purchased by the entity in accordance with subsection (a)(1); and

(B) \$25.00.

(3) *PAYMENTS TO DISTRIBUTORS OF QUALIFYING ELECTRIC MOTORS.*—To assist in the payment for expenses relating to processing and motor core disposal costs, the Secretary shall provide to the distributor of an electric motor described in subsection (a)(1), the purchaser of which received a rebate under this section, an amount equal to the product obtained by multiplying—

(A) the nameplate horsepower of the electric motor; and

(B) \$5.00.

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

- (1) *\$80,000,000 for fiscal year 2010;*
- (2) *\$75,000,000 for fiscal year 2111;*
- (3) *\$70,000,000 for fiscal year 2112;*
- (4) *\$65,000,000 for fiscal year 2113; and*
- (5) *\$60,000,000 for fiscal year 2114.*

\* \* \* \* \*

**PART D—STATE ENERGY CONSERVATION PROGRAMS**

\* \* \* \* \*

**SEC. 365. GENERAL PROVISIONS.**

\* \* \* \* \*

(e) Within 90 days after the date of enactment of this subsection, the Secretary shall—

- (1) develop, by rule after consultation with the Secretary of Housing and Urban Development, and publish a list of energy conservation measures and renewable-resource energy measures which are eligible (on a national or regional basis for financial assistance pursuant to section 509 of the Housing and Urban Development Act of 1970 or section 451 of the Energy Conservation and Production Act;
- (2) designate, by rule, the types of, and requirements for energy audits.

[(f) For the purpose of carrying out this part, there are authorized to be appropriated \$125,000,000 for each of fiscal years 2007 through 2012.]

(f) *AUTHORIZATION OF APPROPRIATIONS.*—*There is authorized to be appropriated to the Secretary to carry out this part \$250,000,000 for each of fiscal years 2011 through 2015, to remain available until expended.*

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**PART E—INDUSTRIAL ENERGY EFFICIENCY**

\* \* \* \* \*

**SEC. 375. CLEAN ENERGY APPLICATION CENTERS.**

\* \* \* \* \*

(f) *AUTHORIZATION.*—*There is authorized to be appropriated to carry out this section \$10,000,000 for each of fiscal years 2008 through 2012.*

**SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.**

(a) *IN GENERAL.*—*As part of the Industrial Technologies Program of the Department of Energy, the Secretary shall carry out a sustainable manufacturing initiative under which the Secretary, on the request of a manufacturer, shall conduct onsite technical assessments to identify opportunities for—*

- (1) *maximizing the energy efficiency of systems;*
- (2) *preventing pollution and minimizing waste;*
- (3) *reducing the use of water in manufacturing processes;*
- (4) *conserving natural resources; and*



(5) *achieving such other goals as the Secretary determines to be appropriate.*

(b) *COORDINATION.—The Secretary shall carry out the initiative in coordination with appropriate agencies, including the National Institute of Standards and Technology.*

(c) *RESEARCH AND DEVELOPMENT PROGRAM FOR SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECHNOLOGIES AND PROCESSES.—As part of the Industrial Technologies Program of the Department of Energy, the Secretary shall carry out a joint industry-government partnership program to conduct research and development of new sustainable manufacturing and industrial technologies and processes that maximize the energy efficiency of systems, reduce pollution, and conserve natural resources.*

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

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**PART G—ENERGY CONSERVATION PROGRAM FOR SCHOOLS AND HOSPITALS**

\* \* \* \* \*

**SEC. 399A. ENERGY SUSTAINABILITY AND EFFICIENCY GRANTS AND LOANS FOR INSTITUTIONS AND INDUSTRY.**

(a) **DEFINITIONS.—**In this section:

\* \* \* \* \*

(5) **INSTITUTIONAL ENTITY.—**The term “institutional entity” means an institution of higher education, a public school district, a local government, a municipal utility, **[or a designee] a not-for-profit hospital, a not-for-profit inpatient health care facility, or a designated agent of 1 of those entities.**

\* \* \* \* \*

(c) **GRANTS FOR ENERGY EFFICIENCY IMPROVEMENT AND ENERGY SUSTAINABILITY.—**

(1) **GRANTS.—**

\* \* \* \* \*

(B) **REQUIREMENT.—**To the extent that applications have been submitted, grants under subparagraph (A) shall include not less than 1 grant each year to an institution of higher education in each State.

**[(C) MINIMUM FUNDING.—**Not less than 50 percent of the total funding for all grants under this subsection shall be awarded in grants to institutions of higher education.**]**

\* \* \* \* \*

(f) **GRANT AMOUNTS.—**

(3) **GRANTS FOR EFFICIENCY IMPROVEMENT AND ENERGY SUSTAINABILITY.—**In the case of grants for efficiency improvement and energy sustainability under subsection (c), grant funds shall be available for not more than an amount equal to the lesser of—

(A) **[\$1,000,000] \$2,500,000;** or

(B) 60 percent of the total cost.

\* \* \* \* \*

(g) LOANS FOR ENERGY EFFICIENCY IMPROVEMENT AND ENERGY SUSTAINABILITY.—

(4) LABOR STANDARDS.—

(A) IN GENERAL.—All laborers and mechanics employed by contractors or subcontractors in the performance of construction, repair, or alteration work funded in whole or in part under this section 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 sections 3141 through 3144, 3146, and 3147 of title 40, United States Code. The Secretary shall not approve any such funding without first obtaining adequate assurance that required labor standards will be maintained upon the construction work.

(B) AUTHORITY AND FUNCTIONS.—The Secretary of Labor shall have, with respect to the labor standards specified in paragraph (1), the authority and functions set forth in Reorganization Plan Number 14 of 1950 (15 Fed. Reg. 3176; 64 Stat. 1267) and section 3145 of title 40, United States Code.

(h) STATE PARTNERSHIP INDUSTRIAL ENERGY EFFICIENCY REVOLVING LOAN PROGRAM.—

(1) IN GENERAL.—*The Secretary shall carry out a program under which the Secretary shall provide grants to eligible lenders to pay the Federal share of creating a revolving loan program under which loans are provided to commercial and industrial manufacturers to implement commercially available technologies or processes that significantly—*

(A) *reduce systems energy intensity, including the use of energy intensive feedstocks; and*

(B) *improve the industrial competitiveness of the United States.*

(2) ELIGIBLE LENDERS.—*To be eligible to receive cost-matched Federal funds under this subsection, a lender shall—*

(A) *be a community and economic development lender that the Secretary certifies meets the requirements of this subsection;*

(B) *lead a partnership that includes participation by, at a minimum*

(i) *a State government agency; and*

(ii) *a private financial institution or other provider of loan capital;*

(C) *submit an application to the Secretary, and receive the approval of the Secretary, for cost-matched Federal funds to carry out a loan program described in paragraph (1); and*

(D) *ensure that non-Federal funds are provided to match, on at least a dollar-for-dollar basis, the amount of Federal funds that are provided to carry out a revolving loan program described in paragraph (1).*

(3) AWARD.—*The amount of cost-matched Federal funds provided to an eligible lender shall not exceed \$100,000,000 for any fiscal year.*

(4) *RECAPTURE OF AWARDS.*—

(A) *IN GENERAL.*—An eligible lender that receives an award under paragraph (1) shall be required to repay the Secretary an amount of cost-match Federal funds, as determined by the Secretary under subparagraph (B), if the eligible lender is unable or unwilling to operate a program described in this subsection for a period of not less than 10 years beginning on the date on which the eligible lender first receives funds made available through the award.

(B) *DETERMINATION BY SECRETARY.*—The Secretary shall determine the amount of cost-match Federal funds that an eligible lender shall be required to repay to the Secretary under subparagraph (A) based on the consideration by the Secretary of—

- (i) the amount of non-Federal funds matched by the eligible lender;
- (ii) the amount of loan losses incurred by the revolving loan program described in paragraph (1); and
- (iii) any other appropriate factor, as determined by the Secretary.

(C) *USE OF RECAPTURED COST-MATCH FEDERAL FUNDS.*—The Secretary may distribute to eligible lenders under this subsection each amount received by the Secretary under this paragraph.

(5) *ELIGIBLE PROJECTS.*—A program for which cost-matched Federal funds are provided under this subsection shall be designed to accelerate the implementation of industrial and commercial applications of technologies or processes that—

- (A) improve energy efficiency;
- (B) enhance the industrial competitiveness of the United States; and
- (C) achieve such other goals as the Secretary determines to be appropriate.

(6) *EVALUATION.*—The Secretary shall evaluate applications for cost-matched Federal funds under this subsection on the basis of—

- (A) the description of the program to be carried out with the grant;
- (B) the commitment to provide non-Federal funds in accordance with paragraph (2)(D);
- (C) program sustainability over a 10-year period;
- (D) the capability of the applicant;
- (E) the quantity of energy savings or energy feedstock minimization;
- (F) the advancement of the goal under this Act of 25-percent energy avoidance;
- (G) the ability to fund energy efficient projects not later than 120 days after the date of the grant award; and
- (H) such other factors as the Secretary determines appropriate.

(7) *AUTHORIZATION OF APPROPRIATIONS.*—There is authorized to be appropriated to carry out this subsection \$500,000,000 for each of fiscal years 2010 through 2012.

[(h)] (i) *PROGRAM PROCEDURES.*—Not later than 180 days after the date of enactment of this section, the Secretary shall establish

procedures for the solicitation and evaluation of potential projects for grant and loan funding and administration of the grant and loan programs.

[(i)] (j) AUTHORIZATION.—

(1) GRANTS.—There is authorized to be appropriated for the cost of grants authorized in subsections (b), (c), and (d) **[\$250,000,000 for each of fiscal years 2009 through 2013,]** *such sums as are necessary for each of fiscal years 2010 through 2015* of which not more than 5 percent may be used for administrative expenses.

(2) LOANS.—There is authorized to be appropriated for the initial cost of direct loans authorized in subsection (g) \$500,000,000 for each of fiscal years 2009 through 2013, of which not more than 5 percent may be used for administrative expenses.

\* \* \* \* \*

**ENERGY CONSERVATION AND PRODUCTION ACT**

Public Law 94–385, Approved August 14, 1976, as Amended

AN ACT To amend the Federal Energy Administration Act of 1974 to extend the duration of authorities under such Act; to provide an incentive for domestic production; to provide for electric utility rate design initiatives; to provide for energy conservation standards for new buildings; to provide for energy conservation assistance for existing buildings and industrial plants; and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the “Energy Conservation and Production Act”.*

\* \* \* \* \*

**TITLE III—ENERGY CONSERVATION STANDARDS FOR NEW BUILDINGS**

\* \* \* \* \*

**SEC. 303. DEFINITIONS.**

As used in this title:

\* \* \* \* \*

(16) The term “ASHRAE” means the American Society of Heating, Refrigerating, and Air-Conditioning Engineers.

(17) *IECC.*—*The term “IECC” means the International Energy Conservation Code.*

**[SEC. 304. UPDATING STATE BUILDING ENERGY EFFICIENCY CODES.**

**[(a) CONSIDERATION AND DETERMINATION RESPECTING RESIDENTIAL BUILDING ENERGY CODES.—**

**[(1)** Not later than 2 years after the date of the enactment of the Energy Policy Act of 1992, each State shall certify to the Secretary that it has reviewed the provisions of its residential building code regarding energy efficiency and made a determination as to whether it is appropriate for such State to revise such residential building code provisions to meet or exceed CABO Model Energy Code, 1992.

**[(2)** The determination referred to in paragraph (1) shall be—

**[(A)** made after public notice and hearing;

- [(B) in writing;
- [(C) based upon findings included in such determination and upon the evidence presented at the hearing; and
- [(D) available to the public.

[(3) Each State may, to the extent consistent with otherwise applicable State law, revise the provisions of its residential building code regarding energy efficiency to meet or exceed CABO Model Energy Code, 1992, or may decline to make such revisions.

[(4) If a State makes a determination under paragraph (1) that it is not appropriate for such State to revise its residential building code, such State shall submit to the Secretary, in writing, the reasons for such determination, and such statement shall be available to the public.

[(5)(A) Whenever CABO Model Energy Code, 1992, (or any successor of such code) is revised, the Secretary shall, not later than 12 months after such revision, determine whether such revision would improve energy efficiency in residential buildings. The Secretary shall publish notice of such determination in the Federal Register.

[(B) If the Secretary makes an affirmative determination under subparagraph (A), each State shall, not later than 2 years after the date of the publication of such determination, certify that it has reviewed the provisions of its residential building code regarding energy efficiency and made a determination as to whether it is appropriate for such State to revise such residential building code provisions to meet or exceed the revised code for which the Secretary made such determination.

[(C) Paragraphs (2), (3), and (4) shall apply to any determination made under subparagraph (B).

[(b) CERTIFICATION OF COMMERCIAL BUILDING ENERGY CODE UPDATES.—

[(1) Not later than 2 years after the date of the enactment of the Energy Policy Act of 1992, each State shall certify to the Secretary that it has reviewed and updated the provisions of its commercial building code regarding energy efficiency. Such certification shall include a demonstration that such State's code provisions meet or exceed the requirements of ASHRAE Standard 90.1-1989.

[(2)(A) Whenever the provisions of ASHRAE Standard 90.1-1989 (or any successor standard) regarding energy efficiency in commercial buildings are revised, the Secretary shall, not later than 12 months after the date of such revision, determine whether such revision will improve energy efficiency in commercial buildings. The Secretary shall publish a notice of such determination in the Federal Register.

[(B)(i) If the Secretary makes an affirmative determination under subparagraph (A), each State shall, not later than 2 years after the date of the publication of such determination, certify that it has reviewed and updated the provisions of its commercial building code regarding energy efficiency in accordance with the revised standard for which such determination was made. Such certification shall include a demonstration that the provisions of such State's commercial building code re-

garding energy efficiency meet or exceed such revised standard.

[(ii) If the Secretary makes a determination under subparagraph (A) that such revised standard will not improve energy efficiency in commercial buildings, State commercial building code provisions regarding energy efficiency shall meet or exceed ASHRAE Standard 90.1–1989, or if such standard has been revised, the last revised standard for which the Secretary has made an affirmative determination under subparagraph (A).

[(c) EXTENSIONS.—The Secretary shall permit extensions of the deadlines for the certification requirements under subsections (a) and (b) if a State can demonstrate that it has made a good faith effort to comply with such requirements and that it has made significant progress in doing so.

[(d) TECHNICAL ASSISTANCE. The Secretary shall provide technical assistance to States to implement the requirements of this section, and to improve and implement State residential and commercial building energy efficiency codes or to otherwise promote the design and construction of energy efficient buildings.

[(e) AVAILABILITY OF INCENTIVE FUNDING.—

[(1) The Secretary shall provide incentive funding to States to implement the requirements of this section, and to improve and implement State residential and commercial building energy efficiency codes, including increasing and verifying compliance with such codes. In determining whether, and in what amount, to provide incentive funding under this subsection, the Secretary shall consider the actions proposed by the State to implement the requirements of this section, to improve and implement residential and commercial building energy efficiency codes, and to promote building energy efficiency through the use of such codes.

[(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.]

**SEC. 304. UPDATING STATE BUILDING ENERGY EFFICIENCY CODES.**

(a) **UPDATING NATIONAL MODEL BUILDING ENERGY CODES.—**

(1) **TARGETS.—**

(A) *IN GENERAL.—The Secretary shall support updating the national model building energy codes and standards at least every 3 years to achieve overall energy savings, compared to the 2006 IECC for residential buildings and ASHRAE Standard 90.1–2004 for commercial buildings, of at least—*

*(i) 30 percent in editions of each model code or standard released during or after 2010; and*

*(ii) 50 percent in editions of each model code or standard released during or after 2016.*

(B) **SPECIFIC YEARS.—**

*(i) IN GENERAL.—Targets for specific years shall be set by the Secretary at least 3 years in advance of each target year, coordinated with the IECC and ASHRAE Standard 90.1 cycles, at the maximum level of energy efficiency that is technologically feasible and life-cycle cost effective and on a path to achieving net-zero-energy buildings.*

*(ii) DIFFERENT TARGET YEARS.—Subject to paragraph (2)(D), prior to 2013, the Secretary may set a different target year for 1 or both model codes described in subparagraph (A) if the Secretary determines that a 50 percent target cannot be met in 2016.*

(C) **TECHNICAL ASSISTANCE TO MODEL CODE-SETTING AND STANDARD DEVELOPMENT ORGANIZATIONS.—**

*(i) IN GENERAL.—The Secretary shall, on a timely basis, provide technical assistance to model code-setting and standard development organizations.*

*(ii) ASSISTANCE.—The assistance shall include technical assistance as requested by the organizations in—*

*(I) evaluating code or standards proposals or revisions;*

*(II) building energy analysis and design tools;*

*(III) building demonstrations; and*

*(IV) design assistance and training.*

(D) **AMENDMENT PROPOSALS.—The Secretary shall submit code and standard amendment proposals, with sup-**

porting evidence, sufficient to enable the national model building energy codes and standards to meet the targets established under subparagraph (A).

(2) REVISION OF BUILDING ENERGY USE STANDARDS.—

(A) IN GENERAL.—If the provisions of the IECC or ASHRAE Standard 90.1 regarding building energy use are revised, the Secretary shall make a determination not later than 1 year after the date of the revision, on whether the revision will—

- (i) improve energy efficiency in buildings; and
- (ii) meet the targets under paragraph (1).—

(B) CODES OR STANDARDS NOT MEETING TARGETS.

(i) IN GENERAL.—If the Secretary makes a determination under subparagraph (A)(ii) that a code or standard does not meet the targets established under paragraph (1), not later than 1 year after the date of the determination, the Secretary shall provide the model code or standard developer with proposed changes that would result in a model code that meets the targets.

(ii) INCORPORATION OF CHANGES.—On receipt of the proposed changes, the model code or standard developer shall have an additional 180 days to incorporate the proposed changes into the model code or standard.

(iii) ESTABLISHMENT BY SECRETARY.—If the proposed changes are not incorporated into the model code or standard, the Secretary shall establish a modified code or standard that meets the established targets.

(iv) ADMINISTRATION.—Any code or standard modified under this subparagraph shall—

(I) achieve the maximum level of energy savings that is technologically feasible and life-cycle cost-effective;

(II) be based on the latest edition of the IECC or ASHRAE Standard 90.1, including any subsequent amendments, addenda, or additions, but may also consider other model codes or standards; and

(III) serve as the baseline for the next determination under subparagraph (A)(i).

(C) CODES OR STANDARDS NOT UPDATED FOR 3 YEARS.—

(i) IN GENERAL.—If a national model code or standard is not updated for more than 3 years, the Secretary shall, not later than 1 year after the date of the determination, establish a modified code or standard that meets the targets.

(ii) REQUIREMENTS.—Any modified code or standard shall—

(I) achieve the maximum level of energy savings that is technologically feasible and life-cycle cost-effective;

(II) be based on the latest revision of the IECC or ASHRAE Standard 90.1, including any amendments or additions to the code or standard, but



- may also consider other model codes or standards; and*
- (III) serve as the baseline for the next determination under subparagraph (A)(i).*
- (D) *ADMINISTRATION.—The Secretary shall—*
- (i) provide an opportunity for public comment on targets, determinations, and modified codes and standards under this subsection; and*
- (ii) publish notice of targets, determinations, and modified codes and standards under this subsection in the Federal Register.*
- (b) *STATE CERTIFICATION OF BUILDING ENERGY CODE UPDATES.—*
- (1) *REVIEW AND UPDATING OF CODES BY EACH STATE.—*
- (A) IN GENERAL.—Not later than 2 years after the date of enactment of the American Clean Energy Leadership Act of 2009, each State shall certify to the Secretary whether or not the State has reviewed and updated the provisions of the residential and commercial building codes of the State regarding energy efficiency.*
- (B) DEMONSTRATION.—The certification shall include a demonstration that the code provisions of the State—*
- (i) meet or exceed the 2009 IECC for residential buildings and the ASHRAE Standard 90.1–2007 for commercial buildings; or*
- (ii) achieve equivalent or greater energy savings.*
- (2) *REVIEW AND UPDATING OF CODES BASED ON DETERMINATION OF SECRETARY.—*
- (A) DETERMINATION OF IMPROVEMENT OF ENERGY EFFICIENCY IN BUILDINGS; MODIFIED CODES OR STANDARDS.—*
- (i) IN GENERAL.—If the Secretary makes an affirmative determination under subsection (a)(2)(A)(i) or establishes a modified code or standard under subsection (a)(2)(B), each State shall, not later than 2 years after the date of the determination or establishment, certify whether or not the State has reviewed and updated the provisions of the building code of the State regarding energy efficiency.*
- (ii) DEMONSTRATION.—The certification shall include a demonstration that the code provisions of the State meet or exceed the revised code or standard, or achieve equivalent or greater energy savings.*
- (B) NO DETERMINATION OF IMPROVEMENT OF ENERGY EFFICIENCY IN BUILDINGS.—If the Secretary fails to make a determination under subsection (a)(2)(A)(i) by the date specified in subsection (a)(2), or makes a negative determination, each State shall not later than 2 years after the specified date or the date of the determination, certify whether or not the State has reviewed the revised code or standard, and updated the provisions of the building code of the State regarding energy efficiency to meet or exceed any provisions found to improve energy efficiency in buildings, or to achieve equivalent or greater energy savings in other ways.*
- (c) *STATE CERTIFICATION OF COMPLIANCE WITH BUILDING CODES.—*
- (1) *REQUIREMENT.—*

(A) *IN GENERAL.*—Not later than 3 years after the date of a certification under subsection (b), each State shall certify whether or not the State has—

(i) achieved compliance under paragraph (3) with the certified State building energy code or with the associated model code or standard; or

(ii) made significant progress under paragraph (4) toward achieving compliance with the certified State building energy code or with the associated model code or standard.

(B) *REPEAT CERTIFICATIONS.*—If the State certifies progress toward achieving compliance, the State shall repeat the certification each year until the State certifies that the State has achieved compliance.

(2) *MEASUREMENT OF COMPLIANCE.*—A certification under paragraph (1) shall include documentation of the rate of compliance based on—

(A) independent inspections of a random sample of the new and renovated buildings covered by the code in the preceding year; or

(B) an alternative method that yields an accurate measure of compliance.

(3) *ACHIEVEMENT OF COMPLIANCE.*—

(A) *IN GENERAL.*—A State shall be considered to achieve compliance under paragraph (1) if—

(i) at least 90 percent of new and renovated building space covered by the code in the preceding year substantially meets all the requirements of the code regarding energy efficiency, or achieves an equivalent energy savings level; or

(ii) the estimated excess energy use of new and renovated buildings that did not meet the code in the preceding year, compared to a baseline of comparable buildings that meet the code, is not more than 5 percent of the estimated energy use of all new and renovated buildings covered by the code during the preceding year.

(B) *RENOVATED BUILDINGS.*—If the Secretary determines that the percentage targets under subparagraph (A) are not reasonably achievable for renovated residential or commercial buildings, the Secretary may reduce the targets for the renovated buildings to the highest achievable level.

(4) *SIGNIFICANT PROGRESS TOWARD ACHIEVEMENT OF COMPLIANCE.*—

(A) *IN GENERAL.*—A State shall be considered to have made significant progress toward achieving compliance for purposes of paragraph (1) if the State—

(i) has developed and is implementing a plan for achieving compliance within 8 years, assuming continued adequate funding, including active training and enforcement programs;

(ii) after 1 or more years of adequate funding, has demonstrated progress, in conformance with the plan described in clause (i), toward compliance;

(iii) after 5 or more years of adequate funding, meets the requirements of paragraph (3) if '80 percent' is substituted for '90 percent' or '10 percent' is substituted for '5 percent'; and

(iv) has not had more than 8 years of adequate funding.

(B) *ADEQUATE FUNDING.*—For purposes of this paragraph, funding shall be considered adequate if the Federal Government provides to the States at least \$50,000,000 for a fiscal year in funding and support for development and implementation of State building energy codes, including for training and enforcement.

(C) *TECHNICAL ASSISTANCE TO STATES.*—The Secretary shall provide technical assistance to States to implement the requirements of this section, including procedures for States—

(i) to demonstrate that the code provisions of the States achieve equivalent or greater energy savings than the national model codes and standards; and

(ii) to improve and implement State residential and commercial building energy efficiency codes or to otherwise promote the design and construction of energy efficient buildings.

(D) *VOLUNTARY ADVANCED CODES.*—

(i) *IN GENERAL.*—The Secretary shall support the development of voluntary advanced model codes and standards for residential and commercial buildings that achieve energy savings of at least 30 percent compared to the national model building codes and standards.

(ii) *UPDATES.*—The voluntary advanced model codes and standards shall be updated at least once every 3 years, for use in—

(I) green building design;

(II) voluntary and market transformation programs;

(III) incentive criteria; and

(IV) voluntary adoption by States.

(iii) *PREFERENCE.*—In carrying out this subparagraph, the Secretary shall give preference to voluntary advanced model codes and standards developed by the International Code Council and by ASHRAE.

(d) *FAILURE TO MEET DEADLINES.*—

(1) *IN GENERAL.*—A State that has not made a certification required under subsection (b) or (c) by the applicable deadline shall submit to the Secretary a report on—

(A) the status of the State with respect to meeting the requirements and submitting the certification; and

(B) a plan for meeting the requirements and submitting the certification.

(2) *NONACCEPTANCE OF CERTIFICATION.*—Any State for which the Secretary has not accepted a certification by a deadline under subsection (b) or (c) shall be considered out of compliance with this section.

