Calendar No. 218

114TH CONGRESS
1st Session

SENATE

REPORT
114–138

THE ENERGY POLICY MODERNIZATION ACT OF 2015

SEPTEMBER 9, 2015.—Ordered to be printed

Ms. MURKOWSKI, from the Committee on Energy and Natural Resources, submitted the following

R E P O R T

[To accompany S. 2012]

The Committee on Energy and Natural Resources, having considered an original bill (S. 2012) to provide for the modernization of the energy policy of the United States, and for other purposes, reports favorably thereon and recommends that the bill do pass.

CONTENTS

PURPOSE

The purpose of this measure is to provide for the modernization of the energy policy of the United States.

BACKGROUND AND NEED

The United States' rising status as an energy superpower is predicated on the continued development and wise use of our energy resources. Sweeping increases in energy production and significant advances in innovative technologies are creating new opportunities for the nation, while looming threats and the simple passage of time are generating new challenges. With the United

States' security and prosperity hanging in the balance, new legislation is urgently needed to modernize the nation's energy policies for a new era filled with both promise and peril.

Energy efficiency

The Committee on Energy and Natural Resources (the Committee) has long recognized the significant benefits of energy efficiency efforts in conserving domestic resources, saving American consumers money, strengthening economic competitiveness, and reducing environmental impacts. The energy efficiency "resource" plays an increasingly important role in the nation's energy strategy. The advancement of cost-effective efficiency programs and technologies can contribute to the nation's goal of energy independence by reducing demand and using supplies in a more effective manner. Title I seeks to increase energy efficiency measures in the Federal government, as well as in the residential, commercial, and industrial sectors.

Federal government

According to the Energy Information Administration (EIA), the Federal government is the single largest energy consumer in the nation. Congress therefore expects the government to pursue its own energy efficiency efforts vigorously—not only to conserve energy resources and taxpayer dollars, but to lead by example in doing so. To that end, Title I directs the head of each federal agency to undertake a number of measures, including reducing their building energy intensity by 2.5 percent per year through fiscal year 2025 and working with the Office of Management and Budget (OMB) to develop a procurement and implementation strategy for energy-efficient and energy-saving information technologies. Title I further encourages the federal agencies to enter into energy savings performance contracts and utility energy service contracts.

Buildings

At the April 30, 2015 hearing to consider 22 energy efficiency-related bills, the Committee received testimony from the Department of Energy (DOE) that residential and commercial buildings consume more than 40 percent of the nation's total energy and more than 73 percent of its electrical energy. Title I includes a number of programs designed to use energy more efficiently in buildings, by requiring the Secretary of Energy to establish revised federal building energy efficiency performance standards; promoting energy efficiency in federal data centers, and providing for greater energy efficiency in model building codes. Title I also reauthorizes the weatherization and state energy programs that assist in state and local-level development of energy efficiency policies and programs.

Appliances

Since the 1987 National Appliance Energy Conservation Act, minimum energy standards for appliances have resulted in cost-effective energy savings. The DOE estimates that the 25 new or updated standards put in place since 2009, covering more than 30 products, will provide consumers with almost $1.8 trillion in utility bill savings by 2030. Title I therefore includes provisions to address federal furnace standards after an advisory group completes an

analysis of a furnace efficiency standard; extend the product system rebate program; and establish a rebate program for the replacement of qualified energy inefficient transformers.

Manufacturing

The manufacturing sector represents approximately 12 percent of the gross domestic product and uses almost one-third of the primary energy in the country. Title I includes provisions designed to assist small and medium manufacturers with energy-efficiency measures, such as leveraging both existing federal agency programs and the research and development work on manufacturing infrastructure conducted by the national laboratories.

Vehicles

Title I also includes provisions designed to address fuel-efficiencies in vehicles, with a focus on improving the Advanced Technology Vehicles Manufacturing (ATVM) program established in the Energy Independence and Security Act (EISA) of 2007.

Energy Resource Infrastructure

The strength and reliability of the nation's energy resource infrastructure is imperative to safeguard our national security interests and maintain our high standard of living. Title II contains measures intended to promote more robust U.S. energy security infrastructure in order to respond to rapid changes in technology and compete in the global marketplace.

Cyber Security

The Administration has rightly determined the nation's electric grid infrastructure to be "uniquely" critical because so many other sectors of the economy depend upon it. Currently, about 32 percent of reported cyber-attacks involve the energy sector. Securing our critical infrastructure at power generators, substations, transformers, and power lines from ever-changing cyber threats is a constant challenge. Congress recognized the importance of cybersecurity protections and moved to shield our collective grid system in the Energy Policy Act (EPACT) of 2005. That law gave the Federal Energy Regulatory Commission (FERC or Commission) the primary responsibility for securing the physical and cyber safety of the grid and established the Electric Reliability Organization to promulgate mandatory reliability standards through an inclusive stakeholder process. Title II continues to strengthen the grid from cyber incursions by codifying the Secretary of Energy as the sector-specific agency with responsibility for the energy sector's cyber security protections and providing the Secretary with the authority to order actions determined to be necessary to protect the grid system from cyber-related threats in emergency situations. Title II also creates several programs within the Department to identify, enhance and test supply chain vulnerabilities and response capabilities between the DOE and other agencies, national labs and private industry. The programs would work to secure energy networks, bolster industry participation in information sharing, address the cyber workforce, enhance monitoring tools and expand the DOE's cooperation with the intelligence community.

Strategic Petroleum Reserve

The rapid growth in oil and gas production in North America has prompted the Committee to reevaluate energy policies enacted decades ago. The rise in domestic U.S. oil production, growth in petroleum product exports, historic declines in net oil imports, and modifications to the oil distribution network (e.g., pipeline reversals) raise questions about the future purpose and design of the Strategic Petroleum Reserve (SPR), which was established in the 1970s at a time of acute energy shortages. In March 2014, DOE initiated a "test sale" to evaluate the functionality of the SPR without prior Congressional notification and then used some of those proceeds to establish regional gasoline reserves in the Northeast, without Congressional authorization. As a result, title II is needed to modernize the SPR and to require Congressional notification of SPR sales in non-emergency situations.

Trade

The U.S. presently produces and consumes more natural gas than at any time in its history and more than any other country in the world. In 2014, the U.S. produced approximately 75 billion cubic feet (bcf) per day, exported approximately 4 bcf per day by pipeline, and imported approximately 7 bcf per day by pipeline and tanker.

According to the EIA, our nation will become a net exporter of natural gas by 2020. The U.S. does not presently export any liquefied natural gas (LNG), with the exception of a small project in Kenai, Alaska. To date, five projects in Louisiana, Florida, Texas, and Maryland have received final authorizations for a cumulative total of 6.5 bcf per day but are not yet in service.

In contrast to exports via pipeline, natural gas must first be liquefied before it can be transported via tanker to global markets. Complex infrastructure for LNG exports is therefore necessary, including liquefaction plants at the origin and regasification facilities at the destination.

LNG projects require DOE authorization to export the commodity and approval from the FERC, which has jurisdiction over the physical terminal. Title II is needed to bolster our international security efforts and strengthen the American economy by codifying a 45-day timeline for the DOE's final decision on applications to export natural gas to countries that do not have free trade agreements with the United States.

Electricity and energy storage

The Administration's 2015 Quadrennial Energy Review (QER) recognizes that the electric grid "must handle a diverse and evolving mix of energy sources and energy products; link sources, processors, and users across immense distances; match demands that vary on multiple time scales; co-exist with competing uses of the same systems; and perform 24 hours a day, 365 days a year with high reliability." Maintaining the reliability and resiliency of this critical infrastructure is essential to our energy security.

The federal permitting process for electric transmission facilities is notoriously slow and unpredictable. According to the Electric Reliability Organization (ERO), transmission projects in this country require between six and 15 years to engineer, site, permit, and con-

struct. In a 2009 Memorandum of Understanding (MOU), Regarding Coordination in Federal Agency Review of Electric Transmission Facilities on Federal Land, the Administration sought to improve "coordination among project applicants, federal agencies and states and tribes involved in the permitting process." The Administration later created a Rapid Response Team for Transmission in 2011 with the nine signatory agencies to the earlier MOU in order to accelerate the deployment of seven pilot transmission projects. Title II is needed for timely siting and permitting of transmission-related infrastructure and improved coordination across federal agencies. Title II also codifies the transmission Rapid Response Team and creates as Ombudsperson at the Council of Environmental Quality to resolve any intra-agency disputes or delays related to the transmission facility permitting process.

At its hearing on March 17, 2015, the Committee heard testimony that economically viable, widely available storage would help address the variable and intermittent nature of most renewable electricity generation with regard both to utility-scale and distributed generation. The development of such commercially available storage promises to smooth out the intermittency of variable, weather-dependent generation, reduce the stress placed on baseload generation from ramping demands, and facilitate the use of renewable generation to reduce peak demand.

Title II includes a number of provisions needed to facilitate modernizing the electric grid, with a concentration on research, development and demonstration programs, for grid storage and for emerging components of the distribution network, including grid management techniques such as transactive energy. The provisions also: authorize a new suite of analytical tools the DOE would make available to state and regional electric grid planners and regulators seeking to modernize the portions of the grid within their territory, identify overarching policy objectives that reflect the current state of technology and best practices nationally, and are intended to assist in assigning accurate monetary values to emerging grid services. These provisions include a collaborative process to develop model grid architecture and voluntary policy pathways, performance metrics, and distribution network planning assistance. The Committee further recognizes that hybrid micro-grid technologies in our country's remote communities that are not connected to a larger electric grid, particularly in Alaska and the U.S. territories, have the potential to increase reliability, lower electricity costs, and lessen these isolated areas' dependence on conventional generation sources like diesel.

Supply

The United States cannot achieve energy independence without sufficient and reliable energy supplies. The nation's geographic diversity and recent technological innovations have resulted in an impressive array of domestic supply options. The shale gas revolution continues to add record levels of natural gas to the nation's supply, thus contributing greatly to our growing energy security. The continued deployment of renewable resources, particularly those with the ability to provide baseload power, is a necessary part of our nation's long-term energy strategy. The Committee further recognizes the geopolitical importance of producing the na-

tion's critical mineral supply instead of relying on foreign sources for those base components needed to run everything from cell phones to medical devices.

Renewable resources

As the largest clean energy resource, hydropower supplies 52 percent of the electricity generated from renewable resources and about 6 percent of the nation's total electricity production. Today this baseload resource provides reliable and inexpensive power to 30 million homes.

In the next decade, more than 250 projects, representing about 16,000 MW of hydropower capacity, will need to be relicensed through a byzantine process that typically takes eight to ten years. In EPACT 2005, Congress sought to reform the hydropower licensing procedures by providing for trial-type hearings on issues of material fact forming the basis for mandatory conditions and prescriptions and allowing for the consideration of alternatives. Title III is needed to improve upon the reforms initiated in 2005 and to make a number of procedural reforms designed to coordinate the federal permitting process.

Title III further supports, through research, development and demonstration, other renewable energy sources such as baseload geothermal, marine hydrokinetic, and biomass.

Natural gas

The record growth in gas production, often involving regions of the country where such activity has not been widespread, has greatly increased demand for new pipelines, gathering lines, and other transportation infrastructure. With multiple agency involvement, the federal review process can be complex and cumbersome, often resulting in delays. Compounding the permitting issues, natural gas pipelines may only cross National Parks pursuant to a special Act of Congress because the Secretary of the Interior lacks the authority to grant such access. This issue has come to the forefront in recent years because of growing demand for natural gas in the Northeast and rising natural gas production in the Marcellus shale (e.g., Pennsylvania). The limited infrastructure that connects the two regions is greatly constrained, and the area is comprised of significant National Park holdings. Title III is needed to streamline the federal permitting process.

Helium

Helium is a natural element that is generally extracted from natural gas and refined for use in magnetic resonance imaging, semiconductor manufacturing, military aviation, federal research, pressurization and purging systems, leak detection, welding, and breathing mixtures. Currently, there is no standardized leasing process for helium development on federal lands. Ownership of helium on federal lands is instead reserved to the government, and leaseholders must request the rights to develop helium on a case-by-case basis. Facilitating helium production on federal lands and requiring the expedited completion of environmental reviews for helium-related projects are important objectives.

Critical minerals

The United States lacks a clear policy to ensure the domestic supply of those minerals that are critical components of the technology needed to run defense, energy, electronic and medical systems. Minerals affect our daily lives and ability to prosper. Establishing a list of the minerals critical to the American economy and detailing a cohesive policy to secure a domestic supply is essential to the energy security and prosperity of the United States.

Accountability

Loan programs

DOE currently administers two energy-related loan programs through its Loan Programs Office: the so-called "Section 1703" loan guarantee program established by EPACT 2005, and the ATVM direct loan program established by the passage of EISA 2007. Title IV reforms the section 1703 loan programs in order to prohibit the subordination of taxpayer interests to those of private investors, to require a minimum percentage of credit subsidies be paid by borrowers, and to increase program transparency. The bill also amends the fee authority for the ATVM program and creates a pathway for marine vessel projects to be eligible under it. As of now, smaller-scale projects at the local level have not had access to the section 1703 loan guarantee program, in part due to the high cost of participation. As a result, title IV provides that state energy financing institutions may participate in the section 1703 program, and removes the innovation requirement for those entities, which in turn can lend to the smaller-scale projects at the local level.

Innovation

The historic mission of the National Laboratories has expanded to include basic science, as well as research, development, and deployment related to energy and national security. In addition, the National Laboratories house scientific instrumentation and facilities that, in many cases, are publicly available and unique. DOE currently operates 17 National Laboratories that are managed by six different offices: the Office of Science; National Nuclear Security Administration; the Office of Nuclear Energy; the Office of Fossil Energy; the Office of Energy Efficiency and Renewable Energy; and the Office of Environmental Management. A number of studies conducted by government agencies and independent third parties have highlighted concerns with the relationship between DOE and the management of National Laboratories, the challenges with technology transfer, and accessibility of the National Laboratories to the public. Title IV addresses these issues.

Grid reliability

The nation's grid system is critical electric infrastructure. Given its national importance, the Committee believes that the reliability of the nation's transmission-related facilities should be fully considered by Federal agencies prior to the adoption of new major federal regulations that may significantly affect grid stability. Title IV therefore establishes a Reliability Impact Statement requirement to ensure that federal regulations preserve grid reliability.

Existing "baseload" capacity units, such as nuclear units, are capable of operating continuously and providing critically necessary grid reliability services. In those parts of the country where Regional Transmission Organizations (RTOs) are administering so-called "organized markets," nuclear and other baseload plants have been and remain at significant risk, from a number of factors, of being retired earlier than the expected lifetime of the plants. These include: the effects of RTO capacity market rules that some stakeholders contend artificially depress revenues for the units such that they cannot provide a reasonable return that warrants remaining in service; government regulations; and preferences for and competition from intermittent generation sources. These capacity markets have been controversial, however, with a number of parties calling for their reform or elimination. It is important to gather further information from the RTOs on the aggregate electric generating capacity resources available to the transmission organization and an assessment of whether the market rules are producing meaningful price signals to indicate where new supply is needed and to reduce uncertainty.

In emergency situations, such as when grid reliability is threatened, the Secretary of Energy has the ability to order electric generating units to run. In the past, this has put utilities in a situation where running the plant in compliance with the DOE's emergency order could result in that unit exceeding an environmental permit, thus subjecting it to litigation. Given the paramount importance of a safe and reliable electrical grid, title IV provides liability protection for those parties subject to an emergency order by the Secretary of Energy.

Management

According to the Government Accountability Office (GAO), the federal government wastes about $2 billion a year maintaining some 77,000 unneeded federal buildings. GAO has also documented that the Bureau of Land Management (BLM) is still holding 3.4 million acres that have been identified for disposal through the agency's land use planning process, chiefly due to an inaccurate and out-of-date system for tracking inventories of buildings and land parcels. The Department of the Interior (DOI) maintains more than 100 different property tracking systems, and the Department of Defense (DOD) maintains more than 300 property management systems. GAO has even determined the General Services Administration's system, which is used by 30 different agencies, to be "unreliable and of limited usefulness." The Committee believes that establishing a single, multipurpose, and uniform computer database at the federal level will allow duplicate and wasteful activities to be identified and eliminated.

On January 9, 2014, President Obama issued a presidential memorandum establishing a QER Task Force, co-chaired by the Director of the Office of Science and Technology Policy and the Director of the Domestic Policy Council and including the heads of thirteen departments and several governmental agencies and organizations. On April 28, the Committee conducted an oversight hearing on the first installment of the Administration's QER, which focused on the infrastructure necessary for transporting, transmitting, and delivering energy. Establishing, in law, a QER Task Force com-

prised of high-level agency officials to review the nation's energy policy every four years will be beneficial.

Energy data is critical in assisting consumers, industry, policymakers and regulators in making educated decisions. This is particularly important at points in time when our energy systems are in major transition, as is the case today. The Energy Markets section would boost the EIA's ability to collect data on energy traders, and the kinds of entities engaged in both the physical and financial energy markets. It would establish the Office of Financial Market Analysis at the EIA, along with an interagency working group on energy markets that would span the DOE and FERC, along with the regulators at the Securities Exchange Commission, Commodity Futures Trading Commission and the Department of Treasury.

Conservation reauthorization

Authorizations for the Land and Water Conservation Fund (LWCF) and the Historic Preservation Fund are both set to expire at the end of this fiscal year. At the same time, there is a significant maintenance backlog at some of our most treasured National Parks. Title V permanently reauthorizes the LWCF program in a way that balances land acquisition with other conservation programs important to states and also permanently reauthorizes the Historic Preservation Fund. To address the problem of needed maintenance at the national parks, title V also establishes a National Park Maintenance and Revitalization Fund.

LEGISLATIVE HISTORY

The Committee on Energy and Natural Resources held four oversight hearings on subjects relevant to its consideration of energy policy in the first four months of the 114th Congress. The four hearings were on the state of technological innovation related to the electric grid (March 17, 2015); the Energy Information Administration's annual energy outlook for 2015 (April 16, 2015); reauthorization and potential reforms to the Land and Water Conservation Fund (LWCF) (April 22, 2015); and the Administration's Quadrennial Energy Review (QER) (April 28, 2015).

The Committee on Energy and Natural Resources held six legislative hearings on the subjects of liquefied natural gas (LNG) (S. 33, the LNG Permitting Certainty and Transparency Act) (January 29, 2015); energy efficiency (April 30, 2015); critical minerals (S. 883, the American Mineral Security Act of 2015) (May 12, 2015); energy infrastructure (May 14, 2015); energy supply (May 19, 2015); and energy accountability and reform (June 9, 2015) to consider a total of 114 introduced bills.

Subsequently, on July 22, 2015, the Chairman and Ranking Member circulated to Members of the Committee a draft of an original bill drawn from a combination of approximately 50 of the measures considered during the legislative hearings.

The Committee marked up the draft bill over the course of three days in an open business meeting starting on July 28, 2015 and continuing on July 29, 2015 and July 30, 2015. The Committee considered 59 amendments, of which 34 were adopted, nine were rejected, and 15 were offered and withdrawn. The Committee on Energy and Natural Resources met in open business session on July

30, 2015 to consider the draft, and ordered an original bill favorably reported.

COMMITTEE RECOMMENDATION AND TABULATION OF VOTES

The Committee on Energy and Natural Resources, in open business session on July 30, 2015, by a majority vote of a quorum present, recommends that the Senate pass an original bill, as described herein.

The roll call vote on reporting the measure was 18 yeas, 4 nays, as follows:

YEAS	NAYS
Ms. Murkowski	Mr. Lee *
Mr. Barrasso	Mr. Flake *
Mr. Risch	Mr. Sanders *
Mr. Daines	Ms. Stabenow *
Mr. Cassidy	
Mr. Gardner	
Mr. Portman	
Mr. Hoeven	
Mr. Alexander *	
Ms. Capito	
Ms. Cantwell	
Mr. Wyden*	
Mr. Franken	
Mr. Manchin	
Mr. Heinrich	
Ms. Hirono	
Mr. King	
Ms. Warren	

* Indicates vote 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. Definitions

Section 2 defines key terms.

TITLE I—EFFICIENCY

SUBTITLE A—BUILDINGS

Section 1001. Greater energy efficiency in building codes

Section 1001(a) amends section 303 of the Energy Conservation and Production Act (ECPA) to add certain definitions; section 1001(b) amends section 304 of ECPA to require that the Secretary of Energy encourage and support the adoption of building energy codes by States, local governments, or Indian tribes that meet or exceed model building energy codes; section 1001(d) amends section 307 of ECPA to require that the Secretary of Energy support the updating of model building energy codes.

Section 1002. Budget-neutral demonstration program for energy and water conservation improvements at multifamily residential units

Section 1002 directs the Secretary of Housing and Urban Development (HUD) to conduct a pilot project that demonstrates the use of budget-neutral, performance-based agreements for energy or water conservation improvements in HUD multifamily housing.

Section 1003. Coordination of energy retrofitting assistance for schools

Section 1003 directs the Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) to coordinate and disseminate information on existing Federal programs that may be used to help initiate, develop, and finance energy efficiency, renewable energy, and energy retrofitting projects for schools.

Section 1004. Energy efficiency retrofit pilot program

Section 1004 directs the Secretary of Energy to establish a pilot program to award grants for the purpose of retrofitting nonprofit buildings with energy-efficiency improvements.

Section 1005. Utility energy service contracts

Section 1005 amends section 546 of the National Energy Conservation Policy Act (NECPA) to extend the maximum potential contract period of utility energy service contracts from 10 to 25 years.

Section 1006. Use of energy and water efficiency measures in Federal buildings

Section 1006 amends contracting authority and reporting in NECPA to encourage Federal agencies to enter into energy savings performance contracts and utility energy service contracts to implement energy and water conservation measures at Federal buildings. Section 1006(g) specifies that the term "federal building" does not include a dam, reservoir, or hydropower facility owned or operated by a Federal agency.

Section 1007. Building training and assessment centers

Section 1007 directs the Secretary of Energy to provide grants to institutions of higher education and Tribal Colleges or Universities to establish building training and assessment centers.

Section 1008. Career skills training

Section 1008 directs the Secretary of Energy to provide grants to eligible entities to cover a portion of the cost of career skills training programs that lead to students receiving an industry-related certification for the installation of energy efficient building technologies.

Section 1009. Energy-efficient and energy-saving information technologies

Section 1009 amends section 543 of NECPA by adding a section that directs the Director of the Office of Management and Budget (OMB) to collaborate with each Federal agency to develop an imple-

mentation strategy for the maintenance, purchase, and use of energy-efficient and energy-saving information technologies.

Section 1010. Availability of funds for design updates

Section 1010 amends section 3307 of title 40 of the U.S. Code to allow the Administrator of General Services to use appropriated funds to update the design of a building for which the design has been substantially completed but on which construction has not begun to meet applicable Federal building energy efficiency standards.

Section 1011. Energy efficient data centers

Section 1011 amends section 453 of the Energy Independence and Security Act (EISA) of 2007 to update the Voluntary National Information Program. The section requires the development of a metric for data center energy efficiency, and the Secretary of Energy and Director of OMB to maintain a data center energy practitioner program and an open data initiative for Federal data center energy usage.

Section 1012. Weatherization Assistance Program

Section 1012(a) amends section 422 of ECPA to reauthorize the Weatherization Assistance Program. Subsection (b) adds a new section 414C to ECPA to require the Secretary of Energy to provide competitive grants to nonprofit organizations with a record of making energy efficient improvements to conduct housing energy retrofits for low-income persons.

Section 1013. Reauthorization of State energy program

Section 1013 amends section 365(f) of Energy Policy Conservation Act (EPCA) to reauthorize the State Energy Program.

Section 1014. Smart building acceleration

Section 1014 directs the Secretary of Energy to establish the "Federal Smart Building Program" to demonstrate the costs and benefits of implementing smart building technology and to undertake research and development to address barriers to the integration of such technology.

Section 1015. Repeal of fossil phase-out

Section 1015 amends section 305(a)(3) of ECPA to repeal the requirement that new Federal buildings and Federal buildings undergoing major renovations phase out fossil fuel-generated energy consumption by 2030.

Section 1016. Federal building energy efficiency performance standards

Section 1016(a) amends section 303 of ECPA to expand the scope of building energy efficiency performance standards for new federal buildings to include major renovations. Subsection (b) amends section 305(a)(3) of ECPA to require the Secretary of Energy to establish more stringent revised Federal building energy efficiency performance standards for new Federal buildings and Federal buildings with major renovations unless demonstrated not to be lifecycle cost effective.

Section 1017. Codification of Executive Order

Section 1017 directs the head of each Federal agency to reduce their building energy intensity by 2.5 percent per year for fiscal years 2016 through 2025.

Section 1018. Certification for green buildings

Section 1018 amends section 305 of ECPA to direct the Secretary of Energy to determine which certification systems for green commercial and residential buildings are the most likely to encourage a comprehensive and environmentally sound approach to the certification of green buildings.

Section 1019. High performance green federal buildings

Section 1019 amends section 436(h) of EISA 2007 to require the Federal Director of the Office of Federal High-Performance Green Buildings within the General Services Administration to identify and provide to the Secretary of Energy with a list of certification systems most likely to encourage a comprehensive and environmentally sound approach to certification of green buildings.

Section 1020. Evaluation of potentially duplicative green building programs within Department of Energy

Section 1020 requires the Secretary of Energy to evaluate potentially duplicative green building programs within the DOE, and to determine if there are ways to eliminate overlap, improve coordination, and increase their effectiveness.

Section 1021. Study and report of energy savings benefits of operational efficiency programs and services

Section 1021 requires the DOE to conduct a study that results in a report to quantify the energy savings benefits of operational efficiency programs and services for commercial, institutional, industrial, and governmental entities.

SUBTITLE B—APPLIANCES

Section 1101. Extended product system rebate program

Section 1101 directs the Secretary of Energy to establish a rebate program to encourage the replacement of energy inefficient electric motors.

Section 1102. Energy efficient transformer rebate program

Section 1102 directs the Secretary of Energy to establish a rebate program to encourage the replacement of energy inefficient transformers.

Section 1103. Standards for certain furnaces

Section 1103 amends section 325(f)(4) of EPCA to make any action regarding a final rule contingent upon a determination by an advisory group convened by the Secretary of Energy regarding whether a nationwide requirement for a condensing furnace efficiency standard is technically feasible and economically justified.

Section 1104. Third-party certification under Energy Star program

Section 1104 amends section 324A of EPCA by directing the Administrator to revise the certification requirements for Energy Star program partners that manufacture consumer electronic products and have complied with all program requirements for at least 18 months.

Section 1105. Energy conservation standards for commercial refrigeration equipment

Section 1105 postpones the implementation of new DOE energy efficiency standards for specific types of commercial refrigerators that conflict with new regulations from the Environmental Protection Agency (EPA) that phase out the use of certain refrigerants. This delay allows affected manufacturers time to redesign their refrigerators to meet requirements from both agencies.

Section 1106. Voluntary verification programs for air conditioning, furnace, boiler, heat pump, and water heater products

Section 1106 amends section 326(b) of EPCA to require DOE to recognize certain qualified voluntary, independent certification programs for energy conservation standards for air conditioning, furnace, boiler, heat pump, and water heater products, and to rely on these programs to verify the performance rating of these products, provide annual reports of all test results, and maintain a publicly available list of all certified models.

SUBTITLE C—MANUFACTURING

Section 1201. Manufacturing energy efficiency

Section 1201 amends section 452 of EISA 2007 to add the "Future of Industry Program" and "Sustainable Manufacturing Initiative." These programs direct Industrial Assessment Centers to coordinate with other Federal manufacturing programs, National Laboratories, and energy service and technology providers, and direct DOE's Office of EERE to provide onsite technical assessments to manufacturers seeking efficiency opportunities.

Section 1202. Leveraging existing Federal agency programs to assist small and medium manufacturers

Section 1202 directs the Secretary of Energy to expand the scope of technologies covered by the Industrial Assessment Centers of the Department to include smart manufacturing technologies and practices and equip the Centers' Directors with tools and training to provide technical assistance in smart manufacturing to manufactures.

Section 1203. Leveraging smart manufacturing infrastructure at National Laboratories

Section 1203 directs the Secretary of Energy to study and implement ways for small and medium manufacturers to access the high-performance computing facilities at National Laboratories.

SUBTITLE D—VEHICLES

Section 1301. Short title

Section 1301 provides a short title for the subtitle.