(3) *LOCAL GOVERNMENT.*—*In any State that is out of compliance with this section, a local government may be considered in compliance with this section by meeting—the certification requirements under subsections (b) and (c).*

(4) *ANNUAL REPORTS BY SECRETARY.*—

(A) *IN GENERAL.*—*The Secretary shall annually submit to Congress, and publish in the Federal Register, a report on—*

(i) *the status of national model building energy codes and standards;*

(ii) *the status of code adoption and compliance in the States; and*

(iii) *implementation of this section.*

(B) *IMPACTS.*—*The report shall include estimates of impacts of past action under this section, and potential impacts of further action, on lifetime energy use by buildings and resulting energy costs to individuals and businesses.*

(e) *AVAILABILITY OF INCENTIVE FUNDING.*—

(1) *IN GENERAL.*—

(A) *REQUIREMENT.*—*The Secretary shall provide incentive funding to States to implement the requirements of this section, and to improve and implement State residential and commercial building energy efficiency codes, including increasing and verifying compliance with the codes.*

(B) *STATE ACTIONS.*—*In determining whether, and in what amount, to provide incentive funding under this subsection, the Secretary shall consider the actions proposed by the State—*

(i) *to implement the requirements of this section;*

(ii) *to improve and implement residential and commercial building energy efficiency codes; and*

(iii) *to promote building energy efficiency through the use of the codes.*

(2) *ADDITIONAL FUNDING.*—*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 2009 IECC, or any succeeding version of that code that has received an affirmative determination from the Secretary under subsection (a)(2)(A)(i); and*

(ii) *a commercial building energy efficiency code that meets or exceeds the requirements of the ASHRAE Standard 90.1–2007, or any succeeding version of that standard that has received an affirmative determination from the Secretary under subsection (a)(2)(A)(i); or*

(B) *in a State in which there is no Statewide energy code for either residential buildings or commercial buildings, or in which State codes fail to comply with subparagraph (A), to a local government that has adopted and is imple-*

*menting residential and commercial building energy efficiency codes, as described in subparagraph (A).*

*(3) TRAINING.—Of the amounts made available under this subsection, the State may use amounts required, but not to exceed \$500,000 for a State, to train State and local building code officials to implement and enforce codes described in paragraph (2).*

*(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection—*

*(A) \$100,000,000 for each of fiscal years 2009 through 2013; and*

*(B) such sums as are necessary for fiscal year 2014 and each fiscal year thereafter.*

\* \* \* \* \*

**TITLE IV—ENERGY CONSERVATION AND RENEWABLE-RESOURCE ASSISTANCE FOR EXISTING BUILDINGS**

\* \* \* \* \*

**PART A—WEATHERIZATION ASSISTANCE FOR LOW-INCOME PERSONS**

\* \* \* \* \*

**SEC. 422. AUTHORIZATION OF APPROPRIATIONS.**

For the purpose of carrying out the weatherization program under this part, there are authorized to be appropriated—

- (1) \$750,000,000 for fiscal year 2008;
- (2) \$900,000,000 for fiscal year 2009;
- (3) \$1,050,000,000 for fiscal year 2010;
- (4) \$1,200,000,000 for fiscal year 2011; **[and]**
- (5) \$1,400,000,000 for fiscal year 2012; *and*
- (6) \$1,700,000,000 for each of fiscal years 2011 through 2015.

\* \* \* \* \*

**DEPARTMENT OF ENERGY ORGANIZATION ACT**

Public Law 95–91, Approved August 4, 1977, as Amended

AN ACT To establish a Department of Energy in the executive branch by the reorganization of energy functions within the Federal Government in order to secure effective management to assure a coordinated national energy policy, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the “Department of Energy Organization Act”.*

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## TITLE VIII ENERGY PLANNING

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## TITLE II—ESTABLISHMENT OF THE DEPARTMENT

## SEC. 205. ENERGY INFORMATION ADMINISTRATION.

\* \* \* \* \*

## (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 subparagraphs (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).

## (n) WATER-RELATED ENERGY CONSUMPTION.—

(1) *IN GENERAL.*—*Not less than once during each 3-year period, to aid in the understanding and reduction of the quantity of energy used in association with the use of water, the Administrator shall conduct an assessment under which the Administrator shall collect information on energy use in various sectors of the economy that are associated with the procurement, treatment, or delivery of water.*

(2) *REQUIRED SECTORS.*—*An assessment described in paragraph (1) shall contain an analysis of water-related energy use for all relevant sectors of the economy, including water used for—*

- (A) *agricultural purposes;*
- (B) *municipal purposes;*
- (C) *industrial purposes; and*
- (D) *domestic purposes.*

(3) *EFFECT.*—*Nothing in this subsection affects the authority of the Administrator to collect data under section 52 of the Federal Energy Administration Act of 1974 (15 U.S.C. 790a).*

## (o) COLLECTION OF INFORMATION ON CRITICAL ENERGY SUPPLIES.—

(1) *IN GENERAL.*—To ensure transparency of information relating to energy infrastructure and product ownership in the United States and improve the ability to evaluate the energy security of the United States, the Administrator, in consultation with other Federal agencies (as necessary), shall—

(A) not later than 120 days after the date of enactment of this subsection, develop and provide notice of a plan to collect, in cooperation with the Commodity Futures Trade Commission, information identifying all oil inventories, and other physical oil assets (including all petroleum-based products and the storage of such products in off-shore tankers) that are owned by the 50 largest traders of oil contracts (including derivative contracts), as determined by the Commodity Futures Trade Commission; and

(B) not later than 90 days after the date on which notice is provided under subparagraph (A), implement the plan described in that subparagraph.

(2) *INFORMATION.*—The plan required under paragraph (1) shall include a description of the plan of the Administrator for collecting company-specific data, including—

(A) volumes of product under ownership; and

(B) storage and transportation capacity (including owned and leased capacity).

(3) *PROTECTION OF PROPRIETARY INFORMATION.*—Section 12(f) of the Federal Energy Administration Act of 1974 (15 U.S.C. 771(f)) shall apply to information collected under this subsection.

(p) *COLLECTION OF INFORMATION ON STORAGE CAPACITY FOR OIL AND NATURAL GAS.*—

(1) *IN GENERAL.*—Not later than 90 days after the date of enactment of this subsection, the Administrator of the Energy Information Administration shall collect information quantifying the commercial storage capacity for oil and natural gas in the United States.

(2) *UPDATES.*—The Administrator shall update annually the information required under paragraph (1).

(3) *PROTECTION OF PROPRIETARY INFORMATION.* Section 12(f) of the Federal Energy Administration Act of 1974 (15 U.S.C. 771(f)) shall apply to information collected under this subsection.

(q) *FINANCIAL MARKET ANALYSIS OFFICE.*—

(1) *ESTABLISHMENT.*—There shall be within the Energy Information Administration a Financial Market Analysis Office, headed by a director, who shall report directly to the Administrator of the Energy Information Administration.

(2) *DUTIES.*—The Office shall—

(A) be responsible for analysis of the financial aspects of energy markets;

(B) review the reports required by section 503(c) of the American Clean Energy Leadership Act of 2009 in advance of the submission of the reports to Congress; and

(C) not later than 1 year after the date of enactment of this subsection—

(i) make recommendations to the Administrator of the Energy Information Administration that identify

and quantify any additional resources that are required to improve the ability of the Energy Information Administration to more fully integrate financial market information into the analyses and forecasts of the Energy Information Administration, including the role of energy futures contracts, energy commodity swaps, and derivatives in price formation for oil; and

(ii) notify the Committee on Energy and Natural Resources, and the Committee on Appropriations, of the Senate and the Committee on Energy and Commerce, and the Committee on Appropriations, of the House of Representatives of the recommendations described in clause (i).

(3) ANALYSES.—The Administrator of the Energy Information Administration shall take analyses by the Office into account in conducting analyses and forecasting of energy prices.

\* \* \* \* \*

**SEC. 218. OFFICE OF ARCTIC ENERGY.**

(a) ESTABLISHMENT.—The Secretary may establish within the Department an Office of Arctic Energy (referred to in this section as the “Office”).

(b) PURPOSES.—The purposes of the Office shall be—

(1) to promote research, development, and deployment of electric power technology that is cost-effective and especially well suited to meet the needs of rural and remote regions of the United States, especially regions in which permafrost is present or located nearby;

(2) to promote research, development, and deployment in regions described in paragraph (1) of—

(A) enhanced oil recovery technology, including heavy oil recovery, reinjection of carbon, and extended reach drilling technologies;

(B) gas-to-liquids technology and liquefied natural gas (including associated transportation systems);

(C) small hydroelectric facilities, river turbines, and tidal power; and

(D) natural gas hydrates, coal bed methane, and shallow bed natural gas; and

(3) to promote research, development, and deployment in those regions of cold weather of alternative energy research, including wind, geothermal, fuel cells, biomass, ocean hydrokinetic energy, and solar energy.

(c) LOCATION.—The Secretary shall locate the Office at an institution of higher education with expertise and experience in the matters described in subsection (b).

(d) ANNUAL REPORTS.—The Secretary shall submit to Congress an annual report that describes the research program that is proposed to carry out subsection (b)(3).

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

(1) \$15,000,000 for fiscal year 2010;

(2) \$20,000,000 for fiscal year 2011; and



(3) \$22,500,000 for fiscal year 2012 and each fiscal year thereafter.

\* \* \* \* \*

TITLE VI—ADMINISTRATIVE PROVISIONS

\* \* \* \* \*

PART C—GENERAL ADMINISTRATIVE PROVISIONS

\* \* \* \* \*

**SEC. 645. SUBPENA.**

For the purpose of carrying out the provisions of this Act, the Secretary, or his duly authorized agent or agents, shall have the same powers and authorities as the Federal Trade Commission under section 9 of the Federal Trade Commission Act with respect to all functions vested in, or transferred or delegated to, the Secretary or such agents by this Act. For purposes of carrying out its responsibilities under the Natural Gas Policy Act of 1978 (15 U.S.C. 3301 et seq.) and the Natural Gas Act (15 U.S.C. 717 et seq.), the Commission shall have the same powers and authority as the Secretary has under this section.

**SEC. 646. CONTRACTS.**

\* \* \* \* \*

[(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 informa-

tion 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.]

(g) *AUTHORITY TO ENTER INTO OTHER TRANSACTIONS.—*

(1) *IN GENERAL.—In addition to any other authority granted to the Secretary to enter into procurement contracts, leases, cooperative agreements, grants, and certain arrangements, the Secretary may enter into other transactions with public agencies, private organizations, or other persons on such terms as the Secretary considers appropriate to further functions vested in the Secretary, including research, development, or demonstration projects.*

(2) *ADVANCE PROJECTS.—Notwithstanding any other provision of law, the Secretary may exercise authority provided under paragraph (1) without regard to section 3324 of title 31, United States Code.*

(3) *RELATIONSHIP TO OTHER LAW.—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) *PROTECTION OF CERTAIN INFORMATION FROM DISCLOSURE.*—

(A) *IN GENERAL.*—Notwithstanding any other provision of law, disclosure of information described in subparagraph (B) is not required, and may not be compelled, under section 552 of title 5, United States Code, during the 5-year period beginning on the date on which the information is received by the Department.

(B) *AWARD INFORMATION.*—The information described in this subparagraph is information in the records of the Department that—

(i) was submitted—

(I) to the Department as part of a competitive or noncompetitive process with the potential to result in an award to the person submitting the information; and

(II) in conjunction with a transaction entered into by the Secretary pursuant to paragraph (1); and

(ii) is—

(I) a proposal, proposal abstract, and supporting documents;

(II) a business plan submitted on a confidential basis; or

(III) technical information submitted on a confidential basis.

(5) *REQUIREMENTS.*—

(A) *SELECTION PROCEDURES.*—In entering into transactions under paragraph (1), the Secretary shall use such competitive, merit-based selection procedures as the Secretary determines in writing to be practicable.

(B) *DETERMINATION.*—Before entering into a transaction under paragraph (1), the Secretary shall determine in writing that the use of a standard contract, grant, or cooperative agreement for the project is not feasible or appropriate.

(C) *COST SHARING.*—A transaction under paragraph (1) shall be subject to cost sharing in accordance with section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352).

(D) *LIMITATION ON DELEGATION.*—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 and may not be redelegated to any other person.

(6) *ANNUAL REPORTS.*—The Secretary shall submit to Congress an annual report on the use by the Department of authorities under this section.

(7) *REPORT.*—

(A) *DEFINITION OF NONTRADITIONAL GOVERNMENT CONTRACTOR.*—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) *REPORT.*—Not later than 2 years after the date of enactment of this subparagraph, and 2 years thereafter, 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.”*

\* \* \* \* \*

## TITLE VIII—ENERGY PLANNING

### SEC. 801. NATIONAL ENERGY POLICY PLAN.

(a) The President shall—

(1) prepare and submit to the Congress a proposed National Energy Policy Plan (hereinafter in this title referred to as a “proposed Plan”) as provided in subsection (b);

(2) seek the active participation by regional, State, and local agencies and instrumentalities and the private sector through public hearings in cities and rural communities and other appropriate means to insure that the views and proposals of all segments of the economy are taken into account in the formulation and review of such proposed Plan; *and*

[(3) include within the proposed Plan a comprehensive summary of data pertaining to all fuel and energy needs of persons residing in—

[(A) areas outside standard metropolitan statistical areas; and

[(B) areas within standard metropolitan statistical areas which are unincorporated or are specified by the Bureau of the Census, Department of Commerce, as rural areas.]]

(3) *ensure the participation and cooperation of all relevant Federal agencies in the preparation of the proposed Plan.*

(b) Not later than [April 1, 1979, and biennially thereafter,] *February 1, 2010, and quadrennially thereafter*, the President shall transmit to the Congress the proposed Plan. Such proposed Plan shall—

(1) consider and establish energy production, utilization, and [conservation] *energy efficiency* objectives, for periods of five and ten years, necessary to satisfy projected energy needs of the United States to meet the requirements of the general welfare of the people of the United States and the commercial and industrial life of the Nation, paying particular attention to the needs for full employment, price stability, energy security, economic growth, environmental protection, *reduction or sequestration of greenhouse gas emissions* nuclear non-proliferation, special regional needs, and the efficient utilization of public and private resources;

(2) *analyze the policies of the Federal Government (including mandates, subsidies, tariffs, and tax policies) that encourage, or have the potential to encourage—*

*(A) energy production in the United States;*

*(B) energy efficiency in the United States;*

*(C) the reduction, avoidance, or sequestration of greenhouse gases in the United States; or*

*(D) the reduction of air pollutants in the environment;*

[(2)] (3) identify the strategies that should be followed and the resources that should be committed to achieve such objectives, forecasting the level of production and investment necessary in each of the significant energy supply sectors and the level of [conservation] *efficiency* and investment necessary in each consuming sector, and outlining the appropriate policies and actions of the Federal Government that will maximize the private production and investment necessary in each of the significant energy supply sectors consistent with applicable Federal, State, and local environmental laws, standards, and requirements; and

[(3)] (4) recommend legislative and administrative actions necessary and desirable to achieve the objectives of such proposed Plan, including legislative recommendations with respect to taxes or tax incentives, Federal funding, regulatory actions, antitrust policy, foreign policy, and international trade.

\* \* \* \* \*

(c) The President shall submit to the Congress with the proposed Plan a report which shall include—

\* \* \* \* \*

(4) a summary of research and development efforts funded by the Federal Government to forestall energy shortages, to reduce waste, to foster recycling, to encourage [conservation practices,] *energy efficiency practices, to reduce or sequester greenhouse gas emissions, to reduce the quantity of air pollutants in the environment, to promote domestic energy production,* and to otherwise protect environmental quality, including recommendations for developing technologies to accomplish such purposes; and

(5) a review and appraisal of the adequacy and appropriateness of technologies, procedures, and practices (including competitive and regulatory practices) employed by Federal, State, and local governments and nongovernmental entities to achieve the purposes of the Plan.

(d) The President shall [insure] *ensure* that consumers, small businesses, and a wide range of other interests, including those of individual citizens who have no financial interest in the energy industry, are consulted in the development of the Plan.

(e) NATIONAL ACADEMY OF SCIENCES.—*The President, acting through the Secretary, shall enter into appropriate arrangements with the National Academy of Sciences under which the Academy shall—*

(1) *prepare reports and analyses that may contribute to the development of the proposed Plan;*

(2) *review the proposed Plan; and*

(3) *submit to the President and to Congress a report that describes the results of the review of the proposed plan by the Academy.*

\* \* \* \* \*

**SEC. 802. CONGRESSIONAL REVIEW.**

(a) Each proposed Plan shall be referred to the appropriate committees in the Senate and the House of Representatives.

(b) Each such committee shall review the proposed Plan and, if it deems appropriate and necessary, report to the Senate or the House of Representatives legislation regarding such Plan which may contain such alternatives to, modifications of, or additions to the proposed Plan submitted by the President as the committee deems appropriate.

**SEC. 803. AUTHORIZATION OF APPROPRIATIONS.**

*There are authorized to be appropriated—*

*(1) to the Executive Office of the President, such sums as may be necessary to carry out—*

*(A) this title; and*

*(B) other activities to provide coordination and integration of national energy and climate policy; and*

*(2) to the Secretary, such sums as are necessary to carry out section 801(e).*

\* \* \* \* \*

**INSPECTOR GENERAL ACT OF 1978**

Public Law 95-452, Approved October 12, 1978, as Amended

AN ACT To reorganize the executive branch of the Government and increase its economy and efficiency by establishing Offices of Inspector General within the Departments of Agriculture, Commerce, Housing and Urban Development, the Interior, Labor, and Transportation, and within the Community Services Administration, the Environmental Protection Agency, the General Services Administration, the National Aeronautics and Space Administration, the Small Business Administration, and the Veterans' Administration, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act be cited as the "Inspector General Act of 1978".*

\* \* \* \* \*

**SEC. 12. DEFINITIONS.**

As used in this Act—

(1) the term "head of the establishment" means the Secretary of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, the Interior, Labor, State, Transportation, Homeland Security, or the Treasury; the Attorney General; the Administrator of the Agency for International Development, Environmental Protection, General Services, National Aeronautics and Space, or Small Business, or Veterans' Affairs; the Director of the Federal Emergency Management Agency, or the Office of Personnel Management; the Chairman of the Nuclear Regulatory Commission or the Railroad Retirement Board; the Chairperson of the Thrift Depositor Protection Oversight Board; the Chief Executive Officer of the Corporation for National and Community Service; the Administrator of the Community Development Financial Institutions Fund; the chief executive officer of the Resolution Trust Corporation; the Chairperson of the Federal Deposit Insurance Corporation; the Commissioner of Social Security, Social Security Administration; the Director of the Federal Housing Finance Agency; the Board of Directors of the Tennessee Valley Authority; the President of the Export-Import Bank; *the Administrator of the Clean En-*

*ergy Deployment Administration*; or the Federal Cochairpersons of the Commissions established under section 15301 of title 40, United States Code; as the case may be;

(2) the term “establishment” means the Department of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, the Interior, Justice, Labor, State, Transportation, Homeland Security, or the Treasury; the Agency for International Development, the Community Development Financial Institutions Fund, the Environmental Protection Agency, the Federal Emergency Management Agency, the General Services Administration, the National Aeronautics and Space Administration, the Nuclear Regulatory Commission, the Office of Personnel Management, the Railroad Retirement Board, the Resolution Trust Corporation, the Federal Deposit Insurance Corporation, the Small Business Administration, the Corporation for National and Community Service, or the Veterans’ Administration, the Social Security Administration, the Federal Housing Finance Agency, the Tennessee Valley Authority, the Export-Import Bank, *the Clean Energy Deployment Administration*, or the Commissions established under section 15301 of title 40, United States Code, as the case may be;

(3) the term “Inspector General” means the Inspector General of an establishment;

(4) the term “Office” means the Office of Inspector General of an establishment; and

(5) the term “Federal agency” means an agency as defined in section 552(f) of title 5 (including an establishment as defined in paragraph (2)), United States Code, but shall not be construed to include the General Accounting Office.

\* \* \* \* \*

**PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978**

Public Law 95–617, Approved November 9, 1978, as Amended

AN ACT To suspend until the close of June 30, 1980, the duty on certain doxorubicin hydrochloride antibiotics

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

**SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.**

(a) **SHORT TITLE.**—This Act may be cited as the “Public Utility Regulatory Policies Act of 1978”.

(b) **TABLE OF CONTENTS.**—

- Sec. 1. Short title and table of contents.
- Sec. 2. Findings.
- Sec. 3. Definitions.
- Sec. 4. Relationship to antitrust laws.

**TITLE I—RETAIL REGULATORY POLICIES FOR ELECTRIC UTILITIES**

\* \* \* \* \*

Subtitle B—Standards for Electric Utilities

\* \* \* \* \*

Sec. 117. Relationship to State law.

Sec. 118. Interconnection of certain small power production facilities.

\* \* \* \* \*

TITLE VI—MISCELLANEOUS PROVISIONS

\* \* \* \* \*

Sec. 608. Natural gas transportation policies.  
 Sec. 609. Rural and Remote Communities Electrification Grants.  
 Sec. 610. Federal Renewable Electricity Standard.

\* \* \* \* \*

**SEC. 2. FINDINGS.**

\* \* \* \* \*

(1) a program providing for increased conservation of electric energy, increased efficiency in the use of facilities and resources by electric utilities, and equitable retail rates for electric consumers,

(2) a program to improve the wholesale distribution of electric energy, the reliability of electric service, the procedures concerning consideration of wholesale rate applications before the Federal Energy Regulatory Commission, the participation of the public in matters before the Commission, and to provide other measures with respect to the regulation of the wholesale sale of electric energy,

(3) a program to provide for the expeditious development of hydroelectric potential at existing small dams to provide needed hydroelectric power,

(4) a program for the conservation of natural gas while insuring that rates to natural gas consumers are equitable,

(5) a program to encourage the development of crude oil transportation systems, **[and]**

(6) the establishment of certain other authorities as provided in title VI of this Act~~], and~~

(7) *uniform national standards for the interconnection of certain small power production facilities.*

\* \* \* \* \*

TITLE I—RETAIL REGULATORY POLICIES FOR ELECTRIC UTILITIES

\* \* \* \* \*

Subtitle B—Standards for Electric Utilities

\* \* \* \* \*

**SEC. 118. INTERCONNECTION OF CERTAIN SMALL POWER PRODUCTION FACILITIES.**

(a) *STANDARD FOR FACILITIES OF 15 KILOWATTS OR LESS.—The Commission shall establish a standard by which each electric utility shall make available, on request, interconnection service to any electric consumer that the electric utility serves with respect to any facility that generates up to 15 kilowatts of electric energy on the premises of the electric consumer.*

(b) *ENFORCEMENT.—*

(1) *BY THE COMMISSION.—*



(A) *IN GENERAL.*—Except as provided in paragraph (2), the Commission may enforce the standard established under subsection (a) against any electric utility.

(B) *ADMINISTRATION.*—The requirements of the standard shall be treated as a rule enforceable under the Federal Power Act (16 U.S.C. 791a et seq.).

(2) *BY A STATE REGULATORY AUTHORITY.*—The Commission may enter into an agreement with a State regulatory authority to discontinue the enforcement of this section in the State by the Commission if the Commission finds that the State or the State regulatory authority has adopted and is enforcing a standard for interconnection services that is consistent with the standard established under subsection (a).

(3) *RESUMPTION OF COMMISSION ENFORCEMENT.*—The Commission may rescind an agreement under paragraph (2) and resume enforcement of the standard established under subsection (a) if, as determined by the Commission, the State has failed to enforce a consistent State standard.

(c) *EXPANDED STANDARD.*—

(1) *REPORT.*—Not later than 3 years after the date of enactment of this section, the Commission shall submit to Congress a report on whether the standard established under subsection (a) should be amended to apply to facilities that generate up to 50 kilowatts of electric energy on the premises of an electric consumer.

(2) *AUTHORITY TO AMEND STANDARD.*—

(A) *IN GENERAL.*—Except as provided in subparagraph (B), if the Commission makes an affirmative determination under paragraph (1), the Commission may, after public notice and comment, amend the standard established under subsection (a) to apply to facilities that generate up to 50 kilowatts of electric energy on the premises of an electric consumer.

(B) *DISAPPROVAL.*—Subparagraph (A) shall not apply if, during the first period of 90 calendar days (not counting days on which either House is not in session because of an adjournment of more than 3 days) of continuous session of Congress (broken only by an adjournment sine die) after the date of the receipt of the report under paragraph (1), a joint resolution is enacted disapproving the amendment of the standard

(d) *MODEL STANDARD FOR FACILITIES OF UP TO 20 MEGAWATTS.*—The Commission shall establish a model standard for the interconnection of small power production facilities with a capacity greater than 15 kilowatts, but not greater than 20 megawatts, for the consideration of State regulatory authorities under section 111(d)(15).

\* \* \* \* \*

**TITLE VI—MISCELLANEOUS PROVISIONS**

\* \* \* \* \*

**SEC. 610. FEDERAL RENEWABLE ELECTRICITY STANDARD.**

(a) *DEFINITIONS.*—In this section:

(1) *AFFILIATE.*—The term “affiliate” when used with respect to a person, means another person that directly or indirectly owns or controls, is owned or controlled by, or is under common ownership or control with, such person, as determined under regulations issued by the Secretary.

(2) *BASE QUANTITY OF ELECTRICITY.*—

(A) *IN GENERAL.*—The term “base quantity of electricity” means the total quantity of electricity sold by an electric utility to electric consumers in a calendar year.

(B) *EXCLUSIONS.*—The term “base quantity of electricity” does not include—

(i) electricity generated by a hydroelectric facility (including a pumped storage facility but excluding qualified hydropower) owned by an electric utility or sold under contract or rate order to an electric utility to meet the needs of the retail customers of the utility;

(ii) electricity generated through the incineration of municipal solid waste owned by an electric utility or sold under contract or rate order to an electric utility to meet the needs of the retail customers of the utility;

(iii) the quantity of electricity generated by a fossil-fuel facility that is equal to the proportion of greenhouse gases produced by such a unit that are captured and geologically sequestered; or

(iv)(I) electricity generated by a nuclear generating unit placed in service after the date of enactment of this section; or

(II) additional energy generated by an existing nuclear facility as a result of efficiency improvements or capacity additions made on or after the date of enactment of this section.