Section 1302. Objectives

Section 1302 lays out the objectives of the subtitle.

Section 1303. Coordination and nonduplication

Section 1303 requires the Secretary of Energy to ensure, to the maximum extent practicable, that the activities authorized by this subtitle are not duplicative of other programs.

Section 1304. Authorization of appropriations

Section 1304 authorizes appropriations through Fiscal Year 2020 for the DOE's vehicle technologies program.

Section 1305. Reporting

Section 1305 requires annual reports through Fiscal Year 2020 for the DOE's vehicle technologies program.

PART I—VEHICLE RESEARCH AND DEVELOPMENT

Section 1306. Program

Section 1306 authorizes a program of basic and applied research, development, engineering, demonstration, and commercial application activities for materials, technologies, and processes that could reduce petroleum use in passenger and commercial vehicles.

Section 1307. Manufacturing

Section 1307 authorizes a program of research, development, engineering, demonstration, and commercial application for advanced vehicle manufacturing technologies and practices.

PART II—MEDIUM- AND HEAVY-DUTY COMMERCIAL AND TRANSIT VEHICLES

Section 1308. Program

Section 1308 authorizes a program of cooperative research, development, demonstration, and commercial application activities on advanced technologies for medium- to heavy-duty commercial, vocational, recreational, and transit vehicles.

Section 1309. Class 8 truck and trailer systems demonstration

Section 1309 authorizes a program to demonstrate the integration of multiple advanced technologies on Class 8 truck and trailer platforms.

Section 1310. Technology testing and metrics

Section 1310 directs the Secretary of Energy to develop standard testing procedures for evaluating the performance of advanced heavy vehicle technologies.

Section 1311. Nonroad systems pilot program

Section 1311 authorizes a pilot program of research, development, demonstration, and commercial application for technologies

to improve total machine or system efficiency for nonroad mobile equipment.

PART III—ADMINISTRATION

Section 1312. Repeal of existing authorities.

Section 1312 repeals a number of provisions within the U.S. Code that are no longer necessary as a result of this subtitle.

TITLE II—INFRASTRUCTURE

SUBTITLE A—CYBERSECURITY

Section 2001. Cybersecurity threats

Section 2001 adds a new section, 224, to the Federal Power Act (FPA). The new section 224(b) provides the Secretary of Energy with emergency authority to protect the bulk-power system (BPS) from cybersecurity threats. The new section 224(c) specifies the duration of the emergency authority. The new section 224(d) directs the Federal Energy Regulatory Commission (FERC or Commission) to adopt regulations to permit entities subject to an emergency order under this section to seek recovery of prudently-incurred costs required to implement actions ordered by the Secretary, to designate critical electric infrastructure information (CEII), to prohibit the unauthorized disclosure of CEII, and to ensure there are appropriate sanctions in place for the knowing and willful disclosure of such protected information by FERC personnel or agents of the Commission. The new subsection 224(d)(1) protects CEII from disclosure under federal or state sunshine laws.

Section 2002. Enhanced grid security

Section 2002 codifies the DOE as the Sector-Specific Agency for cybersecurity for the energy sector and specifies the DOE's duties with regard to that role. Directs the Secretary to carry out a cybersecurity-related research, development, and demonstration program; perform pilot demonstration projects for new technologies; and develop workforce curricula for energy sector-related cybersecurity.

SUBTITLE B—STRATEGIC PETROLEUM RESERVE

Section 2101. Strategic Petroleum Reserve test drawdown and sale notification and definition change

Section 2101(a) amends section 161 of EPCA to require DOE to notify Congress prior to any Strategic Petroleum Reserve (SPR) test sale, with an exception for emergency drawdowns, and to submit a report following any sale. Section 2101(b) amends section 3 of EPCA to include terrorism as a qualifying cause of severe energy disruption.

Section 2102. Strategic Petroleum Reserve mission readiness optimization

Section 2102 requires DOE to conduct a strategic review of SPR and develop proposals related to its role in national policy, relevant legal authorities, configuration and performance, and long-term effectiveness.

Section 2103. Strategic Petroleum Reserve modernization

Section 2103(a) reaffirms the strategic importance of the SPR. Section 2103(b) restricts the uses of funds raised from any drawdown to purposes directly related to either the operation of the Reserve or projects that enhance U.S. energy security. Section 2103(c) amends the definition of "related facility" to include terminals.

SUBTITLE C—TRADE

Section 2201. Action on applications to export liquefied natural gas

Section 2201(a) requires the Secretary of Energy to issue a final decision, approving or disapproving, any application to export natural gas to countries that do not have free trade agreements with the United States no later than 45 days after the FERC or Maritime Administration has concluded the review required by the National Environmental Policy Act of 1969 (NEPA). Section 2201(c)(1) grants, to the U.S. Court of Appeals for the District of Columbia Circuit or the circuit in which the liquefied natural gas export facility will be located, original and exclusive jurisdiction over any civil action for the review of an order issued by the Secretary of Energy with respect to such an application or the Secretary's failure to issue a final decision on such an application. Section 2201(c)(3) provides for expedited consideration of civil actions brought under the section, and, in the case of covered applications. Section 2201(c)(4) provides for the transfer of petitions for review upon the motion of an applicant.

Section 2202. Public disclosure of liquefied natural gas export destinations

Section 2202 amends section 3 of the Natural Gas Act to require DOE to collect data on exports of liquefied natural gas, and to require that this data be made public.

Section 2203. Energy data collaboration

Section 2203 requires the Energy Information Administration (EIA) to collaborate with Mexican and Canadian officials to improve the collection of cross-border energy data and provide periodic updates to the Congressional committees of jurisdiction.

SUBTITLE D—ELECTRICITY AND ENERGY STORAGE

Section 2301. Grid storage program

Section 2301 directs the Secretary of Energy to conduct a research, development, and demonstration program for electric grid energy storage to address challenges identified in the 2013 DOE Strategic Plan for Grid Energy Storage.

Section 2302. Electric system grid architecture, scenario development, and modeling

Section 2302 requires the Secretary of Energy to establish a collaborative process to develop model grid architecture and a set of future scenarios for the electric system to examine the impacts of different combinations of resources and then determine whether the creation of any additional standards for ensuring the interoper-

ability of the grid system and associated communications networks are required.

Section 2303. Technology demonstration on the distribution system

Section 2303 directs the Secretary of Energy to establish a grant program to carry out eligible projects related to the modernization of the electric grid and requires the development of a cybersecurity plan and the performance of privacy risk analysis for those projects.

Section 2304. Hybrid micro-grid systems for isolated and resilient communities

Section 2304 requires the Secretary of Energy to establish a program to promote the development of hybrid micro-grid systems for isolated communities and micro-grid systems to increase the resilience of critical infrastructure.

Section 2305. Voluntary model pathways

Section 2305 requires the Secretary of Energy to initiate development of voluntary model pathways for modernizing the electric grid through a collaborative public-private effort to facilitate certain objectives, and establishes a Steering Committee to facilitate the development.

Section 2306. Performance metrics for electricity infrastructure providers

Section 2306 requires the Secretary of Energy to submit to Congress within two years after enactment a report that includes an evaluation of the performance of the electric grid in light of metrics to be developed and a description of the costs and benefits associated with certain evaluated scenarios developed under section 2302.

Section 2307. State and regional distribution planning

Section 2307(a) requires the Secretary of Energy, upon the request of the State, to partner with States and regional organizations to facilitate development of State and regional electric distribution plans by conducting a resource assessment and developing open source tools for planning and operations. Section 2307(c) authorizes the Secretary to provide technical assistance to States and others.

Section 2308. Authorization of appropriations

Section 2308 provides an authorization of appropriations to carry out sections 2302 through 2307.

Section 2309. Electric transmission infrastructure permitting

Section 2309(a) codifies the Interagency Rapid Response Team for Transmission to improve the efficiency of electric transmitting infrastructure permitting. Section 2309(b) establishes the position of Transmission Ombudsperson within Council on Environmental Quality (CEQ) to resolve delays and complaints related to the electric transmission infrastructure permitting process. Section 2309(c) ensures the continuity of existing use and occupancy right-of-ways granted across public lands or National Forest System land (includ-

ing vegetation management agreements, where applicable) for the transmission of electric energy by any Federal department or agency by providing for agreements between such Federal entities and the Secretaries of the Interior or Agriculture.

Section 2310. Report by transmission organizations on distributed energy resources and micro-grid systems

Section 2310 requires Transmission Organizations to submit a report to FERC within six months identifying barriers to the deployment of distributed energy systems and micro-grid systems, as well as potential changes to the operational requirements for, or the charges associated with, the interconnection of these resources to the Transmission Organization.

Section 2311. Net metering study guidance

Section 2311 amends Title 18 of the Energy Policy Act (EPACT) of 2005 and requires the Secretary of Energy to issue guidance on criteria for net metering studies conducted by the DOE and directs the DOE to undertake a study of net energy metering.

SUBTITLE E—COMPUTING

Section 2401. Exascale computer research program

Section 2401 requires the Secretary of Energy to conduct a research program, and establish two or more National Lab partnerships with industry and institutes of higher education, to develop two or more exascale computing systems at DOE.

TITLE III—SUPPLY

SUBTITLE A—RENEWABLES

PART I—HYDROELECTRIC

Section 3001. Hydropower regulatory improvements

Section 3001 amends the FPA by designating the FERC as the lead agency to set a binding schedule and coordinate all needed federal authorizations in order to address hydropower permitting backlogs; authorizes the Chairman of the CEQ to resolve any interagency disputes to ensure timely participation and decision-making by the resource agencies; makes improvements to the trial-type hearing process established in EPACT 2005, including requiring the FERC's existing Administration Law Judges to preside over the hearings; and requires FERC to maintain an official consolidated record of a licensing proceeding and directs the Commission to establish a voluntary pilot program to consider a region-wide approach to hydropower licensing.

Section 3002. Hydroelectric production incentives and efficiency improvements

Section 3002 extends the incentives for hydroelectric production and efficiency improvements contained in EPACT 2005 through Fiscal Year 2025.

Section 3003. Extension of time for a Federal Energy Regulatory Commission project involving Clark Canyon Dam

Section 3003 reinstates the FERC hydropower license for Clark Canyon Dam in Montana and extends the project start time for construction for three years.

Section 3004. Extension of time for a Federal Energy Regulatory Commission project involving Gibson Dam

Section 3004 authorizes the FERC to extend the project start time for construction of the Gibson Dam in Montana for six years.

PART II—GEOTHERMAL

SUBPART A—GEOTHERMAL ENERGY

Section 3005. National goals for production and site identification

Section 3005 provides a Sense of Congress for geothermal energy urging the Secretary of Interior to "significantly increase" geothermal production from federal lands, while asking the U.S. Geological Survey (USGS) to identify sites capable of producing 50,000 megawatts of geothermal power using the full range of available technologies, within 10 years.

Section 3006. Priority areas for development on Federal land

Section 3006 directs the Bureau of Land Management (BLM) to identify high priority areas for geothermal development and to facilitate required leasing and development.

Section 3007. Facilitation of coproduction of geothermal energy on oil and gas leases

Section 3007 amends section 4(b) of the Geothermal Steam Act (GSA) of 1970 to allow geothermal development by co-production of electricity from oil and gas leases on federal lands using geothermal technologies.

Section 3008. Noncompetitive leasing of adjoining areas for development of geothermal resources

Section 3008 amends section 4(b) of the GSA 1970 to set up a noncompetitive leasing process where existing geothermal leaseholders on federal lands can move to lease adjoining lands administratively without rebidding. The amended section 4(b) sets the fair market value per acre that must be paid to gain such leases, sets minimum and maximum lease prices, lists the standards that must be met by lessees to gain lands, and limits the amount of land that can be acquired without competitive bids.

Section 3009. Large-scale geothermal energy

Section 3009 adds a new section 616A to EISA 2007 to authorize the Secretary of Energy to conduct additional types of research involving geothermal energy technologies. The new section defines the specific types of research that may be conducted, details how entities can apply for grants to conduct demonstration projects, and authorizes research into the environmental impacts of such technologies.

Section 3010. Report to Congress

Section 3010 requires the Secretary of Energy to report to Congress within three years on the progress made by research into geothermal technologies and requires an additional report every five years thereafter.

Section 3011. Authorization of appropriations

Section 3011 provides an authorization of appropriations for Subpart A of Part II of Title III.

SUBPART B—GEOTHERMAL EXPLORATION

Section 3012. Geothermal exploration test projects

Section 3012 adds a new section 30 to GSA 1970 to allow for the use of a categorical exclusion to NEPA to permit geothermal exploration test wells to be drilled. The new section limits when the exclusion can be in place by acreage and environmental impacts and requires complete restoration of any site within three years, allows the relevant Secretary to deny any exclusion based on "extraordinary circumstances" as defined by existing regulations, and includes review and public notice provisions.

PART III—MARINE HYDROKINETIC

Section 3013. Definition of marine and hydrokinetic renewable energy

Section 3013 amends section 632 of EISA 2007 to revise the definition of marine hydrokinetic energy, broadening it beyond only electrical energy.

Section 3014. Marine and hydrokinetic renewable energy research and development.

Section 3014 amends both EPACT 2005 and EISA 2007 to revise DOE's authorizations for research, development, and demonstration programs and commercial application efforts involving marine hydrokinetic technology to cover current, tidal, wave, and thermal technologies. The amendments define allowable research areas, coordinate research, and allow for support of in-water demonstrations of technologies and for partnerships with international entities, research centers, and businesses.

Section 3015. National Marine Renewable Energy Research, Development, and Demonstration Centers

Section 3015 amends EISA 2007 to authorize the National Marine Renewable Energy Research, Development and Demonstration Centers to participate in demonstration projects, support in-water testing, support arrays of technology devices, and serve as information clearinghouses.

Section 3016. Authorization of appropriations

Section 3016 amends EISA 2007 to reauthorize federal funding for marine hydrokinetic research.

PART IV—BIOMASS

Section 3017. Bio-power

Section 3017 amends section 9008 of the Farm Security and Rural Investment Act of 2002 to: provide research assistance for the development of woody biomass heat and bio-power projects; expands the authority of the Biomass Research and Development Board to consider woody biomass heat and bio-power projects and authorizes grants to support innovation and market development of woody biomass heat and bio-power systems; requires the Secretaries of Agriculture and Energy to set up two working groups to collaborate on project implementation and to share best practices; establishes a low-interest loan program in the Department of Agriculture's Rural Development Office to support the construction of residential, commercial or institutional and industrial woody biomass heat and bio-power systems; and permits loans for woody biomass heat residential, commercial or institutional, and industrial wood energy systems to be made under the Energy Efficiency and Conservation Loan Program under section 2 of the Rural Electrification Act of 1936.

SUBTITLE B—OIL AND GAS

Section 3101. Amendments to the Methane Hydrate Research and Development Act of 2000

Section 3101 amends and reauthorizes the Methane Hydrate Research and Development Act of 2000. The amendments authorize basic and applied research to identify, explore, assess, and develop methane hydrate as a commercially viable source of energy and to identify the environmental, health, and safety impacts of such development; authorizes the identification of methane hydrate concentrations in the Gulf of Mexico and Atlantic Basin; authorizes basic and applied research, expanded education and training programs in methane hydrate resource research, and long-term environmental monitoring and research programs into the effects of the production of methane hydrate reservoirs.

Section 3102. Liquefied natural gas study

Section 3102 requires the Secretary of Energy submit within 1 year of enactment a study on the regional economic impacts, including on the manufacturing sector and other issues, of exporting liquefied natural gas. Requires the Secretary to consult the National Association of Regulatory Utility Commissioners and the National Association of State Energy Officials.

Section 3103. FERC process coordination with respect to regulatory approval of gas projects

Section 3103 designates the FERC as the lead agency for all Federal authorizations and NEPA compliance related to natural gas transportation; expresses the sense of Congress that all such authorizations should be issued no later than 90 days after applications are deemed complete, and directs FERC to establish an interagency schedule and to refer all interagency disputes to the CEQ for prompt resolution; directs the Commission to maintain consolidated records of all relevant proceedings, and requires other agen-

cies to defer to FERC and to undertake concurrent reviews if possible; requires any agency that does not adhere to the schedule to notify Congress and the FERC of its failure and provide a plan to rectify; and requires the FERC to make publicly available the updated schedule for each application with points of contact, expected date of completion, and explanations of delay.

Section 3104. Pilot program

Section 3104 requires the BLM to establish a single-state, 3-year-long pilot program to streamline drilling permits in spacing units wherein the Federal Government does not own or hold more than 25 percent of the subsurface minerals and does not own or hold surface area. Subsection (c) authorizes funding for 10 full-time equivalents and requires a report to Congress after four years.

SUBTITLE C—HELIUM

Section 3201. Rights to helium

Section 3201(b) requires the expedited completion of environmental reviews for helium-related projects. Section 3201(c) amends the Mineral Leasing Act to repeal the Federal government's reservation of the first right to helium located on leased lands. Section 3201(d) provides the first right of refusal to explore for helium on leased lands to the lessee.

SUBTITLE D—CRITICAL MINERALS

Section 3301. Definitions

Section 3301 defines key terms used in the subtitle.

Section 3302. Policy

Section 3302 amends section 3 of the National Materials and Minerals Policy, Research and Development Act of 1980 to modernize the congressional declaration of federal mineral policies.

Section 3303. Critical mineral designations

Section 3303 requires the Secretary of the Interior, acting through the Director of the USGS, to establish a methodology for the designation of critical minerals based on the potential for supply disruptions and the importance of their use; and requires the list of critical minerals to be reviewed and updated at least every three years.

Section 3304. Resource assessment

Section 3304 requires the Secretary of the Interior, in coordination with State geological surveys, to identify and quantify critical mineral resources throughout the United States within four years; and requires a report on the status of geological surveying for any mineral on which the United States is more than 25 percent import dependent, but which is not designated as a critical mineral.

Section 3305. Permitting

Section 3305 outlines a series of performance improvements and reporting requirements to reduce delays in the federal permitting process for mines that will produce critical minerals. Section 3305(c) requires the development of a performance metric to evalu-

ate progress made in improving permitting efficiency. Section 3305(e) directs OMB to include mining projects on the Federal Infrastructure Projects Permitting Dashboard. Section 3305(f) requires a report from the Small Business Administration on regulations affecting the critical minerals industry.

Section 3306. Federal Register process

Section 3306 requires Federal Register notices to be completed within 45 days, prepared at the organization level of the agency, and transmitted from the office in which the documents or meetings are held or the activity is initiated.

Section 3307. Recycling, efficiency, and alternatives

Section 3307 directs the Secretary of Energy to conduct a program of research and development to promote the efficient production, use, and recycling of critical minerals throughout the supply chain, and to develop alternatives to critical minerals that do not occur in significant abundance in the United States.

Section 3308. Analysis and forecasting

Section 3308 directs the Secretary of the Interior, in consultation with the EIA, to establish a forecasting capability for critical mineral reliance, production, price, recycling, and related factors; requires a new "Annual Critical Minerals Outlook;" and protects proprietary data.

Section 3309. Education and workforce

Section 3309 provides for a workforce assessment, curriculum development, and programs related to critical minerals at institutions of higher education.

Section 3310. National geological and geophysical data preservation program

Section 3310 reauthorizes the program created by section 351 of EPACT 2005.

Section 3311. Administration

Section 3311 repeals the National Critical Materials Act of 1984, makes conforming amendments, and provides two savings clauses related to the effect of the critical minerals subtitle.

Section 3312. Authorization of appropriations

Section 3312 provides an authorization of appropriations for subtitle D.

SUBTITLE E—COAL

Section 3401. Fossil energy

Section 3401 amends section 961(a) of EPACT 2005 to include improvement of conversion, use, and storage of carbon dioxide produced from fossil fuels as an objective in the research, development, demonstration, and commercial application programs for fossil energy at the DOE.

Section 3402. Establishment of coal technology program

Section 3402 repeals the existing EPACT 2005 coal programs, and establishes a new coal technology program, which includes programs for research and development, large-scale pilot projects, and demonstration projects. The program objectives are reliable power, conversion efficiencies, carbon capture and storage, reduction of emissions, and water discharge management. The amendment authorizes $610 million annually from 2017–2020, and $560 million for 2021.

SUBTITLE F—NUCLEAR

Section 3501. Report on fusion and fission reactor prototypes

Section 3501 requires a report on fusion and fission reactor prototypes. Requires DOE to submit a report to Congress that assesses its capability to host privately-funded fusion and fission reactor prototypes at DOE-owned sites.

Section 3502. Next generation nuclear plant project

Section 3502 removes the requirement that the project be built in a specific state.

SUBTITLE G—WORKFORCE DEVELOPMENT

Section 3601. 21st Century Energy Workforce Advisory Board

Section 3601 establishes the 21st Century Energy Workforce Advisory Board at DOE to develop a strategy for the support and development of a skilled workforce, including underrepresented populations, to meet current and future energy sector needs.

Section 3602. Energy workforce pilot grant program

Section 3602 establishes a four year pilot program to award competitive grants for job training programs that lead to an industry-recognized credential.

SUBTITLE H—RECYCLING

Section 3701. Recycled carbon fiber

Section 3701 directs the Secretary of Energy to conduct a comprehensive study on the recycling of carbon fiber and production waste carbon fiber. Upon completion of the study, directs the Secretary to develop a recycled carbon fiber demonstration project.

Section 3702. Energy generation and regulatory relief study regarding recovery and conversion of nonrecycled mixed plastics

Section 3702 requires the Secretary of Energy to conduct a study to determine a cost-effective system to convert plastics into material that can be used to generate electric energy, fuels, or chemical feedstocks.

Section 3703. Eligible projects

Section 3703 excludes projects that use commonly recycled paper from being eligible for the Title XVII DOE loan guarantee program created by EPACT 2005.

TITLE IV—ACCOUNTABILITY

SUBTITLE A—LOAN PROGRAMS

Section 4001. Terms and conditions for incentives for innovative technologies

Section 4001(a) amends section 1702 of EPACT 2005 to require that borrowers pay no less than 25 percent of the cost of the credit subsidy for a guarantee and directs the Secretary of Energy to provide an estimate or range for the expected cost as soon as practicable. Section 4001(b) amends section 1702 of EPACT 2005 to clarify and reaffirm the current prohibition on subordination of debt. Section 4001(c) increases the transparency of the section 1703 loan guarantee program by establishing a process for the borrower to request the status of their application directly from DOE. Section 4001(d) repeals the temporary loan program under section 1705 of EPACT 2005.

Section 4002. State loan eligibility

Section 4002 amends section 1701 of EPACT 2005 to clarify eligibility for State energy financing institutions and establishes terms and conditions for their participation in the Section 1703 loan guarantee program.

Section 4003. GAO Study on fossil loan guarantee incentive program

Section 4003 directs the Comptroller General of the United States to conduct a report on the effectiveness of DOE's advanced fossil loan guarantee program and other incentive programs for advanced fossil energy at the Department.

Section 4004. Program eligibility for vessels

Section 4004 authorizes projects for the reequipping, expanding, or establishing of a manufacturing facility in the United States to produce vessels to be eligible for the Advanced Technology Vehicles Manufacturing (ATVM) program established by section 136 of EISA 2007. Section 4004 also prohibits the use of any existing credit subsidy and requires either new appropriations or borrowers to self-pay the credit subsidy associated with projects made eligible under the section.

Section 4005. Additional reforms

Section 4005 directs the DOE to issue a rule that specifies energy efficiency improvement standards for the manufacturing, retrofitting, or repowering of vessels made eligible for the ATVM program, and provides the DOE, consistent with its authority under the section 1703 loan guarantee program, authority to charge fees for the ATVM program, including the ability to charge closing fees.

Section 4006. Department of Energy Indian energy education planning and management assistance program

Section 4006 reauthorizes the Indian Energy Education Planning and Management Assistance Program first created by the Energy Policy Act of 1992. It makes grants to Indian tribes for energy education, research and development, planning and management

needs. It extends the current authorization for such grants from 2016 through 2021.

SUBTITLE B—ENERGY-WATER NEXUS

Section 4101. Nexus of energy and water for sustainability

Section 4101 directs the Secretary of Energy and the Secretary of the Interior to establish an Interagency Coordination Committee, co-chaired by the Secretaries of Energy and the Interior, to identify all relevant energy-water nexus activities across the federal government; enhance the coordination of research and development activities among agencies; gather and disseminate data to enable better practices; explore relevant public-private collaboration; issue a report on the feasibility of establishing an energy-water center of excellence at the National Laboratories, and develop a research and development plan for energy-water nexus related programs. It also directs the Secretaries to establish the Nexus of Energy and Water Sustainability (NEWS) office to provide leadership and administrative support functions for the Interagency Coordination Committee.

Section 4102. Smart energy and water efficiency pilot program

Section 4102 amends Title IX of EPACT 2005 to establish a Smart Energy and Water Efficiency Pilot Program at DOE to provide grants to eligible utilities, municipalities, water districts as well as Indian tribes and Alaska Native villages.

SUBTITLE C—INNOVATION

Section 4201. America COMPETES programs

Section 4201(a) amends section 971(b) of EPACT 2005 to authorize the DOE's Office of Science to carry out research, development, demonstration, and commercial applications activities. Subsection (b) reauthorizes the Advanced Research Projects Agency—Energy (ARPA-E) and provides additional protection for program participants' proprietary information.

Section 4202. Inclusion of early stage technology demonstration in authorized technology transfer activities

Section 4202 amends section 1001 of EPACT 2005 to allow directors of National Laboratories to use technology transfer funds to carry out early stage and pre-commercial technology demonstration activities, to remove technology barriers that limit private sector interest, and to demonstrate potential commercial applications of any research and technologies arising from National Laboratory activities.

Section 4203. Supporting access of small business concerns to National Laboratories

Section 4203 requires the Secretary of Energy to create a website relating to National Laboratory programs available to small business concerns in order to facilitate access to the National Laboratories and the promotion of technology transfer of innovative energy technologies.

Section 4204. Microlab technology commercialization

Section 4204 allows the Secretary of Energy, in collaboration with the directors of the National Laboratories, to establish a microlab program. Section 4204(d) authorizes appropriations of $50 million for fiscal year 2016.

SUBTITLE D—GRID RELIABILITY

Section 4301. Bulk-power system reliability impact statement

Section 4301 amends section 215 of the FPA to require regional reliability entities to submit to Congress and FERC within six months after enactment, and every three years thereafter, a report that describes the state of and prospects for electric reliability within the region. With respect to major federal rules that may significantly affect the reliable operation of the bulk power system, the regional reliability entities shall submit to FERC, for transmittal to the agency issuing the rule, a statement on the impact of the proposed rule on the reliable operation of the bulk power system—a Reliability Impact Statement (RIS). The Agency issuing the rule shall consider the RIS and include a detailed response in the final rule.

Section 4302. Report by transmission organizations on diversity of supply

Section 4302 requires Transmission Organizations to submit a report to the FERC within six months that identifies, describes, and evaluates the electric capacity resources available to the Transmission Organization; assesses the current and projected state of reliability; and assesses whether and to what extent the market rules of the Transmission Organization meet a series of criteria related to wholesale electric prices, diversity of generation, and availability of self-supply of electric capacity resources by public power entities.

Section 4303. Activities carried out during an authorization during war or emergency

Section 4303 amends section 202(c) of the FPA to provide, subject to exceptions, a waiver of liability for actions carried out in compliance with an order under that section or under section 224(b)(1). This would include generation, delivery, interchange, or transmission of electric energy ordered to be provided during a war or to meet an emergency such as an imminent threat to electric reliability.

SUBTITLE E—MANAGEMENT

Section 4401. Federal land management

Section 4401 authorizes the Secretary of the Interior to establish a "cadastre," or computerized inventory of buildings and other real property (land), including associated infrastructure such as roads and utility systems and pipelines, collected from surveys, maps, charts and inventories that will be stored as digital data. Section 4401(b)(1)(C) authorizes the Secretary to enter into discussions with other federal agencies to utilize the data inventory system to keep track of their holdings, and authorizes the development of

cost-sharing agreements so that states, local governments, and Indian tribes may also utilize the inventory system. Section(b)(4) outlines the coordination involved in collecting and creating the geographical (data) information system that will store the inventories. Section 4401(c) requires that the information be kept in a graphically geo-enabled and searchable format available to the public on the Internet, provided that the identity of any buildings and facilities that would impair or jeopardize national security or homeland defense are withheld from public disclosure. Section 4401(d) clarifies that nothing in the provision requires any new appraisals or assessments of federal assets for any purpose.