(3) *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)).

(4) *DISTRIBUTED GENERATION FACILITY.*—The term “distributed generation facility” means a facility at or near a customer site that provides electric energy to 1 or more customers for purposes other than resale other than to a utility through a net metering arrangement.

(5) *GEOTHERMAL ENERGY.*—The term “geothermal energy” means energy derived from a geothermal deposit (within the meaning of section 613(e)(2) of the Internal Revenue Code of 1986).

(6) *INCREMENTAL COST OF COMPLIANCE.*—

(A) *IN GENERAL.*—The term “incremental cost of compliance” means—

(i) the costs attributable to all retail sales of electricity incurred in a year by an electric utility to—

(I) generate renewable energy eligible for Federal renewable energy credits;

(II) acquire Federal renewable energy credits; or

(III) make alternative compliance payments in order to comply with the requirements of subsection (b); less

(ii)(I) the costs the electric utility would have incurred to serve all of the retail customers of that electric utility in that year to generate or acquire additional electricity not eligible for renewable energy credits if the requirements of subsection (b) did not apply to the electric utility; and

(II) the costs of compliance with any comparable State renewable requirement.

(B) *COST OF ELECTRICITY.*—In calculating the incremental cost of compliance of an electric utility under this section, the Secretary shall take into account the reduction, if any, on the cost of electricity generated with fossil fuels associated with increased reliance on renewable electric energy generation.

(7) *INCREMENTAL GEOTHERMAL PRODUCTION.*—

(A) *IN GENERAL.*—The term “incremental geothermal production” means, for any year, the excess of—

(i) the total kilowatt hours of electricity produced from a facility (including a distributed generation facility) using geothermal energy; over

(ii) the average number of kilowatt hours produced annually at the facility for 5 of the previous 7 calendar years before the date of enactment of this section after eliminating the highest and the lowest kilowatt hour production years in that 7-year period.

(B) *SPECIAL RULE.*—A facility described in subparagraph

(A) that was placed in service at least 7 years before the date of enactment of this section shall, commencing with the year in which that date of enactment occurs, reduce the amount calculated under subparagraph (A)(ii) each year, on a cumulative basis, by the average percentage decrease in the annual kilowatt hour production for the 7-year period described in subparagraph (A)(ii) with such cumulative sum, but not to exceed 30 percent.

(8) *INCREMENTAL HYDROPOWER.*—

(A) *IN GENERAL.*—The term “incremental hydropower” means additional energy generated as a result of efficiency improvements or capacity additions made on or after January 1, 1992.

(B) *EXCLUSION.*—The term “incremental hydropower” does not include additional energy generated as a result of operational changes not directly associated with efficiency improvements or capacity additions.

(C) *MEASUREMENT AND CERTIFICATION.*—Efficiency improvements and capacity additions referred to in subparagraph (A) shall be—

(i) measured on the basis of the same water flow information used to determine a historic average annual generation baseline for the hydroelectric facility; and

(ii) certified by the Secretary or the Federal Energy Regulatory Commission.

(9) *INDIAN LAND.*—The term “Indian land” has the meaning given the term in section 2601 of the Energy Policy Act of 1992 (25 U.S.C. 3501).

(10) *QUALIFIED HYDROPOWER.*—

(A) *IN GENERAL.*—The term “qualified hydropower” means—

(i) incremental hydropower;

(ii) additions of capacity made on or after January 1, 2001, or the effective commencement date of an existing applicable State renewable electricity standard program at an existing nonhydroelectric dam, if—

(I) the hydroelectric project installed on the nonhydroelectric dam—

(aa) is licensed by the Federal Energy Regulatory Commission, or is exempt from licensing, and is in compliance with the terms and conditions of the license or exemption; and

(bb) meets all other applicable environmental, licensing, and regulatory requirements, including applicable fish passage requirements;

(II) the nonhydroelectric dam—

(aa) was placed in service before the date of enactment of this section;

(bb) was operated for flood control, navigation, or water supply purposes; and

(cc) did not produce hydroelectric power as of the date of enactment of this section; and

(III) the hydroelectric project is operated so that the water surface elevation at any given location and time that would have occurred in the absence of the hydroelectric project is maintained, subject to any license requirements imposed under applicable law that change the water surface elevation for the purpose of improving the environmental quality of the affected waterway, as certified by the Federal Energy Regulatory Commission; and

(iii) in the case of the State of Alaska—

(I) energy generated by a small hydroelectric facility that produces less than 50 megawatts;

(II) energy from pumped storage; and

(III) energy from a lake tap.

(B) *STANDARDS.*—Nothing in this paragraph or the application of this paragraph shall affect the standards under which the Federal Energy Regulatory Commission issues licenses for and regulates hydropower projects under part I of the Federal Power Act (16 U.S.C. 791a et seq.).

(11) *QUALIFIED WASTE-TO-ENERGY.*—The term “qualified waste-to-energy” means energy from the combustion of post-recycled municipal solid waste, or from the gasification or pyrolyzation of such waste and the combustion of the resulting gas at the same facility, if the owner or operator of the facility generating electricity from the energy provides to the Commission, on an annual basis—

(A) a certification that the facility is in compliance with all applicable Federal and State environmental permits;

(B) in the case of a facility that commences operation before the date of enactment of this section, a certification that the facility meets emissions standards promulgated

under section 112 or 129 of the Clean Air Act (42 U.S.C. 7412, 7429) that apply as of the date of enactment of this section to new facilities within the relevant source category; and

(C) in the case of the combustion, pyrolyzation, or gasification of municipal solid waste, a certification that each local government unit from which such waste originates operates, participates in the operation of, contracts for, or otherwise provides for, recycling services for residents of the local government unit.

(12) **RENEWABLE ENERGY.**—The term “renewable energy” means electric energy generated at a facility (including a distributed generation facility) from—

- (A) solar, wind, or geothermal energy or ocean energy;
- (B) biomass;
- (C) landfill gas;
- (D) qualified hydropower;
- (E) marine and hydrokinetic renewable energy (as defined in section 632 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17211));
- (F) incremental geothermal production;
- (G) coal-mined methane;
- (H) qualified waste-to-energy; or
- (I) another renewable energy source based on innovative technology, as determined by the Secretary through rule-making.

(b) **RENEWABLE ENERGY AND ENERGY EFFICIENCY REQUIREMENT.**—

(1) **REQUIREMENT.**—

(A) **IN GENERAL.**—Subject to subparagraph (B), each electric utility that sells electricity to electric consumers for a purpose other than resale shall obtain a percentage of the base quantity of electricity the electric utility sells to electric consumers in any calendar year from renewable energy or energy efficiency.

(B) **PERCENTAGE.**—Except as provided in section 611, the percentage obtained in a calendar year under subparagraph (A) shall not be less than the amount specified in the following table:

Calendar year:	Minimum annual percentage
2011 through 2013 .....	3.0
2014 through 2016 .....	6.0
2017 through 2018 .....	9.0
2019 through 2020 .....	12.0
2021 through 2039 .....	15.0

(2) **MEANS OF COMPLIANCE.**—An electric utility shall meet the requirements of paragraph (1) by—

- (A) submitting to the Secretary renewable energy credits issued under subsection (c);
- (B) submitting Federal energy efficiency credits issued under subsection (i), except that those credits may not be used to meet more than 26.67 percent of the requirements under paragraph (1) in any calendar year;
- (C) making alternative compliance payments to the Secretary at the rate of 2.1 cents per kilowatt hour (as adjusted

for inflation under subsection (g) if the electric utility does not elect to petition the Secretary to waive the requirements under subsection (d)(3)(C); or

(D) a combination of activities described in subparagraphs (A), (B), and (C).

(3) *PHASE-IN.*—The Secretary shall prescribe, by regulation, a reasonable phase-in of the requirements of paragraph (1) as the requirements apply to an electric utility that becomes subject to this section on or after January 1, 2013.

(c) *FEDERAL RENEWABLE ENERGY AND ENERGY EFFICIENCY CREDIT TRADING PROGRAMS.*—

(1) *IN GENERAL.*—Not later than January 1, 2011, the Secretary shall establish a Federal renewable energy credit trading program, and a Federal energy efficiency credit trading program, under which electric utilities shall submit to the Secretary Federal renewable energy credits and Federal energy efficiency credits to certify the compliance of the electric utilities with subsection (b)(1).

(2) *ADMINISTRATION.*—As part of the program, the Secretary shall—

(A) issue renewable energy credits to generators of electric energy from renewable energy, regardless of whether the energy is transmitted over the national interstate transmission system;

(B) to the extent that renewable sources of electricity are used in combination with other sources of energy, issue credits only to the extent that the electricity generated is from renewable resources;

(C) issue renewable energy credits to electric utilities associated with State renewable electricity standard compliance mechanisms pursuant to subsection (h);

(D) issue energy efficiency credits pursuant to subsection (i);

(E) subject to subparagraph (F), ensure that a kilowatt hour, including the associated renewable energy credit or energy efficiency credit, shall be used only once for purposes of compliance with this Act;

(F) allow double credits for generation from facilities on Indian land, and triple credits for generation from small renewable distributed generators (meaning those no larger than 1 megawatt), except that no distributed renewable generation facilities on Indian land shall receive a greater number of credits than triple credits;

(G) allow triple credits for generation of energy from algae;

(H) ensure that, with respect to a purchaser that, as of the date of enactment of this section, has a purchase agreement from a renewable energy facility placed in service before that date, the credit associated with the generation of renewable energy under the contract is issued to the purchaser of the electric energy to the extent that the contract does not already provide for the allocation of the Federal credit; and

(I) issue tradeable renewable energy credits for the useful electric and thermal output from a facility that produces the output from biomass, using a system under which—

(i) in the case of efficiency that is less than 50 percent, 1 renewable energy credit is awarded;

(ii) in the case of efficiency that is 50 percent or more but less than 70 percent, 1.1 renewable energy credits are awarded for the same unit output;

(iii) in the case of efficiency that is 70 percent or more but less than 90 percent, 1.25 renewable energy credits are awarded for the same unit output; and

(iv) in the case of efficiency that is 90 percent or more, 1.5 renewable energy credits are awarded for the same unit output.

(3) DURATION.—A credit described in subparagraph (A), (B), (C), or (D) of paragraph (2) may only be used for compliance with this section during the 3-year period beginning on the date of issuance of the credit.

(4) TRANSFERS.—An electric utility that holds credits in excess of the quantity of credits needed to comply with subsection (b) may transfer the credits to another electric utility in the same utility holding company system.

(5) DELEGATION OF MARKET FUNCTION.—

(A) IN GENERAL.—The Secretary may delegate to—

(i) an appropriate market-making entity the administration of a national renewable energy credit market and a national energy efficiency credit market for purposes of creating a transparent national market for the sale or trade of renewable energy credits and energy efficiency credits; and

(ii) regional entities the tracking of dispatch of renewable generation.

(B) ADMINISTRATION.—Any delegation under subparagraph (A) shall ensure that the tracking and reporting of information concerning the dispatch of renewable generation is transparent, verifiable, and independent of any generation or load interests with obligations under this section.

(d) ENFORCEMENT.—

(1) CIVIL PENALTIES.—Any electric utility that fails to meet the requirements of subsection (b) shall be subject to a civil penalty.

(2) AMOUNT OF PENALTY.—The amount of the civil penalty shall be equal to the product obtained by multiplying—

(A) the number of kilowatt-hours of electric energy sold to electric consumers in violation of subsection (b); by

(B) 200 percent of the value of the alternative compliance payment, as adjusted for inflation under subsection (g).

(3) MITIGATION OR WAIVER.—

(A) PENALTY.—

(i) IN GENERAL.—The Secretary may mitigate or waive a civil penalty under this subsection if the electric utility is unable to comply with subsection (b) due to a reason outside of the reasonable control of the electric utility.

(ii) *AMOUNT.*—The Secretary shall reduce the amount of any penalty determined under paragraph (2) by the amount paid by the electric utility to a State for failure to comply with the requirement of a State renewable energy program if the State requirement is greater than the applicable requirement of subsection (b).

(B) *REQUIREMENT.*—The Secretary may waive the requirements of subsection (b) for a period of up to 5 years with respect to an electric utility if the Secretary determines that the electric utility cannot meet the requirements due to a hurricane, tornado, fire, flood, earthquake, ice storm, or other natural disaster or act of God beyond the reasonable control of the utility.

(C) *RATEPAYER PROTECTION.*—Effective beginning June 1, 2010, and not later than June 1 of each year thereafter, an electric utility may petition the Secretary to waive, for the following compliance year, all or part of the requirements of subsection (b) in order to limit the rate impact of the incremental cost of compliance of the electric utility to not more than 4 percent per retail customer in any year.

(D) *VARIANCE.*—A State public utility commission or electric utility may submit an application to the Secretary that requests a variance from the requirements of subsection (b) for 1 or more calendar years (including suspension or reduction of the requirements) on the basis of transmission constraints preventing delivery of service.

(4) *PROCEDURE FOR ASSESSING PENALTY.*—The Secretary shall assess a civil penalty under this subsection in accordance with the procedures prescribed by section 333(d) of the Energy Policy and Conservation Act (42 U.S.C. 6303(d)).

(e) *ALTERNATIVE COMPLIANCE PAYMENTS.*—

(1) *IN GENERAL.*—An electric utility may satisfy the requirements of subsection (b), in whole or in part, by submitting in accordance with this subsection, in lieu of each Federal renewable electricity credit or megawatt hour of demonstrated total annual electricity savings that would otherwise be due, a payment equal to the amount required under subsection (b) in accordance with such regulations as the Secretary may promulgate.

(2) *PAYMENT TO STATE FUNDS.*—Payments made under this subsection shall be made directly to the State in which the electric utility is located, if the payments are deposited directly into a fund within the treasury of the State for use in accordance with paragraph (3).

(3) *USE OF GRANTS.*—The Governor of any State may expend amounts in a State renewable energy escrow account solely for purposes of—

(A) increasing the quantity of electric energy produced from a renewable energy source in the State, including nuclear and advanced coal technologies for carbon capture and sequestration;

(B) promoting the deployment and use of electric drive vehicles in the State, including the development of electric drive vehicles and batteries; and



(C) offsetting the costs of carrying out this section paid by electric consumers in the State through—

- (i) direct grants to electric consumers; or
- (ii) energy efficiency investments.

(4) **INFORMATION AND REPORTS.**—As a condition of providing payments to a State under this subsection, the Secretary may require the Governor to keep such accounts or records, and furnish such information and reports, as the Secretary determines are necessary and appropriate for determining compliance with this subsection.

(f) **EXEMPTIONS.**—During any calendar year, this section shall not apply to an electric utility—

- (1) that sold less than 4,000,000 megawatt-hours of electric energy to electric consumers during the preceding calendar year, except that sales to an affiliate, lessee, or tenant of the electric utility shall not be treated as sales to electric consumers under this paragraph; or
- (2) in Hawaii.

(g) **INFLATION ADJUSTMENT.**—Not later than December 31 of each year beginning in 2008, the Secretary shall adjust for inflation the rate of the alternative compliance payment under subsection (b)(2)(C).

(h) **STATE PROGRAMS.**—

(1) **IN GENERAL.**—Subject to paragraph (2), nothing in this section diminishes any authority of a State or political subdivision of a State to adopt or enforce any law or regulation respecting renewable energy or energy efficiency, or the regulation of electric utilities.

(2) **COMPLIANCE.**—Except as provided in subsection (d)(3), no such law or regulation shall relieve any person of any requirement otherwise applicable under this section.

(3) **COORDINATION.**—The Secretary, in consultation with States having such renewable energy and energy efficiency programs, shall, to the maximum extent practicable, facilitate coordination between the Federal program and State programs.

(4) **REGULATIONS.**—

(A) **IN GENERAL.**—The Secretary, in consultation with States, shall promulgate regulations to ensure that an electric utility that is subject to the requirements of this section and is subject to a State renewable energy standard receives renewable energy credits if—

- (i) the electric utility complies with the State standard by generating or purchasing renewable electric energy or renewable energy certificates or credits representing renewable electric energy; or
- (ii) the State imposes or allows other mechanisms for achieving the State standard, including the payment of taxes, fees, surcharges, or other financial obligations.

(B) **AMOUNT OF CREDITS.**—The amount of credits received by an electric utility under this subsection shall equal—

- (i) in the case of subparagraph (A)(i), the quantity of renewable energy resulting from the generation or purchase by the electric utility of renewable energy; and
- (ii) in the case of subparagraph (A)(ii), the pro rata share of the electric utility, based on the contributions

to the mechanism made by the electric utility or customers of the electric utility, in the State, of the quantity of renewable energy resulting from those mechanisms.

(C) **PROHIBITION ON DOUBLE COUNTING.**—The regulations promulgated under this paragraph shall ensure that a kilowatt-hour associated with a renewable energy credit issued pursuant to this subsection shall not be used for compliance with this section more than once.

(i) **ENERGY EFFICIENCY CREDITS.**—

(1) **DEFINITIONS.**—In this subsection:

(A) **CUSTOMER FACILITY SAVINGS.**—The term “customer facility savings” means a reduction in the consumption of end-use electricity at a facility of an end-use consumer of electricity served by an electric utility, as compared to—

(i) consumption at the facility during a base year, taking into account reductions attributable to causes other than energy efficiency investments (such as economic downturns, reductions in customer base, favorable weather conditions, or other such causes); or

(ii) in the case of new equipment (regardless of whether the new equipment replaces existing equipment at the end of the useful life of the existing equipment), consumption by similar equipment of average efficiency available for purchase at the time that new equipment is acquired.

(B) **ELECTRICITY SAVINGS.**—The term “electricity savings” means—

(i) customer facility savings of electricity consumption adjusted to reflect any associated increase in fuel consumption at the facility;

(ii) reductions in distribution system losses of electricity achieved by a retail electricity distributor, as compared to losses attributable to new or replacement distribution system equipment of average efficiency (as defined by the Secretary by regulation); and

(iii) the output of new combined heat and power systems, to the extent provided under paragraph (5).

(C) **QUALIFIED ELECTRICITY SAVINGS.**—The term “qualified electricity savings” means electricity saving that meet the measurement and verification requirements of paragraph (4).

(2) **PETITION.**—On petition by the Governor of a State or, in the case of the power service area of the Tennessee Valley Authority, the Board of Directors of the Tennessee Valley Authority, the Secretary shall allow up to 26.67 percent of the requirements of an electric utility under subsection (b)(1) associated with the sales of electricity of the utility in the State to be met by submitting Federal energy efficiency credits issued pursuant to this subsection.

(3) **ISSUANCE OF ENERGY EFFICIENCY CREDITS.**—

(A) **IN GENERAL.**—The Secretary shall issue energy efficiency credits for qualified electricity savings achieved in States described in paragraph (2) in accordance with this subsection.

(B) *QUALIFIED ELECTRICITY SAVINGS.*—Subject to subparagraph (C), in accordance with regulations promulgated by the Secretary, the Secretary shall issue credits for

(i) qualified electricity savings achieved by an electric utility on or after the date of enactment of this section; and

(ii) qualified electricity savings achieved by other entities (including State agencies) on or after the date of enactment of this section if—

(I) the measures used to achieve the qualified electricity savings were installed or placed in operation by the entity seeking the credit; and

(II) an electric utility eligible to receive efficiency did not pay a substantial portion of the cost of achieving the qualified electricity savings (unless the utility has waived any entitlement to the credit).

(C) *STANDARDS.*—No credits shall be issued for electricity savings achieved as a result of compliance with a national, State, or local building, equipment, or appliance efficiency standard.

(4) *MEASUREMENT AND VERIFICATION OF ELECTRICITY SAVINGS.*—Not later than January 2010, the Secretary shall promulgate regulations regarding the measurement and verification of electricity savings under this subsection, including regulations covering—

(A) procedures and standards for defining and measuring electricity savings that will be eligible to receive credits under paragraph (3), which shall—

(i) specify the types of energy efficiency and energy conservation that will be eligible for the credits;

(ii) require that energy consumption for customer facilities or portions of facilities in the applicable base and current years be adjusted, as appropriate, to account for changes in weather, level of production, and building area;

(iii) account for the useful life of electricity savings measures;

(iv) include specified electricity savings values for specific, commonly-used efficiency measures; and

(v) exclude electricity savings that—

(I) are not properly attributable to measures carried out by the entity seeking the credit;

(II) have already been credited under this section to another entity; or

(III) do not result from actions not intended to achieve electricity savings;

(B) procedures and standards for third-party verification of reported electricity savings; and

(C) such requirements for information, reports, and access to facilities as may be necessary to carry out this subsection.

(5) *COMBINED HEAT AND POWER.*—Under regulations promulgated by the Secretary, the increment of electricity output of a new combined heat and power system that is attributable to the

*higher efficiency of the combined system (as compared to the efficiency of separate production of the electric and thermal outputs), shall be considered electricity savings under this subsection.*

*(j) BIOMASS HARVESTING AND SUSTAINABILITY.—The provisions of this section relating to biomass shall be administered in accordance with section 203(e) of the Energy Policy Act of 2005 (42 U.S.C. 15852(e)).*

*(k) LOANS FOR PROJECTS TO COMPLY WITH FEDERAL RENEWABLE ELECTRICITY STANDARD.—*

*(1) PURPOSES.—The purposes of this subsection are—*

*(A) to reduce the cost incurred by electric utilities in complying with the requirements of this section; and*

*(B) to minimize the impact of the requirements on electricity rates for consumers.*

*(2) LOANS.—The Secretary shall make loans available to electric utilities to carry out qualified projects approved by the Secretary to comply with the requirements of this section.*

*(3) QUALIFIED PROJECTS.—*

*(A) IN GENERAL.—A loan may be made under this subsection for a project—*

*(i) to construct a renewable energy generation facility;*

*(ii) to install an energy efficiency or electricity demand reduction technology; or*

*(iii) to carry out any other project approved by the Secretary that the Secretary determines is consistent with the purposes of this subsection.*

*(B) DISAPPROVAL.—The Secretary may disapprove an application for a loan for a project under this subsection if the Secretary determines that—*

*(i) the revenues generated under the project are unlikely to be sufficient to cover the repayment obligations of the proposed loan; or*

*(ii) the project is not otherwise consistent with the purposes of this subsection.*

*(4) TERMS.—A loan made by the Secretary to an electric utility under this subsection shall—*

*(A) be for a term of not to exceed 30 years; and*

*(B) bear an annual interest rate that is 50 basis points more than the Federal funds rate established by the Board of Governors of the Federal Reserve System.*

*(5) PRIORITY.—Notwithstanding any other provision of law, the debt to the Federal Government under a loan made to an electric utility under this subsection shall have priority in any case in which the electric utility files for bankruptcy protection under title 11, United States Code.*

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

*(l) RECONSIDERATION.—*

*(1) REVIEW.—*

*(A) IN GENERAL.—Not later than January 15, 2017, and every 5 years thereafter, the Secretary shall review and*

*make recommendations to Congress on the program established under this section.*

*(B) ANALYSIS.—The review shall analyze whether—*

*(i) the program established under this section has contributed to an economically harmful increase in electricity rates in regions of the United States;*

*(ii) the program has resulted in net economic benefits for the United States; and*

*(iii) new technologies and clean, renewable energy sources will advance the purposes of this section.*

*(2) RECOMMENDATIONS.—The Secretary shall submit to Congress recommendations on whether—*

*(A) the percentage of energy efficiency credits eligible to be submitted under subsection (b)(1) should be increased or decreased;*

*(B) the percentage of renewable electricity required under subsection (b)(1) should be increased or decreased; and*

*(C) the definition of “renewable energy” should be expanded to reflect advances in technology or previously unavailable sources of clean or renewable energy.*

*(3) REPORT.—Not later than January 15, 2017, the Secretary shall submit to Congress a report that describes any recommendations of the Secretary on changes to the program established under this section.*

*(m) REGULATIONS.—Not later than 1 year after the date of enactment of this section, the Secretary shall promulgate regulations implementing this section.*

*(n) TERMINATION OF AUTHORITY.—This section and the authority provided by this section terminate on December 31, 2039.*

**NATIONAL ENERGY CONSERVATION POLICY ACT**

Public Law 95–619, Approved November 9, 1978, as Amended

AN ACT For the relief of Jack R. Misner

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

**TITLE I—GENERAL PROVISIONS**

**SEC. 101. SHORT TITLE AND TABLE OF CONTENTS.**

*(a) SHORT TITLE.—This Act may be cited as the “National Energy Conservation Policy Act”.*

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**TITLE V—FEDERAL ENERGY INITIATIVES**

\* \* \* \* \*

**PART 3—FEDERAL ENERGY MANAGEMENT**

\* \* \* \* \*

**SEC. 543. ENERGY MANAGEMENT REQUIREMENTS.**

\* \* \* \* \*

**[(f)] (g) LARGE CAPITAL ENERGY INVESTMENTS.—**

(1) **IN GENERAL.**—Each Federal agency shall ensure that any large capital energy investment in an existing building that is not a major renovation but involves replacement of installed equipment (such as heating and cooling systems), or involves renovation, rehabilitation, expansion, or remodeling of existing space, employs the most energy efficient designs, systems, equipment, and controls that are life-cycle cost effective.

(2) **PROCESS FOR REVIEW OF INVESTMENT DECISIONS.**—Not later than 180 days after the date of enactment of this subsection, each Federal agency shall—

(A) develop a process for reviewing each decision made on a large capital energy investment described in paragraph (1) to ensure that the requirements of this subsection are met; and

(B) report to the Director of the Office of Management and Budget on the process established.

(3) **COMPLIANCE REPORT.**—Not later than 1 year after the date of enactment of this subsection, the Director of the Office of Management and Budget shall evaluate and report to Congress on the compliance of each agency with this subsection.

*(h) FEDERAL IMPLEMENTATION STRATEGY FOR ENERGY-EFFICIENT INFORMATION AND COMMUNICATIONS TECHNOLOGIES.*—

*(1) IN GENERAL.*—Not later than 1 year after the date of enactment of this subsection, each Federal agency shall collaborate with the Director of the Office of Management and Budget (referred to in this subsection as the ‘Director’) to create an implementation strategy (including best-practices and measurement and verification techniques) for the maintenance, purchase, and use of energy efficient and energy-reducing information and communications technologies and practices.

*(2) ADMINISTRATION.*—In developing an implementation strategy, each Federal agency shall—

(A) consider information and communications technologies and infrastructure, including—

- (i) advanced metering infrastructure;*
- (ii) information and communications technology services and products;*
- (iii) efficient data center strategies;*
- (iv) computer power management;*
- (v) applications modernization and rationalization;*
- (vi) building systems energy efficiency; and*
- (vii) telework;*

(B) ensure that the agency is eligible to realize savings and rewards brought about through increased efficiency; and

(C) to the maximum extent practicable, incorporate existing standards, specifications, performance metrics, and best management practices.

**(3) PERFORMANCE GOALS.**—

(A) **IN GENERAL.**—Not later than 180 days after the date of enactment of this subsection, the Director shall establish performance goals for evaluating the efforts of Federal agencies in improving the maintenance, purchase, and use of energy efficiency of information and communications technology systems.

- (B) ADMINISTRATION.—*The performance goals shall—*
  - (i) *measure information technology costs over a specific time period of 3 to 5 years; and*
  - (ii) *provide, to the maximum extent practicable, a complete picture of all costs, including energy costs.*

(4) REPORTS.—

(A) AGENCY REPORTS.—*Each Federal agency subject to the requirements of this subsection shall include in the report of the agency under section 527 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17143) a description of the efforts of the agency under this subsection.*

(B) OMB GOVERNMENT EFFICIENCY REPORT AND SCORE CARDS.—*Effective beginning not later than April 1, 2011, the Director shall include in the annual report and scorecard of the Director under section 528 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17143) a description of the efforts of Federal agencies under this subsection.*

\* \* \* \* \*

**SEC. 546. INCENTIVES FOR AGENCIES.**

\* \* \* \* \*

(c) UTILITY INCENTIVE PROGRAMS.—

(1) Agencies are authorized and encouraged to participate in programs to increase energy efficiency and for water conservation or the management of electricity demand conducted by gas, water, or electric utilities (*including Independent Systems Operators, State agencies, and third party entities implementing those programs on behalf of utilities or State agencies*) and generally available to customers of such utilities.

(2) Each agency may accept any financial incentive, goods, or services generally available from any such utility, *State agency, and third party entity implementing those programs on behalf of utilities or State agencies*, to increase energy efficiency or to conserve water or manage electricity demand.

(3) Each agency is encouraged to enter into negotiations with electric, water, and gas utilities, *State agencies, and third party entities implementing those programs on behalf of utilities or State agencies* to design cost-effective demand management and conservation incentive programs to address the unique needs of facilities utilized by such agency.

(4) If an agency satisfies the criteria which generally apply to other customers of a utility or *State agency* incentive program, such agency may not be denied collection of rebates or other incentives.

\* \* \* \* \*

**TITLE VIII—ENERGY SAVINGS PERFORMANCE CONTRACTS**

**SEC. 801. AUTHORITY TO ENTER INTO CONTRACTS.**

(a) IN GENERAL.—

\* \* \* \* \*

[(E) FUNDING OPTIONS.—In carrying out a contract under this title, a Federal agency may use any combination of—

[(i) appropriated funds; and

[(ii) private financing under an energy savings performance contract.]

(E) FUNDING OPTIONS.—Notwithstanding any other provision of law, in carrying out a contract under this title, a Federal agency may use any combination of—

(i) appropriated funds; and

(ii) private financing under energy savings performance contracts or other private financing of energy savings measures.

(3) TASK OR DELIVERY ORDERS.—

(A) IN GENERAL.—The head of a Federal agency may issue a task or delivery order under an energy savings performance contract by—

(i)(I) notifying all contractors that have received an award under the contract that the agency proposes to consider using energy savings performance services for all or part of the facilities of the agency;

(II) soliciting an expression of interest in the performance of site surveys or investigations and feasibility designs and studies and the submission of qualifications from the contractors; and

(III) including in the notice summary information concerning energy use for any facilities that the agency has specific interest in including in the contract;

(ii) reviewing all expressions of interest and qualifications submitted pursuant to the notice provided under clause (i);

(iii) selecting 2 or more contractors (from among the contractors reviewed under clause (ii)) to analyze the respective qualifications of the contractors to implement potential energy conservation measures, including requesting references demonstrating experience on similar efforts and the resulting energy savings of the similar efforts;

(iv) selecting and authorizing—

(I) more than 1 contractor (from among the contractors selected under clause (iii)) to conduct site surveys, investigations, feasibility designs and studies, or similar assessments for the energy savings performance contract services (or for discrete portions of the services), for the purpose of allowing each such contractor to submit a firm, fixed-price proposal to implement specific energy conservation measures; or

(II) 1 contractor (from among the contractors selected under clause (iii)) to conduct a site survey, investigation, feasibility design and study, or similar assessment for the purpose of allowing the contractor to submit a firm, fixed-price proposal to implement specific energy conservation measures;



(v) negotiating a task or delivery order for energy savings performance contracting services with the 1 or more contractors selected under clause (iv) based on the energy conservation measures identified; and

(vi) issuing a task or delivery order for energy savings performance contracting services to the 1 or more contractors.

(B) COMPETITION REQUIREMENTS.—The issuance of a task or delivery order for energy savings performance contracting services pursuant to subparagraph (A) shall be considered to satisfy the task and delivery order competition requirements of section 2304c(d) of title 10, United States Code, and section 303J(d) of the Federal Property and Administrative Services Act of 1949 (41 U.S.C. 253j(d)).

(C) GUIDANCE.—The Secretary may issue guidance as necessary to Federal agencies issuing task or delivery orders pursuant to subparagraph (A).

\* \* \* \* \*

**SEC. 804. DEFINITIONS.**

\* \* \* \* \*

(2) The term “energy savings” means—

(A) a reduction in the cost of energy, water, or wastewater treatment, from a base cost established through a methodology set forth in the contract, used in an existing federally owned building or buildings or other federally owned facilities as a result of—

(i) the lease or purchase of operating equipment, improvements, altered operation and maintenance, or technical services;

(ii) the increased efficient use of existing energy sources by cogeneration or heat recovery, excluding any cogeneration process for other than a federally owned building or buildings or other federally owned facilities; or

(iii) the increased efficient use of existing water sources in either interior or exterior applications;

(B) the increased efficient use of an existing energy source by cogeneration or heat recovery and installation of renewable energy systems;

\* \* \* \* \*

**NUCLEAR WASTE POLICY ACT OF 1982**

Public Law 97–425, Approved January 7, 1983, as Amended

AN ACT To provide for the development of repositories for the disposal of high-level radioactive waste and spent nuclear fuel, to establish a program of research, development, and demonstration regarding the disposal of high-level radioactive waste and spent nuclear fuel, and for other purposes

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

**SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.**

This Act may be cited as the “Nuclear Waste Policy Act of 1982”.

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\* \* \* \* \*

TITLE VI—NATIONAL COMMISSION ON NUCLEAR WASTE

- Sec. 601. *Establishment of Commission.*
- Sec. 602. *Purposes.*
- Sec. 603. *Composition of the National Commission.*
- Sec. 604. *Functions.*
- Sec. 605. *Administration.*
- Sec. 606. *Report.*
- Sec. 607. *Funding.*
- Sec. 608. *Termination.*

\* \* \* \* \*

TITLE VI—NATIONAL COMMISSION ON NUCLEAR WASTE

**SEC. 601. ESTABLISHMENT OF COMMISSION.**

*There is established a Federal advisory committee to be known as the “National Commission on Nuclear Waste” (referred to in this title as the “National Commission”).*

**SEC. 602. PURPOSES.**

*The purposes of the National Commission are—*

- (1) *to conduct a comprehensive study of alternative means of safely managing or disposing of spent nuclear fuel and high-level radioactive waste from civilian nuclear activity and atomic energy defense activity; and*
- (2) *to recommend to Congress such legislative or other action as may be necessary to manage or dispose of spent nuclear fuel and high-level radioactive waste successfully and safely.*

**SEC. 603. COMPOSITION OF THE NATIONAL COMMISSION.**

(a) **MEMBERS.**—*The National Commission shall be composed of 11 members appointed by the President from among prominent United States citizens with national recognition and significant depth of experience in such professions as government service, public administration, natural or physical sciences, engineering, and public health and safety.*

(b) **EXCLUSION.**—*An officer or employee of the Federal Government or any State or local government may not serve as a member of the National Commission.*

(c) **BALANCE.**—*The membership of the National Commission shall be fairly balanced in terms of the points of view represented and functions to be performed by the National Commission. Not more than 6 members of the National Commission shall be members of the same political party.*

(d) **INDEPENDENCE.**—*The advice and recommendations of the National Commission shall result from the National Commission’s independent judgment and shall not be inappropriately influenced by any special interest.*

(e) **CHAIRMAN.**—*The President shall designate a chairman (referred to in this title as the “Chairman”) from among the members of the National Commission.*

**SEC. 604. FUNCTIONS.**

(a) **STUDY OF ALTERNATIVE WASTE MANAGEMENT STRATEGIES.**—*The National Commission shall—*

- (1) *examine alternative means of safely managing and disposing of spent nuclear fuel and high-level radioactive waste*

from civilian nuclear activity and atomic defense activity, including—

(A) deep geologic disposal of spent nuclear fuel and high-level radioactive waste in a repository;

(B) long-term storage of spent nuclear fuel and high-level radioactive waste at the sites where it is currently stored or being generated;

(C) long-term storage of spent nuclear fuel and high-level radioactive waste at 1 or more regional storage facilities;

(D) chemical reprocessing of spent nuclear fuel with uranium and plutonium recycling; and

(E) such other alternatives or combination of alternatives to managing and disposing of spent nuclear fuel and high-level radioactive waste as the National Commission determines to be reasonable; and

(2) evaluate, for each of the alternatives considered under paragraph (1)—

(A) the degree to which the alternative will isolate spent nuclear fuel and high-level radioactive waste from the public and the environment;

(B) the degree to which the alternative will expose workers, the general public, and the environment to radiation during the handling, treatment, or processing of spent nuclear fuel and high-level radioactive waste prior to final disposition;

(C) the degree to which the alternative will be secure from attack or intrusion;

(D) the risk of nuclear proliferation posed by the alternative;

(E) the total life cycle cost of the alternative;

(F) the length of time needed to site, license, and construct necessary facilities;

(G) the degree to which spent nuclear fuel and high-level radioactive waste will need to be transported between facilities; and

(H) the cumulative effect of the alternative on the environment, and measures that can be taken to avoid or minimize adverse effects of the alternative on the environment.

(b) REVIEW OF PRIOR REPOSITORY PROGRAM.—The National Commission shall—

(1) review the efforts of the Department to implement the programs under title I and identify any deficiencies in the implementation of those programs; and

(2) recommend any measures to ensure that future efforts to site a repository or storage facility will—

(A) provide a reasonable assurance that the public and the environment will be adequately protected from the hazards posed by spent nuclear fuel or high-level radioactive waste stored or disposed of in the facility; and

(B) be acceptable to the public.

(c) REVIEW OF REPROCESSING AND ADVANCED FUEL CYCLE PROGRAMS.—The National Commission shall—

(1) review foreign and domestic programs to reprocess commercial spent nuclear fuel;

(2) assess the technical challenges of developing and validating the safe operation of the processes and systems required to recycle commercial spent nuclear fuel without separating plutonium, including the time and funding resources likely to be required;

(3) evaluate the regulatory adequacy of health and safety standards for radionuclide release from recycling facilities and recycled fuel fabrication facilities;

(4) assess the probable forms of the final wastes resulting from reprocessing operations, including how such wastes would be stored and maintained pending disposal; and

(5) analyze the technical, economic, environmental, and health and safety advantages and disadvantages of reprocessing spent nuclear fuel compared to disposal in a geologic repository.

(d) **STUDY OF INCENTIVES PROGRAM.**—The National Commission shall—

(1) examine the economic and other impacts of hosting a nuclear waste repository, reprocessing facility, or regional storage facility on the host State, any affected Indian tribe, and any affected unit of local government; and

(2) recommend measures it determines necessary or advisable to provide economic compensation and incentives to a State, Indian tribe, or unit of local government that agrees to host a repository, reprocessing facility, or regional storage facility.

(e) **STUDY OF ALTERNATIVE MEANS OF MANAGING AND OPERATING THE NUCLEAR WASTE PROGRAM.**—The National Commission shall—

(1) study alternative approaches to managing the construction and operation of civilian nuclear waste management facilities, including the feasibility of establishing a private corporation for such purposes; and

(2) recommend whether responsibility for managing the siting, construction, and operation, and monitoring of civilian nuclear waste management facilities should continue to be vested in the Secretary or whether it should be transferred to an alternative Federal agency or entity.

(f) **STUDY OF ALTERNATIVE MEANS OF FINANCING.**—The National Commission shall—

(1) examine the cost of carrying out nuclear waste management activities;

(2) evaluate the adequacy of the Waste Fund; and

(3) recommend measures the National Commission determines necessary or advisable for—

(A) the disposition of balances remaining in the Waste Fund; and

(B) the collection and disposition of any additional fees that may be needed to ensure that the cost of carrying out nuclear waste disposal activities are fully recovered from the persons responsible for generating such waste.

**SEC. 605. ADMINISTRATION.**

(a) **COMPENSATION.**—Each member of the National Commission shall be compensated at the daily equivalent of the annual rate of basic pay in effect for a position at level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day the member is engaged in the work of the National Commission.

(b) *TRAVEL EXPENSES.*—Each member of the National Commission may receive travel expenses, including per diem in lieu of subsistence, in the same manner as person employed intermittently in the Federal Government service under section 5703 of title 5, United States Code.

(c) *STAFF.*—The Chairman is authorized to appoint and fix the compensation of a staff director and such other personnel as may be necessary to enable the National Commission to carry out its functions, subject to the applicable provisions of the Federal Advisory Committee Act (5 U.S.C. App.) and title 5, United States Code.

(d) *DETAILEES.*—

(1) *IN GENERAL.*—Any Federal Government employee may be detailed to the National Commission without reimbursement from the National Commission.

(2) *EXCEPTION.*—Notwithstanding paragraph (1), no employee of the Department may be detailed to the National Commission.

(3) *EFFECT ON DETAILEE.*—Any such detailee shall retain the rights, status, and privileges of his or her regular employment without interruption.

(e) *CONSULTANTS.*—The National Commission may procure the services of experts and consultants in accordance with section 3109 of title 5, United States Code.

(f) *CONTRACTING.*—The National Commission may, to the extent funds are available under this title or subsequent appropriation Acts, enter into contracts to enable the National Commission to discharge its duties under this title.

(g) *INFORMATION FROM FEDERAL AGENCIES.*—The National Commission may request any Federal agency, including the Nuclear Waste Technical Review Board, to furnish such information, advice, or assistance as it determines necessary to carry out its functions, and each such agency shall, to the extent permitted by law, furnish such information, advice, or assistance upon the request of the Chairman.

(h) *ASSISTANCE FROM THE GENERAL SERVICES ADMINISTRATION.*—The Administrator of General Services shall, upon the request of the Chairman, provide the National Commission with necessary administrative services, facilities, and support, on a reimbursable basis.

(i) *POSTAL SERVICES.*—The National Commission may use the United States mails in the same manner and under the same conditions as a Federal agency.

**SEC. 606. REPORT.**

The National Commission shall submit to the President and Congress a final report containing the National Commission's findings, conclusions, and recommendations not later than 2 years after the date of enactment of this Act.

**SEC. 607. FUNDING.**

(a) *TRANSFER OF FUNDS.*—Notwithstanding section 302(d), of the amounts authorized to be appropriated to the Secretary from the Waste Fund under the heading "Nuclear Waste Disposal" under title III of division C of the Omnibus Appropriations Act, 2009 (Public Law 111-8; 123 Stat. 618), \$3,000,000 shall be transferred to the National Commission for purposes of carrying out this title.

(b) *DURATION OF AVAILABILITY.*—Except as provided in section 608(b), amounts made available to the National Commission under subsection (a) shall remain available until expended or the termination of the National Commission.

**SEC. 608. TERMINATION.**

(a) *IN GENERAL.*—The National Commission, and all authorities under this title, shall terminate 60 days after the date on which the final report is submitted under section 606.

(b) *UNEXPENDED FUNDS.*—Any funds made available to the National Commission under section 607 that are not expended by the National Commission by the date on which the National Commission is terminated under subsection (a) shall be deposited in the general fund of the Treasury.

**FEDERAL OIL AND GAS ROYALTY MANAGEMENT ACT OF 1982**

Public Law 97–451, Approved January 12, 1983, as Amended

AN ACT To ensure that all oil and gas originated on the public lands and on the Outer Continental Shelf are properly accounted for under the direction of the Secretary of the Interior, and for other purposes

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

**SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.**

This Act may be cited as the “Federal Oil and Gas Royalty Management Act of 1982”.

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TITLE III—GENERAL PROVISIONS

- Sec. 301. Secretarial authority.
- Sec. 302. Reports.
- Sec. 303. Study of other minerals.
- Sec. 304. Relation to other laws.
- Sec. 305. Effective date.
- Sec. 306. Funding.
- Sec. 307. Statute of limitations.
- Sec. 308. Expanded royalty obligations.
- Sec. 309. Severability.
- Sec. 310. *Minerals Management Service.*

\* \* \* \* \*

TITLE III—GENERAL PROVISIONS

\* \* \* \* \*

**SEC. 309. SEVERABILITY.**

If any provision of this Act or the applicability thereof to any person or circumstances is held invalid, the remainder of this Act and the application of such provision to other persons or circumstances shall not be affected thereby.

**SEC. 310. MINERALS MANAGEMENT SERVICE.**

(a) *DIRECTOR.*—Any Director of the Minerals Management Service shall be appointed by the President, by and with the advice and consent of the Senate.

(b) *DISCRETION.*—Nothing in this section affects the discretion granted to the Secretary by Reorganization Plan No. 3 of 1950 (43 U.S.C. 1451 note; 64 Stat. 1262; 85 Stat. 76).

\* \* \* \* \*

**DEPARTMENT OF ENERGY SCIENCE EDUCATION PROGRAM ENHANCEMENT ACT**

Public Law 101–510, Approved November 5, 1990, as Amended

AN ACT To authorize appropriations for fiscal year 1991 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe personnel strengths for such fiscal year for the Armed Forces, and for other purposes

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

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “National Defense Authorization Act for Fiscal Year 1991”.

\* \* \* \* \*

**DIVISION C—OTHER NATIONAL DEFENSE AUTHORIZATIONS**

**TITLE XXXI—DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS**

\* \* \* \* \*

**PART E—DEPARTMENT OF ENERGY SCIENCE EDUCATION PROGRAMS**

\* \* \* \* \*

**SEC. 3164. SCIENCE EDUCATION PROGRAMS**

(a) **PROGRAMS.**—The Secretary is authorized to establish programs to enhance the quality of mathematics, science, and engineering education. Any such programs shall be operated at or through the support of Department research and development facilities, shall use the scientific resources of the Department, and shall be consistent with the overall Federal plan for education and human resources in science and technology developed by the Federal Coordinating Council for Science, Engineering, and Technology.

(b) **ORGANIZATION OF SCIENCE, ENGINEERING, AND MATHEMATICS EDUCATION PROGRAMS.**—

(1) **DIRECTOR OF SCIENCE, ENGINEERING, AND MATHEMATICS EDUCATION.**—Notwithstanding any other provision of law, the Secretary, acting through the Under Secretary for Science (referred to in this subsection as the “Under Secretary”), shall appoint a Director of Science, Engineering, and Mathematics Education (referred to in this subsection as the “Director”) with the principal responsibility for administering science, engineering, and mathematics education programs across all functions of the Department.

(2) **QUALIFICATIONS.**—The Director shall be an individual, who by reason of professional background and experience, is

specially qualified to advise the Under Secretary on all matters pertaining to science, engineering, and mathematics education at the Department.

(3) DUTIES.—The Director shall—

(A) oversee all science, engineering, and mathematics education programs of the Department;

(B) represent the Department as the principal inter-agency liaison for all science, engineering, and mathematics education programs, unless otherwise represented by the Secretary or the Under Secretary;

(C) prepare the annual budget and advise the Under Secretary on all budgetary issues for science, engineering, and mathematics education programs of the Department;

(D) increase, to the maximum extent practicable, the participation and advancement of women and underrepresented minorities at every level of science, technology, engineering, and mathematics education; and

(E) perform other such matters relating to science, engineering, and mathematics education as are required by the Secretary or the Under Secretary.

(4) STAFF AND OTHER RESOURCES.—The Secretary shall assign to the Director such personnel and other resources as the Secretary considers necessary to permit the Director to carry out the duties of the Director.

(5) ASSESSMENT.—

(A) IN GENERAL.—The Secretary shall offer to enter into a contract with the National Academy of Sciences under which the National Academy, not later than 5 years after, and not later than 10 years after, the date of enactment of this paragraph, shall assess the performance of the science, engineering, and mathematics education programs of the Department.

(B) CONSIDERATIONS.—An assessment under this paragraph shall be conducted taking into consideration, where applicable, the effect of science, engineering, and mathematics education programs of the Department on student academic achievement in science and mathematics.

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

(c) *ENERGY CAREER ACADEMIES.*—*The Director of Science, Engineering, and Mathematics Education shall disseminate best practices for career pathway programs at public secondary schools that—*

(1) *prepare students for careers in the energy technology industry (as defined in section 1101 of the Energy Policy Act of 2005 (42 U.S.C. 16411); and*

(2) *provide sufficient training to allow academy graduates to secure entry-level employment or apprenticeships in the energy technology industry.*

[(c)] (d) RELATIONSHIP TO OTHER DEPARTMENT ACTIVITIES.—The programs described in subsection (a) shall supplement and be coordinated with current activities of the Department, but shall not supplant them.



[(d)] (e) SCIENCE, ENGINEERING, AND MATHEMATICS EDUCATION FUND.—The Secretary shall establish a Science, Engineering, and Mathematics Education Fund, using not less than 0.3 percent of the amount made available to the Department for research, development, demonstration, and commercial application for each fiscal year, to carry out sections 3165, 3166, and 3167 [42 USCS 7381b, 7381c, 7381c-1].

[(e)] (f) ANNUAL PLAN FOR ALLOCATION OF EDUCATION FUNDING.—The Secretary shall submit to Congress as part of the annual budget submission for a fiscal year a report describing the manner in which the Department has complied with subsection (d) for the prior fiscal year and the manner in which the Department proposes to comply with subsection (d) during the following fiscal year, including—

(1) the total amount of funding for research, development, demonstration, and commercial application activities for the corresponding fiscal year;

(2) the amounts set aside for the Science, Engineering, and Mathematics Education Fund under subsection (d) from funding for research activities, development activities, demonstration activities, and commercial application activities for the corresponding fiscal year; and

(3) a description of how the funds set aside under subsection (d) were allocated for the prior fiscal year and will be allocated for the following fiscal year.

[(f)] (g) 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.

\* \* \* \* \*

**SEC. 3168. ENERGY CAREER ACADEMIES.**

(a) PURPOSE.—*The purpose of this section is to establish a program of grants to State educational agencies to help local educational agencies create or expand energy career academies.*

(b) DEFINITIONS.—*In this section:*

(1) COMMUNITY COLLEGE.—*The term “community college” means—*

(A) *a junior or community college (as defined in section 312(f) of the Higher Education Act of 1965 (20 U.S.C. 1058(f)); and*

(B) *an institution of higher education at which more than 35 percent of all degrees are awarded at the 2-year level or below.*

(2) DIRECTOR.—*The term “Director” means the Director of Science, Engineering, and Mathematics Education.*

(3) ENERGY CAREER ACADEMY.—*The term “energy career academy” means a public secondary school that meets the best practices determined by the Director under section 3164(c).*

(4) LOCAL EDUCATIONAL AGENCY.—*The term “local educational agency” has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).*

(5) *SECONDARY SCHOOL.*—The term “secondary school” has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(6) *STATE EDUCATIONAL AGENCY.*—The term “State educational agency” has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(c) *GRANTS.*—From the amounts made available under subsection (h), the Secretary, acting through the Director and in consultation with the Secretary of Labor, shall award renewable 5-year grants to State educational agencies on a competitive basis, to provide assistance to local educational agencies for the costs of establishing or expanding energy career academies.

(d) *FEDERAL AND NON-FEDERAL SHARES.*—

(1) *FEDERAL SHARE.*—The Federal share of the costs described in subsection (c) shall not exceed 33 percent.

(2) *NON-FEDERAL SHARE.*—The non-Federal share of the costs described in subsection (c) shall be—

(A) not less than 67 percent; and

(B) provided from non-Federal sources, in cash or in kind, fairly evaluated, including services.

(3) *MAINTENANCE OF EFFORT.*—A State educational agency shall provide assurances to the Secretary that funds provided to the State under this section will be used only to supplement, not to supplant, the amount of Federal, State, and local funds otherwise expended for activities covered by this section in the State.