Section 4402. Quadrennial Energy Review

Section 4402 amends section 801 of the DOE Organization Act to require the President to establish a Quadrennial Energy Review (QER) Task Force comprising high-level agency officials. Requires this task force to conduct a DOE-supported review of national energy policy every four years.

Section 4403. State oversight of oil and gas programs

Section 4403 adds a new section requiring the Secretary of the Interior to establish a program through which the BLM and a State, upon the request of the Governor of the State, can enter into a memorandum of understanding to consider the costs and benefits of creating consistent rules and processes governing oil and gas production activities on federal lands in the State.

Section 4404. Under Secretary for Science and Energy

Section 4404 makes conforming amendments to the DOE Organization Act and other relevant acts to reflect the current title for this position.

SUBTITLE F—MARKETS

Section 4501. Enhanced information on critical energy supplies

Section 4501 amends section 205 of the DOE Organization Act to require EIA, in cooperation with the Commodity Futures Trade Commission (CFTC), to collect data on physical oil inventories and other physical oil assets owned by the 50 largest traders of oil contracts as determined by the CFTC. The new section 205 (p) establishes a Financial Market Analysis Office within EIA.

Section 4502. Working Group on Energy Markets

Section 4502 establishes a Working Group on Energy Markets composed of high-level agency officials chaired by the Secretary of Energy. The Working Group shall investigate the effects of financial investment in energy commodities and issue recommendations to the President and Congress if necessary.

Section 4503. Study of regulatory framework for energy markets

Section 4503 requires the Working Group on Energy Markets to conduct a study about the pricing of crude oil and refined products and to provide to the Congressional committees of jurisdiction recommendations concerning Federal oversight and regulatory action related to transparency and excessive speculation.

SUBTITLE G—AFFORDABILITY

Section 4601. E-prize competition pilot program

Section 4601 amends section 1008 of EPACT 2005 to add an E-prize Competition Pilot Program. The new section 1008(g)(2)(A) requires the Secretary of Energy to establish an e-prize competition or challenge pilot program to implement sustainable community and regional energy solutions that seek to reduce energy costs through increased efficiency, conservation, or technology innovation in high-cost regions. The new section 1008(g)(2)(B) provides for a prize purse to be awarded by the Secretary, in amounts determined by the Secretary, through one or more competitions or challenges.

SUBTITLE H—CODE MAINTENANCE

Section 4701. Repeal of off-highway motor vehicles study

Section 4701 repeals an outdated study.

Section 4702. Repeal of methanol study

Section 4702 repeals an outdated study.

Section 4703. Repeal of authorization of appropriations provision

Section 4703 repeals expired authorizations.

Section 4704. Repeal of residential energy efficiency standards study

Section 4704 repeals an outdated study.

Section 4705. Repeal of weatherization study

Section 4705 repeals an outdated study.

Section 4706. Repeal of report to Congress

Section 4706 repeals an outdated report.

Section 4707. Repeal of report by General Services Administration

Section 4707 repeals an outdated report.

Section 4708. Repeal of intergovernmental energy management planning and coordination workshops

Section 4708 repeals an outdated requirement for intergovernmental workshops.

Section 4709. Repeal of Inspector General audit survey and President's Council on Integrity and Efficiency report to Congress

Section 4709 repeals an outdated Inspector General audit and an outdated report.

Section 4710. Repeal of procurement and identification of energy efficient products programs

Section 4710 repeals an outdated program at DOE.

Section 4711. Repeal of national action plan for demand response

Section 4711 repeals an outdated report and an expired authorization.

Section 4712. Repeal of national coal policy study

Section 4712 repeals an outdated study.

Section 4713. Repeal of study on compliance problem of small electric utility systems

Section 4713 repeals an outdated study.

Section 4714. Repeal of study of socioeconomic impacts of increased coal production and other energy development

Section 4714 repeals an outdated study.

Section 4715. Repeal of study of the use of petroleum and natural gas in combustors

Section 4715 repeals an outdated study.

Section 4716. Repeal of submission of reports

Section 4716 repeals outdated reporting requirements.

Section 4717. Repeal of electric utility conservation plan

Section 4717 repeals an outdated requirement for electric utilities to submit a plan to Congress.

Section 4718. Emergency Energy Conservation repeals

Section 4718 repeals outdated findings and requirements for minimum purchases of gasoline and associated fines in the event of a violation.

Section 4719. Energy Security Act repeals

Section 4719 repeals outdated provisions related to biomass and the use of gasohol in federal motor vehicles.

Section 4720. Nuclear Safety Research, Development, and Demonstration Act of 1980 repeal.

Section 4720 repeals outdated studies.

Section 4721. Elimination and consolidation of certain America COMPETES programs

Section 4721 repeals unused or outdated America COMPETES program authorities and consolidates other duplicative authorities.

Section 4722. Repeal of the state utility regulatory assistance

Section 4722 repeals an outdated grant program.

Section 4723. Repeal of survey of energy saving potential

Section 4723 repeals outdated reports to the President and Congress.

Section 4724. Repeal of photovoltaic energy program

Section 4724 repeals an outdated photovoltaic energy commercialization program for the accelerated procurement and installation of photovoltaic solar electric systems for electric production in Federal facilities.

Section 4725. Repeal of energy auditor training and certification

Section 4725 repeals an outdated grant program for training and certification of individuals to conduct energy audits.

Section 4726. Repeal of authorization of appropriations

Section 4726 repeals expired authorization of appropriations.

TITLE V—LAND AND WATER CONSERVATION FUND REAUTHORIZATION

Section 5001. National Park Service Maintenance and Revitalization Conservation Fund

Section 5001 establishes a National Park Service Critical Maintenance and Revitalization Conservation Fund to address high-priority deferred maintenance needs of the National Park Service with a prohibition on the use of funds for land acquisition.

Section 5002. Land and Water Conservation Fund

Section 5002 permanently reauthorizes the Land and Water Conservation Fund (LWCF). Specifies the way in which funds may be allocated; adding two new set-asides: one for hunting, fishing, or other recreational purposes and another for recreation and conservation programs important to states. In making federal land acquisitions, the Secretaries shall consider conservation easements and are required to take into account certain considerations in determining which land or interests in land to acquire.

Section 5003. Historic Preservation Fund

Section 5003 permanently reauthorizes the Historic Preservation Fund.

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 report is available, the Chairman will request it to be printed in the Congressional Record for the advice of the Senate.

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 this legislation.

The bill is not a regulatory measure in the sense of imposing Government-established standards or significant economic responsibilities on private individuals or businesses.

This bill provides emergency authority to the Secretary of Energy to direct the owners, operators or users of the Bulk Power System already registered with the nation's Electric Reliability Organization to take necessary actions to guard against cybersecurity threats. There may be some economic costs associated with these requirements, though these costs may be offset in whole or in part by the protection of critical grid infrastructure. Amendments to the Federal Power Act may result in the protection of certain sensitive

information from public disclosure. Also, compliance with voluntary programs, such as those designed to increase energy efficiency efforts, will require commitments of resources. Various grant and other assistance programs will require submission of documentation or plans as a condition for the assistance. The Committee believes that the effects are not undue and are reasonable in light of the benefits of the programs.

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

Little, if any, additional paperwork would result from enactment of this measure, as ordered reported, with the exception of certain ongoing reporting requirements on regional reliability entities regarding electric reliability issues. The bill requires regional reliability entities to submit to FERC a Reliability Impact Statement for any proposed major federal rule that may significantly affect the reliable operation of the Bulk Power System. This bill also requires federal agencies to conduct various studies or make various reports and would require the reporting of certain information associated with grant and financial assistance programs.

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 views 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 original bill, as ordered reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

TABLE OF CONTENTS

AMERICA COMPETES ACT

Public Law 109–69, as amended

* * * * * * *

SEC. 2. TABLE OF CONTENTS.

* * * * * * *

TITLE V—DEPARTMENT OF ENERGY

* * * * * * *

[SEC. 5004. NUCLEAR SCIENCE TALENT EXPANSION PROGRAM FOR INSTITUTIONS OF HIGHER EDUCATION.

[(a) PURPOSES.—The purposes of this section are—

[(1) to address the decline in the number of and resources available to nuclear science programs at institutions of higher education; and

[(2) to increase the number of graduates with degrees in nuclear science, an area of strategic importance to the economic competitiveness and energy security of the United States.

[(b) DEFINITION OF NUCLEAR SCIENCE.—In this section, the term "nuclear science" includes—

[(1) nuclear science;

[(2) nuclear engineering;

[(3) nuclear chemistry;

[(4) radio chemistry; and

[(5) health physics.

[(c) ESTABLISHMENT.—The Secretary shall establish, in accordance with this section, a program to expand and enhance institution of higher education nuclear science educational capabilities.

[(d) NUCLEAR SCIENCE PROGRAM EXPANSION GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.

[(1) IN GENERAL.—The Secretary shall award up to 3 competitive grants for each fiscal year to institutions of higher education that establish new academic degree programs in nuclear science.

[(2) PRIORITY.—In evaluating grants under this subsection, the Secretary shall give priority to proposals that involve partnerships with a National Laboratory or other eligible nuclear-related entity, as determined by the Secretary.

[(3) CRITERIA.—Criteria for a grant awarded under this subsection shall be based on—

[(A) the potential to attract new students to the program;

[(B) academic rigor; and

[(C) the ability to offer hands-on learning opportunities.

[(4) DURATION AND AMOUNT.—

[(A) DURATION.—A grant under this subsection may be up to 5 years in duration.

[(B) AMOUNT.—An institution of higher education that receives a grant under this subsection shall be eligible for up to $1,000,000 for each year of the grant period.

[(5) USE OF FUNDS.—An institution of higher education that receives a grant under this subsection may use the grant to—

[(A) recruit and retain new faculty;

[(B) develop core and specialized course content;

[(C) encourage collaboration between faculty and researchers in the nuclear science field; and

[(D) support outreach efforts to recruit students.

[(e) NUCLEAR SCIENCE COMPETITIVENESS GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.—

[(1) IN GENERAL.—The Secretary shall award up to 5 competitive grants for each fiscal year to institutions of higher education with existing academic degree programs that produce graduates in nuclear science.

[(2) CRITERIA.—Criteria for a grant awarded under this subsection shall be based on the potential for increasing the number and academic quality of graduates in the nuclear sciences who enter into careers in nuclear-related fields.

[(3) DURATION AND AMOUNT.—

[(A) DURATION.—A grant under this subsection may be up to 5 years in duration.

[(B) AMOUNT.—An institution of higher education that receives a grant under this subsection shall be eligible for up to $500,000 for each year of the grant period.

[(4) USE OF FUNDS.—An institution of higher education that receives a grant under this subsection may use the grant to—

[(A) increase the number of graduates in nuclear science that enter into careers in the nuclear science field;

[(B) enhance the teaching of advanced nuclear technologies;

[(C) aggressively pursue collaboration opportunities with industry and National Laboratories;

[(D) bolster or sustain nuclear infrastructure and research facilities of the institution of higher education, such as research and training reactors or laboratories; and

[(E) provide tuition assistance and stipends to undergraduate and graduate students.

[(f) AUTHORIZATION OF APPROPRIATIONS.—

[(1) NUCLEAR SCIENCE PROGRAM EXPANSION GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.—There are authorized to be appropriated to carry out subsection (d)—

[(A) $3,500,000 for fiscal year 2008;
[(B) $6,500,000 for fiscal year 2009;
[(C) $9,500,000 for fiscal year 2010;
[(D) $9,800,000 for fiscal year 2011;
[(E) $10,100,000 for fiscal year 2012; and
[(F) $10,400,000 for fiscal year 2013.

[(2) NUCLEAR SCIENCE COMPETITIVENESS GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.—There are authorized to be appropriated to carry out subsection (e)—

[(A) $3,000,000 for fiscal year 2008;
[(B) $5,500,000 for fiscal year 2009;
[(C) $8,000,000 for fiscal year 2010;
[(D) $8,240,000 for fiscal year 2011;
[(E) $8,500,000 for fiscal year 2012; and
[(F) $8,750,000 for fiscal year 2013.]

SEC. 5005. HYDROCARBON SYSTEMS SCIENCE TALENT EXPANSION PROGRAM FOR INSTITUTIONS OF HIGHER EDUCATION.

(a) PURPOSES.—The purposes of this section are—

(1) to address the decline in the number of and resources available to hydrocarbon systems science programs at institutions of higher education; and

(2) to increase the number of graduates with degrees in hydrocarbon systems science, an area of strategic importance to the economic competitiveness and energy security of the United States.

(b) DEFINITION OF HYDROCARBON SYSTEMS SCIENCE.—In this section:

(1) IN GENERAL.—The term "hydrocarbon systems science" means a science involving natural gas or other petroleum exploration, development, or production.

(2) INCLUSIONS.—The term "hydrocarbon systems science" includes—

(A) petroleum or reservoir engineering;
(B) environmental geoscience;
(C) petrophysics;
(D) geophysics;
(E) geochemistry;
(F) petroleum geology;
(G) ocean engineering;
(H) environmental engineering;
(I) computer science, as computer science relates to a science described in this subsection; and
(J) hydrocarbon spill response and remediation.

(c) ESTABLISHMENT.—The Secretary shall establish, in accordance with this section, a program to expand and enhance institution of higher education hydrocarbon systems science educational capabilities.

(d) HYDROCARBON SYSTEMS SCIENCE PROGRAM EXPANSION GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.—

(1) IN GENERAL.—The Secretary shall award up to 3 competitive grants for each fiscal year to institutions of higher education that establish new academic degree programs in hydrocarbon systems science.

(2) ELIGIBILITY.—In evaluating grants under this subsection, the Secretary shall give priority to proposals that involve partnerships with the National Laboratories, including the National Energy Technology Laboratory, or other hydrocarbon systems scientific entities, as determined by the Secretary.

(3) CRITERIA.—Criteria for a grant awarded under this subsection shall be based on—

(A) the potential to attract new students to the program;

(B) academic rigor; and

(C) the ability to offer hands-on learning opportunities.

(4) DURATION AND AMOUNT.—

(A) DURATION.—A grant under this subsection may be up to 5 years in duration.

(B) AMOUNT.—An institution of higher education that receives a grant under this subsection shall be eligible for up to $1,000,000 for each year of the grant period.

(5) USE OF FUNDS.—An institution of higher education that receives a grant under this subsection may use the grant to—

(A) recruit and retain new faculty;

(B) develop core and specialized course content;

(C) encourage collaboration between faculty and researchers in the hydrocarbon systems science field; and

(D) support outreach efforts to recruit students.

[(e) HYDROCARBON SYSTEMS SCIENCE COMPETITIVENESS GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.—

[(1) IN GENERAL.—The Secretary shall award up to 5 competitive grants for each fiscal year to institutions of higher education with existing academic degree programs that produce graduates in hydrocarbon systems science.

[(2) CRITERIA.—Criteria for a grant awarded under this subsection shall be based on the potential for increasing the number and academic quality of graduates in hydrocarbon systems sciences who enter into careers in natural gas and other petroleum exploration, development, and production related fields.

[(3) DURATION AND AMOUNT.—

[(A) DURATION.—A grant under this subsection may be up to 5 years in duration.

[(B) AMOUNT.—An institution of higher education that receives a grant under this subsection shall be eligible for up to $500,000 for each year of the grant period.

[(4) USE OF FUNDS.—An institution of higher education that receives a grant under this subsection may use the grant to—

[(A) increase the number of graduates in the hydrocarbon systems sciences that enter into careers in the nat-

ural gas and other petroleum exploration, development, and production science fields;

[(B) enhance the teaching of advanced natural gas and other petroleum exploration, development, and production technologies;

[(C) aggressively pursue collaboration opportunities with industry and the National Laboratories, including the National Energy Technology Laboratory;

[(D) bolster or sustain natural gas and other petroleum exploration, development, and production infrastructure and research facilities of the institution of higher education, such as research and training or laboratories; and

[(E) provide tuition assistance and stipends to undergraduate and graduate students.

[(f) AUTHORIZATION OF APPROPRIATIONS.—

[(1) HYDROCARBON SYSTEMS SCIENCE PROGRAM EXPANSION GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.—There are]

(e) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out subsection (d)—

[(A)] *(1)* $3,500,000 for fiscal year 2008;

[(B)]*(2)* $6,500,000 for fiscal year 2009;

[(C)]*(3)* $9,500,000 for fiscal year 2010;

[(D)]*(4)* $9,800,000 for fiscal year 2011;

[(E)]*(5)* $10,000,000 for fiscal year 2012; and

[(F)]*(6)* $10,400,000 for fiscal year 2013.

[(2) HYDROCARBON SYSTEMS SCIENCE COMPETITIVENESS GRANTS FOR INSTITUTIONS OF HIGHER EDUCATION.—There are authorized to be appropriated to carry out subsection (e)—

[(A) $3,000,000 for fiscal year 2008;

[(B) $5,500,000 for fiscal year 2009; and

[(C) $8,000,000 for fiscal year 2010.]

SEC. 5006. 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.

(b) AMOUNT AND DURATION.—

(1) AMOUNT.—The *average* amount of a grant awarded under this section *for each year* shall be—

(A) not less than [$80,000] *$190,000*; and

(B) not more than [$125,000] *$490,000*.

(2) DURATION.—The term of a grant awarded under this section shall be not more than 5 years.

(c) ELIGIBILITY.—

(1) IN GENERAL.—To be eligible to receive a grant under this section, an individual shall, as determined by the Director—

(A) subject to paragraph (2), have completed a doctorate or other terminal degree not more than 10 years before the date on which the proposal for a grant is submitted under subsection (e)(1);

(B) have demonstrated promise in a science, engineering, or mathematics field relevant to the missions of the Department; and

(C) be employed—

(i) in a tenure track-position as an [assistant professor or equivalent title] *untenured assistant or associate professor* at an institution of higher education in the United States; *or*

[(ii) at an organization in the United States that is a nonprofit, nondegree-granting research organization such as a museum, observatory, or research laboratory; or]

[(iii)]*(ii)* as a scientist at a National Laboratory.

(2) WAIVER.—Notwithstanding paragraph (1)(A), the Director may determine that an individual who has completed a doctorate more than 10 years before the date of submission of a proposal under subsection (e)(1) is eligible to receive a grant under this section if the individual was unable to conduct research for a period of time because of extenuating circumstances, including military service or family responsibilities, as determined by the Director.

(d) SELECTION.—Grant recipients shall be selected [on a competitive, merit-reviewed basis] *through a competitive process using merit-based peer review*.

[(e) SELECTION PROCESS AND CRITERIA.—

[(1) PROPOSAL.—To be eligible]

(e) SELECTION PROCESS AND CRITERIA.—To be eligible to receive a grant under this section, an individual shall submit to the Director a proposal at such time, in such manner, and containing such information as the Director may require.

[(2) EVALUATION.—In evaluating the proposals submitted under paragraph (1), the Director shall take into consideration, at a minimum—

[(A) the intellectual merit of the proposed project;

[(B) the innovative or transformative nature of the proposed research;

[(C) the extent to which the proposal integrates research and education, including undergraduate education in science and engineering disciplines; and

[(D) the potential of the applicant for leadership at the frontiers of knowledge.]

(f) DIVERSITY REQUIREMENT.—

(1) IN GENERAL.—In awarding grants under this section, the Director shall endeavor to ensure that the grant recipients represent a variety of types of institutions of higher education and [nonprofit, nondegree-granting research organizations] *National Laboratories*.

(2) REQUIREMENT.—In support of the goal described in paragraph (1), the Director shall broadly disseminate information regarding the deadlines applicable to, and manner in which to submit, proposals for grants under this section, including by conducting outreach activities for—

(A) part B institutions, as defined in section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061); and

(B) minority institutions, as defined in section 365 of that Act (20 U.S.C. 1067k).

(g) REPORT ON RECRUITING AND RETAINING EARLY CAREER SCIENCE AND ENGINEERING RESEARCHERS AT NATIONAL LABORATORIES.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Director shall submit to the Committee on Science and Technology of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report describing efforts of the Director to recruit and retain young scientists and engineers at early career stages at the National Laboratories.

(2) INCLUSIONS.—The report under paragraph (1) shall include—

(A) a description of applicable Department and National Laboratory policies and procedures, including policies and procedures relating to financial incentives, awards, promotions, time reserved for independent research, access to equipment or facilities, and other forms of recognition, designed to attract and retain young scientists and engineers;

(B) an evaluation of the impact of the incentives described in subparagraph (A) on—

(i) the careers of young scientists and engineers at the National Laboratories; and

(ii) the quality of the research at the National Laboratories and in Department programs;

(C) a description of barriers, if any, that exist with respect to efforts to recruit and retain young scientists and engineers, including the limited availability of full-time equivalent positions, legal and procedural requirements, and pay grading systems; and

(D) the amount of funding devoted to efforts to recruit and retain young researchers, and the source of the funds.

[(h) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary, acting through the Director, to carry out this section $25,000,000 for each of fiscal years 2008 through 2013.]

* * * * * * *

[SEC. 5008. 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—

[(1) the missions of the Department; and

[(2) the global competitiveness of the United States.

[(b) TOPICAL AREAS.—The Institutes shall support scientific and engineering research and education activities on critical emerging technologies determined by the Secretary to be essential to global competitiveness, including activities relating to—

[(1) sustainable energy technologies;

[(2) multiscale materials and processes;

[(3) micro- and nano-engineering;
[(4) computational and information engineering; and
[(5) genomics and proteomics.
[(c) PARTNERSHIPS.—In carrying out this section, the Secretary shall establish partnerships between the Institutes and—
[(1) institutions of higher education—
[(A) to train undergraduate and graduate science and engineering students;
[(B) to develop innovative undergraduate and graduate educational curricula; and
[(C) to conduct research within the topical areas described in subsection (b); and
[(2) private industry to develop innovative technologies within the topical areas described in subsection (b).
[(d) GRANTS.—
[(1) IN GENERAL.—For each fiscal year, the Secretary may select not more than 3 Institutes to receive a grant under this section.
[(2) MERIT-BASED SELECTION.—The selection of Institutes under paragraph (1) shall be—
[(A) merit-based; and
[(B) made through an open, competitive selection process.
[(3) TERM.—An Institute shall receive a grant under this section for not more than 3 fiscal years.
[(e) REVIEW.—The Secretary shall offer to enter into an agreement with the National Academy of Sciences under which the Academy shall, by not later than 3 years after the date of enactment of this Act—
[(1) review the performance of the Institutes under this section; and
[(2) submit to Congress and the Secretary a report describing the results of the review.
[(f) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to provide grants to each Institute selected under this section $10,000,000 for each of fiscal years 2008 through 2010.]

SEC. 5009. 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 of higher education that offers a doctoral degree in a field relevant to a mission area of the Department.

(b) ESTABLISHMENT.—The Secretary shall establish a graduate fellowship program for eligible students pursuing a doctoral degree in a mission area of the Department.

(c) SELECTION.—

(1) IN GENERAL.—The Secretary shall award fellowships to eligible students under this section through a competitive merit review process[, involving written and oral interviews, that will result in a wide distribution of awards throughout the United States, as determined by the Secretary].

(2) CRITERIA.—The Secretary shall establish selection criteria for awarding fellowships under this section that require an eligible student—

(A) to pursue a field of science or engineering of importance to a mission area of the Department;

[(B) to demonstrate to the Secretary—

[(i) the capacity of the eligible student to understand technical topics relating to the fellowship that can be derived from the first principles of the technical topics;

[(ii) imagination and creativity;

[(iii) leadership skills in organizations or intellectual endeavors, demonstrated through awards and past experience; and

[(iv) excellent verbal and communication skills to explain, defend, and demonstrate an understanding of technical subjects relating to the fellowship; and]

(B) to demonstrate excellent academic performance and understanding of scientific or technical subjects; and

(C) to be a citizen or legal permanent resident of the United States.

(d) AWARDS.—

(1) AMOUNT.—A fellowship awarded under this section shall—

(A) provide an annual living stipend; and

(B) cover—

(i) *full or partial* graduate tuition at an institution of higher education described in subsection (a); and

(ii) incidental expenses associated with curricula and research at the institution of higher education (including books, computers, and software).

(2) DURATION.—A fellowship awarded under this section shall be up to 3 years duration within a 5-year period.

(3) PORTABILITY.—A fellowship awarded under this section shall be portable with the eligible student.

(e) ADMINISTRATION.—The Secretary, acting through the [Director of Science, Engineering, and Mathematics Education] *Director of the Office of Science—*

(1) shall administer the program established under this section; and

(2) may enter into a contract with a nonprofit entity to administer the program, including the selection and award of fellowships.

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

[(1) $7,500,000 for fiscal year 2008;

[(2) $12,000,000 for fiscal year 2009, including nonexpiring fellowships for the preceding fiscal year;

[(3) $20,000,000 for fiscal year 2010, including nonexpiring fellowships for preceding fiscal years;

[(4) $20,600,000 for fiscal year 2011;

[(5) $21,200,000 for fiscal year 2012; and

[(6) $21,900,000 for fiscal year 2013.]

* * * * * * *

SEC. 5011. 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.

(b) ESTABLISHMENT.—The Secretary shall establish a program to support the joint appointment of distinguished scientists by institutions of higher education and National Laboratories.

(c) QUALIFICATIONS.—To be eligible for appointment as a distinguished scientist under this section, an individual, by reason of professional background and experience, shall be able to bring international recognition to the appointing institution of higher education or National Laboratory in the field of scientific endeavor of the individual.

(d) SELECTION.—A distinguished scientist appointed under this section shall be selected through an open, competitive process.

(e) APPOINTMENT.—

(1) INSTITUTION OF HIGHER EDUCATION.—An appointment by an institution of higher education under this section shall be filled within the tenure allotment of the institution of higher education, at a minimum rank of professor.

(2) NATIONAL LABORATORY.—An appointment by a National Laboratory under this section shall be at the rank of the highest grade of distinguished scientist or technical staff of the National Laboratory.

(f) DURATION.—An appointment under this section shall—

(1) be for a term of 6 years; and

(2) consist of 2 3-year funding allotments.

(g) USE OF FUNDS.—Funds made available under this section may be used for—

(1) the salary of the distinguished scientist and support staff;

(2) undergraduate, graduate, and post-doctoral appointments;

(3) research-related equipment;

(4) professional travel; and

(5) such other requirements as the Secretary determines to be necessary to carry out the purpose of the program.

(h) REVIEW.—

(1) IN GENERAL.—The appointment of a distinguished scientist under this section shall be reviewed at the end of the first 3-year allotment for the distinguished scientist through an open peer-review process to determine whether the appointment is meeting the purpose of this section under subsection (a).

(2) FUNDING.—Funding of the appointment of the distinguished scientist for the second 3-year allotment shall be determined based on the review conducted under paragraph (1).

(i) COST SHARING.—To be eligible for assistance under this section, an appointing institution of higher education shall pay at least 50 percent of the total costs of the appointment.

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

[(1) $15,000,000 for fiscal year 2008;

[(2) $20,000,000 for fiscal year 2009;

[(3) $ 30,000,000 for fiscal year 2010;

[(4) $31,000,000 for fiscal year 2011;

[(5) $32,000,000 for fiscal year 2012; and
[(6) $33,000,000 for fiscal year 2013.]

SEC. 5012. 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 (n)(1)] *subsection (o)(1)*.

* * * * * * *

(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.]

(1) IN GENERAL.—To the maximum extent practicable, the Director shall ensure that—

(A) 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; and

(B) ARPA–E does not provide funding for a project unless the prospective grantee demonstrates sufficient attempts to secure private financing or indicates that the project is not independently commercially viable.

(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).

(j) FEDERAL DEMONSTRATION OF TECHNOLOGIES.—The Director shall seek opportunities to partner with purchasing and procurement programs of Federal agencies to demonstrate energy technologies resulting from activities funded through ARPA–E.

(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.

(l) ARPA–E EVALUATION.—

(1) IN GENERAL.—After ARPA–E has been in operation for 6 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, and the manner in which those lessons may apply to the operation of other programs of the Department.

(3) AVAILABILITY.—On completion of the evaluation, the evaluation shall be made available to Congress and the public.

(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.

(n) PROTECTION OF INFORMATION.—The following types of information collected by the ARPA–E from recipients of financial assistance awards shall be considered commercial and financial information obtained from a person and privileged or confidential and not subject to disclosure under section 552(b)(4) of title 5, United States Code:

(1) Plans for commercialization of technologies developed under the award, including business plans, technology-to-market plans, market studies, and cost and performance models.