(e) *APPLICATION.*—To be eligible to receive a grant under this section, a State educational agency shall submit to the Director an application at such time, in such manner, and containing such information as the Director may require that describes—

(1) the process by which, and selection criteria with which, the State educational agency will select and designate a public secondary school to host the proposed energy career academy;

(2) how the State educational agency will ensure that funds made available under this section are used to establish or expand an energy career academy;

(3) how the State educational agency will use technical assistance and support from the Department, industry partners, community colleges, and other entities with experience and expertise in energy workforce training;

(4) the curricula and materials to be used in the energy career academy;

(5) the availability of funds from non-Federal sources for the costs of the activities authorized under this section; and

(6) a plan to sustain the program without Federal funding.

(f) *DISTRIBUTION.*—In awarding grants under this section, the Director shall ensure a wide, equitable distribution of grants among regions of the United States.

(g) *EVALUATION AND REPORT.*—

(1) *EVALUATION.*—Each State educational agency that receives a grant under this section shall develop and carry out an evaluation and accountability plan for the activities funded through the grant that measures the impact of the activities, in-

*cluding measurable objectives for student academic achievement, and job placement statistics for academy graduates.*

(2) *REPORT TO DIRECTOR.*—*The State educational agency shall submit to the Director a report describing the results of the evaluation and accountability plan.*

(3) *REPORT TO CONGRESS.*—*Not later than 2 years after the date of enactment of the American Clean Energy Leadership Act of 2009, the Director shall submit a report describing the impact of the activities assisted with funds made available under this section to—*

*(A) the Committee on Science and Technology of the House of Representatives;*

*(B) the Committee on Energy and Commerce of the House of Representatives;*

*(C) the Committee on Education and Labor of the House of Representatives;*

*(D) the Committee on Energy and Natural Resources of the Senate; and*

*(E) the Committee on Health, Education, Labor, and Pensions of the Senate.*

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

*(1) \$14,000,000 for fiscal year 2009;*

*(2) \$22,500,000 for fiscal year 2010; and*

*(3) \$30,000,000 for fiscal year 2011.*

**[SEC. 3168.] SEC. 3169. DEFINITIONS.**

In this part:

(1) The term “Secretary” means the Secretary of Energy.

(2) The term “Department” means the Department of Energy.

(3) The term “Department research and development facilities” means all Department of Energy single-purpose and multi-purpose National Laboratories and research and development facilities and programs, and any other facility or program operated by a contractor funded from the Office of Energy Research of the Department of Energy.

(4) The term “local educational agency” has the meaning given that term by section 1471(12) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 2891(12)).

**[SEC. 3169.] SEC. 3170. AUTHORIZATION OF APPROPRIATIONS.**

There are authorized to be appropriated to the Secretary for carrying out university research support and other science, mathematics, and engineering education programs authorized by this part and administered by the Office of Energy Research of the Department of Energy, \$40,000,000 for fiscal year 1991.

**METHANE HDYRATE RESEARCH AND DEVELOPMENT  
ACT OF 2000**

Public Law 106–193, Approved May 2, 2000, as Amended

AN ACT To promote the research, identification, assessment, exploration and development of methane hydrate resources, and for other purposes

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

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “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**[.]**;

(6) *methane is a powerful greenhouse gas that may be exchanged between terrestrial methane hydrate reservoirs and the atmosphere by natural or anthropogenic processes; and*

(7) *the short- and long-term release of methane from arctic or marine reservoirs may have significant environmental effects, including global climate change.*

\* \* \* \* \*

**SEC. 4. METHANE HYDRATE RESEARCH AND DEVELOPMENT PROGRAM.**

(a) IN GENERAL.—

\* \* \* \* \*

**[(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 nonpermafrost 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.】

(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 that—*

(A) *conduct basic and applied research to identify, explore, assess, and develop methane hydrate as a commercially viable source of energy;*

(B) *identify and characterize methane hydrate resources using remote sensing and seismic data;*

(C) *develop technologies required for efficient and environmentally sound development of methane hydrate resources;*

(D) *conduct basic and applied research to assess and mitigate the environmental impact of hydrate degassing (including natural degassing and degassing associated with commercial development);*

(E) *develop technologies to reduce the risks of drilling through methane hydrates;*

(F) *conduct exploratory drilling, well testing, and production testing operations on permafrost and nonpermafrost gas hydrates in support of the activities authorized by this paragraph, including drilling of 3 or more full-scale production test wells; or*

(G) *expand education and training programs in methane hydrate resource research and resource development through fellowships or other means for graduate education and training.*

(2) ENVIRONMENTAL MONITORING.—*The Secretary shall conduct a long-term environmental monitoring program to study the effects of production from methane hydrate reservoirs.*

(3) *COMPETITIVE PEER REVIEW.*—Funds made available under paragraphs (1) and (2) shall be made available based on a competitive process using external scientific peer review of proposed research.

\* \* \* \* \*

(e) **RESPONSIBILITIES OF THE SECRETARY.**—In carrying out [subsection (b)(1)] paragraphs (1) and (2) of subsection (b), 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. 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.]

**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) for use in carrying out section 4(b)(1)—*

*(A) \$60,000,000 for fiscal year 2011;*

*(B) \$70,000,000 for fiscal year 2012;*

*(C) \$80,000,000 for fiscal year 2013;*

*(D) \$90,000,000 for fiscal year 2014; and*

*(E) \$90,000,000 for fiscal year 2015; and*

*(2) for use in carrying out section 4(b)(2), \$10,000,000 for each of fiscal years 2010 through 2015.*

**FLOYD D. SPENCE NATIONAL DEFENSE  
AUTHORIZATION ACT FOR FISCAL YEAR 2001**

Public Law 106–398, Approved October 30, 2000

AN ACT To authorize appropriations for fiscal year 2001 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe personnel strengths for such fiscal year for the Armed Forces, and for other purposes

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

**SECTION 1. ENACTMENT OF FISCAL YEAR 2001 NATIONAL DEFENSE AUTHORIZATION ACT.**

The provisions of H.R. 5408 of the 106th Congress, as introduced on October 6, 2000, are hereby enacted into law.

**SEC. 2. PUBLICATION OF ACT.**

In publishing this Act in slip form and in the United States Statutes at Large pursuant to section 112 of title 1, United States Code, the Archivist of the United States shall include after the date of approval an appendix setting forth the text of the bill referred to in section 1.

APPENDIX—H.R. 5408

**SECTION 1. SHORT TITLE; FINDINGS.**

(a) **SHORT TITLE.**—This Act may be cited as the “Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001”.

\* \* \* \* \*

**DIVISION C—DEPARTMENT OF ENERGY NATIONAL SECURITY AUTHORIZATIONS AND OTHER AUTHORIZATIONS**

\* \* \* \* \*

Subtitle G—Other Matters

\* \* \* \* \*

**[SEC. 3197. OFFICE OF ARCTIC ENERGY.**

**[(a) ESTABLISHMENT.**—The Secretary of Energy may establish within the Department of Energy an Office of Arctic Energy.

**[(b) PURPOSES.**—The purposes of such office shall be as follows:

**[(1)** To promote research, development, and deployment of electric power technology that is cost-effective and especially well suited to meet the needs of rural and remote regions of the United States, especially where permafrost is present or located nearby.

**[(2)** To promote research, development, and deployment in such regions of—

**[(A)** enhanced oil recovery technology, including heavy oil recovery, reinjection of carbon, and extended reach drilling technologies;

**[(B)** gas-to-liquids technology and liquified natural gas (including associated transportation systems);

**[(C)** small hydroelectric facilities, river turbines, and tidal power;

[(D) natural gas hydrates, coal bed methane, and shallow bed natural gas; and

[(E) alternative energy, including wind, geothermal, and fuel cells.

[(c) LOCATION.—The Secretary shall locate such office at a university with expertise and experience in the matters specified in subsection (b).]

\* \* \* \* \*

**ALASKA NATURAL GAS PIPELINE ACT**

Public Law 108–324, Approved October 13, 2004

AN ACT Making appropriations for military construction, family housing, and base realignment and closure for the Department of Defense for the fiscal year ending September 30, 2005, and for other purposes

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

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “Military Construction Appropriations and Emergency Hurricane Supplemental Appropriations Act, 2005”.

\* \* \* \* \*

**DIVISION C—ALASKA NATURAL GAS PIPELINE**

**SEC. 101. SHORT TITLE.**

This division may be cited as the “Alaska Natural Gas Pipeline Act”.

\* \* \* \* \*

**SEC. 116. LOAN GUARANTEES.**

(a) **AUTHORITY.**—(1) The Secretary may enter into agreements with 1 or more holders of a certificate of public convenience and necessity issued under section 103(b) of this division or section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g) or with an entity the Secretary determines is qualified to construct and operate a liquefied natural gas project to transport liquefied natural gas from Southcentral Alaska to West Coast States, to issue Federal guarantee instruments with respect to loans and other debt obligations for a qualified infrastructure project.

(2) Subject to the requirements of this section, the Secretary may also enter into agreements with 1 or more owners of the Canadian portion of a qualified infrastructure project to issue Federal guarantee instruments with respect to loans and other debt obligations for a qualified infrastructure project as though such owner were a holder described in paragraph (1), except that the total amount of principal that may be guaranteed for a qualified liquefied natural gas project may not exceed a principal amount in which the cost of loan guarantees, as defined by section 502(5) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)), exceeds \$2,000,000,000.

(3) The authority of the Secretary to issue Federal guarantee instruments under this section for a qualified infrastructure project



shall expire on the date that is 2 years after the date on which the final certificate of public convenience and necessity (including any Canadian certificates of public convenience and necessity) is issued for the project, *except that a holder of a certificate may request the Secretary to extend the period to issue Federal guarantee instruments for not more than 180 days following the date of resolution of any reopening, contest, or other proceeding relating to the certificate.* A final certificate shall be considered to have been issued when all certificates of public convenience and necessity have been issued that are required for the initial transportation of commercially economic quantities of natural gas from Alaska to the continental United States, *or connecting to pipeline infrastructure capable of delivering commercially economic quantities of natural gas to the continental United States.*

(b) CONDITIONS.—(1) The Secretary may issue a Federal guarantee instrument for a qualified infrastructure project only after a certificate of public convenience and necessity under section 103(b) of this division or an amended certificate under section 9 of the Alaska Natural Gas Transportation Act of 1976 (15 U.S.C. 719g) has been issued for the project, or after the Secretary certifies there exists a qualified entity to construct and operate a liquefied natural gas project to transport liquefied natural gas from Southcentral Alaska to West Coast States. In no case shall loan guarantees be issued for more than one qualified project.

[(2) The Secretary may issue a Federal guarantee instrument under this section for a qualified infrastructure project only if the loan or other debt obligation guaranteed by the instrument has been issued by an eligible lender.]

[(3)] (2) The Secretary shall not require as a condition of issuing a Federal guarantee instrument under this section any contractual commitment or other form of credit support of the sponsors (other than equity contribution commitments [and completion guarantees]), or any throughput or other guarantee from prospective shippers greater than such guarantees as shall be required by the project owners.

[(4)] (3) Such loan guarantee may be utilized only by the project chosen by the Federal Energy Regulatory Commission as the qualified project.

\* \* \* \* \*

(c) LIMITATIONS ON AMOUNTS.—

\* \* \* \* \*

(2) The principal amount of loans and other debt obligations guaranteed under this section shall not exceed, in the aggregate, ~~[\$18,000,000,000]~~ *\$30,000,000,000*, which amount shall be indexed for United States dollar inflation from the date of enactment of this Act, as measured by the Consumer Price Index.

(d) LOAN TERMS AND FEES.—

(1) The Secretary may issue Federal guarantee instruments under this section that take into account repayment profiles and grace periods justified by project cash flows and project-specific considerations, *except that an issued loan guarantee instrument shall apply to not less than 80 percent of project costs*

*unless by previous consent of the borrower.* The term of any loan guaranteed under this section shall not exceed 30 years.

(2) **[An eligible]** A lender may assess and collect from the borrower such other fees and costs associated with the application and origination of the loan or other debt obligation as are reasonable and customary for a project finance transaction in the oil and gas sector.

\* \* \* \* \*

(g) DEFINITIONS.—In this section:

(1) CONSUMER PRICE INDEX.—The term “Consumer Price Index” means the Consumer Price Index for all-urban consumers, United States city average, as published by the Bureau of Labor Statistics, or if such index shall cease to be published, any successor index or reasonable substitute thereof.

**[(2) ELIGIBLE LENDER.—**The term “eligible lender” means any non-Federal qualified institutional buyer (as defined by section 230.144A(a) of title 17, Code of Federal Regulations (or any successor regulation), known as Rule 144A(a) of the Securities and Exchange Commission and issued under the Securities Act of 1933), including—

**[(A)** a qualified retirement plan (as defined in section 4974(c) of the Internal Revenue Code of 1986 (26 U.S.C. 4974(c)) that is a qualified institutional buyer; and

**[(B)** a governmental plan (as defined in section 414(d) of the Internal Revenue Code of 1986 (26 U.S.C. 414(d)) that is a qualified institutional buyer.]

**[(3) (2) FEDERAL GUARANTEE INSTRUMENT.—**The term “Federal guarantee instrument” means any guarantee or other pledge by the Secretary to pledge the full faith and credit of the United States to pay all of the principal and interest on any loan or other debt obligation entered into by a holder of a certificate of public convenience and necessity *under subsection (a)(3), including direct lending from the Federal Financing Bank of all or a part of the amount to the holder, in lieu of a guarantee.*

**[(4) (3) QUALIFIED INFRASTRUCTURE PROJECT.—**The term “qualified infrastructure project” means an Alaskan natural gas transportation project or system consisting of the design, engineering, finance, construction, and completion of pipelines and related transportation and production systems (including gas treatment plants, liquification plants, and liquefied natural gas tankers for transportation of liquefied natural gas from Southcentral Alaska to the West Coast), and appurtenances thereto, that are used to transport natural gas from the Alaska North Slope to the continental United States.

## ENERGY POLICY ACT OF 2005

Public Law 109–58, Approved August 8, 2005, as Amended

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. 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. 2. DEFINITIONS.**

Except as otherwise provided, in this Act:

\* \* \* \* \*

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

\* \* \* \* \*

- (O) Savannah River National Laboratory.
- [(P) Stanford Linear Accelerator Center.]**
- (P) SLAC National Accelerator Laboratory.*
- (Q) Thomas Jefferson National Accelerator Facility.

\* \* \* \* \*

**TITLE II—RENEWABLE ENERGY**

**Subtitle A—General Provisions**

**SEC. 201. ASSESSMENT OF RENEWABLE ENERGY RESOURCES.**

\* \* \* \* \*

(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) *with respect to biomass energy resources, consideration of—*

*(A) the quantity of biomass needed for thermal applications, biofuels, and biomass-based electricity;*

*(B) the highest efficiency energy use of biomass resources; and*

*(C) the requirements and costs associated with deployment of biomass energy resources for each application described in subparagraph (A);*

(3) *estimates of the market penetration for each renewable energy resource that could be accomplished by January 1, 2030, by investigating multiple alternative scenarios, including—*

*(A) estimates with respect to each renewable energy resource;*

*(B) an analysis of the potential of all renewable energy resources; and*

*(C) potential impacts associated with the development of each resource and all renewable energy resources in combination; and*

**[(2)]** (4) such other information as the Secretary believes would be useful in developing such renewable energy resources, including descriptions of surrounding terrain, popu-

lation 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.

\* \* \* \* \*

**SEC. 203. 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:

\* \* \* \* \*

[(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 electric energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.]

(b) **DEFINITIONS.**—*In this section:*

(1) **BIOMASS.**—*The term “biomass” means the following types of nonhazardous organic materials:*

(A) *Residues and byproducts from milled logs.*

(B) *Wood, paper products that are not commonly recyclable, and vegetation (including trees and trimmings, yard waste, pallets, railroad ties, crates, and solid-wood manufacturing and construction debris), if diverted from or separated from other waste out of a municipal waste stream.*

(C) Hazard trees, trimmings, and brush that are necessary to remove in order to maintain a utility right-of-way or a public road (not including any unpaved road within Federal land).

(D) Trees, trimmings, and brush harvested from the immediate vicinity of any building, campground, or other structure in wildfire-prone areas to reduce the risk to the structure or campground or to human life from wildfires.

(E) Invasive species (as defined in Executive Order 13112 (42 U.S.C. 4321 note; relating to invasive species)) removed to control or eradicate the invasive species.

(F) Animal waste and animal byproducts (including biogas and any solid produced by micro-organisms).

(G) Food waste.

(H) Algae.

(I) Slash, brush, trees, and other vegetation that is harvested from non-Federal land or Indian land

(i) that is, at the time of harvest—

(I) naturally regenerated forest land;

(II) forest land that was planted for the purpose of restoring land to a naturally regenerated forest; or

(III) if harvested in quantities and through practices that maintain or contribute toward the restoration of the species, ecological systems, and ecological communities for which the conservation forest land was identified, conservation forest land; or

(ii) that is—

(I) at the time of harvest, planted forest land; and

(II) on the date of enactment of this section, cropland (including fallow land), pastureland, or planted forest land.

(J) Crops, crop byproducts, and crop residues from non-Federal land or Indian land that is

(i) at the time of harvest, not forest land; and

(ii) on the date of enactment of this section—

(I) cropland (including fallow land and not including planted forest land); or

(II) pastureland.

(K) If harvested from Federal land in accordance with applicable law and land management plans and in quantities and through practices that maintain or contribute toward the restoration of ecological sustainability—

(i) slash; and

(ii) brush and trees that are byproducts of ecological restoration, disease or insect infestation control, or hazardous fuels reduction treatments and—

(I) are from stands that—

(aa) were killed by an insect or disease epidemic or a natural disaster; and

(bb) do not meet the utilization standards for sawtimber; or

(II) do not exceed the minimum size standards for sawtimber.

## (2) CONSERVATION FOREST LAND.—

(A) *IN GENERAL.*—The term “conservation forest land” means forest land that contains a species, or includes all or part of an ecological system or community, that is at risk of extinction or elimination within a State or globally.

(B) *IDENTIFICATION.*—Conservation forest land shall be identified based on the best available science and data by any of—

(i) the State in which the land is located, unless the land is under the jurisdiction of an Indian tribe;

(ii) an Indian tribe with jurisdiction over the land;

or

(iii) in consultation with the State in which the land is located or the Indian tribe with jurisdiction over the land—

(I) the Secretary of Agriculture; or

(II) the Secretary of the Interior.

(C) *EXCEPTIONS.*—A tract of conservation forest land may not be removed from conservation forest land status under this section as a result of land management practices on the tract that—

(i) occurred on or after the date of enactment of this subparagraph; and

(ii) contributed toward the elimination of the species, or all or part of an ecological system or ecological community, for which the land was identified as conservation forest land.

## (3) FEDERAL LAND.—

(A) *IN GENERAL.*—The term “Federal land” means—

(i) National Forest System land; and

(ii) public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)).

(B) *EXCLUSIONS.*—

(i) *IN GENERAL.*—The term “Federal land” does not include—

(I) any area designated by Congress to be administered for conservation purposes; or

(II) a National Monument proclaimed by the President.

(ii) *OLD GROWTH OR LATE SUCCESSIONAL FOREST STANDS.*—The term “Federal land” does not include an old growth or late successional forest stand unless biomass from the stand does not exceed the minimum size standards for sawtimber and is a byproduct of an ecological restoration treatment that fully maintains, or contributes toward the restoration of, the structure and composition of an old growth forest stand in accordance with the old growth conditions characteristic of the forest type and retains the large trees contributing to old growth structure.

(4) *INDIAN LAND.*—The term “Indian land” has the meaning given the term “Indian country” in section 1151 of title 18, United States Code.

(5) *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. 450b).

(6) *NON-FEDERAL LAND*.—The term “non-Federal land” means land that is not owned by the Federal Government.

(7) *RENEWABLE ENERGY*.—The term “renewable energy” means energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

(8) *SECRETARY CONCERNED*.—The term “Secretary concerned” means—

- (A) the Secretary of Agriculture, with regard to
  - (i) National Forest System land; and
  - (ii) except as provided by subparagraph (B), non-Federal land; and
- (B) the Secretary of the Interior, with regard to
  - (i) public lands (as defined in section 103 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1702)); and
  - (ii) Indian land.

(c) *CALCULATION*.—For purposes of determining compliance with the requirement of this section, the amount of renewable energy shall be doubled if—

- (1) the renewable energy is produced and used on-site at a Federal facility;
- (2) the renewable energy is produced on Federal lands and used at a Federal facility; or
- (3) 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.

(d) *SEPARATE CALCULATION*.—Renewable energy produced at a Federal facility, on Federal land, or on Indian land (as defined in section 2601 of the Energy Policy Act of 1992 (25 U.S.C. 3501))—

- (1) shall be calculated separately from renewable energy used; and
- (2) may be used individually or in combination to comply with subsection (a).

(e) *BIOMASS HARVESTING AND SUSTAINABILITY*.—

(1) *IN GENERAL*.—The Secretaries concerned shall administer the provisions covered by subsection (b)(1) relating to the harvesting of biomass from Federal land and forest land.—

(2) *INTER-AGENCY BIOMASS SUSTAINABILITY STUDY*.—

(A) *IN GENERAL*.—The Secretary, in consultation with the Secretary of Agriculture, the Secretary of the Interior, and the Administrator of the Environmental Protection Agency, shall conduct a study that assesses the impacts of biomass harvesting for energy production on—

- (i) landscape-level water quality, soil productivity, wildlife habitat, and biodiversity; and
- (ii) conservation forest land.

(B) *TIMING*.—The Secretary shall—

(i) complete the study required under this paragraph not later than 5 years after the date of enactment of this subsection; and

(ii) update the study not later than every 5 years thereafter.

(C) BASIS.—The Secretary shall base the study on the best available data and science.

(D) RECOMMENDATIONS.—The Secretary shall include in the study such recommendations as are appropriate to reduce the impacts described in subparagraph (A).

(E) PUBLIC PARTICIPATION AND AVAILABILITY.—In carrying out this paragraph, the Secretary shall—

(i) consult with States, Indian tribes, and other interested stakeholders;

(ii) make available, and seek public comment on, a draft version of the study results; and

(iii) make the final study results available to the public.

[(d)] (f) 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.

(g) CONTRACT PERIOD.—

(1) IN GENERAL.—Notwithstanding section 501(b)(1)(B) of title 40, United States Code, a contract entered into by a Federal agency to acquire renewable energy may be made for a period of not more than 30 years.

(2) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance to Federal agencies to enter into contracts under this subsection.

(3) STANDARDIZED RENEWABLE ENERGY PURCHASE AGREEMENT.—Not later than 90 days after the date of enactment of this subsection, the Secretary, acting through the Federal Energy Management Program, shall publish a standardized renewable energy purchase agreement setting forth commercial terms and conditions that can be used by Federal agencies to acquire renewable energy.

\* \* \* \* \*

Subtitle B—Geothermal Energy

\* \* \* \* \*

SEC. 234. 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] for each of fiscal year through fiscal year 2020 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]

(1) IN GENERAL.—Amounts deposited under subsection (a) shall be available to the Secretary of the Interior for expendi-



ture, without further appropriation and without fiscal year limitation, to implement the Geothermal Steam Act of 1970 and this Act.

(2) *AUTHORIZATION.—Effective for fiscal year 2011 and each fiscal year thereafter, amounts deposited under subsection (a) shall be available to the Secretary of the Interior for expenditure, subject to appropriation and without fiscal year limitation, to implement the Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.) and this Act.*

\* \* \* \* \*

Subtitle E—Production Incentives

\* \* \* \* \*

**[(SEC. 344. 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. 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. 351. PRESERVATION OF GEOLOGICAL AND GEOPHYSICAL DATA.**

\* \* \* \* \*

(k) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section \$30,000,000 for each of fiscal years 2006 through **[2010]** 2020.

\* \* \* \* \*

**SEC. 357. 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 Secretary shall conduct a seismic inventory of oil and natural gas, and prepare a summary (the latter prepared with the assistance of, and based on information provided by, the heads of appropriate Federal agencies) of the information obtained under paragraph (3), for the waters of the United States Outer Continental Shelf (referred to in this section as the “OCS”) in the Atlantic Region, the Eastern Gulf of Mexico, and the Alaska Region. 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]** 2–D and 3–D seismic technology to obtain accurate resource estimates; and

**[**(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.**]**

*(3) use existing inventories and mapping of marine resources undertaken by the National Oceanographic and Atmospheric Administration and with the assistance of and based on information provided by the Department of Defense and other Federal and State agencies possessing relevant data, and use any available data regarding alternative energy potential, navigation uses, fisheries, aquaculture uses, recreational uses, habitat, conservation, and military uses.*

**[**(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.**]**

(b) IMPLEMENTATION.—The Secretary shall carry out the inventory and analysis under subsection (a) in 3 phases, with priority given to all or part of applicable planning areas of the outer Continental Shelf—

(1) estimated to have the greatest potential for energy development in barrel of oil equivalent; and

(2) outside of any leased area or area scheduled for leasing prior to calendar year 2011 under any outer Continental Shelf 5-year leasing program or amendment to the program under section 18 of the Outer Continental Shelf Lands Act (43 U.S.C. 1344).

(c) REPORTS—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this paragraph, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Natural Resources of the House of Representatives a report that provides a plan for executing the seismic inventories required under this section, including an estimate of the costs to complete the seismic inventory by region and environmental and permitting activities to facilitate expeditious completion.

(2) FIRST PHASE.—Not later than 2 years after the date of enactment of this paragraph, the Secretary shall submit to Congress a report describing the results of the first phase of the inventory and analysis under subsection (a).

(3) SUBSEQUENT PHASES.—Not later than 2 years after the date on which the report is submitted under paragraph (2) and 2 years thereafter, the Secretary shall submit to Congress a report describing the results of the second and third phases, respectively, of the inventory and analysis under subsection (a).

(4) PUBLIC AVAILABILITY.—A report submitted under paragraph (2) or (3) shall be—

(A) made publicly available; and

(B) updated not less frequently than once every 5 years.