(2) Investments provided to an awardee from third parties (such as venture capital firms, hedge funds, and private equity firms), including amounts and the percentage of ownership of the awardee provided in return for the investments.

(3) Additional financial support that the awardee—

(A) plans to or has invested into the technology developed under the award; or

(B) is seeking from third parties.

(4) Revenue from the licensing or sale of new products or services resulting from research conducted under the award.

[(n)**]***(o)* 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)**]** *paragraph (4)*, 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;

(B) such sums as are necessary for each of fiscal years 2009 and 2010;

(C) $300,000,000 for fiscal year 2011;

(D) $306,000,000 for fiscal year 2012; **[**and**]**

(E) $312,000,000 for fiscal year 2013[.]*;*
(F) $291,200,000 for fiscal year 2016;
(G) $303,600,000 for fiscal year 2017;
(H) $314,700,000 for fiscal year 2018;
(I) $327,300,000 for fiscal year 2019; and
(J) $340,600,000 for fiscal year 2020.

(3) SEPARATE BUDGET AND APPROPRIATION.—

(A) BUDGET REQUEST.—The budget request for ARPA–E 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) 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 5 percent of the amount shall be used for technology transfer and outreach activities, consistent with the goal described in subsection [(c)(2)(D)] *(c)(2)(C)* and within the responsibilities of program directors described in subsection (g)(2)(B)(vii); 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.

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DEPARTMENT OF ENERGY HIGH-END COMPUTING REVITALIZATION ACT OF 2004

Public Law 108–423

* * * * * * *

SECTION 1. SHORT TITLE.

This Act may be cited as the [“Department of Energy High-End Computing Revitalization Act of 2004”] *Exascale Computing Act of 2015*.

SEC. 2. DEFINITIONS.

In this Act:

[(1) CENTER.—The term “Center” means a High-End Software Development Center established under section 3(d).]

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

(2) EXASCALE COMPUTING.—The term “exascale computing” means computing through the use of a computing machine that performs near or above 10 to the 18th power floating point operations per second.

[(2)]*(3)* HIGH-END COMPUTING SYSTEM.—The term “high-end computing system” means a computing system with performance that substantially exceeds that of systems that are commonly available for advanced scientific and engineering applications.

[(3)]*(4)* LEADERSHIP SYSTEM.—The term "Leadership System" means a high-end computing system that is among the most advanced in the world in terms of performance in solving scientific and engineering problems.

[(4)]*(5)* INSTITUTION OF HIGHER EDUCATION.—The term "institution of higher education" has the meaning given the term in section 101(a) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)).

[(5)]*(6)* SECRETARY.—The term "Secretary" means the Secretary of Energy[, acting through the Director of the Office of Science of the Department of Energy].

SEC. 3. DEPARTMENT OF ENERGY HIGH-END COMPUTING RESEARCH AND DEVELOPMENT PROGRAM.

(a) IN GENERAL.—The Secretary shall—

(1) carry out a [program] *coordinated program across the Department* of research and development (including development of software and hardware) to advance high-end computing systems; and

(2) develop and deploy high-end computing systems for advanced scientific and engineering applications.

(b) PROGRAM.—The program shall—

(1) support both individual investigators and multidisciplinary teams of investigators;

(2) conduct research in multiple architectures[, which may include vector, reconfigurable logic, streaming, processor-in-memory, and multithreading architectures];

(3) conduct research on software for high-end computing systems, including research on algorithms, programming environments, tools, languages, and operating systems for high-end computing systems, in collaboration with architecture development efforts;

(4) provide for sustained access by the research community in the United States to high-end computing systems and to Leadership Systems, including provision of technical support for users of such systems;

(5) support technology transfer to the private sector and others in accordance with applicable law; and

(6) ensure that the high-end computing activities of the Department of Energy are coordinated with relevant activities in industry and with other Federal agencies, including the National Science Foundation, the Defense Advanced Research Projects Agency, the National Nuclear Security Administration, the National Security Agency, the National Institutes of Health, the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, the National Institutes of Standards and Technology, and the Environmental Protection Agency.

(c) LEADERSHIP SYSTEMS FACILITIES.—

(1) IN GENERAL.—As part of the program carried out under this Act, the Secretary shall establish and operate 1 or more Leadership Systems facilities to—

(A) conduct advanced scientific and engineering research and development using Leadership Systems; and

(B) develop potential advancements in high-end computing system hardware and software.

(2) ADMINISTRATION.—In carrying out this subsection, the Secretary shall provide to Leadership Systems, on a competitive, merit-reviewed basis, access to researchers in United States industry, institutions of higher education, national laboratories, and other Federal agencies.

[(d) HIGH-END SOFTWARE DEVELOPMENT CENTER.—

[(1) IN GENERAL.—As part of the program carried out under this Act, the Secretary shall establish at least 1 High-End Software Development Center.

[(2) DUTIES.—A Center shall concentrate efforts to develop, test, maintain, and support optimal algorithms, programming environments, tools, languages, and operating systems for high-end computing systems.

[(3) PROPOSALS.—In soliciting proposals for the Center, the Secretary shall encourage staffing arrangements that include both permanent staff and a rotating staff of researchers from other institutions and industry to assist in coordination of research efforts and promote technology transfer to the private sector.

[(4) USE OF EXPERTISE.—The Secretary shall use the expertise of a Center to assess research and development in high-end computing system architecture.

[(5) SELECTION.—The selection of a Center shall be determined by a competitive proposal process administered by the Secretary.]

(d) EXASCALE COMPUTING PROGRAM.—

(1) IN GENERAL.—The Secretary shall conduct a research program (referred to in this subsection as the 'Program') to develop 2 or more exascale computing machine architectures to promote the missions of the Department.

(2) IMPLEMENTATION.—

(A) IN GENERAL.—In carrying out the Program, the Secretary shall—

(i) establish 2 or more National Laboratory partnerships with industry partners and institutions of higher education for the research and development of 2 or more exascale computing architectures across all applicable organizations of the Department; and

(ii) provide, as appropriate, on a competitive, merit-reviewed basis, access for researchers in industries in the United States, institutions of higher education, National Laboratories, and other Federal agencies to the exascale computing systems developed pursuant to clause (i).

(B) SELECTION OF PARTNERS.—The Secretary shall select members for the partnerships with the computing facilities of the Department under subparagraph (A) through a competitive, peer-review process.

(3) CODESIGN AND APPLICATION DEVELOPMENT.—

(A) IN GENERAL.—The Secretary shall carry out the Program through an integration of applications, computer science, applied mathematics, and computer hardware architecture using the partnerships established pursuant to paragraph (2) to ensure that, to the maximum extent practicable, 2 or more exascale computing machine architec-

tures are capable of solving Department target applications and broader scientific problems.

(B) REPORT.—The Secretary shall submit to Congress a report on how the integration under subparagraph (A) is furthering application science data and computational workloads across application interests, including national security, material science, physical science, cybersecurity, biological science, the Materials Genome and BRAIN Initiatives of the President, advanced manufacturing, and the national electric grid.

(4) PROJECT REVIEW.—

(A) IN GENERAL.—The exascale architectures developed pursuant to partnerships established pursuant to paragraph (2) shall be reviewed through a project review process.

(B) REPORT.—Not later than 90 days after the date of enactment of this subsection, the Secretary shall submit to Congress a report on—

(i) the results of the review conducted under subparagraph (A); and

(ii) the coordination and management of the Program to ensure an integrated research program across the Department.

(5) ANNUAL REPORTS.—At the time of the budget submission of the Department for each fiscal year, the Secretary, in consultation with the members of the partnerships established pursuant to paragraph (2), shall submit to Congress a report that describes funding for the Program as a whole by functional element of the Department and critical milestones.

SEC. 4. AUTHORIZATION OF APPROPRIATIONS.

In addition to amounts otherwise made available for high-end computing, there are authorized to be appropriated to the Secretary to carry out [this Act] *section 3(d)*—

[(1) $50,000,000 for fiscal year 2005;
[(2) $55,000,000 for fiscal year 2006; and
[(3) $60,000,000 for fiscal year 2007.]
(1) $272,000,000 for fiscal year 2016;
(2) $340,000,000 for fiscal year 2017; and
(3) $360,000,000 for fiscal year 2018.

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DEPARTMENT OF ENERGY ORGANIZATION ACT

Public Law 95–91, as amended

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TITLE VIII—ENERGY PLANNING

[Sec. 801. National energy policy plan.]
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PRINCIPAL OFFICERS

SEC. 202. (a) There shall be in the Department a Deputy Secretary, who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall be compensated at the rate provided for level II of the Executive Schedule under section 5313 of title 5, United States Code. The Deputy Secretary shall act for and exercise the functions of the Secretary during the absence or disability of the Secretary or in the event the office of Secretary becomes vacant. The Secretary shall designate the order in which the Under Secretary and other officials shall act for and perform the functions of the Secretary during the absence or disability of both the Secretary and Deputy Secretary or in the event of vacancies in both of those offices.

(b)(1) There shall be in the Department an Under Secretary [for Science] *for Science and Energy (referred to in this subsection as the "Under Secretary")*, who shall be appointed by the President, by and with the advice and consent of the Senate.

(2) The Under Secretary shall be compensated at the rate provided for level III of the Executive Schedule under section 5314 of title 5, United States Code.

(3) The Under Secretary [for Science] shall be appointed from among persons who—

(A) have extensive background in scientific or engineering fields; and

(B) are well qualified to manage the civilian research and development programs of the Department.

(4) The Under Secretary [for Science] shall—

(A) serve as the Science and Technology Advisor to the Secretary;

(B) monitor the research and development programs of the Department in order to advise the Secretary with respect to any undesirable duplication or gaps in the programs;

(C) advise the Secretary with respect to the well-being and management of the multipurpose laboratories under the jurisdiction of the Department;

(D) advise the Secretary with respect to education and training activities required for effective short- and long-term basic and applied research activities of the Department;

(E) advise the Secretary with respect to grants and other forms of financial assistance required for effective short- and long-term basic and applied research activities of the Department;

(F) advise the Secretary with respect to long-term planning, coordination, and development of a strategic framework for Department research and development activities; [and]

(G) carry out such additional duties assigned to the Under Secretary by the Secretary relating to basic and applied research, including supervision or support of research activities carried out by any of the Assistant Secretaries designated by section 203 of this Act, as the Secretary considers advantageous[.]*;*

(H) establish appropriate linkages between offices under the jurisdiction of the Under Secretary; and

(I) perform such functions and duties as the Secretary shall prescribe, consistent with this section.

* * * * * * *

ENERGY INFORMATION ADMINISTRATION

SEC. 205. (a)(1) There shall be within the Department an Energy Information Administration headed by an Administrator who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall be compensated at the rate provided for in level IV of the Executive Schedule under section 5315 of title 5, United States Code. The Administrator shall be a person who, by reason of professional background and experience, is specially qualified to manage an energy information system.

* * * * * * *

(n) 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.

(o) 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.

(p) FINANCIAL MARKET ANALYSIS OFFICE.—

(1) ESTABLISHMENT.—There shall be within the Energy Information Administration a Financial Market Analysis Office.

(2) DUTIES.—The Office shall—

(A) be responsible for analysis of the financial aspects of energy markets;

(B) review the reports required by section 4503(c) of the Energy Policy Modernization Act of 2015 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;

(ii) conduct a review of implications of policy changes (including changes in export or import policies) and changes in how crude oil and refined petroleum products are transported with respect to price formation of crude oil and refined petroleum products; and

(iii) 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.

* * * * * * *

SUBPENA

SEC. 645. 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.

* * * * * * *

TITLE VIII—ENERGY PLANNING

NATIONAL ENERGY POLICY PLAN

[SEC. 801. (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;

[(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.

[(b) Not later than April 1, 1979, and biennially thereafter, the President shall transmit to the Congress the proposed Plan. Such proposed Plan shall—

[(1) consider and establish energy production, utilization, and conservation 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, nuclear non-proliferation, special regional needs, and the efficient utilization of public and private resources;

[(2) 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 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) 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—

[(1) whatever data and analysis are necessary to support the objectives, resource needs, and policy recommendations contained in such proposed Plan;

[(2) an estimate of the domestic and foreign energy supplies on which the United States will be expected to rely to meet projected energy needs in an economic manner consistent with the need to protect the environment, conserve natural resources, and implement foreign policy objectives;

[(3) an evaluation of current and foreseeable trends in the price, quality, management, and utilization of energy resources and the effects of those trends on the social, environmental, economic, and other requirements of the Nation;

[(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, 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 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.]

SEC. 801. QUADRENNIAL ENERGY REVIEW.

(a) QUADRENNIAL ENERGY REVIEW TASK FORCE.—

(1) ESTABLISHMENT.—The President shall establish a Quadrennial Energy Review Task Force (referred to in this section as the "Task Force") to coordinate the Quadrennial Energy Review.

(2) COCHAIRPERSONS.—The President shall designate appropriate senior Federal Government officials to be cochairpersons of the Task Force.

(3) MEMBERSHIP.—The Task Force may be comprised of representatives at level I or II of the Executive Schedule of—

(A) the Department of Energy;
(B) the Department of Commerce;
(C) the Department of Defense;
(D) the Department of State;
(E) the Department of the Interior;
(F) the Department of Agriculture;
(G) the Department of the Treasury;
(H) the Department of Transportation;
(I) the Department of Homeland Security;
(J) the Office of Management and Budget;
(K) the National Science Foundation;
(L) the Environmental Protection Agency; and
(M) such other Federal agencies, and entities within the Executive Office of the President, as the President considers to be appropriate.

(b) CONDUCT OF REVIEW.—

(1) IN GENERAL.—Each Quadrennial Energy Review shall be conducted to—

(A) provide an integrated view of important national energy objectives and Federal energy policy; and

(B) identify the maximum practicable alignment of research programs, incentives, regulations, and partnerships.

(2) ELEMENTS.—A Quadrennial Energy Review shall—

(A) establish integrated, governmentwide national energy objectives in the context of economic, environmental, and security priorities;

(B) recommend coordinated actions across Federal agencies;

(C) assess and recommend priorities for research, development, and demonstration;

(D) provide a strong analytical base for Federal energy policy decisions;

(E) consider reasonable estimates of future Federal budgetary resources when making recommendations; and

(F) be conducted with substantial input from—

(i) Congress;

(ii) the energy industry;

(iii) academia;

(iv) State, local, and tribal governments;

(v) nongovernmental organizations; and

(vi) the public.

(c) SUBMISSION OF QUADRENNIAL ENERGY REVIEW TO CONGRESS.—

(1) IN GENERAL.—The President—

(A) shall publish and submit to Congress a report on the Quadrennial Energy Review once every 4 years; and

(B) more frequently than once every 4 years, as the President determines to be appropriate, may prepare and publish interim reports as part of the Quadrennial Energy Review.

(2) INCLUSIONS.—The reports described in paragraph (1) shall address or consider, as appropriate—

(A) an integrated view of short-term, intermediate-term, and long-term objectives for Federal energy policy in the context of economic, environmental, and security priorities;

(B) potential executive actions (including programmatic, regulatory, and fiscal actions) and resource requirements—

(i) to achieve the objectives described in subparagraph (A); and

(ii) to be coordinated across multiple agencies;

(C) analysis of the existing and prospective roles of parties (including academia, industry, consumers, the public, and Federal agencies) in achieving the objectives described in subparagraph (A), including—

(i) an analysis by energy use sector, including—

(I) commercial and residential buildings;

(II) the industrial sector;

(III) transportation; and

(IV) electric power;

(ii) requirements for invention, adoption, development, and diffusion of energy technologies as they relate to each of the energy use sectors; and

(iii) other research that informs strategies to incentivize desired actions;

(D) assessment of policy options to increase domestic energy supplies and energy efficiency;

(E) evaluation of national and regional energy storage, transmission, and distribution requirements, including requirements for renewable energy;

(F) portfolio assessments that describe the optimal deployment of resources, including prioritizing financial resources for energy-relevant programs;

(G) mapping of the linkages among basic research and applied programs, demonstration programs, and other innovation mechanisms across the Federal agencies;

(H) identification of demonstration projects;

(I) identification of public and private funding needs for various energy technologies, systems, and infrastructure, including consideration of public-private partnerships, loans, and loan guarantees;

(J) assessment of global competitors and an identification of programs that can be enhanced with international cooperation;

(K) identification of policy gaps that need to be filled to accelerate the adoption and diffusion of energy technologies, including consideration of—

(i) Federal tax policies; and

(ii) the role of Federal agencies as early adopters and purchasers of new energy technologies;

(L) priority listing for implementation of objectives and actions taking into account estimated Federal budgetary resources;

(M) analysis of—

(i) points of maximum leverage for policy intervention to achieve outcomes; and

(ii) areas of energy policy that can be most effective in meeting national goals for the energy sector; and

(N) recommendations for executive branch organization changes to facilitate the development and implementation of Federal energy policies.

(d) REPORT DEVELOPMENT.—The Secretary of Energy shall provide such support for the Quadrennial Energy Review with the necessary analytical, financial, and administrative support for the conduct of each Quadrennial Energy Review required under this section as may be requested by the cochairpersons designated under subsection (a)(2).

(e) COOPERATION.—The heads of applicable Federal agencies shall cooperate with the Secretary and provide such assistance, information, and resources as the Secretary may require to assist in carrying out this section.

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DEPARTMENT OF ENERGY SCIENCE EDUCATION ENHANCEMENT ACT

Part E of Title XXXI of Public Law 101–510

* * * * * * *

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.]

(1) IN GENERAL.—The Director of the Office of Science (referred to in this subsection as the "Director") shall provide for appropriate coordination of science, technology, engineering, and mathematics education programs across all functions of the Department.

(2) ADMINISTRATION.—In carrying out paragraph (1), the Director shall—

(A) consult with—

(i) the Assistant Secretary of Energy with responsibility for energy efficiency and renewable energy programs; and

(ii) the Deputy Administrator for Defense Programs of the National Nuclear Security Administration; and

(B) seek to increase the participation and advancement of women and underrepresented minorities at every level of science, technology, engineering, and mathematics education.

(3) DUTIES.—The Director shall—

(A) oversee all science, engineering, and mathematics education programs of the Department;

(B) represent the Department as the principal interagency 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 underrep-

resented minorities at every level of science, technology, engineering, and mathematics education; [and]

(E) represent the Department as the principal interagency liaison for all coordination activities under the President for science, technology, engineering, and mathematics education programs; and

[(E)]*(F)* 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) 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) SCIENCE, ENGINEERING, AND MATHEMATICS EDUCATION FUND.—[The Secretary]

(1) IN GENERAL.—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.

(2) REPORT.—Not later than 180 days after the date of enactment of this subparagraph, the Director shall submit a report describing the impact of the activities assisted with the Fund established under paragraph (1) to—

(A) the Committee on Science, Space, and Technology of the House of Representatives; and

(B) the Committee on Energy and Natural Resources of the Senate.

(e) 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) 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. 3181. NATIONAL LABORATORIES CENTERS OF EXCELLENCE IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS EDUCATION.

[(a) DEFINITION OF HIGH-NEED PUBLIC SECONDARY SCHOOL.—In this section, the term "high-need public secondary school" means a secondary school—

[(1) with a high concentration of low-income individuals (as defined in section 1707 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6537)); or

[(2) designated with a school locale code of 41, 42, or 43, as determined by the Secretary of Education.

[(b) ESTABLISHMENT.—The Secretary shall establish at each of the National Laboratories a program to support a Center of Excellence in Science, Technology, Engineering, and Mathematics (referred to in this section as a "Center of Excellence") in at least 1 high-need public secondary school located in the region served by the National Laboratory to provide assistance in accordance with subsection (f).

[(c) COLLABORATION.—

[(1) IN GENERAL.—To comply with subsection (g), each high-need public secondary school selected as a Center of Excellence and the National Laboratory shall form a partnership with a school, department, or program of education at an institution of higher education.

[(2) NONPROFIT ENTITIES.—The partnership may include a nonprofit entity with demonstrated experience and effectiveness in science or mathematics, as agreed to by other members of the partnership.

[(d) SELECTION.—

[(1) IN GENERAL.—The Secretary, acting through the Director, shall establish criteria to guide the National Laboratories in selecting the sites for Centers of Excellence.

[(2) PROCESS.—A National Laboratory shall select a site for a Center of Excellence through an open, widely-publicized, and competitive process.

[(e) GOALS.—The Secretary shall establish goals and performance assessments for each Center of Excellence authorized under subsection (b).

[(f) ASSISTANCE.—Consistent with sections 3165 and 3166, the Director shall make available necessary assistance for a program established under this section through the use of scientific and engineering staff of a National Laboratory, including the use of staff—

[(1) to assist teachers in teaching a course at a Center of Excellence in Science, Technology, Engineering, and Mathematics; and

[(2) to use National Laboratory scientific equipment in the teaching of the course.

[(g) SPECIAL RULES.—A Center of Excellence in a region shall ensure—

[(1) provision of clinical practicum, student teaching, or internship experiences for science, technology, and mathematics teacher candidates as part of the teacher preparation program of the Center of Excellence;

[(2) provision of supervision and mentoring for teacher candidates in the teacher preparation program; and

[(3) to the maximum extent practicable, provision of professional development for veteran teachers in the public secondary schools in the region.

[(h) EVALUATION.—The Secretary shall consider the results of performance assessments required under subsection (e) in determining the contract award fee of a National Laboratory management and operations contractor.

[(i) PLAN.—The Director shall—

[(1) develop an evaluation and accountability plan for the activities funded under this section that objectively measures the impact of the activities; and

[(2) disseminate information obtained from those measurements.

[(j) NO EFFECT ON SIMILAR PROGRAMS.—Nothing in this section displaces or otherwise affects any similar program being carried out as of the date of enactment of this section at any National Laboratory under any other provision of law.]

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[SEC. 3185. SUMMER INSTITUTES.

[(a) DEFINITIONS.—In this section:

[(1) ELIGIBLE PARTNER.—The term "eligible partner" means—

[(A) the science, engineering, or mathematics department at an institution of higher education, acting in coordination with a school, department, or program of education at an institution of higher education that provides training for teachers and principals; or

[(B) a nonprofit entity with expertise in providing professional development for science, technology, engineering, or mathematics teachers.

[(2) SUMMER INSTITUTE.—The term "summer institute" means an institute, operated during the summer, that—

[(A) is hosted by a National Laboratory or an eligible partner;

[(B) is operated for a period of not less than 2 weeks;

[(C) includes, as a component, a program that provides direct interaction between students and faculty, including personnel of 1 or more National Laboratories who have scientific expertise;

[(D) provides for follow-up training, during the academic year, that is conducted in the classroom; and

[(E) provides hands-on science, technology, engineering, or mathematics laboratory experience for not less than 2 days.

[(b) SUMMER INSTITUTE PROGRAMS AUTHORIZED.—

[(1) PROGRAMS AT THE NATIONAL LABORATORIES.—The Secretary, acting through the Director, shall establish or expand programs of summer institutes at each of the National Laboratories to provide additional training to strengthen the science, technology, engineering, and mathematics teaching skills of teachers employed at public schools for kindergarten through grade 12, in accordance with the activities authorized under paragraphs (3) and (4).

[(2) PROGRAMS WITH ELIGIBLE PARTNERS.—

[(A) IN GENERAL.—The Secretary, acting through the Director, shall identify and provide assistance as described in subparagraph (C) to eligible partners to establish or expand programs of summer institutes that provide additional training to strengthen the science, technology, engineering, and mathematics teaching skills of teachers employed at public schools for kindergarten through grade 12, in accordance with paragraphs (3) and (4).

[(B) SELECTION CRITERIA.—In identifying eligible partners under subparagraph (A), the Secretary shall require that partner institutions describe—

[(i) how the partner institution has the capability to administer the program in accordance with this section, which may include a description of any existing programs at the institution of the applicant that are targeted at education of science and mathematics teachers and the number of teachers graduated annually from the programs; and

[(ii) how the partner institution will assist the National Laboratory in carrying out the activities described in paragraphs (3) and (4).

[(C) ASSISTANCE.—Consistent with sections 3165 and 3166, the Director shall make available funds authorized under this section to carry out a program using scientific and engineering staff of the National Laboratories, during which the staff—

[(i) assists in providing training to teachers at summer institutes; and

[(ii) uses National Laboratory scientific equipment in the training.

[(3) REQUIRED ACTIVITIES.—Funds authorized under this section shall be used for—

[(A) creating opportunities for enhanced and ongoing professional development for teachers that improves the science, technology, engineering, and mathematics content knowledge of the teachers;

[(B) training to improve the ability of science, technology, engineering, and mathematics teachers to translate content knowledge and recent developments in pedagogy into classroom practice, including training to use curricula that are—

[(i) based on scientific research; and

[(ii) aligned with challenging State academic content standards;

[(C) training on the use and integration of technology in the classrooms; and

[(D) supplemental and follow-up professional development activities as described in subsection (a)(2)(D).

[(4) ADDITIONAL USES OF FUNDS.—Funds authorized under this section may be used for—

[(A) training and classroom materials to assist in carrying out paragraph (3);

[(B) expenses associated with scientific and engineering staff at the National Laboratories assisting in providing training to teachers at summer institutes;

[(C) instruction in the use and integration of data and assessments to inform and instruct classroom practice; and

[(D) stipends and travel expenses for teachers participating in the program.

[(c) PRIORITY.—To the maximum extent practicable, the Director shall ensure that each summer institute program authorized under subsection (b) provides training to—

[(1) teachers from a wide range of school districts;

[(2) teachers from high-need school districts; and

[(3) teachers from groups underrepresented in the fields of science, technology, engineering, and mathematics teaching, including women and members of minority groups.

[(d) COORDINATION AND CONSULTATION.—The Director shall consult and coordinate with the Secretary of Education and the Director of the National Science Foundation regarding the implementation of the programs authorized under subsection (b).

[(e) EVALUATION AND ACCOUNTABILITY PLAN.—

[(1) IN GENERAL.—The Director shall develop an evaluation and accountability plan for the activities funded under this section that measures the impact of the activities.

[(2) CONTENTS.—The evaluation and accountability plan shall include—

[(A) measurable objectives to increase the number of science, technology, and mathematics teachers who participate in the summer institutes involved; and

[(B) measurable objectives for improved student academic achievement on State science, mathematics, and to the maximum extent applicable, technology and engineering assessments.

[(3) REPORT TO CONGRESS.—The Secretary shall submit to Congress with the annual budget submission of the Secretary a report on how the activities assisted under this section im-

prove the science, technology, engineering, and mathematics teaching skills of participating teachers.

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

[(1) $15,000,000 for fiscal year 2008;

[(2) $20,000,000 for fiscal year 2009;

[(3) $25,000,000 for fiscal year 2010; and

[(4) $25,000,000 for each of fiscal years 2011 through 2013.]

* * * * * * *

[SEC. 3195. MENTORING PROGRAM.

[(a) IN GENERAL.—As part of the programs established under chapters 3 and 4, the Director shall establish a program to recruit and provide mentors for women and underrepresented minorities who are interested in careers in science, engineering, and mathematics.

[(b) PAIRING.—The program shall pair mentors with women and minorities who are in programs of study at specialty schools for science and mathematics, Centers of Excellence, and summer institutes established under chapters 3 and 4, respectively.

[(c) PROGRAM EVALUATION.—The Secretary shall annually—

[(1) use metrics to evaluate the success of the programs established under subsection (a); and

[(2) submit to Congress a report that describes the results of each evaluation.]

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EMERGENCY ENERGY CONSERVATION ACT OF 1979

Public Law 96–102

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PART D—STUDIES

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SEC. 201. [FINDINGS AND] PURPOSES.

[(a) FINDINGS.—The Congress finds that—

[(1) serious disruptions have recently occurred in the gasoline and diesel fuel markets of the United States;

[(2) it is likely that such disruptions will recur;

[(3) interstate commerce is significantly affected by those market disruptions;

[(4) an urgent need exists to provide for emergency conservation and other measures with respect to gasoline, diesel fuel, home heating oil, and other energy sources in potentially short supply in order to cope with market disruptions and protect interstate commerce; and

[(5) up-to-date and reliable information concerning the supply and demand of gasoline, diesel fuel, and other related data is not available to the President, the Congress, or the public.]

(b) PURPOSES.—The purposes of this title are to—

(1) provide a means for the Federal Government, States, and units of local government to establish emergency conservation measures with respect to gasoline, diesel fuel, home heating oil, and other energy sources which may be in short supply;

(2) establish other emergency measures to alleviate disruptions in gasoline and diesel fuel markets;

(3) obtain data concerning such fuels; and

(4) protect interstate commerce.

* * * * * * *

[SEC. 221. MINIMUM AUTOMOBILE FUEL PURCHASES.

[(a) GENERAL RULE.—If the provisions of this subsection are made applicable under subsection (c), no person shall purchase motor fuel from a motor fuel retailer in any transaction for use in any automobile or other vehicle unless—

[(1) the price for the quantity purchased and placed into the fuel tank of that vehicle equals or exceeds $5.00; or

[(2) in any case in which the amount paid for the quantity of motor fuel necessary to fill the fuel tank of that vehicle to capacity is less than $5.00, such person pays to the retailer an additional amount so that the total amount paid in that transaction equals $5.00.

[Any person selling motor fuel in transactions to which the provisions of this subsection apply shall display at the point of sale notice of such provisions in accordance with regulations prescribed by the Secretary.

[(b) $7.00 TO BE APPLICABLE IN THE CASE OF 8-CYLINDER VEHICLES.—In applying subsection (a) in the case of any vehicle with an engine having 8 cylinders (or more), "$7.00" shall be substituted for "$5.00".

[(c) APPLICABILITY.—(1) Unless applicable pursuant to paragraph (2), the requirements of subsection (a) shall apply in any State and shall be administered and enforced as provided in subsection (g) only if—

[(A) the Governor of that State submits a request to the Secretary to have such requirements applicable in that State; and

[(B) the attorney general of that State has found that (i) absent a delegation of authority under a Federal law, the Governor lacks the authority under the laws of the State to invoke comparable requirements, (ii) under applicable State law, the Governor and other appropriate State officers and employees are not prevented from administering and enforcing such requirements under a delegation of authority pursuant to Federal law, and (iii) if implemented such requirements would not be contrary to State law.

[Subject to paragraph (2), such provisions shall cease to apply in any State if the Governor of the State withdraws any request under subparagraph (A).

[(2) The requirements of subsection (a) shall apply in every State if there is in effect a finding by the President that nationwide implementation of such requirements would be appropriate and consistent with the purposes of this title.

[(3) Such requirements shall take effect in any State beginning on the 5th day after the Secretary or the President (as the case may be) publishes notice in the Federal Register of the applicability of the requirements to the State pursuant to paragraph (1) or (2).

[(4) Notwithstanding any other provision of law, the authority vested in the President under paragraph (2) may not be delegated.

[(d) EXEMPTIONS.—The requirements of subsection (a) shall not apply to any motorcycle or motorpowered bicycle, or to any comparable vehicle as may be determined by the Secretary by regulation.

[(e) ADJUSTMENT OF MINIMUM LEVELS.—The Secretary may increase the $5.00 and $7.00 amounts specified in subsections (a) and (b) if the Secretary considers it appropriate. Adjustments under this subsection shall be only in even dollar amounts.

[(f) CIVIL PENALTIES.—(1) Whoever violates the requirements of subsection (a) shall be subject to a civil penalty of not to exceed $100 for each violation.

[(2) Any penalty under paragraph (1) may be assessed by the court in any action under this section brought in any appropriate United States district court or any other court of competent jurisdiction. Except to the extent provided in paragraph (3), any such penalty collected shall be deposited into the general fund of the United States Treasury as miscellaneous receipts.

[(3) The Secretary may enter into an agreement with the Governor of any State under which amounts collected pursuant to this subsection may be collected and retained by the State to the extent necessary to cover costs incurred by that State in connection with the administration and enforcement of the requirements of subsection (a) the authority for which is delegated under subsection (g).

[(g) ADMINISTRATION AND ENFORCEMENT DELEGATED TO STATES.—(1) There is hereby delegated to the Governor of any State, and other State and local officers and employees designated by the Governor, the authority to administer and enforce, within that State, any provision of this part which is to be administered and enforced in accordance with this section. Such authority includes the authority to institute actions on behalf of the United

States for the imposition and collection of civil penalties under subsection (f).

[(2)(A) All delegation of authority under paragraph (1) with respect to any State shall be considered revoked effective (i) upon the receipt of a written waiver of authority signed by the Governor of such State or (ii) upon a determination by the President that such delegation should be revoked, but only to the extent of that determination.

[(B) If at any time the conditions of subsection (c)(1)(B) are no longer satisfied in any State to which a delegation has been made under paragraph (1), the attorney general of that State shall transmit a written statement to that effect to the Governor of that State and to the President. Such delegation shall be considered revoked effective upon receipt by the President of such written statement and a determination by the President that such conditions are no longer satisfied, but only to the extent of that determination and consistent with such attorney general's statement.

[(C) Any revocation under subparagraph (A) or (B) shall not affect any action or pending proceedings, administrative or civil, not finally determined on the date of such revocation, nor any administrative or civil action or proceeding, whether or not pending, based on any act committed or liability incurred prior to such revocation.

[(D) The Secretary shall administer and enforce any provision of this part which has been made effective under subsection (c)(2) and for which a delegation of authority is considered revoked under subparagraph (A).

[(h) COORDINATION WITH OTHER LAW.—The charging and collecting of amounts referred to in subsection (a)(2) under the requirements of subsection (a), or similar amounts collected under comparable requirements under any State law, shall not be considered a violation of—

[(1) the Emergency Petroleum Allocation Act of 1973 or any regulation thereunder; or

[(2) any Federal or State law requiring the labeling or disclosure of the maximum price per gallon of any fuel.]

[SEC. 222. OUT-OF-STATE VEHICLES TO BE EXEMPTED FROM ODD-EVEN MOTOR FUEL PURCHASE RESTRICTIONS.

[(a) GENERAL RULE.—Notwithstanding any provision of any Federal, State, or local law, any odd-even fuel purchase plan in effect in any State may not prohibit the sale of motor fuel to any person for use in a vehicle bearing a license plate issued by any authority other than that State or a State contiguous to that State.

[(b) DEFINITIONS.—For purposes of this section the term "odd-even fuel purchase plan" means any motor fuel sales restriction under which a person may purchase motor fuel for use in any vehicle only on days (or other periods of time) determined on the basis of a number or letter appearing on the license plate of that vehicle (or on any similar basis).]

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[SEC. 241. STUDIES.

[(a) STUDY OF COMMERCIAL AND INDUSTRIAL STORAGE OF FUEL.—Not later than 180 days after the date of the enactment of this part, the Secretary shall conduct a study and report to the Congress regarding the commercial and industrial storage of gaso-

line and middle distillates (other than storage in facilities which have capacities of less than 500 gallons or storage used exclusively and directly for agricultural, residential, petroleum refining, or pipeline transportation purposes).

[(b) CONTENTS OF REPORT.—Such report shall—

[(1) indicate to what extent storage activities have increased since November 1, 1978, and what business establishments (including utilities) have been involved;

[(2) the estimated amount of gasoline and middle distillates (in the aggregate and by type and region) which are in storage within the United States at the time of the study, the amounts which were in storage at the same time during the calendar year preceding the study, and the purposes for which such storage is maintained; and

[(3) contain such findings and recommendations for legislation and administrative action as the Secretary considers appropriate, including recommendations for improving the availability and quality of data concerning such storage.]

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ENERGY CONSERVATION AND PRODUCTION ACT

Public Law 94–385, as amended

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CONTENTS

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[STATE UTILITY REGULATORY ASSISTANCE

[SEC. 207. (a) The Secretary may make grants to State utility regulatory commissions and nonregulated electric utilities (as defined in the Public Utility Regulatory Policies Act of 1978) to carry out duties and responsibilities under titles I and III, and section 210, of the Public Utility Regulatory Policies Act of 1978. No grant may be made under this section to any Federal agency.

[(b) Any requirements established by the Secretary with respect to grants under this section may be only such requirements as are necessary to assure that such grants are expended solely to carry out duties and responsibilities referred to in subsection (a) or such as are otherwise required by law.

[(c) No grant may be made under this section unless an application for such grant is submitted to the Secretary in such form and

manner as the Secretary may require. The Secretary may not approve an application of a State utility regulatory commission or nonregulated electric utility unless such commission or nonregulated electric utility assures the Secretary that funds made available under this section will be in addition to, and not in substitution for, funds made available to such commission or nonregulated electric utility from other governmental sources.

[(d) The funds appropriated for purposes of this section shall be apportioned among the States in such manner that grants made under this section in each State shall not exceed the lesser of—

[(1) the amount determined by dividing equally among all States the total amount available under this section for such grants, or

[(2) the amount which the Secretary is authorized to provide pursuant to subsections (b) and (c) of this section for such State.]

[AUTHORIZATION OF APPROPRIATIONS

[SEC. 208. There are authorized to be appropriated—

[(1) not to exceed $40,000,000 for each of the fiscal years 1979 and 1980 to carry out section 207 (relating to State utility regulatory assistance);

[(2) not to exceed $10,000,000 for each of the fiscal years 1979 and 1980 to carry out section 205 (relating to State offices of consumer services); and

[(3) not to exceed $8,000,000 for the fiscal year 1979 and $10,000,000 for the fiscal year 1980 to carry out section 204(1)(B) (relating to innovative rate structures).]

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DEFINITIONS

SEC. 303. As used in this title:

* * * * * * *

(6) The term "Federal building" means any building [to be constructed] *constructed or altered* by, or for the use of, any Federal agency. Such term shall include buildings built for the purpose of being leased by a Federal agency, and privatized military housing.

* * * * * * *

(13) The term "Federal building energy standards" means energy consumption objectives to be met without specification of the methods, materials, or equipment to be employed in achieving those objectives, but including statements of the requirements, criteria, and evaluation methods to be used, and any necessary commentary.

[(14) The term "voluntary building energy code" means a building energy code developed and updated through a consensus process among interested persons, such as that used by the Council of American Building Officials; the American Society of Heating, Refrigerating, and Air-Conditioning Engineers; or other appropriate organizations.]

(14) MODEL BUILDING ENERGY CODE.—The term "model building energy code" means a voluntary building energy code and

standards developed and updated through a consensus process among interested persons, such as the IECC or the code used by—

(A) the Council of American Building Officials, or its legal successor, International Code Council, Inc.;

(B) the American Society of Heating, Refrigerating, and Air-Conditioning Engineers; or

(C) other appropriate organizations.

(15) The term "CABO" means the Council of American Building Officials.

(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.

(18) INDIAN TRIBE.—The term "Indian tribe" has the meaning given the term in section 4 of the Native American Housing Assistance and Self-Determination Act of 1996 (25 U.S.C. 4103).

(19) MAJOR RENOVATION.—The term "major renovation" means a modification of building energy systems sufficiently extensive that the whole building can meet energy standards for new buildings, based on criteria to be established by the Secretary through notice and comment rulemaking.

[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 re-

viewed 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 regarding 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 im-

prove 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) IN GENERAL.—The Secretary shall—

(1) encourage and support the adoption of building energy codes by States, Indian tribes, and, as appropriate, by local governments that meet or exceed the model building energy codes, or achieve equivalent or greater energy savings; and

(2) support full compliance with the State and local codes.

(b) STATE AND INDIAN TRIBE CERTIFICATION OF BUILDING ENERGY CODE UPDATES.—

(1) REVIEW AND UPDATING OF CODES BY EACH STATE AND INDIAN TRIBE.—

(A) IN GENERAL.—Not later than 2 years after the date on which a model building energy code is updated, each State or Indian tribe shall certify whether or not the State or Indian tribe, respectively, has reviewed and updated the energy provisions of the building code of the State or Indian tribe, respectively.

(B) DEMONSTRATION.—The certification shall include a demonstration of whether or not the energy savings for the code provisions that are in effect throughout the State or Indian tribal territory meet or exceed—

(i) the energy savings of the updated model building energy code; or

(ii) the targets established under section 307(b)(2).

(C) NO MODEL BUILDING ENERGY CODE UPDATE.—If a model building energy code is not updated by a target date established under section 307(b)(2)(D), each State or Indian tribe shall, not later than 2 years after the specified date, certify whether or not the State or Indian tribe, respectively, has reviewed and updated the energy provisions of the building code of the State or Indian tribe, respectively, to meet or exceed the target in section 307(b)(2).

(2) VALIDATION BY SECRETARY.—Not later than 90 days after a State or Indian tribe certification under paragraph (1), the Secretary shall—

(A) determine whether the code provisions of the State or Indian tribe, respectively, meet the criteria specified in paragraph (1); and

(B) if the determination is positive, validate the certification.

(c) IMPROVEMENTS IN COMPLIANCE WITH BUILDING ENERGY CODES.—

(1) REQUIREMENT.—

(A) IN GENERAL.—Not later than 3 years after the date of a certification under subsection (b), each State and Indian tribe shall certify whether or not the State and Indian tribe, respectively, has—

(i) achieved full compliance under paragraph (3) with the applicable certified State and Indian tribe building energy code or with the associated model building energy code; or

(ii) made significant progress under paragraph (4) toward achieving compliance with the applicable certified State and Indian tribe building energy code or with the associated model building energy code.

(B) REPEAT CERTIFICATIONS.—If the State or Indian tribe certifies progress toward achieving compliance, the State or Indian tribe shall repeat the certification until the State or Indian tribe certifies that the State or Indian tribe has achieved full compliance, respectively.

(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 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 State or Indian tribe shall be considered to achieve full compliance under paragraph (1) if—

(A) at least 90 percent of building space covered by the code in the preceding year substantially meets all the re-

quirements of the applicable code specified in paragraph (1), or achieves equivalent or greater energy savings level; or

(B) the estimated excess energy use of buildings that did not meet the applicable code specified in paragraph (1) in the preceding year, compared to a baseline of comparable buildings that meet this code, is not more than 5 percent of the estimated energy use of all buildings covered by this code during the preceding year.

(4) SIGNIFICANT PROGRESS TOWARD ACHIEVEMENT OF COMPLIANCE.—A State or Indian tribe shall be considered to have made significant progress toward achieving compliance for purposes of paragraph (1) if the State or Indian tribe—

(A) has developed and is implementing a plan for achieving compliance during the 8-year-period beginning on the date of enactment of this paragraph, including annual targets for compliance and active training and enforcement programs; and

(B) has met the most recent target under subparagraph (A).

(5) VALIDATION BY SECRETARY.—Not later than 90 days after a State or Indian tribe certification under paragraph (1), the Secretary shall—

(A) determine whether the State or Indian tribe has demonstrated meeting the criteria of this subsection, including accurate measurement of compliance; and

(B) if the determination is positive, validate the certification.

(d) STATES OR INDIAN TRIBES THAT DO NOT ACHIEVE COMPLIANCE.—

(1) REPORTING.—A State or Indian tribe 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 or Indian tribe with respect to meeting the requirements and submitting the certification; and

(B) a plan for meeting the requirements and submitting the certification.

(2) FEDERAL SUPPORT.—For any State or Indian tribe for which the Secretary has not validated a certification by a deadline under subsection (b) or (c), the lack of the certification may be a consideration for Federal support authorized under this section for code adoption and compliance activities.

(3) LOCAL GOVERNMENT.—In any State or Indian tribe for which the Secretary has not validated a certification under subsection (b) or (c), a local government may be eligible for Federal support by meeting the certification requirements of 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 model building energy codes;

(ii) the status of code adoption and compliance in the States and Indian tribes;

(iii) implementation of this section; and

(iv) improvements in energy savings over time as result of the targets established under section 307(b)(2).

(B) IMPACTS.—The report shall include estimates of impacts of past action under this section, and potential impacts of further action, on—

(i) upfront financial and construction costs, cost benefits and returns (using investment analysis), and lifetime energy use for buildings;

(ii) resulting energy costs to individuals and businesses; and

(iii) resulting overall annual building ownership and operating costs.

(e) TECHNICAL ASSISTANCE TO STATES AND INDIAN TRIBES.—The Secretary shall provide technical assistance to States and Indian tribes to implement the goals and requirements of this section, including procedures and technical analysis for States and Indian tribes—

(1) to improve and implement State residential and commercial building energy codes;

(2) to demonstrate that the code provisions of the States and Indian tribes achieve equivalent or greater energy savings than the model building energy codes and targets;

(3) to document the rate of compliance with a building energy code; and

(4) to otherwise promote the design and construction of energy efficient buildings.

(f) AVAILABILITY OF INCENTIVE FUNDING.—

(1) IN GENERAL.—The Secretary shall provide incentive funding to States and Indian tribes—

(A) to implement the requirements of this section;

(B) to improve and implement residential and commercial building energy codes, including increasing and verifying compliance with the codes and training of State, tribal, and local building code officials to implement and enforce the codes; and

(C) 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 full compliance with residential and commercial building energy codes under subsection (c)—

(A) to a State or Indian tribe for which the Secretary has validated a certification under subsection (b) or (c); and

(B) in a State or Indian tribe that is not eligible under subparagraph (A), to a local government that is eligible under this section.

(3) TRAINING.—Of the amounts made available under this subsection, the State or Indian tribe may use amounts required, but not to exceed $750,000 for a State, to train State and local building code officials to implement and enforce codes described in paragraph (2).

(4) LOCAL GOVERNMENTS.—States may share grants under this subsection with local governments that implement and enforce the codes.

(g) STRETCH CODES AND ADVANCED STANDARDS.—

(1) IN GENERAL.—The Secretary shall provide technical and financial support for the development of stretch codes and advanced standards for residential and commercial buildings for use as—

(A) an option for adoption as a building energy code by local, tribal, or State governments; and

(B) guidelines for energy-efficient building design.

(2) TARGETS.—The stretch codes and advanced standards shall be designed—

(A) to achieve substantial energy savings compared to the model building energy codes; and

(B) to meet targets under section 307(b), if available, at least 3 to 6 years in advance of the target years.

(h) STUDIES.—The Secretary, in consultation with building science experts from the National Laboratories and institutions of higher education, designers and builders of energy-efficient residential and commercial buildings, code officials, and other stakeholders, shall undertake a study of the feasibility, impact, economics, and merit of—

(1) code improvements that would require that buildings be designed, sited, and constructed in a manner that makes the buildings more adaptable in the future to become zero-net-energy after initial construction, as advances are achieved in energy-saving technologies;

(2) code procedures to incorporate measured lifetimes, not just first-year energy use, in trade-offs and performance calculations; and

(3) legislative options for increasing energy savings from building energy codes, including additional incentives for effective State and local action, and verification of compliance with and enforcement of a code other than by a State or local government.

(i) EFFECT ON OTHER LAWS.—Nothing in this section or section 307 supersedes or modifies the application of sections 321 through 346 of the Energy Policy and Conservation Act (42 U.S.C. 6291 et seq.).

(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section and section 307 $200,000,000, to remain available until expended.

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SEC. 305. FEDERAL BUILDING ENERGY EFFICIENCY STANDARDS.

* * * * * * *

(a)(1) IN GENERAL.—Not later than 2 years after the date of the enactment of the Energy Policy Act of 1992, the Secretary, after consulting with appropriate Federal agencies, CABO, ASHRAE, the National Association of Home Builders, the Illuminating Engineering Society, the American Institute of Architects, the National Conference of the States on Building Codes and Standards, and other appropriate persons, shall establish, by rule, Federal building energy standards that require in new Federal buildings those energy efficiency measures that are technologically feasible and economically justified. Such standards shall become effective no later than 1 year after such rule is issued.

(2) The standards established under paragraph (1) shall—

(A) contain energy saving and renewable energy specifications that meet or exceed the energy saving and renewable energy specifications of the 2004 International Energy Conservation Code (in the case of residential buildings) or ASHRAE Standard 90.1–2004 (in the case of commercial buildings);

(B) to the extent practicable, use the same format as the [appropriate voluntary building energy code] *model building energy code*; and

(C) consider, in consultation with the Environmental Protection Agency and other Federal agencies, and where appropriate contain, measures with regard to radon and other indoor air pollutants.

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

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

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

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

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

[(iii) if lifecycle cost-effective, as compared to other reasonably available technologies, not less than 30 percent of the hot water demand for each new Federal building or Federal building undergoing a major renovation be met through the installation and use of solar hot water heaters.

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

(3) REVISED FEDERAL BUILDING ENERGY EFFICIENCY PERFORMANCE STANDARDS.—

(A) REVISED FEDERAL BUILDING ENERGY EFFICIENCY PERFORMANCE STANDARDS.—

(i) IN GENERAL.—Not later than 1 year after the date of enactment of the Energy Policy Modernization Act of 2015, the Secretary shall establish, by rule, revised Federal building energy efficiency performance standards that require that—

(I) new Federal buildings and alterations and additions to existing Federal buildings—

(aa) meet or exceed the most recent revision of the International Energy Conservation Code (in the case of residential buildings) or ASHRAE

Standard 90.1 (in the case of commercial buildings) as of the date of enactment of the Energy Policy Modernization Act of 2015; and

(bb) meet or exceed the energy provisions of State and local building codes applicable to the building, if the codes are more stringent than the International Energy Conservation Code or ASHRAE Standard 90.1, as applicable;

(II) unless demonstrated not to be life-cycle cost effective for new Federal buildings and Federal buildings with major renovations—

(aa) the buildings be designed to achieve energy consumption levels that are at least 30 percent below the levels established in the version of the ASHRAE Standard or the International Energy Conservation Code, as appropriate, that is applied under subclause (I)(aa), including updates under subparagraph (B); and

(bb) sustainable design principles are applied to the location, siting, design, and construction of all new Federal buildings and replacement Federal buildings;

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

(IV) if life-cycle cost effective, as compared to other reasonably available technologies, not less than 30 percent of the hot water demand for each new Federal building or Federal building undergoing a major renovation be met through the installation and use of solar hot water heaters.

(ii) LIMITATION.—Clause (i)(I) shall not apply to unaltered portions of existing Federal buildings and systems that have been added to or altered.

(B) UPDATES.—Not later than 1 year after the date of approval of each subsequent revision of the ASHRAE Standard or the International Energy Conservation Code, as appropriate, the Secretary shall determine whether the revised standards established under subparagraph (A) should be updated to reflect the revisions, based on the energy savings and life-cycle cost-effectiveness of the revisions.

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

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

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

[(D) Not later than 1 year after the date of enactment of the Energy Independence and Security Act of 2007, the Secretary

shall establish, by rule, revised Federal building energy efficiency performance standards that require that:

[(i) For new Federal buildings and Federal buildings undergoing major renovations, with respect to which the Administrator of General Services is required to transmit a prospectus to Congress under section 3307 of title 40, United States Code, in the case of public buildings (as defined in section 3301 of title 40, United States Code), or of at least $2,500,000 in costs adjusted annually for inflation for other buildings:

[(I) The buildings shall be designed so that the fossil fuel-generated energy consumption of the buildings is reduced, as compared with such energy consumption by a similar building in fiscal year 2003 (as measured by Commercial Buildings Energy Consumption Survey or Residential Energy Consumption Survey data from the Energy Information Agency), by the percentage specified in the following table:

[Fiscal Year	Percentage Reduction
[2010	55
[2015	65
[2020	80
[2025	90
[2030	100

[(II) Upon petition by an agency subject to this subparagraph, the Secretary may adjust the applicable numeric requirement under subclause (I) downward with respect to a specific building, if the head of the agency designing the building certifies in writing that meeting such requirement would be technically impracticable in light of the agency's specified functional needs for that building and the Secretary concurs with the agency's conclusion. This subclause shall not apply to the General Services Administration.

[(III) Sustainable design principles shall be applied to the siting, design, and construction of such buildings. Not later than 90 days after the date of enactment of the Energy Independence and Security Act of 2007, the Secretary, after reviewing the findings of the Federal Director under section 436(h) of that Act, in consultation with the Administrator of General Services, and in consultation with the Secretary of Defense for considerations relating to those facilities under the custody and control of the Department of Defense, shall identify a certification system and level for green buildings that the Secretary determines to be the most likely to encourage a comprehensive and environmentally-sound approach to certification of green buildings. The identification of the certification system and level shall be based on a review of the Federal Director's findings under section 436(h) of the Energy Independence and Security Act of 2007 and the criteria specified in clause (iii), shall identify the highest level the Secretary determines is appropriate above the minimum level required for certification under the system selected, and

shall achieve results at least comparable to the system used by and highest level referenced by the General Services Administration as of the date of enactment of the Energy Independence and Security Act of 2007. Within 90 days of the completion of each study required by clause (iv), the Secretary, in consultation with the Administrator of General Services, and in consultation with the Secretary of Defense for considerations relating to those facilities under the custody and control of the Department of Defense, shall review and update the certification system and level, taking into account the conclusions of such study.

[(ii) In establishing criteria for identifying major renovations that are subject to the requirements of this subparagraph, the Secretary shall take into account the scope, degree, and types of renovations that are likely to provide significant opportunities for substantial improvements in energy efficiency.

[(iii) In identifying the green building certification system and level, the Secretary shall take into consideration—

[(I) the ability and availability of assessors and auditors to independently verify the criteria and measurement of metrics at the scale necessary to implement this subparagraph;

[(II) the ability of the applicable certification organization to collect and reflect public comment;

[(III) the ability of the standard to be developed and revised through a consensus-based process;

[(IV) an evaluation of the robustness of the criteria for a high-performance green building, which shall give credit for promoting—

[(aa) efficient and sustainable use of water, energy, and other natural resources;

[(bb) use of renewable energy sources;

[(cc) improved indoor environmental quality through enhanced indoor air quality, thermal comfort, acoustics, day lighting, pollutant source control, and use of low-emission materials and building system controls; and

[(dd) such other criteria as the Secretary determines to be appropriate; and

[(V) national recognition within the building industry.

[(iv) At least once every 5 years, and in accordance with section 436 of the Energy Independence and Security Act of 2007, the Administrator of General Services shall conduct a study to evaluate and compare available third-party green building certification systems and levels, taking into account the criteria listed in clause (iii).

[(v) The Secretary may by rule allow Federal agencies to develop internal certification processes, using certified professionals, in lieu of certification by the certification entity identified under clause (i)(III). The Secretary shall include in any such rule guidelines to ensure that the certification process results in buildings meeting the applicable

certification system and level identified under clause (i)(III). An agency employing an internal certification process must continue to obtain external certification by the certification entity identified under clause (i)(III) for at least 5 percent of the total number of buildings certified annually by the agency.

[(vi) With respect to privatized military housing, the Secretary of Defense, after consultation with the Secretary may, through rulemaking, develop alternative criteria to those established by subclauses (I) and (III) of clause (i) that achieve an equivalent result in terms of energy savings, sustainable design, and green building performance.

[(vii) In addition to any use of water conservation technologies otherwise required by this section, water conservation technologies shall be applied to the extent that the technologies are life-cycle cost-effective.]

(D) CERTIFICATION FOR GREEN BUILDINGS.—

(i) SUSTAINABLE DESIGN PRINCIPLES.—Sustainable design principles shall be applied to the siting, design, and construction of buildings covered by this subparagraph.

(ii) SELECTION OF CERTIFICATION SYSTEMS.—The Secretary, after reviewing the findings of the Federal Director under section 436(h) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17092(h)), in consultation with the Administrator of General Services, and in consultation with the Secretary of Defense relating to those facilities under the custody and control of the Department of Defense, shall determine those certification systems for green commercial and residential buildings that the Secretary determines to be the most likely to encourage a comprehensive and environmentally sound approach to certification of green buildings.

(iii) BASIS FOR SELECTION.—The determination of the certification systems under clause (ii) shall be based on ongoing review of the findings of the Federal Director under section 436(h) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17092(h)) and the criteria described in clause (v).

(iv) ADMINISTRATION.—In determining certification systems under this subparagraph, the Secretary shall—

(I) make a separate determination for all or part of each system;

(II) confirm that the criteria used to support the selection of building products, materials, brands, and technologies—

(aa) are fair and neutral (meaning that the criteria are based on an objective assessment of relevant technical data);

(bb) do not prohibit, disfavor, or discriminate against selection based on technically inadequate information to inform human or environmental risk; and

(cc) are expressed to prefer performance measures whenever performance measures may reasonably be used in lieu of prescriptive measures; and

(III) use environmental and health criteria that are based on risk assessment methodology that is generally accepted by the applicable scientific disciplines.