\* \* \* \* \*

Subtitle F—Access to Federal Lands

\* \* \* \* \*

SEC. 365. PILOT PROJECT TO IMPROVE FEDERAL PERMIT COORDINATION.

\* \* \* \* \*

(j) 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 Pilot Project.

(k) PILOT PROJECT OFFICES TO IMPROVE FEDERAL PERMIT COORDINATION FOR RENEWABLE ENERGY.—

(1) DEFINITION OF RENEWABLE ENERGY.—In this subsection, the term “renewable energy” means energy derived from a wind, solar, or geothermal source.

(2) FIELD OFFICES.—As part of the Pilot Project, the Secretary shall designate 1 field office of the Bureau of Land Management in each of the following States to serve as Renewable En-

ergy Permit Coordination Offices for coordination of Federal permits for renewable energy projects and transmission involving Federal land facilitating the development of renewable energy:

- (A) Alaska.
- (B) Arizona.
- (C) California.
- (D) Colorado.
- (E) Idaho.
- (F) Oregon.
- (G) New Mexico.
- (H) Nevada.
- (I) Montana.
- (J) Utah.
- (K) Washington.
- (L) Wyoming.

(3) MEMORANDUM OF UNDERSTANDING.—

(A) IN GENERAL.—Not later than 90 days after the date of enactment of this subsection, the Secretary shall enter into an amended memorandum of understanding under subsection (b) to provide for the inclusion of the additional Renewable Energy Pilot Project Offices in the Pilot Project.

(B) SIGNATURE OF SECRETARY.—The Secretary shall be a signatory of the amended memorandum of understanding.

(C) SIGNATURES BY GOVERNORS.—The Secretary shall request that the Governors of each of the States described in paragraph (2) be signatories to the amended memorandum of understanding.

(4) DESIGNATION OF QUALIFIED STAFF.—Not later than 30 days after the date of the signing of the amended memorandum of understanding, all Federal signatory parties shall, if appropriate, assign to each Renewable Energy Pilot Project Office designated under paragraph (2) an employee described in subsection (c) to carry out duties described in that subsection.

(5) ADDITIONAL PERSONNEL.—The Secretary shall assign to each Renewable Energy Pilot Project Office additional personnel under subsection (f).

(6) TRANSFER OF FUNDS.—To coordinate and process renewable energy authorizations on Federal land under the jurisdiction of a Pilot Project Office designated under paragraph (2), the Secretary may authorize the expenditure or transfer of such funds as are necessary to—

- (A) any Federal agency described in subsection (h); and
- (B) any State described in paragraph (2).

(7) FUNDING.—

(A) IN GENERAL.—The Federal share of any royalties, fees, rentals, bonus bids, or other payments from wind or solar development on land administered by the Secretary shall be deposited in a special fund in the Treasury to be known as the “BLM Wind and Solar Energy Permit Processing Improvement Fund” (referred to in this subsection as “Fund”).

(B) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated from the Fund or, to the extent amounts are not available in the Fund, from the Treasury

*for the costs of administering program operations for wind and solar development under the Public Land Renewable Energy Deployment and Adjustment Act of 2009 and the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) \$10,000,000 for each of fiscal years 2009 through 2019, to remain available without fiscal year limitation until expended.*

\* \* \* \* \*

**TITLE IX—RESEARCH AND DEVELOPMENT**

\* \* \* \* \*

**Subtitle E—Nuclear Energy**

**SEC. 951. NUCLEAR ENERGY.**

**[(b) AUTHORIZATION OF APPROPRIATIONS FOR CORE PROGRAMS.—**There are authorized to be appropriated to the Secretary to carry out nuclear energy research, development, demonstration, and commercial application activities, including activities authorized under this subtitle, other than those described in subsection (c)—

- [(1) \$330,000,000 for fiscal year 2007;**
- [(2) \$355,000,000 for fiscal year 2008; and**
- [(3) \$495,000,000 for fiscal year 2009.]**

*(b) AUTHORIZATION OF APPROPRIATIONS FOR CORE PROGRAMS.—*There are authorized to be appropriated to the Secretary to carry out nuclear energy research, development, demonstration, and commercial application activities, including activities authorized under this subtitle—

- (1) \$998,000,000 for fiscal year 2010;*
- (2) \$1,196,000,000 for fiscal year 2011;*
- (3) \$1,394,000,000 for fiscal year 2012; and*
- (4) \$1,592,000,000 for fiscal year 2013.*

**(c) NUCLEAR INFRASTRUCTURE AND FACILITIES.—**There are authorized to be appropriated to the Secretary to carry out activities under section 955—

\* \* \* \* \*

**SEC. 953. ADVANCED FUEL CYCLE INITIATIVE.**

\* \* \* \* \*

**(b) ANNUAL REVIEW.—**The program shall be subject to annual review by the Nuclear Energy [Research] Advisory Committee of the Department or other independent entity, as appropriate.

**(c) INTERNATIONAL COOPERATION.—**In carrying out the program, the Secretary is encouraged to seek opportunities to enhance the progress of the program through international cooperation.

**(d) REPORTS.—**The Secretary shall submit, as part of the annual budget submission of the Department, a report on the activities of the program.

**(e) ADVANCED FUEL RECYCLING PROCESS DEVELOPMENT.—**

**(1) DEFINITION OF ADVANCED FUEL RECYCLING PROCESS.—***In this subsection through subsection (g), the term “advanced fuel recycling process” means an integrated, proliferation-resistant, spent nuclear fuel recycling or transmutation process that—*

- (A) does not separate pure plutonium;*

(B) reduces the burden on geological repositories for ultimate waste disposal;

(C) minimizes environmental and public health and safety impacts; and

(D) is an alternative to reprocessing technologies deployed prior to the date of enactment of this subsection.

(2) DESIGN, CRITERIA, AND EVALUATIONS.—In addition to the activities authorized under subsection (a), the Secretary shall—

(A) complete the development and testing of a complete and integrated process flowsheet for all steps involved in an advanced fuel recycling process;

(B) characterize the waste streams resulting from all steps in the advanced fuel recycling process identified under subparagraph (A);

(C) develop waste treatment processes and designs for disposal facilities for waste streams characterized under subparagraph (B);

(D) on completion of sufficient technical progress in the program, as evaluated under subsection (g)—

(i) develop a generic environmental impact statement for the technologies developed under this subsection; and

(ii) conduct design and engineering work sufficient to develop firm cost estimates with respect to the development of advanced fuel recycling processes; and

(E) cooperate with the Nuclear Regulatory Commission in making facilities of the Department available to the Commission for purposes of the Commission carrying out independent, confirmatory research as part of the licensing process for facilities constructed or used under the program.

(f) REGULATORY STANDARDS.—

(1) IN GENERAL.—The Nuclear Regulatory Commission shall have licensing and related regulatory authority under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) over facilities that use an advanced fuel recycling process.

(2) REVISION OF APPLICABLE STANDARDS.—

(A) NUCLEAR REGULATORY COMMISSION.—The Nuclear Regulatory Commission shall establish standards for protection against radiation (including occupational exposures) resulting from activities at facilities that use an advanced fuel recycling process, including facilities to fabricate fuel enriched with actinide elements other than uranium.

(B) ENVIRONMENTAL PROTECTION AGENCY.—The Administrator of the Environmental Protection Agency shall establish generally applicable environmental standards for the protection of the public and the general environment from radioactive material released from facilities that use an advanced fuel recycling process, including facilities to fabricate fuel enriched with actinide elements other than uranium.

(g) COMPREHENSIVE EVALUATION.—

(1) IN GENERAL.—On completion of sufficient technical progress in the program under subsection (e), the Secretary shall direct the Nuclear Energy Advisory Committee and the

*Nuclear Waste Technical Review Board to evaluate and prepare reports concerning the readiness of the program for detailed design, engineering, licensing, and deployment of advanced fuel recycling processes.*

*(2) REPORT.—The Secretary shall submit to Congress the reports of the Nuclear Energy Advisory Committee and the Nuclear Waste Technical Review Board described in paragraph (1) with the first budget request submitted to carry out activities covered by the reports.*

\* \* \* \* \*

Subtitle F—Fossil Energy

**SEC. 961. FOSSIL ENERGY.**

\* \* \* \* \*

(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**[.]**;
- (4) \$1,074,000,000 for fiscal year 2010;
- (5) \$1,272,000,000 for fiscal year 2011;
- (6) \$1,470,000,000 for fiscal year 2012; and
- (7) \$1,668,000,000 for fiscal year 2013.

\* \* \* \* \*

**SEC. 963. CARBON CAPTURE AND SEQUESTRATION RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.**

(a) **DEFINITIONS.**—*In this section:*

(1) **INDUSTRIAL SOURCE.**—*The term “industrial source” means any source of carbon dioxide that is not naturally occurring.*

(2) **LARGE-SCALE.**—*The term “large-scale” means the injection of 1,000,000 tons of carbon dioxide from industrial sources over the lifetime of the project.*

**[(a)] (b) [IN GENERAL.] Program.**—The Secretary shall carry out a 10-year carbon capture and sequestration research, development, and demonstration program to develop carbon dioxide capture and sequestration technologies related to industrial sources of carbon dioxide for use—

- (1) in new coal utilization facilities; and
- (2) on the fleet of coal-based units in existence on the date of enactment of this Act.

**[(b)] (c) OBJECTIVES.**—The objectives of the program under **[sub-section (a)] subsection (b)** shall be—

- (1) to develop carbon dioxide capture technologies, including adsorption and absorption techniques and chemical processes, to remove the carbon dioxide from gas streams containing carbon dioxide potentially amenable to sequestration;
- (2) to develop technologies that would directly produce concentrated streams of carbon dioxide potentially amenable to sequestration;



(3) to increase the efficiency of the overall system to reduce the quantity of carbon dioxide emissions released from the system per megawatt generated;

(4) in accordance with the carbon dioxide capture program, to promote a robust carbon sequestration program and continue the work of the Department, in conjunction with the private sector, through regional carbon sequestration partnerships; and

(5) to expedite and carry out large-scale testing of carbon sequestration systems in a range of geologic formations that will provide information on the cost and feasibility of deployment of sequestration technologies.

[(c)] (d) PROGRAMMATIC ACTIVITIES.—

\* \* \* \* \*

(3) LARGE-SCALE CARBON DIOXIDE SEQUESTRATION TESTING.—

(C) SOURCE OF CARBON DIOXIDE FOR LARGE-SCALE SEQUESTRATION TESTS.—In the process of any acquisition of carbon dioxide for sequestration tests under subparagraph (A), the Secretary shall give preference to sources of carbon dioxide from industrial sources. To the extent feasible, the Secretary shall prefer tests that would facilitate the creation of an integrated system of capture, transportation and sequestration of carbon dioxide. The preference provided for under this subparagraph shall not delay the implementation of the large-scale sequestration tests under this paragraph.

[(D) DEFINITION.—For purposes of this paragraph, the term “large-scale” means the injection of more than 1,000,000 tons of carbon dioxide from industrial sources annually or a scale that demonstrates the ability to inject and sequester several million metric tons of industrial source carbon dioxide for a large number of years.]

\* \* \* \* \*

[(d)] (e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section—

- (1) \$240,000,000 for fiscal year 2008;
- (2) \$240,000,000 for fiscal year 2009;
- (3) \$240,000,000 for fiscal year 2010;
- (4) \$240,000,000 for fiscal year 2011; and
- (5) \$240,000,000 for fiscal year 2012.

**SEC. 963A. LARGE-SCALE CARBON STORAGE PROGRAM.**

(a) DEFINITIONS.—In this section:

(1) INDUSTRIAL SOURCE.—The term “industrial source” means any source of carbon dioxide that is not naturally occurring.

(2) LARGE-SCALE.—The term “large-scale” means the injection of over 1,000,000 tons of carbon dioxide each year from industrial sources into a geological formation.

(3) SECRETARY CONCERNED.—The term “Secretary concerned” means—

(A) the Secretary of Agriculture (acting through the Chief of the Forest Service), with respect to National Forest System land; and

(B) the Secretary of the Interior, with respect to land managed by the Bureau of Land Management (including land held for the benefit of an Indian tribe).

(b) PROGRAM.—In addition to the research, development, and demonstration program authorized by section 963, the Secretary shall carry out a program to demonstrate the commercial application of integrated systems for the capture, injection, monitoring, and long-term geological storage of carbon dioxide from industrial sources.

(c) AUTHORIZED ASSISTANCE.—In carrying out the program, the Secretary may enter into cooperative agreements to provide financial and technical assistance to up to 10 demonstration projects.

(d) PROJECT SELECTION.—The Secretary shall competitively select recipients of cooperative agreements under this section from among applicants that—

(1) provide the Secretary with sufficient geological site information (including hydrogeological and geophysical information) to establish that the proposed geological storage unit is capable of long-term storage of the injected carbon dioxide, including—

(A) the location, extent, and storage capacity of the geological storage unit at the site into which the carbon dioxide will be injected;

(B) the principal potential modes of geomechanical failure in the geological storage unit;

(C) the ability of the geological storage unit to retain injected carbon dioxide; and

(D) the measurement, monitoring, and verification requirements necessary to ensure adequate information on the operation of the geological storage unit during and after the injection of carbon dioxide;

(2) possess the land or interests in land necessary for—

(A) the injection and storage of the carbon dioxide at the proposed geological storage unit; and

(B) the closure, monitoring, and long-term stewardship of the geological storage unit;

(3) possess or have a reasonable expectation of obtaining all necessary permits and authorizations under applicable Federal and State laws (including regulations); and

(4) agree to comply with each requirement of subsection (e).

(e) TERMS AND CONDITIONS.—The Secretary shall condition receipt of financial assistance pursuant to a cooperative agreement under this section on the recipient agreeing to—

(1) comply with all applicable Federal and State laws (including regulations), including a certification by the appropriate regulatory authority that the project will comply with Federal and State requirements to protect drinking water supplies;

(2) in the case of industrial sources subject to the Clean Air Act (42 U.S.C. 7401 et seq.), inject only carbon dioxide captured from industrial sources in compliance with that Act;

(3) comply with all applicable construction and operating requirements for deep injection wells;

(4) measure, monitor, and test to verify that carbon dioxide injected into the injection zone is not—

- (A) escaping from or migrating beyond the confinement zone; or
- (B) endangering an underground source of drinking water;
- (5) comply with applicable well-plugging, post-injection site care, and site closure requirements, including—
  - (A)(i) maintaining financial assurances during the post-injection closure and monitoring phase until a certificate of closure is issued by the Secretary; and
  - (ii) promptly undertaking remediation activities for any leak from the geological storage unit that would endanger public health or safety or natural resources; and
  - (B) complying with subsection (f);
- (6) comply with applicable long-term care requirements;
- (7) maintain financial protection in a form and in an amount acceptable to—
  - (A) the Secretary;
  - (B) the Secretary with jurisdiction over the land; and
  - (C) the Administrator of the Environmental Protection Agency; and
- (8) provide the assurances described in section 963(d)(4)(B).

(f) **POST INJECTION CLOSURE AND MONITORING ELEMENTS.**—In assessing whether a project complies with site closure requirements under subsection (e)(5), the Secretary, in consultation with the Administrator of the Environmental Protection Agency, shall determine whether the recipient of financial assistance has demonstrated continuous compliance with each of the following over a period of not less than 10 consecutive years after the plume of carbon dioxide has stabilized within the geologic formation that comprises the geologic storage unit following the cessation of injection activities:

- (1) The estimated location and extent of the project footprint (including the detectable plume of carbon dioxide and the area of elevated pressure resulting from the project) has not substantially changed and is contained within the geologic storage unit.
- (2) The injection zone formation pressure has ceased to increase following cessation of carbon dioxide injection into the geologic storage unit.
- (3) There is no leakage of either carbon dioxide or displaced formation fluid from the geologic storage unit that is endangering public health and safety, including underground sources of drinking water and natural resources.
- (4) The injected or displaced formation fluids are not expected to migrate in the future in a manner that encounters a potential leakage pathway.
- (5) The injection wells at the site completed into or through the injection zone or confining zone are plugged and abandoned in accordance with the applicable requirements of Federal or State law governing the wells.

(g) **INDEMNIFICATION AGREEMENTS.**—

- (1) **DEFINITION OF LIABILITY.**—In this subsection, the term “liability” means any legal liability for—
  - (A) bodily injury, sickness, disease, or death;
  - (B) loss of or damage to property, or loss of use of property; or

(C) injury to or destruction or loss of natural resources, including fish, wildlife, and drinking water supplies.

(2) **AGREEMENTS.**—Not later than 1 year after the date of the receipt by the Secretary of a completed application for a demonstration project, the Secretary may agree to indemnify and hold harmless the recipient of a cooperative agreement under this section from liability arising out of or resulting from a demonstration project in excess of the amount of liability covered by financial protection maintained by the recipient under subsection (e)(7).

(3) **EXCEPTION FOR GROSS NEGLIGENCE AND INTENTIONAL MISCONDUCT.**—Notwithstanding paragraph (1), the Secretary may not indemnify the recipient of a cooperative agreement under this section from liability arising out of conduct of a recipient that is grossly negligent or that constitutes intentional misconduct.

(4) **COLLECTION OF FEES.**—

(A) **IN GENERAL.**—The Secretary shall collect a fee from any person with whom an agreement for indemnification is executed under this subsection in an amount that is equal to the net present value of payments made by the United States to cover liability under the indemnification agreement.

(B) **AMOUNT.**—The Secretary shall establish, by regulation, criteria for determining the amount of the fee, taking into account—

(i) the likelihood of an incident resulting in liability to the United States under the indemnification agreement; and

(ii) other factors pertaining to the hazard of the indemnified project.

(C) **USE OF FEES.**—Fees collected under this paragraph shall be deposited in the Treasury and credited to miscellaneous receipts.

(5) **CONTRACTS IN ADVANCE OF APPROPRIATIONS.**—

(A) **IN GENERAL.**—Subject to subparagraph (B), the Secretary may enter into agreements of indemnification under this subsection in advance of appropriations and incur obligations without regard to section 1341 of title 31, United States Code (commonly known as the “Anti-Deficiency Act”), or section 11 of title 41, United States Code (commonly known as the “Adequacy of Appropriations Act”).

(B) **LIMITATION.**—The amount of indemnification under this subsection shall not exceed \$10,000,000,000 (adjusted not less than once during each 5-year period following the date of enactment of this section, in accordance with the aggregate percentage change in the Consumer Price Index since the previous adjustment under this subparagraph), in the aggregate, for all persons indemnified in connection with an agreement and for each project, including such legal costs as are approved by the Secretary.

(6) **CONDITIONS OF AGREEMENTS OF INDEMNIFICATION.**—

(A) **IN GENERAL.**—An agreement of indemnification under this subsection may contain such terms as the Secretary

considers appropriate to carry out the purposes of this section.

(B) *ADMINISTRATION.*—The agreement shall provide that, if the Secretary makes a determination the United States will probably be required to make indemnity payments under the agreement, the Attorney General—

(i) shall collaborate with the recipient of an award under this subsection; and

(ii) may—

(I) approve the payment of any claim under the agreement of indemnification;

(II) appear on behalf of the recipient;

(III) take charge of an action; and

(IV) settle or defend an action.

(C) *SETTLEMENT OF CLAIMS.*—

(i) *IN GENERAL.*—The Attorney General shall have final authority on behalf of the United States to settle or approve the settlement of any claim under this subsection on a fair and reasonable basis with due regard for the purposes of this subsection.

(ii) *EXPENSES.*—The settlement shall not include expenses in connection with the claim incurred by the recipient.

(h) *FEDERAL LAND.*—

(1) *IN GENERAL.*—The Secretary concerned may authorize the siting of a project on Federal land under the jurisdiction of the Secretary concerned in a manner consistent with applicable laws and land management plans and subject to such terms and conditions as the Secretary concerned determines to be necessary.

(2) *FRAMEWORK FOR GEOLOGICAL CARBON SEQUESTRATION ON PUBLIC LAND.*—In determining whether to authorize a project on Federal land, the Secretary concerned shall take into account the framework for geological carbon sequestration on public land prepared in accordance with section 714 of the Energy Independence and Security Act of 2007 (Public Law 110–140; 121 Stat. 1715).

(i) *ACCEPTANCE OF TITLE AND LONG-TERM MONITORING.*—

(1) *IN GENERAL.*—As a condition of a cooperative agreement under this section, the Secretary may accept title to, or transfer of administrative jurisdiction from another Federal agency over, any land or interest in land necessary for the monitoring, remediation, or long-term stewardship of a project site.

(2) *LONG-TERM MONITORING ACTIVITIES.*—After accepting title to, or transfer of, a site closed in accordance with this section, the Secretary shall monitor the site and conduct any remediation activities to ensure the geological integrity of the site and prevent any endangerment of public health or safety.

(3) *FUNDING.*—There is appropriated to the Secretary, out of funds of the Treasury not otherwise appropriated, such sums as are necessary to carry out paragraph (2).

\* \* \* \* \*

Subtitle G—Science

SEC. 971. SCIENCE.

\* \* \* \* \*

(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; [and]
- [(4) \$5,814,000,000 for fiscal year 2010.]
- (4) \$5,800,000,000 for fiscal year 2010;
- (5) \$6,468,740,000 for fiscal year 2011;
- (6) \$7,214,586,000 for fiscal year 2012; and
- (7) \$8,046,427,000 for fiscal year 2013.

\* \* \* \* \*

Subtitle J—Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Resources

SEC. 999A. PROGRAM AUTHORITY.

(a) IN GENERAL.—[The Secretary]

(1) ESTABLISHMENT.—The Secretary shall carry out a program under this subtitle of research, development, demonstration, and commercial application of technologies for ultra-deepwater and unconventional natural gas and other petroleum resource exploration and production, including addressing the technology challenges for small producers, safe operations, and environmental mitigation (including reduction of greenhouse gas emissions and sequestration of carbon).

(2) NAME.—The program established under this section shall be known as the “Unconventional Domestic Natural Gas and Other Petroleum Resources Program.”

\* \* \* \* \*

(e) CONSULTATION WITH SECRETARY OF THE INTERIOR.—In carrying out this subtitle, the Secretary shall consult regularly with the Secretary of the Interior.

(f) PURPOSES.—In carrying out the program authorized by this subtitle, the Secretary shall seek to establish partnerships with research performers in institutions of higher education and the private sector to undertake research and development not likely otherwise to be undertaken in the absence of support from the program.

\* \* \* \* \*

SEC. 999B. ULTRA-DEEPWATER AND UNCONVENTIONAL ONSHORE NATURAL GAS AND OTHER PETROLEUM RESEARCH AND DEVELOPMENT PROGRAM.

\* \* \* \* \*

(e) ANNUAL PLAN.—

\* \* \* \* \*

(3) PUBLICATION.—**[The Secretary]** *Not later than February 1 of each year, the Secretary shall transmit to Congress and publish in the Federal Register the annual plan, along with any written comments received under paragraph (2)(A) and (B).*

(f) AWARDS.—

\* \* \* \* \*

(3) OVERSIGHT.—

(A) IN GENERAL.—The program consortium shall oversee the implementation of awards under this subsection, consistent with the annual plan under subsection (e), including disbursing funds and monitoring activities carried out under such awards for compliance with the terms and conditions of the awards.

(B) EFFECT.—Nothing in subparagraph (A) shall limit the authority or responsibility of the Secretary to oversee awards, or limit the authority of the Secretary to review or revoke awards.

(4) FORM OF AWARD.—*The program consortium may make awards in the form of grants, contracts, cooperative agreements, or other transactions.*

**SEC. 999F. SUNSET.**

The authority provided by this subtitle shall terminate on September 30, **[2014]** 2017.

**SEC. 999G. DEFINITIONS.**

\* \* \* \* \*

(3) PROGRAM ADMINISTRATION FUNDS.—The term “program administration funds” means funds used by the program consortium to administer the program under this subtitle, but not to exceed *the greater of \$4,000,000 or 10 percent of the total funds allocated under paragraphs (1) through (3) of section 999H(d).*

**SEC. 999H. FUNDING.**

\* \* \* \* \*

(d) ALLOCATION.—Amounts obligated from the Fund under subsection (a)(1) in each fiscal year shall be allocated as follows:

**[(1) 35 percent shall be for activities under section 999A(b)(1).]**

*(1) 35 percent shall be used for activities under section 999A(b)(1), except that for each of fiscal years 2010 through 2015 the amount made available under this paragraph shall be used to carry out section 357 (for the completion of necessary environmental analyses under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), with a priority given to completion of programmatic environmental impact state-*

*ments necessary to carry out the seismic inventory or portions of the inventory required by section 357, and the use of seismic technology to obtain accurate resource estimates).*

(2) 32.5 percent shall be for activities under section 999A(b)(2).

(3) 7.5 percent shall be for activities under section 999A(b)(3).

(4)(A) *except as provided in subparagraph (B), 25 percent shall be for complementary research under section 999A(b)(4) and other activities under section 999A(b) to include program direction funds, overall program oversight, contract management, and the establishment and operation of a technical committee to ensure that in-house research activities funded under section 999A(b)(4) are technically complementary to, and not duplicative of, research conducted under paragraphs (1), (2), and (3) of section 999A(b).*

*(B) notwithstanding paragraph (A), for each of fiscal years 2010 through 2015—*

*(i) 15 percent shall be used for the purposes described in subparagraph (A); and*

*(ii) 10 percent shall be used for the activities described in paragraph (1).*

\* \* \* \* \*

**SEC. 999H. FUNDING.**

\* \* \* \* \*

(e) **AUTHORIZATION OF APPROPRIATIONS.**—In addition to other amounts that are made available to carry out this section, there is authorized to be appropriated to carry out this section **[\$100,000,000] \$350,000,000** for each of fiscal years 2007 through 2016.

\* \* \* \* \*

**TITLE X—DEPARTMENT OF ENERGY MANAGEMENT**

\* \* \* \* \*

**SEC. 1008. PRIZES FOR ACHIEVEMENT IN GRAND CHALLENGES OF SCIENCE AND TECHNOLOGY.**

\* \* \* \* \*

(g) **INNOVATION IN INDUSTRY GRANTS.**—

(1) **IN GENERAL.**—*As part of the program under this section, the Secretary shall carry out a program to pay the Federal share of competitively awarding grants to State-industry partnerships in accordance with this subsection to develop, demonstrate, and commercialize new technologies or processes for industries that significantly—*

- (A) reduce energy use and energy intensive feedstocks;*
- (B) reduce pollution and greenhouse gas emissions;*
- (C) reduce industrial waste; and*
- (D) improve domestic industrial cost competitiveness.*

(2) **ADMINISTRATION.**—

(A) **APPLICATIONS.**—*A State-industry partnership seeking a grant under this subsection shall submit to the Secretary an application for a grant to carry out a project to dem-*



onstrate an innovative energy efficiency technology or process described in paragraph (1).

(B) *COST SHARING.*—To be eligible to receive a grant under this subsection, a State-industry partnership shall agree to match, on at least a dollar-for-dollar basis, the amount of Federal funds that are provided to carry out the project.

(C) *GRANT.*—The Secretary shall provide to a State-industry partnership selected under this subsection a 1-time grant of not more than \$500,000 to initiate the project.

(3) *ELIGIBLE PROJECTS.*—A project for which a grant is received under this subsection shall be designed to demonstrate successful—

(A) industrial applications of energy efficient technologies or processes that reduce costs to industry and prevent pollution and greenhouse gas releases; or

(B) energy efficiency improvements in material inputs, processes, or waste streams to enhance the industrial competitiveness of the United States.

(4) *EVALUATION.*—The Secretary shall evaluate applications for grants under this subsection on the basis of—

(A) the description of the concept;

(B) cost-efficiency;

(C) the capability of the applicant;

(D) the quantity of energy savings;

(E) the commercialization or marketing plan; and

(F) such other factors as the Secretary determines to be appropriate.

\* \* \* \* \*

TITLE XI—PERSONNEL AND TRAINING

SEC. 1101. WORKFORCE TRENDS AND TRAINEESHIP GRANTS.

(a) *DEFINITIONS.*—In this section:

(1) *COMMUNITY COLLEGE.*—The term “community college” means—

(A) a junior or community college (as defined in section 312(f) of the Higher Education Act of 1965 (20 U.S.C. 1058(f))); and

(B) an institution of higher education at which more than 35 percent of all degrees are awarded at the 2-year level or below.

[(1)] (2) *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)] (3) *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.】

\* \* \* \* \*

(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) **CAREER COUNSELOR OUTREACH.**—*The Secretary, in consultation with the Secretary of Labor, shall establish a program to communicate information collected under subsection (b) on a nationwide basis to—*

- (1) *guidance counselors at secondary schools;*
- (2) *career development offices at community colleges and institutions of higher education; and*
- (3) *principals and district superintendents.*

(e) **STUDENT AWARENESS OF ENERGY CAREER OPPORTUNITIES.**—*The Secretary shall create and maintain a website, and interface with Federal Trio programs, GEAR UP programs, or similar programs, to provide secondary and postsecondary school students with information on careers in energy technology industries, including—*

- (1) *career information and job descriptions for the energy technology industry;*
- (2) *projected workforce shortages in the energy technology industry;*
- (3) *a comprehensive listing and description of institutions of higher education providing degrees with a specific focus on the energy technology industry;*
- (4) *a comprehensive listing and description of community colleges and career training programs with a particular focus on the energy technology industry; and*
- (5) *sources of scholarships and other forms of financial aid with particular relevance to the energy technology industry.”.*

【(d) (f) **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.

\* \* \* \* \*

**TITLE XVII—INCENTIVES FOR INNOVATIVE TECHNOLOGIES**

**SEC. 1701. DEFINITIONS.**

\* \* \* \* \*

(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.】

(B) *EXCLUSION.*—The term “commercial technology” does not include a technology if the sole use of the technology is in connection with—

- (i) a demonstration project; or
- (ii) a project for which the Secretary approved a loan guarantee.

\* \* \* \* \*

**SEC. 1702. 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 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.*—No guarantee shall be made unless—

- (1) an appropriation for the cost has been made; or
- (2) the Secretary has received from the borrower a payment in full for the cost of the obligation and deposited the payment into the Treasury.]

(b) *SPECIFIC APPROPRIATION OR CONTRIBUTION.*—

(1) *IN GENERAL.*—No guarantee shall be made unless sufficient amounts to account for the cost are available—

(A) in unobligated balances within the Clean Energy Investment Fund established under section 103(a) of the American Clean Energy Leadership Act;

(B) as a payment from the borrower and the payment is deposited in the Clean Energy Investment Fund; or

(C) in any combination of balances and payments described in subparagraphs (A) and (B), respectively.

(2) *LIMITATION.*—The source of payments received from a borrower under paragraph (1)(B) shall not be a loan or other debt obligation that is made or guaranteed by the Federal Government.

(3) *RELATION TO OTHER LAWS.*—Section 504(b) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661c(b)) shall not apply to a loan or loan guarantee under this section.

\* \* \* \* \*

(g) *DEFAULTS.*—

\* \* \* \* \*

(2) *SUBROGATION.*—

[(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.]

(B) *SUPERIORITY OF RIGHTS.*—*Except as provided in subparagraph (C), 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;*

*(ii) have available all the patents and technology necessary for any person selected, including the Secretary, to complete and operate the project;*

*(iii) provide for sharing the proceeds received from the sale of project assets with other creditors or control the disposition of project assets if necessary to protect the interests of the United States in the case of default; and*

*(iv) provide such lien priority in project assets as necessary to protect the interests of the United States in the case of a default.*

\* \* \* \* \*

(h) **FEES.**—

(1) **IN GENERAL.**—*The Secretary shall charge and collect fees for guarantees in amounts the Secretary determines are sufficient to cover applicable administrative expenses.*

[(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.*]

(2) **AVAILABILITY.**—*Fees collected under this subsection shall—*

*(A) be deposited by the Secretary in the Clean Energy Investment Fund established under section 103(a) of the American Clean Leadership Act of 2009; and*

*(B) remain available to the Secretary for expenditure, without further appropriation or fiscal year limitation, for administrative expenses incurred in carrying out this title.*

(3) **ADJUSTMENT.**—*The Secretary may adjust the amount or manner of collection of fees under this title as the Secretary determines is necessary to promote, to the maximum extent practicable, eligible projects under this title.*

(4) **EXCESS FEES.**—*Of the amount of a fee imposed on an applicant at the conditional commitment stage, 75 percent of the amount shall be refundable to the applicant if there is no financial close on the application, unless the Secretary determines that the administrative costs of the Department have exceeded the amount retained.*

(5) **CREDIT REPORT.**—*If, in the opinion of the Secretary, the credit rating of an applicant is not relevant to the determination of whether or not support will be provided and the applicant agrees to accept the credit rating assigned to the applicant*

*by the Secretary, the Secretary may waive any requirement to provide a third-party credit report.*

\* \* \* \* \*  
(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) ACCELERATED REVIEWS.—*To the maximum extent practicable and consistent with sound business practices, the Secretary shall seek to conduct necessary reviews concurrently of an application for a loan guarantee under this title such that decisions as to whether to enter into a commitment on the application can be issued not later than 180 days after the date of submission of a completed application.*

\* \* \* \* \*

**SEC. 1703. ELIGIBLE PROJECTS.**

\* \* \* \* \*

(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.
- (5) Carbon capture and sequestration practices and technologies, including agricultural and forestry practices that store and sequester carbon.
- (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.
- (10) Refineries, meaning facilities at which crude oil is refined into gasoline.
- (11) *Low-Btu gas (as defined in section 425(a) of the American Clean Energy Leadership Act of 2009) and helium gas projects.*

\* \* \* \* \*

**SEC. 1705. TEMPORARY PROGRAM FOR RAPID DEPLOYMENT OF RENEWABLE ENERGY AND ELECTRIC POWER TRANSMISSION PROJECTS.**

\* \* \* \* \*

(c) WAGE RATE REQUIREMENTS.—The Secretary shall require that each recipient of [support under this section] *support under this title* provide reasonable assurance that all laborers and mechanics employed.

\* \* \* \* \*

## TITLE XVIII—STUDIES

\* \* \* \* \*

**[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. 1830. STUDY OF AVAILABILITY OF SKILLED WORKERS.**

(a) *IN GENERAL.*—*The Secretary of the Interior, in cooperation with the Secretary of Labor, shall enter into an arrangement with the National Academies under which the National Academies 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—*

(1) *an analysis of the need for and availability of workers for the oil, natural gas, coal, nonfuel mineral, ground water, nuclear, geothermal, solar, wind, and electric utility industries;*

(2) *an analysis of the availability of skilled labor at both entry level and more senior levels;*

(3) *recommendations for actions needed to meet future labor requirements;*

(4) *a description of current and projected education and training programs for those workers at community and technical colleges and universities or through other job-specific training initiatives;*

(5) *an analysis of the potential for skilled foreign labor to meet projected sectoral labor requirements;*

(6) *an assessment of potential job health and safety impacts, national security, and domestic economic impacts of a long-term workforce shortage or surplus; and*

(7) *a description and evaluation of data sources available, Federal data collection and coordination, and potential research initiatives for future decisionmaking relating to workforce issues.*

(c) *REPORT.*—*Not later than December 31, 2012, the Secretary shall submit to Congress a report that describes the results of the study.*

(d) *AUTHORIZATION OF APPROPRIATIONS.*—*There is authorized to be appropriated to the Secretary to carry out this section \$2,000,000.*

\* \* \* \* \*

**DEPARTMENT OF THE INTERIOR, ENVIRONMENT, AND RELATED AGENCIES APPROPRIATIONS ACT, 2006**

Public Law 109–54, Approved August 2, 2005

AN ACT Making appropriations for the Department of the Interior, environment, and related agencies for the fiscal year ending September 30, 2006, and for other purposes

\* \* \* \* \*

**TITLE I—DEPARTMENT OF THE INTERIOR**

\* \* \* \* \*

**GENERAL PROVISIONS, DEPARTMENT OF THE INTERIOR**

\* \* \* \* \*

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the following sums are appropriated, out of any money in the Treasury not otherwise appropriated, for the Department of the Interior, environment, and related agencies for the fiscal year ending September 30, 2006, and for other purposes, namely:

\* \* \* \* \*

SEC. 105. No funds provided in this title may be expended by the Department of the Interior to conduct offshore oil and natural gas preleasing, leasing and related activities in the eastern Gulf of Mexico planning area for any lands located outside Sale 181 (other than the 181 South Area (as defined in section 102 of the Gulf of Mexico Energy Security Act of 2006) and any other area that the Secretary of the Interior may offer for leasing, preleasing, or any related activity under section 104 of that Act), as identified in the final Outer Continental Shelf 5-Year Oil and Gas Leasing Program, 1997–2002.

\* \* \* \* \*

**GULF OF MEXICO ENERGY SECURITY ACT OF 2006**

Public Law 109–432, Approved December 20, 2006

AN ACT To amend the Internal Revenue Code of 1986 to extend expiring provisions, and for other purposes

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

**SECTION 1. SHORT TITLE, ETC.**

(a) SHORT TITLE.—This Act may be cited as the “Tax Relief and Health Care Act of 2006”.

\* \* \* \* \*

## DIVISION C—OTHER PROVISIONS

## TITLE I—GULF OF MEXICO ENERGY SECURITY

**SEC. 101. SHORT TITLE.**

This title may be cited as the “Gulf of Mexico Energy Security Act of 2006.”

\* \* \* \* \*

**SEC. 104. MORATORIUM ON OIL AND GAS LEASING IN CERTAIN AREAS OF GULF OF MEXICO.**

[(a) **IN GENERAL.**—Effective during the period beginning on the date of enactment of this Act and ending on June 30, 2022, the Secretary shall not offer for leasing, preleasing, or any related activity—

[(1) any area east of the Military Mission Line in the Gulf of Mexico;

[(2) any area in the Eastern Planning Area that is within 125 miles of the coastline of the State of Florida; or

[(3) any area in the Central Planning Area that is—

[(A) within—

[(i) the 181 Area; and

[(ii) 100 miles of the coastline of the State of Florida; or

[(B)(i) outside the 181 Area;

[(ii) east of the western edge of the Pensacola Official Protraction Diagram (UTM X coordinate 1,393,920 (NAD 27 feet)); and

[(iii) within 100 miles of the coastline of the State of Florida.]

(a) *IN GENERAL.*—*Except as provided in subsection (d), effective during the period beginning on the date of enactment of this Act and ending on June 30, 2022, the Secretary shall not offer for leasing, preleasing, or any related activity any area in the Eastern Planning Area that is within 45 statute miles of the coastline of the State of Florida.*

(b) **MILITARY MISSION LINE.**—Notwithstanding subsection (a), the United States reserves the right to designate by and through the Secretary of Defense, with the approval of the President, national defense areas on the outer Continental Shelf pursuant to section 12(d) of the Outer Continental Shelf Lands Act (43 U.S.C. 1341(d)).

\* \* \* \* \*

(d) **EXCEPTIONS.**—

(1) **DEFINITIONS.**—*In this paragraph:*

(A) **DESTIN DOME AREA.**—*The term “Destin Dome Area” means the area in the Central and Eastern Planning Areas of the outer Continental Shelf identified as “Destin Dome (NH16–08)” in the document entitled “MMS Gulf of Mexico Region Planning Areas and Active Leases” and dated May 14, 2009.*

(B) **PENSACOLA AREA.**—*The term “Pensacola Area” means the area in the Central and Eastern Planning Areas of the outer Continental Shelf identified as “Pensacola (NH16–05)” in the document entitled “MMS Gulf of Mexico Region*



*Planning Areas and Active Leases” and dated May 14, 2009.*  
 (2) *AUTHORIZED AREAS.—The Secretary may offer for leasing any area in the Destin Dome Area or the Pensacola Area.*

\* \* \* \* \*

**AMERICA COMPETES ACT**

Public Law 110–69, Approved August 9, 2007

AN ACT To invest in innovation through research and development, and to improve the competitiveness of the United States

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

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “America COMPETES Act” or the “America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act”.

\* \* \* \* \*

**TITLE V—DEPARTMENT OF ENERGY**

**SEC. 5001. SHORT TITLE.**

This title may be cited as the “Protecting America’s Competitive Edge Through Energy Act” or the “PACE—Energy Act”.

\* \* \* \* \*

**SEC. 5006. ENERGY UTILITY TRADES PROGRAM FOR COMMUNITY COLLEGES.**

(a) *PURPOSE.—The purpose of this section is to address the decline in the number of qualified employees for the energy utility industry.*

(b) *DEFINITION OF COMMUNITY COLLEGE.—In this section, the term “community college” means—*

- (1) *a junior or community college (as defined in section 312(f) of the Higher Education Act of 1965 (20 U.S.C. 1058(f))); and*
- (2) *an institution of higher education at which more than 35 percent of all degrees are awarded at the 2-year level or below.*

(c) *ESTABLISHMENT.—The Secretary shall establish, in accordance with this section, a program to expand and enhance the educational capabilities of community colleges to prepare students for careers in trades relevant to the energy utility industry.*

(d) *GRANTS.—The Secretary shall award competitive grants to community colleges that establish or expand academic degree programs in the energy utility trades, including technicians in the nuclear utilities industry.*

(e) *PRIORITY.—In evaluating grants under this section, the Secretary shall give priority to proposals that involve existing or new partnerships with private industry or other eligible energy utility entities or involve schools with underserved populations, as determined by the Secretary.*

(f) *CRITERIA.—Criteria for a grant awarded under this section shall be based on—*

- (1) *the potential to attract students to the program;*

- (2) *the ability to offer hands-on learning opportunities (including internships and apprenticeship) in the energy utility sector;*
- (3) *a demonstrated commitment to partner with secondary schools to promote careers in the energy utility industry; and*
- (4) *the long-term sustainability of the program without Federal funding.*

(g) *DURATION AND AMOUNT.—*

(1) *DURATION.—A grant under this section may be—*

(A) *up to 5 years in duration; and*

(B) *renewed subject to the criteria described in subsection*

*(f).*

(2) *AMOUNT.—A community college that receives a grant under this section shall be eligible for up to \$500,000 for each year of the grant period.*

(h) *USE OF FUNDS.—A community college that receives a grant under this section may use the grant to—*

(1) *recruit and retain new faculty;*

(2) *develop core and specialized course content;*

(3) *encourage collaboration between faculty and industry partners;*

(4) *support outreach efforts to recruit students; and*

(5) *provide scholarships to participating students.*

**[SEC. 5006.] SEC. 5007. DEPARTMENT OF ENERGY EARLY CAREER AWARDS FOR SCIENCE, ENGINEERING, AND MATHEMATICS RESEARCHERS.**

(a) **GRANT AWARDS.—**The Director of the Office of Science of the Department (referred to in this section as the “Director”) shall carry out a program to award grants to scientists and engineers at an early career stage at institutions of higher education and organizations described in subsection (c) to conduct research in fields relevant to the mission of the Department.

\* \* \* \* \*

**[SEC. 5007.] SEC. 5008. AUTHORIZATION OF APPROPRIATIONS FOR DEPARTMENT OF ENERGY FOR BASIC RESEARCH.**

Section 971(b) of the Energy Policy Act of 2005 (42 U.S.C. 16311(b)) is amended—

(1) in paragraph (2), by striking “and” at the end;

(2) in paragraph (3), by striking the period at the end and inserting “; and”; and

(3) by adding at the end the following: “(4) \$5,814,000,000 for fiscal year 2010.”.

**[SEC. 5008.] SEC. 5009. DISCOVERY SCIENCE AND ENGINEERING INNOVATION INSTITUTES.**

(a) **IN GENERAL.—**The Secretary shall establish distributed, multidisciplinary institutes (referred to in this section as “Institutes”) centered at National Laboratories to apply fundamental science and engineering discoveries to technological innovations relating to—

\* \* \* \* \*

**[SEC. 5009.] SEC. 5010. PROTECTING AMERICA'S COMPETITIVE EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.**

(a) DEFINITION OF ELIGIBLE STUDENT.—In this section, the term “eligible student” means a student who attends an institution.

\* \* \* \* \*

**[SEC. 5010.] SEC. 5011. SENSE OF CONGRESS REGARDING CERTAIN RECOMMENDATIONS AND REVIEWS.**

It is the sense of Congress that—

(1) the Department of Energy should implement the recommendations contained in the report of the Government Accountability Office numbered 04–639; and

(2) the Secretary of Energy should annually conduct reviews in accordance with title IX of the Education Amendments of 1972 (20 U.S.C. 1681 et seq.) of at least 2 recipients of grants provided by the Department of Energy.

**[SEC. 5011.] SEC. 5012. DISTINGUISHED SCIENTIST PROGRAM.**

(a) PURPOSE.—The purpose of this section is to promote scientific and academic excellence through collaborations between institutions of higher education and National Laboratories.

\* \* \* \* \*

**SEC. 5012. ADVANCED RESEARCH PROJECTS AGENCY—ENERGY.**

(a) DEFINITIONS.—

\* \* \* \* \*

(3) FUND.—The term “Fund” means the Energy Transformation Acceleration Fund established under [subsection (m)(1)] *subsection (n)(1)*.

\* \* \* \* \*

(c) GOALS.—

(1) IN GENERAL.—The goals of ARPA–E shall be—

(A) to enhance the economic and energy security of the United States through the development of [energy technologies] *technologies* that result in—

(i) reductions of imports of energy from foreign sources;

(ii) reductions of energy-related emissions[, including greenhouse gases] *and greenhouse gas emissions from all sources*; and

\* \* \* \* \*

(e) RESPONSIBILITIES.—The responsibilities of the Director shall include—

(1) approving [all] *the initiation of* new programs within ARPA–E;

(2) developing funding criteria and assessing the success of programs through the establishment of technical milestones;

(3) administering the Fund through awards to institutions of higher education, companies, research foundations, trade and industry research collaborations, or consortia of such entities, which may include federally-funded research and development centers, to achieve the goals described in subsection (c) through targeted acceleration of—

(A) novel early-stage energy research with possible technology applications;

(B) development of techniques, processes, and technologies, and related testing and evaluation;

(C) research and development of manufacturing processes for novel energy technologies; and

(D) coordination with nongovernmental entities for demonstration of technologies and research applications to facilitate technology transfer; and

(4) terminating programs carried out under this section that are not achieving the goals of the programs.

(f) *ADMINISTRATION.*—*In carrying out this section, ARPA-E may initiate and execute grants, contracts, cooperative agreements, and other transactions separate from the Department of Energy.*

[(f)] (g) PERSONNEL.—

(1) PROGRAM MANAGERS.—

(A) IN GENERAL.—The Director shall designate employees to serve as program managers for each program established pursuant to the responsibilities established for ARPA-E under subsection (e).

(B) RESPONSIBILITIES.—A program manager of a program shall be responsible for—

(i) establishing research and development goals for the program, including through the convening of workshops and conferring with outside experts, and publicizing the goals of the program to the public and private sectors;

(ii) soliciting applications for specific areas of particular promise, especially areas that the private sector or the Federal Government are not likely to undertake alone;

(iii) building research collaborations for carrying out the program;

(iv) selecting on the basis of merit, with advice under [(subsection (j))] *subsection (k)* as appropriate, each of the projects to be supported under the program after considering—

\* \* \* \* \*

[(g)] (h) REPORTS AND ROADMAPS.—

(1) ANNUAL REPORT.—As part of the annual budget request submitted for each fiscal year, the Director shall provide to the relevant authorizing and appropriations committees of Congress a report describing projects supported by ARPA-E during the previous fiscal year.

(2) STRATEGIC VISION ROADMAP.—Not later than October 1, [2008] 2009, and October 1, [2011] 2012, the Director shall provide to the relevant authorizing and appropriations committees of Congress a roadmap describing the strategic vision that ARPA-E will use to guide the choices of ARPA-E for future technology investments over the following 3 fiscal years.

[(h)] (i) COORDINATION AND NONDUPLICATION.—

(1) IN GENERAL.—To the maximum extent practicable, the Director shall ensure that the activities of ARPA-E are coordinated with, and do not duplicate the efforts of, programs and laboratories within the Department and other relevant research agencies.

(2) TECHNOLOGY TRANSFER COORDINATOR.—To the extent appropriate, the Director may coordinate technology transfer efforts with the Technology Transfer Coordinator appointed under section 1001 of the Energy Policy Act of 2005 (42 U.S.C. 16391).

[(i)] (j) FEDERAL DEMONSTRATION OF TECHNOLOGIES.—The Secretary shall make information available to purchasing and procurement programs of Federal agencies regarding the potential to demonstrate technologies resulting from activities funded through ARPA-E.

[(j)] (k) ADVICE.—

(1) ADVISORY COMMITTEES.—The Director may seek advice on any aspect of ARPA-E from—

(A) an existing Department of Energy advisory committee; and

(B) a new advisory committee organized to support the programs of ARPA-E and to provide advice and assistance on—

(i) specific program tasks; or

(ii) overall direction of ARPA-E.

(2) ADDITIONAL SOURCES OF ADVICE.—In carrying out this section, the Director may seek advice and review from—

(A) the President’s Committee of Advisors on Science and Technology; and

(B) any professional or scientific organization with expertise in specific processes or technologies under development by ARPA-E.

[(k)] (l) ARPA-E EVALUATION.—

(1) IN GENERAL.—After ARPA-E has been in operation for [4 years] 7 years, the Secretary shall offer to enter into a contract with the National Academy of Sciences under which the National Academy shall conduct an evaluation of how well ARPA-E is achieving the goals and mission of ARPA-E.

(2) INCLUSIONS.—The evaluation shall include—

(A) the recommendation of the National Academy of Sciences on whether ARPA-E should be continued or terminated; and

(B) a description of lessons learned from operation of ARPA-E.

(3) AVAILABILITY.—On completion of the evaluation, the evaluation shall be made available to Congress and the public.

[(l)] (m) EXISTING AUTHORITIES.—The authorities granted by this section are—

(1) in addition to existing authorities granted to the Secretary; and

(2) are not intended to supersede or modify any existing authorities.

[(m)] (n) FUNDING.—

(1) FUND.—There is established in the Treasury of the United States a fund, to be known as the “Energy Transformation Acceleration Fund”, which shall be administered by the Director for the purposes of carrying out this section.

(2) AUTHORIZATION OF APPROPRIATIONS.—Subject to paragraphs (4) and (5), there are authorized to be appropriated to

the Director for deposit in the Fund, without fiscal year limitation—

(A) \$300,000,000 for fiscal year 2008; and

(B) such sums as are necessary for each of fiscal years 2009 [and 2010] *through 2020*.

(3) SEPARATE BUDGET AND APPROPRIATION.—

(A) BUDGET REQUEST.—The budget request for ARPAE shall be separate from the rest of the budget of the Department.

(B) APPROPRIATIONS.—Appropriations to the Fund shall be separate and distinct from the rest of the budget for the Department.

(4) LIMITATION.—No amounts may be appropriated for ARPA-E for fiscal year 2008 unless the amount appropriated for the activities of the Office of Science of the Department for fiscal year 2008 exceeds the amount appropriated for the Office for fiscal year 2007, as adjusted for inflation in accordance with the Consumer Price Index published by the Bureau of Labor Statistics of the Department of Labor.

(5) ALLOCATION.—Of the amounts appropriated for a fiscal year under paragraph (2)—

(A) not more than 50 percent of the amount shall be used to carry out subsection (e)(3)(D);

(B) at least 2.5 percent of the amount shall be used for technology transfer and outreach activities; and

(C) no funds may be used for construction of new buildings or facilities during the 5-year period beginning on the date of enactment of this Act.