(v) CONSIDERATIONS.—In determining the green building certification systems under this subparagraph, the Secretary shall take into consideration—

(I) the ability and availability of assessors and auditors to independently verify the criteria and measurement of metrics at the scale necessary to implement this subparagraph;

(II) the ability of the applicable certification organization to collect nd reflect public comment;

(III) the ability of the standard to be developed and revised through a consensus-based process;

(IV) an evaluation of the robustness of the criteria for a high-performance green building, which shall give credit for promoting—

(aa) efficient and sustainable use of water, energy, and other natural resources;

(bb) the use of renewable energy sources;

(cc) improved indoor environmental quality through enhanced indoor air quality, thermal comfort, acoustics, day lighting, pollutant source control, and use of low-emission materials and building system controls; and

(dd) such other criteria as the Secretary determines to be appropriate; and

(V) national recognition within the building industry.

(vi) REVIEW.—The Secretary, in consultation with the Administrator of General Services and the Secretary of Defense, shall conduct an ongoing review to evaluate and compare private sector green building certification systems, taking into account—

(I) the criteria described in clause (v); and

(II) the identification made by the Federal Director under section 436(h) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17092(h)).

(vii) EXCLUSIONS.—

(I) IN GENERAL.—Subject to subclause (II), if a certification system fails to meet the review requirements of clause (v), the Secretary shall—

(aa) identify the portions of the system, whether prerequisites, credits, points, or otherwise, that meet the review criteria of clause (v);

(bb) determine the portions of the system that are suitable for use; and

(cc) exclude all other portions of the system from identification and use.

(II) ENTIRE SYSTEMS.—The Secretary shall exclude an entire system from use if an exclusion under subclause (I)—

(aa) impedes the integrated use of the system;

(bb) creates disparate review criteria or unequal point access for competing materials; or

(cc) increases agency costs of the use.

(viii) INTERNAL CERTIFICATION PROCESSES.—The Secretary may by rule allow Federal agencies to develop internal certification processes, using certified professionals, in lieu of certification by certification entities identified under clause (ii).

(ix) PRIVATIZED MILITARY HOUSING.—With respect to privatized military housing, the Secretary of Defense, after consultation with the Secretary may, through rulemaking, develop alternative certification systems and levels than the systems and levels identified under clause (ii) that achieve an equivalent result in terms of energy savings, sustainable design, and green building performance.

(x) WATER CONSERVATION TECHNOLOGIES.—In addition to any use of water conservation technologies otherwise required by this section, water conservation technologies shall be applied to the extent that the technologies are life-cycle cost-effective.

(xi) EFFECTIVE DATE.—

(I) DETERMINATIONS MADE AFTER DECEMBER 31, 2015.—This subparagraph shall apply to any determination made by a Federal agency after December 31, 2015.

(II) DETERMINATIONS MADE ON OR BEFORE DECEMBER 31, 2015.—This subparagraph (as in effect on the day before the date of enactment of the Energy Policy Modernization Act of 2015) shall apply to any use of a certification system for green commercial and residential buildings by a Federal agency on or before December 31, 2015.

(b) REPORT ON COMPARATIVE STANDARDS.—The Secretary shall identify and describe, in the report required under section 308, the basis for any substantive difference between the Federal building energy standards established under this section (including differences in treatment of energy efficiency and renewable energy) and the appropriate ⟦voluntary building energy code⟧ *model building energy code.*

⟦(c) PERIODIC REVIEW.—The Secretary shall periodically, but not less than once every 5 years, review the Federal building energy standards established under this section and shall, if significant energy savings would result, upgrade such standards to include all new energy efficiency and renewable energy measures that are technologically feasible and economically justified.⟧

⟦(d) INTERIM STANDARDS.—Interim energy performance standards for new Federal buildings issued by the Secretary under this title as it existed before the date of the enactment of the Energy Policy Act of 1992 shall remain in effect until the standards established under subsection (a) become effective.⟧

(c) PERIODIC REVIEW.—The Secretary shall—

(1) once every 5 years, review the Federal building energy standards established under this section; and

(2) on completion of a review under paragraph (1), if the Secretary determines that significant energy savings would result, upgrade the standards to include all new energy efficiency and

renewable energy measures that are technologically feasible and economically justified.

* * * * * * *

SEC. 307. SUPPORT FOR VOLUNTARY BUILDING ENERGY CODES.

[(a) IN GENERAL.—Not later than 1 year after the date of the enactment of the Energy Policy Act of 1992, the Secretary, after consulting with the Secretary of Housing and Urban Development, the Secretary of Veterans Affairs, other appropriate Federal agencies, CABO, ASHRAE, the National Conference of States on Building Codes and Standards, and any other appropriate building codes and standards organization, shall support the upgrading of voluntary building energy codes for new residential and commercial buildings. Such support shall include—

[(1) a compilation of data and other information regarding building energy efficiency standards and codes in the possession of the Federal Government, State and local governments, and industry organizations;

[(2) assistance in improving the technical basis for such standards and codes;

[(3) assistance in determining the cost-effectiveness and the technical feasibility of the energy efficiency measures included in such standards and codes; and

[(4) assistance in identifying appropriate measures with regard to radon and other indoor air pollutants.

[(b) REVIEW.—The Secretary shall periodically review the technical and economic basis of voluntary building energy codes and, based upon ongoing research activities—

[(1) recommend amendments to such codes including measures with regard to radon and other indoor air pollutants;

[(2) seek adoption of all technologically feasible and economically justified energy efficiency measures; and

[(3) otherwise participate in any industry process for review and modification of such codes.]

(a) IN GENERAL.—The Secretary shall support the updating of model building energy codes.

(b) TARGETS.—

(1) IN GENERAL.—The Secretary shall support the updating of the model building energy codes to enable the achievement of aggregate energy savings targets established under paragraph (2).

(2) TARGETS.—

(A) IN GENERAL.—The Secretary shall work with State, Indian tribes, local governments, nationally recognized code and standards developers, and other interested parties to support the updating of model building energy codes by establishing one or more aggregate energy savings targets to achieve the purposes of this section.

(B) SEPARATE TARGETS.—The Secretary may establish separate targets for commercial and residential buildings.

(C) BASELINES.—The baseline for updating model building energy codes shall be the 2009 IECC for residential buildings and ASHRAE Standard 90.1–2010 for commercial buildings.

(D) SPECIFIC YEARS.—

(i) IN GENERAL.—Targets for specific years shall be established and revised by the Secretary through rulemaking and coordinated with nationally recognized code and standards developers at a level that—

(I) is at the maximum level of energy efficiency that is technologically feasible and life-cycle cost effective, while accounting for the economic considerations under paragraph (4);

(II) is higher than the preceding target; and

(III) promotes the achievement of commercial and residential high-performance buildings through high performance energy efficiency (within the meaning of section 401 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17061)).

(ii) INITIAL TARGETS.—Not later than 1 year after the date of enactment of this clause, the Secretary shall establish initial targets under this subparagraph.

(iii) DIFFERENT TARGET YEARS.—Subject to clause (i), prior to the applicable year, the Secretary may set a later target year for any of the model building energy codes described in subparagraph (A) if the Secretary determines that a target cannot be met.

(iv) SMALL BUSINESS.—When establishing targets under this paragraph through rulemaking, the Secretary shall ensure compliance with the Small Business Regulatory Enforcement Fairness Act of 1996 (5 U.S.C. 601 note; Public Law 104–121).

(3) APPLIANCE STANDARDS AND OTHER FACTORS AFFECTING BUILDING ENERGY USE.—In establishing building code targets under paragraph (2), the Secretary shall develop and adjust the targets in recognition of potential savings and costs relating to—

(A) efficiency gains made in appliances, lighting, windows, insulation, and building envelope sealing;

(B) advancement of distributed generation and on-site renewable power generation technologies;

(C) equipment improvements for heating, cooling, and ventilation systems;

(D) building management systems and SmartGrid technologies to reduce energy use; and

(E) other technologies, practices, and building systems that the Secretary considers appropriate regarding building plug load and other energy uses.

(4) ECONOMIC CONSIDERATIONS.—In establishing and revising building code targets under paragraph (2), the Secretary shall consider the economic feasibility of achieving the proposed targets established under this section and the potential costs and savings for consumers and building owners, including a return on investment analysis.

(c) TECHNICAL ASSISTANCE TO MODEL BUILDING ENERGY CODE-SETTING AND STANDARD DEVELOPMENT ORGANIZATIONS.—

(1) IN GENERAL.—The Secretary shall, on a timely basis, provide technical assistance to model building energy code-setting

and standard development organizations consistent with the goals of this section.

(2) ASSISTANCE.—The assistance shall include, as requested by the organizations, technical assistance in—

(A) evaluating code or standards proposals or revisions;

(B) building energy analysis and design tools;

(C) building demonstrations;

(D) developing definitions of energy use intensity and building types for use in model building energy codes to evaluate the efficiency impacts of the model building energy codes;

(E) performance-based standards;

(F) evaluating economic considerations under subsection (b)(4); and

(G) developing model building energy codes by Indian tribes in accordance with tribal law.

(3) AMENDMENT PROPOSALS.—The Secretary may submit timely model building energy code amendment proposals to the model building energy code-setting and standard development organizations, with supporting evidence, sufficient to enable the model building energy codes to meet the targets established under subsection (b)(2).

(4) ANALYSIS METHODOLOGY.—The Secretary shall make publicly available the entire calculation methodology (including input assumptions and data) used by the Secretary to estimate the energy savings of code or standard proposals and revisions.

(d) DETERMINATION.—

(1) REVISION OF MODEL BUILDING ENERGY CODES.—If the provisions of the IECC or ASHRAE Standard 90.1 regarding building energy use are revised, the Secretary shall make a preliminary determination not later than 90 days after the date of the revision, and a final determination not later than 15 months after the date of the revision, on whether or not the revision will—

(A) improve energy efficiency in buildings compared to the existing model building energy code; and

(B) meet the applicable targets under subsection (b)(2).

(2) CODES OR STANDARDS NOT MEETING TARGETS.—

(A) IN GENERAL.—If the Secretary makes a preliminary determination under paragraph (1)(B) that a code or standard does not meet the targets established under subsection (b)(2), the Secretary may at the same time provide the model building energy code or standard developer with proposed changes that would result in a model building energy code that meets the targets and with supporting evidence, taking into consideration—

(i) whether the modified code is technically feasible and life-cycle cost effective;

(ii) available appliances, technologies, materials, and construction practices; and

(iii) the economic considerations under subsection (b)(4).

(B) INCORPORATION OF CHANGES.—

(i) IN GENERAL.—On receipt of the proposed changes, the model building energy code or standard developer

shall have an additional 270 days to accept or reject the proposed changes of the Secretary to the model building energy code or standard for the Secretary to make a final determination.

(ii) FINAL DETERMINATION.—A final determination under paragraph (1) shall be on the modified model building energy code or standard.

(e) ADMINISTRATION.—In carrying out this section, the Secretary shall—

(1) publish notice of targets and supporting analysis and determinations under this section in the Federal Register to provide an explanation of and the basis for such actions, including any supporting modeling, data, assumptions, protocols, and cost-benefit analysis, including return on investment; and

(2) provide an opportunity for public comment on targets and supporting analysis and determinations under this section.

(f) VOLUNTARY CODES AND STANDARDS.—Notwithstanding any other provision of this section, any model building code or standard established under section 304 shall not be binding on a State, local government, or Indian tribe as a matter of Federal law.

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SEC. 414C. GRANTS FOR NEW, SELF-SUSTAINING LOW-INCOME, SINGLE-FAMILY AND MULTIFAMILY HOUSING ENERGY RETROFIT MODEL PROGRAMS TO ELIGIBLE MULTISTATE HOUSING AND ENERGY NONPROFIT ORGANIZATIONS.

(a) PURPOSES.—The purposes of this section are—

(1) to expand the number of low-income, single-family and multifamily homes that receive energy efficiency retrofits;

(2) to promote innovation and new models of retrofitting low-income homes through new Federal partnerships with covered organizations that leverage substantial donations, donated materials, volunteer labor, homeowner labor equity, and other private sector resources;

(3) to assist the covered organizations in demonstrating, evaluating, improving, and replicating widely the model low-income energy retrofit programs of the covered organizations; and

(4) to ensure that the covered organizations make the energy retrofit programs of the covered organizations self-sustaining by the time grant funds have been expended.

(b) DEFINITIONS.—In this section:

(1) COVERED ORGANIZATION.—The term "covered organization" means an organization that—

(A) is described in section 501(c)(3) of the Internal Revenue Code of 1986 and exempt from taxation under 501(a) of that Code; and

(B) has an established record of constructing, renovating, repairing, or making energy efficient a total of not less than 250 owner-occupied, single-family or multifamily homes per year for low-income households, either directly or through affiliates, chapters, or other direct partners (using the most recent year for which data are available).

(2) LOW-INCOME.—The term "low-income" means an income level that is not more than 200 percent of the poverty level (as determined in accordance with criteria established by the Director of the Office of Management and Budget) applicable to a

family of the size involved, except that the Secretary may establish a higher or lower level if the Secretary determines that a higher or lower level is necessary to carry out this section.

(3) WEATHERIZATION ASSISTANCE PROGRAM FOR LOW-INCOME PERSONS.—The term "Weatherization Assistance Program for Low-Income Persons" means the program established under this part (including part 440 of title 10, Code of Federal Regulations, or successor regulations).

(c) COMPETITIVE GRANT PROGRAM.—The Secretary shall make grants to covered organizations through a national competitive process for use in accordance with this section.

(d) AWARD FACTORS.—In making grants under this section, the Secretary shall consider—

(1) the number of low-income homes the applicant—

(A) has built, renovated, repaired, or made more energy efficient as of the date of the application; and

(B) can reasonably be projected to build, renovate, repair, or make energy efficient during the 10-year period beginning on the date of the application;

(2) the qualifications, experience, and past performance of the applicant, including experience successfully managing and administering Federal funds;

(3) the number and diversity of States and climates in which the applicant works as of the date of the application;

(4) the amount of non-Federal funds, donated or discounted materials, discounted or volunteer skilled labor, volunteer unskilled labor, homeowner labor equity, and other resources the applicant will provide;

(5) the extent to which the applicant could successfully replicate the energy retrofit program of the applicant and sustain the program after the grant funds have been expended;

(6) regional diversity;

(7) urban, suburban, and rural localities; and

(8) such other factors as the Secretary determines to be appropriate.

(e) APPLICATIONS.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the Secretary shall request proposals from covered organizations.

(2) ADMINISTRATION.—To be eligible to receive a grant under this section, an applicant shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(3) AWARDS.—Not later than 90 days after the date of issuance of a request for proposals, the Secretary shall award grants under this section.

(f) ELIGIBLE USES OF GRANT FUNDS.—A grant under this section may be used for—

(1) energy efficiency audits, cost-effective retrofit, and related activities in different climatic regions of the United States;

(2) energy efficiency materials and supplies;

(3) organizational capacity—

(A) to significantly increase the number of energy retrofits;

(B) to replicate an energy retrofit program in other States; and

(C) to ensure that the program is self-sustaining after the Federal grant funds are expended;

(4) energy efficiency, audit and retrofit training, and ongoing technical assistance;

(5) information to homeowners on proper maintenance and energy savings behaviors;

(6) quality control and improvement;

(7) data collection, measurement, and verification;

(8) program monitoring, oversight, evaluation, and reporting;

(9) management and administration (up to a maximum of 10 percent of the total grant);

(10) labor and training activities; and

(11) such other activities as the Secretary determines to be appropriate.

(g) MAXIMUM AMOUNT.—

(1) IN GENERAL.—The amount of a grant provided under this section shall not exceed—

(A) if the amount made available to carry out this section for a fiscal year is $225,000,000 or more, $5,000,000; and

(B) if the amount made available to carry out this section for a fiscal year is less than $225,000,000, $1,500,000.

(2) TECHNICAL AND TRAINING ASSISTANCE.—The total amount of a grant provided under this section shall be reduced by the cost of any technical and training assistance provided by the Secretary that relates to the grant.

(h) GUIDELINES.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this section, the Secretary shall issue guidelines to implement the grant program established under this section.

(2) ADMINISTRATION.—The guidelines—

(A) shall not apply to the Weatherization Assistance Program for Low-Income Persons, in whole or major part; but

(B) may rely on applicable provisions of law governing the Weatherization Assistance Program for Low-Income Persons to establish—

(i) standards for allowable expenditures;

(ii) a minimum savings-to-investment ratio;

(iii) standards—

(I) to carry out training programs;

(II) to conduct energy audits and program activities;

(III) to provide technical assistance;

(IV) to monitor program activities; and

(V) to verify energy and cost savings;

(iv) liability insurance requirements; and

(v) recordkeeping requirements, which shall include reporting to the Office of Weatherization and Intergovernmental Programs of the Department of Energy applicable data on each home retrofitted.

(i) REVIEW AND EVALUATION.—The Secretary shall review and evaluate the performance of any covered organization that receives a grant under this section (which may include an audit), as determined by the Secretary.

(j) COMPLIANCE WITH STATE AND LOCAL LAW.—Nothing in this section or any program carried out using a grant provided under this section supersedes or otherwise affects any State or local law, to the extent that the State or local law contains a requirement that is more stringent than the applicable requirement of this section.

(k) ANNUAL REPORTS.—The Secretary shall submit to Congress annual reports that provide—

(1) findings;

(2) a description of energy and cost savings achieved and actions taken under this section; and

(3) any recommendations for further action.

(l) FUNDING.—Of the amount of funds that are made available to carry out the Weatherization Assistance Program for each of fiscal years 2016 through 2020 under section 422, the Secretary shall use to carry out this section for each of fiscal years 2016 through 2020 not less than—

(1) 2 percent of the amount if the amount is less than $225,000,000;

(2) 5 percent of the amount if the amount is $225,000,000 or more but less than $260,000,000; and

(3) 10 percent of the amount if the amount is $260,000,000 or more.

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SEC. 415. LIMITATIONS.

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(f) STANDARDS PROGRAM.—

(1) CONTRACTOR QUALIFICATION.—Effective beginning January 1, 2016, to be eligible to carry out weatherization using funds made available under this part, a contractor shall be selected through a competitive bidding process and be—

(A) accredited by the Building Performance Institute;

(B) an Energy Smart Home Performance Team accredited under the Residential Energy Services Network; or

(C) accredited by an equivalent accreditation or program accreditation-based State certification program approved by the Secretary.

(2) GRANTS FOR ENERGY RETROFIT MODEL PROGRAMS.—

(A) IN GENERAL.—To be eligible to receive a grant under section 414C, a covered organization (as defined in section 414C(b)) shall use a crew chief who—

(i) is certified or accredited in accordance with paragraph (1); and

(ii) supervises the work performed with grant funds.

(B) VOLUNTEER LABOR.—A volunteer who performs work for a covered organization that receives a grant under section 414C shall not be required to be certified under this subsection if the volunteer is not directly installing or repairing mechanical equipment or other items that require skilled labor.

(C) TRAINING.—The Secretary shall use training and technical assistance funds available to the Secretary to assist covered organizations under section 414C in providing training to obtain certification required under this subsection, including provisional or temporary certification.

(3) MINIMUM EFFICIENCY STANDARDS.—Effective beginning October 1, 2016, the Secretary shall ensure that—

(A) each retrofit for which weatherization assistance is provided under this part meets minimum efficiency and quality of work standards established by the Secretary after weatherization of a dwelling unit;

(B) at least 10 percent of the dwelling units are randomly inspected by a third party accredited under this subsection to ensure compliance with the minimum efficiency and quality of work standards established under subparagraph (A); and

(C) the standards established under this subsection meet or exceed the industry standards for home performance work that are in effect on the date of enactment of this subsection, as determined by the Secretary.

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AUTHORIZATION OF APPROPRIATIONS

SEC. 422. 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.] *appropriated $350,000,000 for each of fiscal years 2016 through 2020.*

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ENERGY INDEPENDENCE AND SECURITY ACT OF 2007

Public Law 110–140, as amended

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SEC.136. ADVANCED TECHNOLOGY VEHICLES MANUFACTURING INCENTIVE PROGRAM.

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[(f) FEES.—Administrative costs shall be no more than $100,000 or 10 basis point of the loan.]

(f) FEES.—

(1) IN GENERAL.—The Secretary shall charge and collect fees for loans provided under this section in amounts that the Secretary determines are sufficient to cover applicable administrative expenses associated with the loans, including reasonable closing fees on the loans.

(2) AVAILABILITY.—Fees collected under paragraph (1) 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.

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SEC. 137. ADVANCED TECHNOLOGY VEHICLES MANUFACTURING INCENTIVE PROGRAM ELIGIBILITY FOR VESSELS.

(a) DEFINITION OF VESSEL.—In this section, the term "vessel" means a vessel (as defined in section 3 of title 1, United States Code), whether in existence or under construction, that has been issued a certificate of documentation as a United States flagged vessel under chapter 121 of title 46, United States Code and that meets the standards established under section 4005(a) of the Energy Policy Modernization Act of 2015.

(b) ELIGIBILITY.—Subject to the terms and conditions of subsections (d) and (f) of section 136, projects for the reequipping, expanding, or establishing of a manufacturing facility in the United States to produce vessels shall be considered eligible for direct loans under section 136(d).

(c) FUNDING.—

(1) PROHIBITION ON USE OF EXISTING CREDIT SUBSIDY.—None of the projects made eligible under this section shall be eligible to receive any credit subsidy provided under section 136 before the date of enactment of this section.

(2) SPECIFIC APPROPRIATION OR CONTRIBUTION.—The authority under this section to incur indebtedness, or enter into contracts, obligating amounts to be expended by the Federal Government shall be effective for any fiscal year only—

(A)(i) to such extent or in such amounts as are provided in advance by appropriation Acts; and

(ii) if the borrower has agreed to pay a reasonable percentage of the cost of the obligation; or

(B) if the Secretary has received from the borrower a payment in full for the cost of the obligation and deposited the payment into the Treasury.

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SEC. 436. HIGH-PERFORMANCE GREEN FEDERAL BUILDINGS.

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(h) IDENTIFICATION OF CERTIFICATION [SYSTEM] *Systems*.—

[(1) IN GENERAL.—For the purpose of this section, not later than 60 days after the date of enactment of this Act, the Federal Director shall identify and shall provide to the Secretary pursuant to section 305(a)(3)(D) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)(3)(D)), a certification system that the Director determines to be the most likely to encourage a comprehensive and environmentally-sound approach to certification of green buildings.]

(1) IN GENERAL.—Based on an ongoing review, the Federal Director shall identify and shall provide to the Secretary pursuant to section 305(a)(3)(D) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)(3)(D)), a list of those certification systems that the Director identifies as the most likely to encourage a comprehensive and environmentally sound approach to certification of green buildings.

(2) BASIS.—The [system] *systems* identified under paragraph (1) shall be based on—

[(A) a study completed every 5 years and provided to the Secretary pursuant to section 305(a)(3)(D) of that Act,

which shall be carried out by the Federal Director to compare and evaluate standards;]

(A) an ongoing review provided to the Secretary pursuant to section 305(a)(3)(D) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)(3)(D)), which shall—

(i) be carried out by the Federal Director to compare and evaluate standards; and

(ii) allow any developer or administrator of a rating system or certification system to be included in the review;

(B) the ability and availability of assessors and auditors to independently verify the criteria and measurement of metrics at the scale necessary to implement this subtitle;

(C) the ability of the applicable standard-setting organization to collect and reflect public comment;

(D) the ability of the standard to be developed and revised through a consensus-based process;

(E) an evaluation of the robustness of the criteria for a high-performance green building, which shall give credit for promoting—(i) efficient and sustainable use of water, energy, and other natural resources; (ii) use of renewable energy sources; (iii) improved indoor environmental quality through enhanced indoor air quality, thermal comfort, acoustics, day lighting, pollutant source control, and use of low-emission materials and building system controls; (iv) reduced impacts from transportation through building location and site design that promote access by public transportation; and (v) such other criteria as the Federal Director determines to be appropriate; [and]

(F) national recognition within the building industry[.]*;*

(G) a finding that, for all credits addressing grown, harvested, or mined materials, the system does not discriminate against the use of domestic products that have obtained certifications of responsible sourcing; and

(H) a finding that the system incorporates life-cycle assessment as a credit pathway.

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SEC. 452. [ENERGY-INTENSIVE INDUSTRIES PROGRAM.] ***FUTURE OF INDUSTRY PROGRAM.***

(a) DEFINITIONS.—In this section:

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(3) ENERGY SERVICE PROVIDER.—The term "energy service provider" means any business providing technology or services to improve the energy efficiency, water efficiency, power factor, or load management of a manufacturing site or other industrial process in an energy-intensive industry, or any utility operating under a utility energy service project.

[(3)]*(4)* FEEDSTOCK.—The term "feedstock" means the raw material supplied for use in manufacturing, chemical, and biological processes.

[(4)]*(5)* PARTNERSHIP.—The term "partnership" means an energy efficiency partnership established under subsection (c)(1)(A).

[(5)](6) PROGRAM.—The term "program" means the energy-intensive industries program established under subsection (b).

(b) ESTABLISHMENT OF PROGRAM.—The Secretary shall establish a program under which the Secretary, in cooperation with energy-intensive industries and national industry trade associations representing the energy-intensive industries, shall support, research, develop, and promote the use of new materials processes, technologies, and techniques to optimize energy efficiency and the economic competitiveness of the United States' industrial and commercial sectors.

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(e) INSTITUTION OF HIGHER EDUCATION-BASED INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—[The Secretary]

(1) IN GENERAL.—The Secretary shall provide funding to institution of higher education-based industrial research and assessment centers, whose purpose shall be—

[(1)](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, system monitoring, industrial and manufacturing processes, and other purposes*;

[(2)](B) to promote applications of emerging concepts and technologies in small- and medium-sized manufacturers;

[(3)](C) to promote research and development for the use of alternative energy sources to supply heat, power, and new feedstocks for energy-intensive industries;

[(4)](D) to coordinate with appropriate Federal and State research offices, and provide a clearinghouse for industrial process and energy efficiency technical assistance resources; and

[(5)](E) to coordinate with State-accredited technical training centers and community colleges, while ensuring appropriate services to all regions of the United States.

(2) COORDINATION.—To increase the value and capabilities of the industrial research and assessment centers, the centers shall—

(A) coordinate with Manufacturing Extension Partnership Centers of the National Institute of Standards and Technology;

(B) coordinate with the Building Technologies Program of the Department of Energy to provide building assessment services to manufacturers;

(C) 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;

(D) increase partnerships with energy service providers and technology providers to leverage private sector expertise and accelerate deployment of new and existing technologies and processes for energy efficiency, power factor, and load management;

(E) identify opportunities for reducing greenhouse gas emissions; and

(F) promote sustainable manufacturing practices for small- and medium-sized manufacturers.

(3) 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) coordination activities by each industrial research and assessment center to leverage efforts with—

(i) Federal and State efforts;

(ii) the efforts of utilities and energy service providers;

(iii) the efforts of regional energy efficiency organizations; and

(iv) the efforts of other industrial research and assessment centers.

(4) WORKFORCE TRAINING.—

(A) IN GENERAL.—The Secretary shall pay the Federal share of associated internship programs under which students work with or for industries, manufacturers, and energy service providers 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.

(5) SMALL BUSINESS LOANS.—The Administrator of the Small Business Administration shall, to the maximum extent practicable, expedite consideration of applications from eligible small business concerns for loans under the Small Business Act (15 U.S.C. 631 et seq.) to implement recommendations of industrial research and assessment centers established under paragraph (1).

(6) ADVANCED MANUFACTURING STEERING COMMITTEE.—The Secretary shall establish an advisory steering committee to provide recommendations to the Secretary on planning and implementation of the Advanced Manufacturing Office of the Department of Energy.

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SEC. 453. ENERGY EFFICIENCY FOR DATA CENTER BUILDINGS.

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(b) VOLUNTARY NATIONAL INFORMATION PROGRAM.—

(1) IN GENERAL.—Not later than 90 days after the date of enactment of this Act, the Secretary and the Administrator of the Environmental Protection Agency shall, after consulting with information technology industry and other interested parties, initiate a voluntary national information program for those types of data centers and data center equipment and facilities that are widely used and for which there is a potential for significant data center energy savings as a result of the program.

(2) REQUIREMENTS.—The program described in paragraph (1) shall—

(A) address data center efficiency holistically, reflecting the total energy consumption of data centers as whole systems, including both equipment and facilities;

(B) consider prior work and studies undertaken in this area, including by the Environmental Protection Agency and the Department of Energy;

(C) consistent with the objectives described in paragraph (1), determine the type of data center and data H. R. 6—147 center equipment and facilities to be covered under the program;

(D) produce specifications, measurements, best practices, and benchmarks that will enable data center operators to make more informed decisions about the energy efficiency and costs of data centers, and that take into account—

(i) the performance and use of servers, data storage devices, and other information technology equipment;

(ii) the efficiency of heating, ventilation, and air conditioning, cooling, and power conditioning systems, provided that no modification shall be required of a standard then in effect under the Energy Policy and Conservation Act (42 U.S.C. 6201 et seq.) for any covered heating, ventilation, air-conditioning, cooling or power-conditioning product;

(iii) energy savings from the adoption of software and data management techniques; and

(iv) other factors determined by [the organization] *an organization* described in subsection (c);

(E) allow for creation of separate specifications, measurements, and benchmarks based on data center size and function, as well as other appropriate characteristics;

(F) advance the design and implementation of efficiency technologies to the maximum extent economically practical;

(G) provide to data center operators in the private sector and the Federal Government information about best practices and purchasing decisions that reduce the energy consumption of data centers; and

(H) publish the information described in subparagraph (G), which may be disseminated through catalogs, trade publications, the Internet, or other mechanisms, that will allow data center operators to assess the energy consumption and potential cost savings of alternative data centers and data center equipment and facilities.

[(3) PROCEDURES.—The program described in paragraph (1) shall be developed in consultation with and coordinated by the organization described in subsection (c) according to commonly accepted procedures for the development of specifications, measurements, and benchmarks.]

[(c) DATA CENTER EFFICIENCY ORGANIZATION.—

[(1) IN GENERAL.—After the establishment of the program described in subsection (b), the Secretary and the Administrator shall jointly designate an information technology industry organization to consult with and to coordinate the program.

[(2) REQUIREMENTS.—The organization designated under paragraph (1), whether preexisting or formed specifically for the purposes of subsection (b), shall—

[(A) consist of interested parties that have expertise in energy efficiency and in the development, operation, and

functionality of computer data centers, information technology equipment, and software, as well as representatives of hardware manufacturers, data center operators, and facility managers;

[(B) obtain and address input from Department of Energy National Laboratories or any college, university, research institution, industry association, company, or public interest group with applicable expertise in any of the areas listed in paragraph (1);

[(C) follow commonly accepted procedures for the development of specifications and accredited standards development processes; (

[D) have a mission to develop and promote energy efficiency for data centers and information technology; and

[(E) have the primary responsibility to consult in the development and publishing of the information, measurements, and benchmarks described in subsection (b) and transmission of the information to the Secretary and the Administrator for consideration under subsection (d).

[(d) MEASUREMENTS AND SPECIFICATIONS.—

[(1) IN GENERAL.—The Secretary and the Administrator shall consider the specifications, measurements, and benchmarks described in subsection (b) for use by the Federal Energy Management Program, the Energy Star Program, and other efficiency programs of the Department of Energy and Environmental Protection Agency, respectively.

[(2) REJECTIONS.—If the Secretary or the Administrator rejects 1 or more specifications, measurements, or benchmarks described in subsection (b), the rejection shall be made consistent with section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note; Public Law 104–113).

[(3) DETERMINATION OF IMPRACTICABILITY.—A determination that a specification, measurement, or benchmark described in subsection (b) is impractical may include consideration of the maximum efficiency that is technologically feasible and economically justified.

[(e) MONITORING.—The Secretary and the Administrator shall—

[(1) monitor and evaluate the efforts to develop the program described in subsection (b); and

[(2) not later than 3 years after the date of enactment of this Act, make a determination as to whether the program is consistent with the objectives of subsection (b).

[(f) ALTERNATIVE SYSTEM.—If the Secretary and the Administrator make a determination under subsection (e) that a voluntary national information program for data centers consistent with the objectives of subsection (b) has not been developed, the Secretary and the Administrator shall, after consultation with the National Institute of Standards and Technology and not later than 2 years after the determination, develop and implement the program under subsection (b).

[(g) PROTECTION OF PROPRIETARY INFORMATION.—The Secretary, the Administrator, or the data center efficiency organization shall not disclose any proprietary information or trade secrets provided

by any individual or company for the purposes of carrying out this section or the program established under this section.]

(c) STAKEHOLDER INVOLVEMENT.—

(1) IN GENERAL.—The Secretary and the Administrator shall carry out subsection (b) in consultation with the information technology industry and other key stakeholders, with the goal of producing results that accurately reflect the best knowledge in the most pertinent domains.

(2) CONSIDERATIONS.—In carrying out consultation described in paragraph (1), the Secretary and the Administrator shall pay particular attention to organizations that—

(A) have members with expertise in energy efficiency and in the development, operation, and functionality of data centers, information technology equipment, and software, including representatives of hardware manufacturers, data center operators, and facility managers;

(B) obtain and address input from the National Laboratories (as that term is defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801)) or any institution of higher education, research institution, industry association, company, or public interest group with applicable expertise;

(C) follow—

(i) commonly accepted procedures for the development of specifications; and

(ii) accredited standards development processes; or

(D) have a mission to promote energy efficiency for data centers and information technology.

(d) MEASUREMENTS AND SPECIFICATIONS.—The Secretary and the Administrator shall consider and assess the adequacy of the specifications, measurements, and benchmarks described in subsection (b) for use by the Federal Energy Management Program, the Energy Star Program, and other efficiency programs of the Department of Energy or the Environmental Protection Agency.

(e) STUDY.—The Secretary, in consultation with the Administrator, not later than 18 months after the date of enactment of the Energy Policy Modernization Act of 2015, shall make available to the public an update to the report submitted to Congress pursuant to section 1 of the Act of December 20, 2006 (Public Law 109–431; 120 Stat. 2920), entitled "Report to Congress on Server and Data Center Energy Efficiency" and dated August 2, 2007, that provides—

(1) a comparison and gap analysis of the estimates and projections contained in the original report with new data regarding the period from 2007 through 2014;

(2) an analysis considering the impact of information technologies, including virtualization and cloud computing, in the public and private sectors;

(3) an evaluation of the impact of the combination of cloud platforms, mobile devices, social media, and big data on data center energy usage;

(4) an evaluation of water usage in data centers and recommendations for reductions in such water usage; and

(5) updated projections and recommendations for best practices through fiscal year 2020.

(f) DATA CENTER ENERGY PRACTITIONER PROGRAM.—

(1) IN GENERAL.—The Secretary, in consultation with key stakeholders and the Director of the Office of Management and Budget, shall maintain a data center energy practitioner program that provides for the certification of energy practitioners qualified to evaluate the energy usage and efficiency opportunities in Federal data centers.

(2) EVALUATIONS.—Each Federal agency shall consider having the data centers of the agency evaluated once every 4 years by energy practitioners certified pursuant to the program, whenever practicable using certified practitioners employed by the agency.

(g) OPEN DATA INITIATIVE.—

(1) IN GENERAL.—The Secretary, in consultation with key stakeholders and the Director of the Office of Management and Budget, shall establish an open data initiative for Federal data center energy usage data, with the purpose of making the data available and accessible in a manner that encourages further data center innovation, optimization, and consolidation.

(2) CONSIDERATION.—In establishing the initiative under paragraph (1), the Secretary shall consider using the online Data Center Maturity Model.

(h) INTERNATIONAL SPECIFICATIONS AND METRICS.—The Secretary, in consultation with key stakeholders, shall actively participate in efforts to harmonize global specifications and metrics for data center energy and water efficiency.

(i) DATA CENTER UTILIZATION METRIC.—The Secretary, in collaboration with key stakeholders, shall facilitate in the development of an efficiency metric that measures the energy efficiency of a data center (including equipment and facilities).

(j) PROTECTION OF PROPRIETARY INFORMATION.—The Secretary and the Administrator shall not disclose any proprietary information or trade secrets provided by any individual or company for the purposes of carrying out this section or the programs and initiatives established under this section.

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SEC. 616A. LARGE-SCALE GEOTHERMAL ENERGY.

(a) PURPOSES.—The purposes of this section are—

(1) to improve the components, processes, and systems used for geothermal heat pumps and the direct use of geothermal energy; and

(2) to increase the energy efficiency, lower the cost, increase the use, and improve and demonstrate the applicability of geothermal heat pumps to, and the direct use of geothermal energy in, large buildings, commercial districts, residential communities, and large municipal, agricultural, or industrial projects.

(b) DEFINITIONS.—In this section:

(1) DIRECT USE OF GEOTHERMAL ENERGY.—The term "direct use of geothermal energy" means systems that use water that is at a temperature between approximately 38 degrees Celsius and 149 degrees Celsius directly or through a heat exchanger to provide—

(A) heating to buildings; or

(B) heat required for industrial processes, agriculture, aquaculture, and other facilities.

(2) GEOTHERMAL HEAT PUMP.—The term "geothermal heat pump" means a system that provides heating and cooling by exchanging heat from shallow ground or surface water using—

(A) a closed loop system, which transfers heat by way of buried or immersed pipes that contain a mix of water and working fluid; or

(B) an open loop system, which circulates ground or surface water directly into the building and returns the water to the same aquifer or surface water source.

(3) LARGE-SCALE APPLICATION.—The term "large-scale application" means an application for space or process heating or cooling for large entities with a name-plate capacity, expected resource, or rating of 10 or more megawatts, such as a large building, commercial district, residential community, or a large municipal, agricultural, or industrial project.

(c) PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a program of research, development, and demonstration for geothermal heat pumps and the direct use of geothermal energy.

(2) AREAS.—The program may include research, development, demonstration, and commercial application of—

(A) geothermal ground loop efficiency improvements through more efficient heat transfer fluids;

(B) geothermal ground loop efficiency improvements through more efficient thermal grouts for wells and trenches;

(C) geothermal ground loop installation cost reduction through—

(i) improved drilling methods;

(ii) improvements in drilling equipment;

(iii) improvements in design methodology and energy analysis procedures; and

(iv) improved methods for determination of ground thermal properties and ground temperatures;

(D) installing geothermal ground loops near the foundation walls of new construction to take advantage of existing structures;

(E) using gray or black wastewater as a method of heat exchange;

(F) improving geothermal heat pump system economics through integration of geothermal systems with other building systems, including providing hot and cold water and rejecting or circulating industrial process heat through refrigeration heat rejection and waste heat recovery;

(G) advanced geothermal systems using variable pumping rates to increase efficiency;

(H) geothermal heat pump efficiency improvements;

(I) use of hot water found in mines and mine shafts and other surface waters as the heat exchange medium;

(J) heating of districts, neighborhoods, communities, large commercial or public buildings (including office, retail, educational, government, and institutional buildings and multifamily residential buildings and campuses), and industrial and manufacturing facilities;

(K) geothermal system integration with solar thermal water heating or cool roofs and solar-regenerated desiccants to balance loads and use building hot water to store geothermal energy;

(L) use of hot water coproduced from oil and gas recovery;

(M) use of water sources at a temperature of less than 150 degrees Celsius for direct use;

(N) system integration of direct use with geothermal electricity production; and

(O) coproduction of heat and power, including on-site use.

(3) ENVIRONMENTAL IMPACTS.—In carrying out the program, the Secretary shall identify and mitigate potential environmental impacts in accordance with section 614(c).

(d) GRANTS.—

(1) IN GENERAL.—The Secretary shall make grants available to State and local governments, institutions of higher education, nonprofit entities, utilities, and for-profit companies (including manufacturers of heat-pump and direct-use components and systems) to promote the development of geothermal heat pumps and the direct use of geothermal energy.

(2) PRIORITY.—In making grants under this subsection, the Secretary shall give priority to proposals that apply to large buildings (including office, retail, educational, government, institutional, and multifamily residential buildings and campuses and industrial and manufacturing facilities), commercial districts, and residential communities.

(3) NATIONAL SOLICITATION.—Not later than 180 days after the date of enactment of this section, the Secretary shall conduct a national solicitation for applications for grants under this section.

(e) REPORTS.—

(1) IN GENERAL.—Not later than 2 years after the date of enactment of this section and annually thereafter, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report on progress made and results obtained under this section to develop geothermal heat pumps and direct use of geothermal energy.

(2) AREAS.—Each of the reports required under this subsection shall include—

(A) an analysis of progress made in each of the areas described in subsection (c)(2); and

(B)(i) a description of any relevant recommendations made during a review of the program; and

(ii) any plans to address the recommendations under clause (i).

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SEC. 632. DEFINITION.

For purposes of this subtitle, the term "marine and hydrokinetic renewable energy" means [electrical] energy from—

(1) waves, tides, and currents in oceans, estuaries, and tidal areas;

(2) free flowing water in rivers, lakes, and streams;
(3) free flowing water in man-made channels; and
(4) differentials in ocean temperature (ocean thermal energy conversion).

The term "marine and hydrokinetic renewable energy" does not include energy from any source that uses a dam, diversionary structure, or impoundment for electric power purposes.

[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—

[(1) study and compare existing marine and hydrokinetic renewable energy technologies;

[(2) research, develop, and demonstrate marine and hydrokinetic renewable energy systems and technologies;

[(3) reduce the manufacturing and operation costs of marine and hydrokinetic renewable energy technologies;

[(4) investigate efficient and reliable integration with the utility grid and intermittency issues;

[(5) advance wave forecasting technologies;

[(6) conduct experimental and numerical modeling for optimization of marine energy conversion devices and arrays;

[(7) increase the reliability and survivability of marine and hydrokinetic renewable energy technologies, including development of corrosive-resistant materials;

[(8) identify, in conjunction with the Secretary of Commerce, acting through the Under Secretary of Commerce for Oceans and Atmosphere, and other Federal agencies as appropriate, the potential environmental impacts, including potential impacts on fisheries and other marine resources, of marine and hydrokinetic renewable energy technologies, measures to prevent adverse impacts, and technologies and other means available for monitoring and determining environmental impacts;

[(9) identify, in conjunction with the Secretary of the Department in which the United States Coast Guard is operating, acting through the Commandant of the United States Coast Guard, the potential navigational impacts of marine and hydrokinetic renewable energy technologies and measures to prevent adverse impacts on navigation;

[(10) develop power measurement standards for marine and hydrokinetic renewable energy;

[(11) develop identification standards for marine and hydrokinetic renewable energy devices;

[(12) address standards development, demonstration, and technology transfer for advanced systems engineering and system integration methods to identify critical interfaces;

[(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.

[(b) REPORT.—Not later than 18 months after the date of enactment of this Act, the Secretary, in conjunction with the Secretary of Commerce, acting through the Undersecretary of Commerce for Oceans and Atmosphere, and the Secretary of the Interior, shall provide to the Congress a report that addresses—

[(1) the potential environmental impacts, including impacts to fisheries and marine resources, of marine and hydrokinetic renewable energy technologies;

[(2) options to prevent adverse environmental impacts;

[(3) the potential role of monitoring and adaptive management in identifying and addressing any adverse environmental impacts; and

[(4) the necessary components of such an adaptive management program.]

SEC. 633. MARINE AND HYDROKINETIC RENEWABLE ENERGY RESEARCH AND DEVELOPMENT.

The Secretary, in consultation with the Secretary of the Interior, the Secretary of Commerce, and the Federal Energy Regulatory Commission, shall carry out a program of research, development, demonstration, and commercial application to accelerate the introduction of marine and hydrokinetic renewable energy production into the United States energy supply, giving priority to fostering accelerated research, development, and commercialization of technology, including programs—

(1) to assist technology development to improve the components, processes, and systems used for power generation from marine and hydrokinetic renewable energy resources;

(2) to establish critical testing infrastructure necessary—

(A) to cost effectively and efficiently test and prove marine and hydrokinetic renewable energy devices; and

(B) to accelerate the technological readiness and commercialization of those devices;

(3) to support efforts to increase the efficiency of energy conversion, lower the cost, increase the use, improve the reliability, and demonstrate the applicability of marine and hydrokinetic renewable energy technologies by participating in demonstration projects;

(4) to investigate variability issues and the efficient and reliable integration of marine and hydrokinetic renewable energy with the utility grid;

(5) to identify and study critical short- and long-term needs to create a sustainable marine and hydrokinetic renewable energy supply chain based in the United States;

(6) to increase the reliability and survivability of marine and hydrokinetic renewable energy technologies;

(7) to verify the performance, reliability, maintainability, and cost of new marine and hydrokinetic renewable energy device designs and system components in an operating environment, and consider the protection of critical infrastructure, such as adequate separation between marine and hydrokinetic devices and projects and submarine telecommunications cables, including consideration of established industry standards;

(8) to coordinate and avoid duplication of activities across programs of the Department and other applicable Federal agencies, including National Laboratories and to coordinate public-private collaboration in all programs under this section;

(9) to identify opportunities for joint research and development programs and development of economies of scale between—

(A) marine and hydrokinetic renewable energy technologies; and

(B) other renewable energy and fossil energy programs, offshore oil and gas production activities, and activities of the Department of Defense; and

(10) to support in-water technology development with international partners using existing cooperative procedures (including memoranda of understanding)—

(A) to allow cooperative funding and other support of value to be exchanged and leveraged; and

(B) to encourage the participation of international research centers and companies within the United States and the participation of United States research centers and companies in international projects.

SEC. 634. NATIONAL MARINE RENEWABLE ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION CENTERS.

(a) CENTERS.—The Secretary shall award grants to institutions of higher education (or consortia thereof) for the establishment of 1 or more National Marine Renewable Energy Research, Development, and Demonstration Centers. In selecting locations for Centers, the Secretary shall consider sites that meet one of the following criteria:

(1) Hosts an existing marine renewable energy research and development program in coordination with an engineering program at an institution of higher education.

(2) Has proven expertise to support environmental and policy-related issues associated with harnessing of energy in the marine environment.

(3) Has access to and utilizes the marine resources in the Gulf of Mexico, the Atlantic Ocean, or the Pacific Ocean.

The Secretary may give special consideration to historically black colleges and universities and land grant universities that also meet one of these criteria. In establishing criteria for the selection of the Centers, the Secretary shall consult with the Secretary of Commerce, acting through the Under Secretary of Commerce for Oceans and Atmosphere, on the criteria related to ocean waves, tides, and currents including those for advancing wave forecasting technologies, ocean temperature differences, and studying the compatibility of marine renewable energy technologies and systems with the environment, fisheries, and other marine resources.

[(b) PURPOSES.—The Centers shall advance research, development, demonstration, and commercial application of marine renewable energy, and shall serve as an information clearinghouse for the marine renewable energy industry, collecting and disseminating information on best practices in all areas related to developing and managing enhanced marine renewable energy systems resources.**]**

(b) PURPOSES.—A Center (in coordination with the Department and National Laboratories) shall—

(1) advance research, development, demonstration, and commercial application of marine and hydrokinetic renewable energy technologies;

(2) support in-water testing and demonstration of marine and hydrokinetic renewable energy technologies, including facilities capable of testing—

(A) marine and hydrokinetic renewable energy systems of various technology readiness levels and scales;

(B) a variety of technologies in multiple test berths at a single location; and

(C) arrays of technology devices; and

(3) serve as information clearinghouses for the marine and hydrokinetic renewable energy industry by collecting and disseminating information on best practices in all areas relating to developing and managing marine and hydrokinetic renewable energy resources and energy systems.

(c) DEMONSTRATION OF NEED.—When applying for a grant under this section, an applicant shall include a description of why Federal support is necessary for the Center, including evidence that the research of the Center will not be conducted in the absence of Federal support.

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SEC. 636. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary to carry out this subtitle [$50,000,000 for each of the fiscal years 2008 through 2012] *$55,000,000 for each of fiscal years 2017 and 2018 and $60,000,000 for each of fiscal years 2019 through 2021,* except that no funds shall be appropriated under this section for activities that are receiving funds under section 931(a)(2)(E)(i) of the Energy Policy Act of 2005 (42 U.S.C. 16231(a)(2)(E)(i)).

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SEC. 641. ENERGY STORAGE COMPETITIVENESS.

(a) SHORT TITLE.—This section may be cited as the "United States Energy Storage Competitiveness Act of 2007".

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(h) ENERGY STORAGE RESEARCH CENTERS.—

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(2) PROGRAM MANAGEMENT.—The centers shall be managed by the [Under Secretary for Science] *Under Secretary for Science and Energy* of the Department.

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SEC. 703. CARBON CAPTURE.

(a) PROGRAM ESTABLISHMENT.—

(1) IN GENERAL.—The Secretary shall carry out a program to demonstrate technologies for the large-scale capture of carbon dioxide from industrial sources. In making awards under this program, the Secretary shall select, as appropriate, a diversity of capture technologies to address the need to capture carbon dioxide from a range of industrial sources.

(2) SCOPE OF AWARD.—Awards under this section shall be only for the portion of the project that—

(A) carries out the large-scale capture (including purification and compression) of carbon dioxide from industrial sources;

(B) provides for the transportation and injection of carbon dioxide; and

(C) incorporates a comprehensive measurement, monitoring, and validation program.

(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)), 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:

(A) CAPACITY.—Projects that will capture a high percentage of the carbon dioxide in the treated stream and large volumes of carbon dioxide as determined by the Secretary.

(B) SEQUESTRATION.—Projects that capture carbon dioxide from industrial sources that are near suitable geological reservoirs and could continue sequestration [including—

[(i) a field testing validation activity under section 963 of the Energy Policy Act of 2005 (42 U.S.C. 16293), as amended by this Act; or

[(ii) other geologic sequestration projects approved by the Secretary.], *including such geologic sequestration projects as are approved by the Secretary.*

(4) REQUIREMENT.—For projects that generate carbon dioxide that is to be sequestered, the carbon dioxide stream shall be of a sufficient purity level to allow for safe transport and sequestration.

(5) COST-SHARING.—The cost-sharing requirements of section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352) for research and development projects shall apply to this section.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section $200,000,000 per year for fiscal years 2009 through 2013.

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)), 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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ENERGY POLICY ACT OF 2005

Public Law 109–58, as amended

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[SEC. 106. VOLUNTARY COMMITMENTS TO REDUCE INDUSTRIAL ENERGY INTENSITY.

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

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

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

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

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

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

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

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

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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:]

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

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

[(3) Not less than 7.5 percent in fiscal year 2013 and each fiscal year thereafter.] *not less than 15 percent in fiscal year 2016 and each fiscal year thereafter 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.**]**

(2) RENEWABLE ENERGY.—The term "renewable energy" means energy produced from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or hydropower.

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SEC. 242. HYDROELECTRIC PRODUCTION INCENTIVES.

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(c) ELIGIBILITY WINDOW.—Payments may be made under this section only for electric energy generated from a qualified hydroelectric facility which begins operation during the period of **[**10**]** *20* fiscal years beginning with the first full fiscal year occurring after the date of enactment of this subtitle.

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(f) SUNSET.—No payment may be made under this section to any qualified hydroelectric facility after the expiration of the period of **[**20**]** *30* fiscal years beginning with the first full fiscal year occurring after the date of enactment of this subtitle, and no payment may be made under this section to any such facility after a payment has been made with respect to such facility for a period of 10 fiscal years.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the purposes of this section $10,000,000 for **[**each of the fiscal years 2006 through 2015**]** *each of fiscal years 2016 through 2025.*

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SEC. 243. HYDROELECTRIC EFFICIENCY IMPROVEMENT.

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(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section not more than $10,000,000

for [each of the fiscal years 2006 through 2015] *each of fiscal years 2016 through 2025.*

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SEC. 351. PRESERVATION OF GEOLOGICAL AND GEOPHYSICAL DATA.

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(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] *$5,000,000 for each of fiscal years 2017 through 2026, to remain available until expended.*

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TITLE IV—COAL

[Subtitle A—Clean Coal Power Initiative

[SEC. 401. AUTHORIZATION OF APROPRIATIONS.

[(a) CLEAN COAL POWER INITIATIVE.—There are authorized to be appropriated to the Secretary to carry out the activities authorized by this subtitle $200,000,000 for each of fiscal years 2006 through 2014, to remain available until expended.

[(b) REPORT.—The Secretary shall submit to Congress the report required by this subsection not later than March 31, 2007. The report shall include, with respect to subsection (a), a plan containing—

[(1) a detailed assessment of whether the aggregate funding levels provided under subsection (a) are the appropriate funding levels for that program;

[(2) a detailed description of how proposals will be solicited and evaluated, including a list of all activities expected to be undertaken;

[(3) a detailed list of technical milestones for each coal and related technology that will be pursued; and

[(4) a detailed description of how the program will avoid problems enumerated in Government Accountability Office reports on the Clean Coal Technology Program, including problems that have resulted in unspent funds and projects that failed either financially or scientifically.

[SEC. 402. PROJECT CRITERIA.

[(a) IN GENERAL.—To be eligible to receive assistance under this subtitle, a project shall advance efficiency, environmental performance, and cost competitiveness well beyond the level of technologies that are in commercial service or have been demonstrated on a scale that the Secretary determines is sufficient to demonstrate that commercial service is viable as of the date of enactment of this Act.

[(b) TECHNICAL CRITERIA FOR CLEAN COAL POWER INITIATIVE.—

[(1) GASIFICATION PROJECTS.—

[(A) IN GENERAL.—In allocating the funds made available under section 401(a), the Secretary shall ensure that at least 70 percent of the funds are used only to fund projects on coal-based gasification technologies, including—

[(i) gasification combined cycle;

[(ii) gasification fuel cells and turbine combined cycle;

[(iii) gasification coproduction;

[(iv) hybrid gasification and combustion; and

[(v) other advanced coal based technologies capable of producing a concentrated stream of carbon dioxide.

[(B) TECHNICAL MILESTONES.—

[(i) PERIODIC DETERMINATION.—

[(I) IN GENERAL.—The Secretary shall periodically set technical milestones specifying the emission and thermal efficiency levels that coal gasification projects under this subtitle shall be designed, and reasonably expected, to achieve.

[(II) PRESCRIPTIVE MILESTONES.—The technical milestones shall become more prescriptive during the period of the clean coal power initiative.

[(ii) 2020 GOALS.—The Secretary shall establish the periodic milestones so as to achieve by the year 2020 coal gasification projects able—

[(I)(aa) to remove at least 99 percent of sulfur dioxide; or

[(bb) to emit not more than 0.04 pound SO_2 per million Btu, based on a 30-day average;

[(II) to emit not more than .05 lbs of NO_X per million Btu;

[(III) to achieve at least 95 percent reductions in mercury emissions; and

[(IV) to achieve a thermal efficiency of at least—

[(aa) 50 percent for coal of more than 9,000 Btu;

[(bb) 48 percent for coal of 7,000 to 9,000 Btu; and

[(cc) 46 percent for coal of less than 7,000 Btu.

[(2) OTHER PROJECTS.—

[(A) ALLOCATION OF FUNDS.—The Secretary shall ensure that up to 30 percent of the funds made available under section 401(a) are used to fund projects other than those described in paragraph (1).

[(B) TECHNICAL MILESTONES.—

[(i) PERIODIC DETERMINATION.—

[(I) IN GENERAL.—The Secretary shall periodically establish technical milestones specifying the emission and thermal efficiency levels that projects funded under this paragraph shall be designed, and reasonably expected, to achieve.

[(II) PRESCRIPTIVE MILESTONES.—The technical milestones shall become more prescriptive during the period of the clean coal power initiative.

[(ii) 2020 GOALS.—The Secretary shall set the periodic milestones so as to achieve by the year 2020 projects able—

[(I) to remove at least 97 percent of sulfur dioxide;

[(II) to emit no more than .08 lbs of NO_X per million Btu;

[(III) to achieve at least 90 percent reductions in mercury emissions; and

[(IV) to achieve a thermal efficiency of at least—

[(aa) 43 percent for coal of more than 9,000 Btu;

[(bb) 41 percent for coal of 7,000 to 9,000 Btu; and

[(cc) 39 percent for coal of less than 7,000 Btu.

[(3) CONSULTATION.—Before setting the technical milestones under paragraphs (1)(B) and (2)(B), the Secretary shall consult with—

[(A) the Administrator of the Environmental Protection Agency; and

[(B) interested entities, including—

[(i) coal producers;

[(ii) industries using coal;

[(iii) organizations that promote coal or advanced coal technologies;

[(iv) environmental organizations;

[(v) organizations representing workers; and

[(vi) organizations representing consumers.