\* \* \* \* \*

**[SEC. 5012.] SEC. 5013. ADVANCED RESEARCH PROJECTS AGENCY—ENERGY.**

(a) DEFINITIONS.—In this section:

(1) ARPA-E.—The term “ARPA-E” means the Advanced Research Projects Agency Energy established by subsection (b).

(2) DIRECTOR.—The term “Director” means the Director of ARPA-E appointed under subsection (d).

(3) FUND.—The term “Fund” means the Energy Transformation Acceleration Fund established under subsection (m)(1).

\* \* \* \* \*

**ENERGY INDEPENDENCE AND SECURITY ACT OF 2007**

Public Law 110–140, Approved December 19, 2007

AN ACT To move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy performance of the Federal Government, and for other purposes

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

**SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

(a) SHORT TITLE.—This Act may be cited as the “Energy Independence and Security Act of 2007”.

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

\* \* \* \* \*

TITLE I—ENERGY SECURITY THROUGH IMPROVED  
VEHICLE FUEL ECONOMY

\* \* \* \* \*

Subtitle B—Improved Vehicle Technology

**SEC. 131. TRANSPORTATION ELECTRIFICATION.**

\* \* \* \* \*

(d) EDUCATION PROGRAM.—

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

(e) MARKET ASSESSMENT AND RECHARGING INFRASTRUCTURE STUDY.

(1) DEFINITIONS.—*In this subsection:*

(A) LOCAL GOVERNMENT.

(i) IN GENERAL.—*The term “local government” has the meaning given the term in section 3371 of title 5, United States Code.*

(ii) INCLUSIONS.—*The term “local government” includes entities described in sections 7 and 8 of the Alaska Native Claims Settlement Act (43 U.S.C. 1606, 1607).*

(B) RANGE EXTENSION INFRASTRUCTURE.—*The term “range extension infrastructure” includes equipment, products, or services for recharging plug-in electric vehicles that—*

*(i) are available to retail consumers of electric drive vehicles on a nonexclusive basis, including payment interoperability with other systems; and*

*(ii) provide for extending driving range through battery exchange or rapid recharging.*

(C) STATE.—*The term “State” has the meaning given the term in section 3371 of title 5, United States Code.*

(2) STUDY.—*The Secretary, in consultation with the Administrator, and the Secretary of Transportation, shall carry out a program to analyze and assess—*

*(A) the number and distribution of recharging facilities, including range extension infrastructure, that will be required for drivers of plug-in electric drive vehicles and neighborhood electric vehicles to reliably recharge those electric drive vehicles to meet the average needs of the drivers;*

*(B) minimum technical standards for public recharging facilities necessary for widespread deployment;*

*(C) the technical and infrastructure investments that electric utilities and electricity providers will be required to make to support widespread deployment of recharging infrastructure, including an estimate of the investments;*

(D) existing electric drive transportation technologies and the state of markets for the purchase of those technologies;

(E) methods of removing market barriers for existing and emerging applications of electric drive transportation technologies;

(F) the potential value to the electric grid of using the energy stored in on-board storage systems to improve the efficiency and reliability of the grid generation system; and

(G) the implications of the introduction of plug-in electric drive vehicles and other types of electric transportation on the production of electricity from renewable resources.

(3) COMPONENTS.—In conducting the study, the Secretary shall analyze and make recommendations on—

(A) the variety and density of recharging infrastructure options necessary to power plug-in electric drive vehicles under diverse scenarios, including—

(i) the ratio of residential, commercial, and public recharging infrastructure options necessary to support 10 percent-, 20 percent-, and 50 percent-penetration of plug-in electric vehicles on a city fleet basis;

(ii) the ratio of residential, commercial, and public recharging infrastructure options necessary to support 10 percent-, 20 percent-, and 50 percent-penetration of plug-in electric vehicles on a regional fleet basis;

(iii) the ratio of residential, commercial, and public recharging infrastructure options necessary to support 10 percent-, 20 percent-, and 50 percent-penetration of plug-in electric vehicles on a national fleet basis; and

(iv) the potential impact of fast charging on market penetration rates for electric drive vehicles and the effects on electric utilities;

(B) the effects on market penetration of reserved parking spots with access to recharging facilities;

(C) model codes (including building codes) that need to be updated or otherwise modified to enable widespread deployment of recharging facilities; and

(D) such other issues as the Secretary considers to be appropriate.

(4) REPORT.—Not later than 1 year after the date of enactment of this subsection, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report on the results of the study conducted under this subsection, including recommendations.

(f) FINANCIAL SUPPORT.—

(1) IN GENERAL.—Not later than 18 months after the date of enactment of this subsection, the Secretary shall establish a program to support the deployment and integration of plug-in electric drive vehicles in multiple regions of the United States through the provision of financial support to State and local governments and other entities to assist in the installation of recharging facilities for electric drive vehicles.

(2) FINANCIAL ASSISTANCE.—In carrying out the program, the Secretary may provide financial assistance described in paragraph (7) to promote the goals described in paragraph (4).



(3) *REGIONS.*—The Secretary shall select regions for financial assistance under this subsection based on applications for the assistance received under paragraph (7), taking into consideration the findings of the study conducted under subsection (e).

(4) *GOALS.*—The goals of the program established under this subsection shall be—

(A) to demonstrate the viability of a vehicle-based transportation system that reduces—

(i) the use of petroleum as a fuel; and

(ii) the emissions of greenhouse gases and other pollutants compared to a system based on conventional transportation fuels;

(B) to facilitate the integration of advanced vehicle technologies into electricity distribution areas to improve system performance and reliability;

(C) to demonstrate the potential benefits of coordinated investments in vehicle electrification on personal mobility and a regional grid;

(D) to demonstrate protocols and standards that facilitate vehicle integration into the grid; and

(E) to investigate differences in each region and regulatory environment regarding best practices in implementing vehicle electrification.

(5) *USE OF FUNDS.*—Subject to paragraph (6), the Secretary may provide financial assistance to any applicant that applies for, and receives the approval of the Secretary, under paragraph (7)—

(A) to assist persons located in a region (including fleet owners) in the purchase of new plug-in electric drive vehicles by reducing the incremental cost of the vehicles above the cost of comparable conventionally fueled vehicles;

(B) to support the use of plug-in electric drive vehicles by funding projects for the deployment of—

(i) recharging infrastructure for plug-in electric drive vehicles (including range extension infrastructure);

(ii) smart grid equipment and infrastructure to facilitate the charging and integration of plug-in electric drive vehicles; or

(iii) the purchase of advanced batteries for use in plug-in electric drive vehicles; or

(C) to carry out such other projects as the Secretary determines are appropriate to support the large-scale deployment of plug-in electric drive vehicles in regional deployment areas.

(6) *COST SHARE.*—The Secretary shall carry out the programs established under this subsection in accordance with section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352).

(7) *FINANCIAL SUPPORT.*—

(A) *IN GENERAL.* The Secretary may—

(i) provide grants to States and local governments for demonstration and commercial application of recharging infrastructure in accordance with paragraph (8) in accordance with section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352); and

(ii) *consult with the Administrator of the Clean Energy Deployment Administration to further the goals of this section.*

**(B) APPLICATIONS.—**

(i) *IN GENERAL.—An applicant that seeks to receive financial assistance under this subsection shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines are necessary through rulemaking.*

(ii) *JOINT SPONSORSHIP.—An application may be jointly sponsored by electric utilities, automobile manufacturers, technology providers, car-sharing companies or organizations, or other persons or entities.*

**(C) REQUIREMENTS.—***The design elements and requirements of the program established under this subsection shall include—*

(i) *an evaluation of the financial mechanisms that will most effectively promote the purposes of this section;*

(ii) *criteria for evaluating applications submitted under this paragraph, taking into consideration the findings of the study conducted under subsection (e) (including the anticipated ability to promote deployment and market penetration of plug-in electric drive vehicles that are less dependent on petroleum as a fuel source);*

(iii) *reporting requirements for entities that receive financial assistance under this subsection, including a comprehensive set of performance data that reflect the results of the program; and*

(iv) *provisions that no proprietary information, trade secret, or other confidential information is required to be disclosed.*

**(8) GRANTS TO STATES AND LOCAL GOVERNMENTS FOR RECHARGING INFRASTRUCTURE.**

**(A) IN GENERAL.—***The Secretary shall establish a program under which the Secretary shall provide grants and other financial support to States and local governments to assist in the installation of recharging infrastructure for plug-in electric drive vehicles in areas under the jurisdiction of the States or local governments.*

**(B) ELIGIBILITY.—***To be eligible to obtain a grant or other financial support under this subsection, a State or local government shall—*

(i) *demonstrate to the Secretary that the applicant has taken into consideration the findings of the report submitted under subsection (e), unless the State or local government demonstrates to the Secretary that an alternative variety and density of recharging infrastructure options would better meet the purposes of this section; and*

(ii) *agree not to charge a premium for use of a parking space used to recharge an electric drive vehicle other than a charge for electric energy.*

(C) *GUIDELINES.*—The Secretary shall establish guidelines for carrying out this subsection that are consistent with the report submitted under subsection (e).

(9) *AUTHORIZATION OF APPROPRIATIONS.*—There are authorized to be appropriated to the Secretary such sums as are necessary to carry out this subsection, to remain available until expended.

(g) *INFORMATION CLEARINGHOUSE.*—As part of the program established under this section, the Secretary shall collect and make available to the public information regarding the cost, performance, and other technical data regarding the deployment and integration of plug-in hybrid electric drive vehicles.

(h) *PILOT PROGRAM FOR PLUG-IN ELECTRIC DRIVE VEHICLES.*—

(1) *IN GENERAL.*—The Secretary shall establish, as part of the Federal Energy Management Program, a pilot program under which the Secretary shall provide grants for—

(A) the incremental cost of precommercial plug-in electric drive vehicles for purchase or lease in an amount not to exceed \$10,000 per vehicle purchased or \$1,500 per year per vehicle leased; and

(B) recharging infrastructure at Federal facilities in conjunction with the vehicles.

(2) *GUIDELINES.*—Not later than 90 days after the date of enactment of this subsection, the Secretary shall issue guidelines for the pilot program established under this subsection.

(3) *AUTHORIZATION OF APPROPRIATIONS.*—There are authorized to be appropriated such sums as are necessary to carry out this subsection for the period of fiscal years 2010 through 2015.

(i) *AUTHORIZATION OF APPROPRIATIONS.*—There are authorized to be appropriated such sums as are necessary to carry out subsections (e) and (g).

\* \* \* \* \*

**TITLE IV—ENERGY SAVINGS IN BUILDINGS AND INDUSTRY**

\* \* \* \* \*

**Subtitle D—Industrial Energy Efficiency**

\* \* \* \* \*

**SEC. 452. ENERGY-INTENSIVE INDUSTRIES PROGRAM.**

\* \* \* \* \*

(c) *PARTNERSHIPS.*—

(1) *IN GENERAL.*—As part of the program, the Secretary shall establish energy efficiency partnerships between the Secretary and eligible entities to conduct research on, develop, and demonstrate new processes, technologies, and operating practices and techniques to significantly improve the energy efficiency of equipment and processes used by energy-intensive industries, including the conduct of activities to—

(A) increase the energy efficiency of industrial processes and facilities;

(B) research, develop, and demonstrate advanced technologies capable of energy intensity reductions and increased environmental performance; and

(C) promote the use of the processes, technologies, and techniques described in subparagraphs (A) and (B).  
**[(2) ELIGIBLE ACTIVITIES.—Partnership activities eligible for funding under this subsection include—]**  
(2) *FUTURE OF INDUSTRY PROGRAM.—*

\* \* \* \* \*  
(E) the incorporation of technologies and innovations that would significantly improve the energy efficiency and utilization of energy-intensive commercial applications;  
**[and]**

*(F) research to establish (through the Industrial Technologies Program and in collaboration with energy-intensive industries) a road map process under which—*

*(i) industry-specific studies are conducted to determine the intensity of energy use, greenhouse gas emissions, and waste and operating costs, by process and subprocess;*

*(ii) near-, mid-, and long-term targets of opportunity are established for synergistic improvements in efficiency, sustainability, and resilience; and*

*(iii) public/private actionable plans are created to achieve roadmap goals; and*

**[(F)] (G) any other activities that the Secretary determines to be appropriate.**

\* \* \* \* \*  
(e) **INSTITUTION OF HIGHER EDUCATION-BASED INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—**

(1) **IN GENERAL.—**The Secretary shall provide funding to institution of higher education-based industrial research and assessment centers, whose purpose shall be—

*(A) to identify opportunities for optimizing energy efficiency and environmental performance, including assessments of sustainable manufacturing goals and the implementation of information technology advancements for supply chain analysis, logistics, industrial and manufacturing processes, and other purposes;*

*(B) to promote applications of emerging concepts and technologies in small- and medium-sized manufacturers;*

*(C) to promote research and development for the use of alternative energy sources to supply heat, power, and new feedstocks for energy-intensive industries;*

*(D) to coordinate with appropriate Federal and State research offices, and provide a clearinghouse for industrial process and energy efficiency technical assistance resources; and*

*(E) to coordinate with State-accredited technical training centers and community colleges, while ensuring appropriate services to all regions of the United States.*

(2) **CENTERS OF EXCELLENCE.—**

*(A) IN GENERAL.—The Secretary shall establish a Center of Excellence at up to 10 of the highest performing industrial research and assessment centers, as determined by the Secretary.*

(B) *DUTIES.*—A Center of Excellence shall coordinate with and advise the industrial research and assessment centers located in the region of the Center of Excellence.

(C) *FUNDING.*—Subject to the availability of appropriations, of the funds made available under subsection (f), the Secretary shall use to support each Center of Excellence not less than \$500,000 for fiscal year 2010 and each fiscal year thereafter, as determined by the Secretary.

(3) *EXPANSION OF CENTERS.*—The Secretary shall provide funding to establish additional industrial research and assessment centers at institutions of higher education that do not have industrial research and assessment centers established under paragraph (1), taking into account the size of, and potential energy efficiency savings for, the manufacturing base within the region of the proposed center.

(4) *COORDINATION.*—

(A) *IN GENERAL.*—To increase the value and capabilities of the industrial research and assessment centers, the centers shall—

(i) coordinate with Manufacturing Extension Partnership Centers of the National Institute of Science and Technology;

(ii) coordinate with the Building Technologies Program of the Department of Energy to provide building assessment services to manufacturers;

(iii) increase partnerships with the National Laboratories of the Department of Energy to leverage the expertise and technologies of the National Laboratories for national industrial and manufacturing needs;

(iv) identify opportunities for reducing greenhouse gas emissions; and

(v) promote sustainable manufacturing practices for small- and medium-sized manufacturers.

(5) *OUTREACH.*—The Secretary shall provide funding for—

(A) outreach activities by the industrial research and assessment centers to inform small- and medium-sized manufacturers of the information, technologies, and services available; and

(B) a full-time equivalent employee at each center of excellence whose primary mission shall be to coordinate and leverage the efforts of the center with—

(i) Federal and State efforts;

(ii) the efforts of utilities; and

(iii) the efforts of other centers in the region of the center of excellence.

(6) *WORKFORCE TRAINING.*—

(A) *IN GENERAL.*—The Secretary shall pay the Federal share of associated internship programs under which students work with industries and manufacturers to implement the recommendations of industrial research and assessment centers.

(B) *FEDERAL SHARE.*—The Federal share of the cost of carrying out internship programs described in subparagraph (A) shall be 50 percent.

(C) *FUNDING.*—Subject to the availability of appropriations of appropriations, of the funds made available under subsection (f), the Secretary shall use to carry out this paragraph not less than \$5,000,000 for fiscal year 2010 and each fiscal year thereafter.

(7) *SMALL BUSINESS LOANS.*—The Administrator of the Small Business Administration shall, to the maximum practicable, expedite consideration of applications from eligible small business concerns for loans under the Small Business Act (15 U.S.C. 6319 et seq.) to implement recommendations of industrial research and assessment centers established under paragraph (1).

(f) *AUTHORIZATION OF APPROPRIATIONS.*—

(1) *IN GENERAL.*—There are authorized to be appropriated to the Secretary to carry out this section—

- (A) \$184,000,000 for fiscal year 2008;
- (B) \$190,000,000 for fiscal year 2009;
- (C) ~~[\$196,000,000]~~ \$216,000,000 for fiscal year 2010;
- (D) ~~[\$202,000,000]~~ \$232,000,000 for fiscal year 2011;
- (E) ~~[\$208,000,000]~~ \$248,000,000 for fiscal year 2012;

and

(F) such sums as are necessary for fiscal year 2013 and each fiscal year thereafter.

(2) *PARTNERSHIP ACTIVITIES.*—Of the amounts made available under paragraph (1), not less than 50 percent shall be used to pay the Federal share of partnership activities under subsection (c).

(3) *COORDINATION AND NONDUPLICATION.*—The Secretary shall coordinate efforts under this section with other programs of the Department and other Federal agencies to avoid duplication of effort.

(4) *INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.*—Of the amounts made available under paragraph (1), the Secretary shall use to provide funding to industrial research and assessment centers under subsection (e) not less than—

- (A) \$20,000,000 for fiscal year 2010;
- (B) \$30,000,000 for fiscal year 2011; and
- (C) \$40,000,000 for fiscal year 2012 and each fiscal year thereafter.

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TITLE V—ENERGY SAVINGS IN GOVERNMENT AND PUBLIC INSTITUTIONS

\* \* \* \* \*

Subtitle C—Energy Efficiency in Federal Agencies

\* \* \* \* \*

**[SEC. 526. PROCUREMENT AND ACQUISITION OF ALTERNATIVE FUELS.**

[No Federal agency shall enter into a contract for procurement of an alternative or synthetic fuel, including a fuel produced from nonconventional petroleum sources, for any mobility-related use, other than for research or testing, unless the contract specifies that the lifecycle greenhouse gas emissions associated with the production and combustion of the fuel supplied under the contract must,

on an ongoing basis, be less than or equal to such emissions from the equivalent conventional fuel produced from conventional petroleum sources.】

**SEC. 526. PROCUREMENT AND ACQUISITION OF ALTERNATIVE FUELS.**

(a) *IN GENERAL.*—*Except as provided in subsection (b), no Federal agency shall enter into a contract for procurement of an alternative or synthetic fuel, including a fuel produced from nonconventional petroleum sources, for any mobility-related use other than for research or testing, unless the contract specifies that the lifecycle greenhouse gas emissions associated with the production and combustion of the fuel supplied under the contract, on an ongoing basis, be less than or equal to such emissions from the equivalent conventional fuel produced from conventional petroleum sources.*

(b) *EXCEPTIONS.*—*Subsection (a) shall not prohibit a Federal agency from entering into a contract to purchase a generally available fuel that is produced, in whole or in part, from a nonconventional petroleum source if—*

(1) *the contract does not specifically require the contractor to provide a fuel from a nonconventional petroleum source;*

(2) *the purpose of the contract is not to obtain a fuel from a nonconventional petroleum source; and*

(3) *the contract does not provide incentives (excluding compensation at market prices for the purchase of fuel purchased) for a refinery upgrade or expansion to allow a refinery to use or increase the use by the refinery of fuel from a nonconventional petroleum source.*

\* \* \* \* \*

**TITLE VI—ACCELERATED RESEARCH AND DEVELOPMENT**

\* \* \* \* \*

**Subtitle C—Marine and Hydrokinetic Renewable Energy Technologies**

\* \* \* \* \*

**SEC. 633. MARINE AND HYDROKINETIC RENEWABLE ENERGY RESEARCH AND DEVELOPMENT.**

(a) *IN GENERAL.*—*The Secretary, in consultation with the Secretary of the Interior and the Secretary of Commerce, acting through the Under Secretary of Commerce for Oceans and Atmosphere, shall establish a program of research, development, demonstration, and commercial application to expand marine and hydrokinetic renewable energy production, including programs to—*

\* \* \* \* \*

(13) *identifying opportunities for cross fertilization and development of economies of scale between other renewable sources and marine and hydrokinetic renewable energy sources【; and】*

(14) *providing public information and opportunity for public comment concerning all technologies【.】; and*

(15)(A) *apply advanced systems engineering and system integration methods to identify critical interfaces and develop open standards for marine and hydrokinetic renewable energy;*

*(B) transfer the resulting intellectual property to industry stakeholders as public information through published interface definition, standards, and demonstration projects; and  
(C) develop incentives for industry to comply with the standards.*

\* \* \* \* \*

Subtitle D—Energy Storage for Transportation and Electric Power

**SEC. 641. ENERGY STORAGE COMPETITIVENESS.**

\* \* \* \* \*

*(l) DOMESTIC VEHICLE BATTERY MANUFACTURING RESEARCH.—*

*(1) IN GENERAL.—The Secretary, acting through the Assistant Secretary for Energy Efficiency and Renewable Energy, shall conduct a research program on manufacturing batteries and battery systems to support electric drive vehicles.*

*(2) PURPOSES.—The purpose of the program shall be to improve existing processes, or develop new manufacturing processes, to enable higher quality and less expensive energy batteries for electric drive vehicles.*

*(3) PARTICIPANTS.—The program shall be conducted by teams of researchers, which may include—*

- (A) energy storage systems manufacturers;*
- (B) material and equipment suppliers of battery and battery system manufacturers;*
- (C) electric drive vehicle manufacturers;*
- (D) National Laboratories;*
- (E) other Federal agencies;*
- (F) State and local governments; and*
- (G) institutions of higher education.*

**[(l)]** *(m) COST SHARING.—The Secretary shall carry out the programs established under this section in accordance with section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352).*

**[(m)]** *(n) MERIT REVIEW OF PROPOSALS.—The Secretary shall carry out the programs established under subsections (i), (j), [and (k)] (k), and (l) in accordance with section 989 of the Energy Policy Act of 2005 (42 U.S.C. 16353).*

**[(n)]** *(o) COORDINATION AND NONDUPLICATION.—To the maximum extent practicable, the Secretary shall coordinate activities under this section with other programs and laboratories of the Department and other Federal research programs.*

**[(o)]** *(p) REVIEW BY NATIONAL ACADEMY OF SCIENCES.—On the business day that is 5 years after the date of enactment of this Act, the Secretary shall offer to enter into an arrangement with the National Academy of Sciences to assess the performance of the Department in carrying out this section.*

**[(p)]** *(q) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out—*

- (1) the basic research program under subsection (f) \$50,000,000 for each of fiscal years 2009 through 2018;*
- (2) the applied research program under subsection (g) \$80,000,000 for each of fiscal years 2009 through 2018;*
- (3) the energy storage research center program under subsection (h) \$100,000,000 for each of fiscal years 2009 through 2018;*



(4) the energy storage systems demonstration program under subsection (i) \$30,000,000 for each of fiscal years 2009 through 2018;

(5) the vehicle energy storage demonstration program under subsection (j) \$30,000,000 for each of fiscal years 2009 through 2018; **[and]**

(6) the secondary applications and disposal of electric drive vehicle batteries program under subsection (k) \$5,000,000 for each of fiscal years 2009 through 2018**].**; *and*

*(7) the domestic vehicle energy storage manufacturing research program under subsection (l) such sums as are necessary for each of fiscal years 2009 through 2018.*

\* \* \* \* \*

Subtitle E—Miscellaneous Provisions

**SEC. 651. LIGHTWEIGHT MATERIALS RESEARCH AND DEVELOPMENT.**

(a) **IN GENERAL.**—As soon as practicable after the date of enactment of this Act, the Secretary of Energy shall establish a program to determine ways in which the weight of motor vehicles could be reduced to improve fuel efficiency without compromising passenger safety by conducting research, development, and demonstration relating to—

(1) the development of new materials (including cast metal composite materials formed by autocombustion synthesis) and material processes that yield a higher strength-to-weight ratio or other properties that reduce vehicle weight; and

(2) reducing the cost of

(A) lightweight materials (including high-strength steel alloys, aluminum, magnesium, metal composites, and carbon fiber reinforced polymer composites) with the properties required for construction of lighter-weight vehicles; and

(B) materials processing, automated manufacturing, joining, and recycling lightweight materials for high-volume applications.

**[(b) AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this section \$80,000,000 for the period of fiscal years 2008 through 2012.]

*(b) AUTHORIZATION OF APPROPRIATIONS.*—*There are authorized to be appropriated to carry out this section \$100,000,000 for the period of fiscal years 2010 through 2013.*

\* \* \* \* \*

**TITLE VII—CARBON CAPTURE AND SEQUESTRATION**

Subtitle A—Carbon Capture and Sequestration Research, Development, and Demonstration

\* \* \* \* \*

**SEC. 703. CARBON CAPTURE.**

(a) **PROGRAM ESTABLISHMENT.**—

\* \* \* \* \*

(3) PREFERENCES FOR AWARD.—To ensure reduced carbon dioxide emissions, the Secretary shall take necessary actions to provide for the integration of the program under this paragraph with the large-scale carbon dioxide sequestration tests described in **section 963(c)(3) of the Energy Policy Act of 2005 (42 U.S.C. 16293(c)(3))** *section 963(d)(3) of the Energy Policy Act of 2005 (42 U.S.C. 16293(d)(3))*, as added by section 702 of this subtitle. These actions should not delay implementation of these tests. The Secretary shall give priority consideration to projects with the following characteristics:

\* \* \* \* \*

**SEC. 704. REVIEW OF LARGE-SCALE PROGRAMS.**

The Secretary shall enter into an arrangement with the National Academy of Sciences for an independent review and oversight, beginning in 2011, of the programs under **section 963(c)(3) of the Energy Policy Act of 2005 (42 U.S.C. 16293(c)(3))** *section 963(d)(3) of the Energy Policy Act of 2005 (42 U.S.C. 16293(d)(3))*, as added by section 702 of this subtitle, and under section 703 of this subtitle, to ensure that the benefits of such programs are maximized. Not later than January 1, 2012, the Secretary shall transmit to the Congress a report on the results of such review and oversight.

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