[(4) EXISTING UNITS.—In the case of projects at units in existence on the date of enactment of this Act, in lieu of the thermal efficiency requirements described in paragraphs (1)(B)(ii)(IV) and (2)(B)(ii)(IV), the milestones shall be designed to achieve an overall thermal design efficiency improvement, compared to the efficiency of the unit as operated, of not less than—

[(A) 7 percent for coal of more than 9,000 Btu;

[(B) 6 percent for coal of 7,000 to 9,000 Btu; or

[(C) 4 percent for coal of less than 7,000 Btu.

[(5) ADMINISTRATION.—

[(A) ELEVATION OF SITE.—In evaluating project proposals to achieve thermal efficiency levels established under paragraphs (1)(B)(i) and (2)(B)(i) and in determining progress towards thermal efficiency milestones under paragraphs (1)(B)(ii)(IV), (2)(B)(ii)(IV), and (4), the Secretary shall take into account and make adjustments for the elevation of the site at which a project is proposed to be constructed.

[(B) APPLICABILITY OF MILESTONES.—In applying the thermal efficiency milestones under paragraphs (1)(B)(ii)(IV), (2)(B)(ii)(IV), and (4) to projects that separate and capture at least 50 percent of the potential emissions of carbon dioxide by a facility, the energy used for separation and capture of carbon dioxide shall not be counted in calculating the thermal efficiency.

[(C) PERMITTED USES.—In carrying out this section, the Secretary may give priority to projects that include, as part of the project—

[(i) the separation or capture of carbon dioxide; or

[(ii) the reduction of the demand for natural gas if deployed.

[(c) FINANCIAL CRITERIA.—The Secretary shall not provide financial assistance under this subtitle for a project unless the recipient documents to the satisfaction of the Secretary that—

[(1) the recipient is financially responsible;

[(2) the recipient will provide sufficient information to the Secretary to enable the Secretary to ensure that the funds are spent efficiently and effectively; and

[(3) a market exists for the technology being demonstrated or applied, as evidenced by statements of interest in writing from potential purchasers of the technology.

[(d) FINANCIAL ASSISTANCE.—The Secretary shall provide financial assistance to projects that, as determined by the Secretary—

[(1) meet the requirements of subsections (a), (b), and (c); and

[(2) are likely—

[(A) to achieve overall cost reductions in the use of coal to generate useful forms of energy or chemical feedstocks;

[(B) to improve the competitiveness of coal among various forms of energy in order to maintain a diversity of fuel choices in the United States to meet electricity generation requirements; and

[(C) to demonstrate methods and equipment that are applicable to 25 percent of the electricity generating facilities, using various types of coal, that use coal as the primary feedstock as of the date of enactment of this Act.

[(e) COST-SHARING.—In carrying out this subtitle, the Secretary shall require cost sharing in accordance with section 988.

[(f) SCHEDULED COMPLETION OF SELECTED PROJECTS.—

[(1) IN GENERAL.—In selecting a project for financial assistance under this section, the Secretary shall establish a reasonable period of time during which the owner or operator of the project shall complete the construction or demonstration phase of the project, as the Secretary determines to be appropriate.

[(2) CONDITION OF FINANCIAL ASSISTANCE.—The Secretary shall require as a condition of receipt of any financial assistance under this subtitle that the recipient of the assistance enter into an agreement with the Secretary not to request an extension of the time period established for the project by the Secretary under paragraph (1).

[(3) EXTENSION OF TIME PERIOD.—

[(A) IN GENERAL.—Subject to subparagraph (B), the Secretary may extend the time period established under paragraph (1) if the Secretary determines, in the sole discretion of the Secretary, that the owner or operator of the project cannot complete the construction or demonstration phase of the project within the time period due to circumstances beyond the control of the owner or operator.

[(B) LIMITATION.—The Secretary shall not extend a time period under subparagraph (A) by more than 4 years.

[(g) FEE TITLE.—The Secretary may vest fee title or other property interests acquired under cost-share clean coal power initiative agreements under this subtitle in any entity, including the United States.

[(h) DATA PROTECTION.—For a period not exceeding 5 years after completion of the operations phase of a cooperative agreement, the Secretary may provide appropriate protections (including exemptions from subchapter II of chapter 5 of title 5, United States Code) against the dissemination of information that—

[(1) results from demonstration activities carried out under the clean coal power initiative program; and

[(2) would be a trade secret or commercial or financial information that is privileged or confidential if the information had been obtained from and first produced by a non-Federal party participating in a clean coal power initiative project.

[(i) APPLICABILITY.—No technology, or level of emission reduction, solely by reason of the use of the technology, or the achievement of the emission reduction, by 1 or more facilities receiving assistance under this Act, shall be considered to be—

[(1) adequately demonstrated for purposes of section 111 of the Clean Air Act (42 U.S.C. 7411);

[(2) achievable for purposes of section 169 of that Act (42 U.S.C. 7479); or

[(3) achievable in practice for purposes of section 171 of that Act (42 U.S.C. 7501).

[SEC. 403. REPORT.

[Not later than 1 year after the date of enactment of this Act, and once every 2 years thereafter through 2014, the Secretary, in consultation with other appropriate Federal agencies, shall submit to Congress a report describing—

[(1) the technical milestones set forth in section 402 and how those milestones ensure progress toward meeting the requirements of subsections (b)(1)(B) and (b)(2) of section 402; and

[(2) the status of projects funded under this subtitle.

[SEC. 404. CLEAN COAL CENTERS OF EXCELLENCE.

[(a) IN GENERAL.—As part of the clean coal power initiative, the Secretary shall award competitive, merit-based grants to institutions of higher education for the establishment of centers of excellence for energy systems of the future.

[(b) BASIS FOR GRANTS.—The Secretary shall award grants under this section to institutions of higher education that show the greatest potential for advancing new clean coal technologies.]

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TITLE VI—NUCLEAR MATTERS

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Subtitle C—Next Generation Nuclear Plant Project

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SEC. 642. PROJECT MANAGEMENT

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(b) LABORATORY MANAGEMENT.—

(1) LEAD LABORATORY.—The Idaho National Laboratory shall be the lead National Laboratory for the Project and shall collaborate with other National Laboratories, institutions of higher education, other research institutes, industrial researchers, and international researchers to carry out the Project.

(2) INDUSTRIAL PARTNERSHIPS.—

(A) IN GENERAL.—The Idaho National Laboratory shall organize a consortium of appropriate industrial partners that will carry out cost-shared research, development, design, and construction activities, and operate research facilities, on behalf of the Project.

(B) COST-SHARING.—Activities of industrial partners funded by the Project shall be cost-shared in accordance with section 988.

(C) PREFERENCE.—Preference in determining the final structure of the consortium or any partnerships under this subtitle shall be given to a structure (including designating as a lead industrial partner an entity incorporated in the United States) that retains United States technological leadership in the Project while maximizing cost sharing opportunities and minimizing Federal funding responsibilities.

[(3) PROTOTYPE PLANT SITING.—The prototype nuclear reactor and associated plant shall be sited at the Idaho National Laboratory in Idaho.]

[(4)]*(3)* REACTOR TEST CAPABILITIES.—The Project shall use, if appropriate, reactor test capabilities at the Idaho National Laboratory.

[(5)]*(4)* OTHER LABORATORY CAPABILITIES.—The Project may use, if appropriate, facilities at other National Laboratories.

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[SEC. 706. JOINT FLEXIBLE FUEL/HYBRID VEHICLE COMMERCIALIZATION INITIATIVE.

[(a) DEFINITIONS.—In this section:

[(1) ELIGIBLE ENTITY.—The term "eligible entity" means—

[(A) a for-profit corporation;

[(B) a nonprofit corporation; or

[(C) an institution of higher education.

[(2) PROGRAM.—The term "program" means a program established under subsection (b).

[(b) ESTABLISHMENT.—The Secretary shall establish a program to improve technologies for the commercialization of—

[(1) a combination hybrid/flexible fuel vehicle; or

[(2) a plug-in hybrid/flexible fuel vehicle.

[(c) GRANTS.—In carrying out the program, the Secretary shall provide grants that give preference to proposals that—

[(1) achieve the greatest reduction in miles per gallon of petroleum fuel consumption;

[(2) achieve not less than 250 miles per gallon of petroleum fuel consumption; and

[(3) have the greatest potential of commercialization to the general public within 5 years.

[(d) VERIFICATION.—Not later than 90 days after the date of enactment of this Act, the Secretary shall publish in the Federal Register procedures to verify—

[(1) the hybrid/flexible fuel vehicle technologies to be demonstrated; and

[(2) that grants are administered in accordance with this section.

[(e) REPORT.—Not later than 260 days after the date of enactment of this Act, and annually thereafter, the Secretary shall submit to Congress a report that—

[(1) identifies the grant recipients;

[(2) describes the technologies to be funded under the program;

[(3) assesses the feasibility of the technologies described in paragraph (2) in meeting the goals described in subsection (c);

[(4) identifies applications submitted for the program that were not funded; and

[(5) makes recommendations for Federal legislation to achieve commercialization of the technology demonstrated.

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

[(1) $3,000,000 for fiscal year 2006;
[(2) $7,000,000 for fiscal year 2007;
[(3) $10,000,000 for fiscal year 2008; and
[(4) $20,000,000 for fiscal year 2009.]

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[SEC. 711. HYBRID VEHICLES.

[The Secretary shall accelerate efforts directed toward the improvement of batteries and other rechargeable energy storage systems, power electronics, hybrid systems integration, and other technologies for use in hybrid vehicles.]

[SEC. 712. DOMESTIC MANUFACTURING CONVERSION GRANT PROGRAM.

[(a) PROGRAM.—

[(1) IN GENERAL.—The Secretary shall establish a program to encourage domestic production and sales of efficient hybrid and advanced diesel vehicles and components of those vehicles.

[(2) INCLUSIONS.—The program shall include grants and loan guarantees under section 1703 to automobile manufacturers and suppliers and hybrid component manufacturers to encourage domestic production of efficient hybrid, plug-in electric hybrid, plug-in electric drive, and advanced diesel vehicles.

[(3) PRIORITY.—Priority shall be given to the refurbishment or retooling of manufacturing facilities that have recently ceased operation or will cease operation in the near future.

[(b) COORDINATION WITH STATE AND LOCAL PROGRAMS.—The Secretary may coordinate implementation of this section with State and local programs designed to accomplish similar goals, including the retention and retraining of skilled workers from the manufacturing facilities, including by establishing matching grant arrangements.

[(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary such sums as may be necessary to carry out this section.]

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SEC. 911. ENERGY EFFICIENCY.

(a) IN GENERAL.—

(1) OBJECTIVES.—The Secretary shall conduct programs of energy efficiency research, development, demonstration, and commercial application, including activities described in this subtitle. Such programs shall take into consideration the following objectives:

(A) Increasing the energy efficiency of [vehicles, buildings,] *buildings* and industrial processes.

(B) Reducing the demand of the United States for energy, especially energy from foreign sources.

(C) Reducing the cost of energy and making the economy more efficient and competitive.

(D) Improving the energy security of the United States.

(E) Reducing the environmental impact of energy-related activities.

(2) PROGRAMS.—Programs under this subtitle shall include research, development, demonstration, and commercial application of—

[(A) advanced, cost-effective technologies to improve the energy efficiency and environmental performance of vehicles, including—

[(i) hybrid and electric propulsion systems;

[(ii) plug-in hybrid systems;

[(iii) advanced combustion engines;

[(iv) weight and drag reduction technologies;

[(v) whole-vehicle design optimization; and

[(vi) advanced drive trains;]

[(B)]*(A)* cost-effective technologies, for new construction and retrofit, to improve the energy efficiency and environmental performance of buildings, using a whole-buildings approach, including onsite renewable energy generation;

[(C)]*(B)* advanced technologies to improve the energy efficiency, environmental performance, and process efficiency of energy-intensive and waste-intensive industries;

[(D)]*(C)* advanced control devices to improve the energy efficiency of electric motors, including those used in industrial processes, heating, ventilation, and cooling; and

[(E)]*(D)* technologies to improve the energy efficiency of appliances and mechanical systems for buildings in cold climates, including combined heat and power units and increased use of renewable resources, including fuel.

(c) ALLOCATIONS.—From amounts authorized under subsection (b), the following sums are authorized:

(1) For activities under section 912, $50,000,000 for each of fiscal years 2007 through 2009.

(2) For activities under section 915, $7,000,000 for each of fiscal years 2007 through 2009.

[(3) For activities under subsection (a)(2)(A)—

[(A) $200,000,000 for fiscal year 2007;

[(B) $270,000,000 for fiscal year 2008; and
[(C) $310,000,000 for fiscal year 2009.]
[(4)]*(3)* For activities under subsection [(a)(2)(D)] *(a)(2)(C)*, $2,000,000 for each of fiscal years 2007 and 2008.

(d) EXTENDED AUTHORIZATION.—There are authorized to be appropriated to the Secretary to carry out section 912 $50,000,000 for each of fiscal years 2010 through 2013.

(e) LIMITATIONS.—None of the funds authorized to be appropriated under this section may be used for—

(1) the issuance or implementation of energy efficiency regulations;

(2) the weatherization program established under part A of title IV of the Energy Conservation and Production Act (42 U.S.C. 6861 et seq.);

(3) a State energy conservation plan established under part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.); or

(4) a Federal energy management measure carried out under part 3 of title V of the National Energy Conservation Policy Act (42 U.S.C. 8251 et seq.).

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SEC. 918. SMART ENERGY AND WATER EFFICIENCY PILOT PROGRAM.

(a) DEFINITIONS.—In this section:

(1) ELIGIBLE ENTITY.—The term "eligible entity" means—

(A) a utility;

(B) a municipality;

(C) a water district;

(D) an Indian tribe or Alaska Native village; and

(E) any other authority that provides water, wastewater, or water reuse services.

(2) SMART ENERGY AND WATER EFFICIENCY PILOT PROGRAM.—The term "smart energy and water efficiency pilot program" or "pilot program" means the pilot program established under subsection (b).

(b) SMART ENERGY AND WATER EFFICIENCY PILOT PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish and carry out a smart energy and water efficiency pilot program in accordance with this section.

(2) PURPOSE.—The purpose of the smart energy and water efficiency pilot program is to award grants to eligible entities to demonstrate unique, advanced, or innovative technology-based solutions that will—

(A) increase the energy efficiency of water, wastewater, and water reuse systems;

(B) improve energy efficiency of water, wastewater, and water reuse systems to help communities across the United States make measurable progress in conserving water, saving energy, and reducing costs;

(C) support the implementation of innovative and unique processes and the installation of established advanced automated systems that provide real-time data on energy and water; and

(D) improve energy-water conservation and quality and predictive maintenance through technologies that utilize

internet connected technologies, including sensors, intelligent gateways, and security embedded in hardware.

(3) PROJECT SELECTION.—

(A) IN GENERAL.—The Secretary shall make competitive, merit-reviewed grants under the pilot program to not less than 3, but not more than 5, eligible entities.

(B) SELECTION CRITERIA.—In selecting an eligible entity to receive a grant under the pilot program, the Secretary shall consider—

(i) energy and cost savings;

(ii) the uniqueness, commercial viability, and reliability of the technology to be used;

(iii) the degree to which the project integrates next-generation sensors software, analytics, and management tools;

(iv) the anticipated cost-effectiveness of the pilot project through measurable energy efficiency savings, water savings or reuse, and infrastructure costs averted;

(v) whether the technology can be deployed in a variety of geographic regions and the degree to which the technology can be implemented in a wide range of applications ranging in scale from small towns to large cities, including tribal communities;

(vi) whether the technology has been successfully deployed elsewhere;

(vii) whether the technology was sourced from a manufacturer based in the United States; and

(viii) whether the project will be completed in 5 years or less.

(C) APPLICATIONS.—

(i) IN GENERAL.—Subject to clause (ii), an eligible entity seeking a grant under the pilot program shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be necessary.

(ii) CONTENTS.—An application under clause (i) shall, at a minimum, include—

(I) a description of the project;

(II) a description of the technology to be used in the project;

(III) the anticipated results, including energy and water savings, of the project;

(IV) a comprehensive budget for the project;

(V) the names of the project lead organization and any partners;

(VI) the number of users to be served by the project;

(VII) a description of the ways in which the proposal would meet performance measures established by the Secretary; and (VIII) any other information that the Secretary determines to be necessary to complete the review and selection of a grant recipient.

(4) ADMINISTRATION.—

(A) IN GENERAL.—Not later than 300 days after the date of enactment of this section, the Secretary shall select grant recipients under this section.

(B) EVALUATIONS.—

(i) ANNUAL EVALUATIONS.—The Secretary shall annually carry out an evaluation of each project for which a grant is provided under this section that meets performance measures and benchmarks developed by the Secretary, consistent with the purposes of this section.

(ii) REQUIREMENTS.—Consistent with the performance measures and benchmarks developed under clause (i), in carrying out an evaluation under that clause, the Secretary shall—

(I) evaluate the progress and impact of the project; and

(II) assesses the degree to which the project is meeting the goals of the pilot program.

(C) TECHNICAL AND POLICY ASSISTANCE.—On the request of a grant recipient, the Secretary shall provide technical and policy assistance.

(D) BEST PRACTICES.—The Secretary shall make available to the public through the Internet and other means the Secretary considers to be appropriate—

(i) a copy of each evaluation carried out under subparagraph (B); and

(ii) a description of any best practices identified by the Secretary as a result of those evaluations.

(E) REPORT TO CONGRESS.—The Secretary shall submit to Congress a report containing the results of each evaluation carried out under subparagraph (B).

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $15,000,000, to remain available until expended.

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[SEC. 933. LOW-COST RENEWABLE HYDROGEN AND INFRASTRUCTURE FOR VEHICLE PROPULSION.

[The Secretary shall—

[(1) establish a research, development, and demonstration program to determine the feasibility of using hydrogen propulsion in light-weight vehicles and the integration of the associated hydrogen production infrastructure using off-the-shelf components; and

[(2) identify universities and institutions that—

[(A) have expertise in researching and testing vehicles fueled by hydrogen, methane, and other fuels;

[(B) have expertise in integrating off-the-shelf components to minimize cost; and

[(C) within 2 years can test a vehicle based on an existing commercially available platform with a curb weight of not less than 2,000 pounds before modifications, that—

[(i) operates solely on hydrogen;

[(ii) qualifies as a light-duty passenger vehicle; and

[(iii) uses hydrogen produced from water using only solar energy.]

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SEC. 954. UNIVERSITY NUCLEAR SCIENCE AND ENGINEERING SUPPORT.

(a) IN GENERAL.—The Secretary shall conduct a program to invest in human resources and infrastructure in the nuclear sciences and related fields, including health physics, nuclear engineering, *nuclear chemistry,* and radiochemistry, consistent with missions of the Department related to civilian nuclear research, development, demonstration, and commercial application.

(b) REQUIREMENTS.—In carrying out the program under this section, the Secretary shall—

(1) conduct a graduate and undergraduate fellowship program to attract new and talented students, which may include fellowships for students to spend time at National Laboratories in the areas of nuclear science, engineering, and health physics with a member of the National Laboratory staff acting as a mentor;

(2) conduct a junior faculty research initiation grant program to assist universities in recruiting and retaining new faculty in the nuclear sciences and engineering by awarding grants to junior faculty for research on issues related to nuclear energy engineering and science;

(3) award grants, not to exceed 5 years in duration, to institutions of higher education with existing academic degree programs in nuclear sciences and related fields—

(A) to increase the number of graduates in nuclear science and related fields;

(B) to enhance the teaching and research of advanced nuclear technologies;

(C) to undertake collaboration with industry and National Laboratories; and

(D) to bolster or sustain nuclear infrastructure and research facilities of institutions of higher education, such as research and training reactors and laboratories;

[(3)]*(4)* support fundamental nuclear sciences, engineering, and health physics research through a nuclear engineering education and research program;

[(4)]*(5)* encourage collaborative nuclear research among industry, National Laboratories, and universities; and

[(5)]*(6)* support communication and outreach related to nuclear science, engineering, and health physics.

(c) UNIVERSITY-NATIONAL LABORATORY INTERACTIONS.—The Secretary shall conduct—

(1) a fellowship program for professors at universities to spend sabbaticals at National Laboratories in the areas of nuclear science and technology; and

(2) a visiting scientist program in which National Laboratory staff can spend time in academic nuclear science and engineering departments.

(d) STRENGTHENING UNIVERSITY RESEARCH AND TRAINING REACTORS AND ASSOCIATED INFRASTRUCTURE.—In carrying out the program under this section, the Secretary may support—

(1) converting research reactors from high-enrichment fuels to low-enrichment fuels and upgrading operational instrumentation;

(2) consortia of universities to broaden access to university research reactors;

(3) student training programs, in collaboration with the United States nuclear industry, in relicensing and upgrading reactors, including through the provision of technical assistance; and

(4) reactor improvements as part of a taking into consideration effort that emphasizes research, training, and education, including through the Innovations in Nuclear Infrastructure and Education Program or any similar program.

(e) OPERATIONS AND MAINTENANCE.—Funding for a project provided under this section may be used for a portion of the operating and maintenance costs of a research reactor at a university used in the project.

(f) DEFINITION.—In this section, the term "junior faculty" means a faculty member who was awarded a doctorate less than 10 years before receipt of an award from the grant program described in subsection (b)(2).

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SEC. 961. FOSSIL ENERGY.

(a) IN GENERAL.—The Secretary shall carry out research, development, demonstration, and commercial application programs in fossil energy, including activities under this subtitle, with the goal of improving the efficiency, effectiveness, and environmental performance of fossil energy production, upgrading, conversion, and consumption. Such programs take into consideration the following objectives:

(1) Increasing the energy conversion efficiency of all forms of fossil energy through improved technologies.

(2) Decreasing the cost of all fossil energy production, generation, and delivery.

(3) Promoting diversity of energy supply.

(4) Decreasing the dependence of the United States on foreign energy supplies.

(5) Improving United States energy security.

(6) Decreasing the environmental impact of energy-related activities.

(7) Increasing the export of fossil energy-related equipment, technology, and services from the United States.

(8) Improving the conversion, use, and storage of carbon dioxide produced from fossil fuels.

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[SEC. 962. COAL AND RELATED TECHNOLOGIES PROGRAM.

[(a) IN GENERAL.—In addition to the programs authorized under title IV, the Secretary shall conduct a program of technology research, development, demonstration, and commercial application for coal and power systems, including programs to facilitate production and generation of coal-based power through—

[(1) innovations for existing plants (including mercury removal);

[(2) gasification systems;
[(3) advanced combustion systems;
[(4) turbines for synthesis gas derived from coal;
[(5) carbon capture and sequestration research and development;
[(6) coal-derived chemicals and transportation fuels;
[(7) liquid fuels derived from low rank coal water slurry;
[(8) solid fuels and feedstocks;
[(9) advanced coal-related research;
[(10) advanced separation technologies; and
[(11) fuel cells for the operation of synthesis gas derived from coal.

[(b) COST AND PERFORMANCE GOALS.—

[(1) IN GENERAL.—In carrying out programs authorized by this section, during each of calendar years 2008, 2010, 2012, and 2016, and during each fiscal year beginning after September 30, 2021, the Secretary shall identify cost and performance goals for coal-based technologies that would permit the continued cost-competitive use of coal for the production of electricity, chemical feedstocks, and transportation fuels.

[(2) ADMINISTRATION.—In establishing the cost and performance goals, the Secretary shall—

[(A) consider activities and studies undertaken as of the date of enactment of this Act by industry in cooperation with the Department in support of the identification of the goals;

[(B) consult with interested entities, including—

[(i) coal producers;
[(ii) industries using coal;
[(iii) organizations that promote coal and advanced coal technologies;
[(iv) environmental organizations;
[(v) organizations representing workers; and
[(vi) organizations representing consumers;

[(C) not later than 120 days after the date of enactment of this Act, publish in the Federal Register proposed draft cost and performance goals for public comments; and

[(D) not later than 180 days after the date of enactment of this Act and every 4 years thereafter, submit to Congress a report describing the final cost and performance goals for the technologies that includes—

[(i) a list of technical milestones; and
[(ii) an explanation of how programs authorized in this section will not duplicate the activities authorized under the Clean Coal Power Initiative authorized under title IV.

[(c) POWDER RIVER BASIN AND FORT UNION LIGNITE COAL MERCURY REMOVAL.—

[(1) IN GENERAL.—In addition to the programs authorized by subsection (a), the Secretary shall establish a program to test and develop technologies to control and remove mercury emissions from subbituminous coal mined in the Powder River Basin, and Fort Union lignite coals, that are used for the generation of electricity.

[(2) EFFICACY OF MERCURY REMOVAL TECHNOLOGY.—In carrying out the program under paragraph (1), the Secretary shall examine the efficacy of mercury removal technologies on coals described in that paragraph that are blended with other types of coal.

[(d) FUEL CELLS.—

[(1) IN GENERAL.—The Secretary shall conduct a program of research, development, demonstration, and commercial application on fuel cells for low-cost, high-efficiency, fuel-flexible, modular power systems.

[(2) DEMONSTRATIONS.—The demonstrations referred to in paragraph (1) shall include solid oxide fuel cell technology for commercial, residential, and transportation applications, and distributed generation systems, using improved manufacturing production and processes.]

SEC. 962. COAL TECHNOLOGY PROGRAM.

(a) DEFINITIONS.—In this section:

(1) LARGE-SCALE PILOT PROJECT.—The term "large-scale pilot project" means a pilot project that—

(A) represents the scale of technology development beyond laboratory development and bench scale testing, but not yet advanced to the point of being tested under real operational conditions at commercial scale;

(B) represents the scale of technology necessary to gain the operational data needed to understand the technical and performance risks of the technology before the application of that technology at commercial scale or in commercial-scale demonstration; and

(C) is large enough—

(i) to validate scaling factors; and

(ii) to demonstrate the interaction between major components so that control philosophies for a new process can be developed and enable the technology to advance from large-scale pilot plant application to commercial scale demonstration or application.

(2) PROGRAM.—The term "program" means the program established under subsection (b).

(3) TRANSFORMATIONAL TECHNOLOGY.—

(A) IN GENERAL.—The term transformational technology' means a power generation technology that represents an entirely new way to convert energy that will enable a step change in performance, efficiency, and cost of electricity as compared to the technology in existence on the date of enactment of this Act.

(B) INCLUSIONS.—The term "transformational technology" includes a broad range of technology improvements, including—

(i) thermodynamic improvements in energy conversion and heat transfer, including—

(I) oxygen combustion;

(II) chemical looping; and

(III) the replacement of steam cycles with supercritical carbon dioxide cycles;

(ii) improvements in turbine technology;

(iii) improvements in carbon capture systems technology; and

(iv) any other technology the Secretary recognizes as transformational technology.

(b) COAL TECHNOLOGY PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a coal technology program to ensure the continued use of the abundant, domestic coal resources of the United States through the development of technologies that will significantly improve the efficiency, effectiveness, costs, and environmental performance of coal use.

(2) REQUIREMENTS.—The program shall include—

(A) a research and development program;

(B) large-scale pilot projects; and

(C) demonstration projects.

(3) PROGRAM GOALS AND OBJECTIVES.—In consultation with the interested entities described in paragraph (4)(C), the Secretary shall develop goals and objectives for the program to be applied to the technologies developed within the program, taking into consideration the following objectives:

(A) Ensure reliable, low cost power from new and existing coal plants.

(B) Achieve high conversion efficiencies.

(C) Address emissions of carbon dioxide through high efficiency platforms and carbon capture from new and existing coal plants.

(D) Support small-scale and modular technologies to enable incremental capacity additions and load growth and large-scale generation technologies.

(E) Support flexible baseload operations for new and existing applications of coal generation.

(F) Further reduce emissions of criteria pollutants and reduce the use and manage the discharge of water in power plant operations.

(G) Accelerate the development of technologies that have transformational energy conversion characteristics.

(H) Validate geologic storage of large volumes of anthropogenic sources of carbon dioxide and support the development of the infrastructure needed to support a carbon dioxide use and storage industry.

(I) Examine methods of converting coal to other valuable products and commodities in addition to electricity.

(4) CONSULTATIONS REQUIRED.—In carrying out the program, the Secretary shall—

(A) undertake international collaborations, as recommended by the National Coal Council;

(B) use existing authorities to encourage international cooperation; and

(C) consult with interested entities, including—

(i) coal producers;

(ii) industries that use coal;

(iii) organizations that promote coal and advanced coal technologies;

(iv) environmental organizations;

(v) organizations representing workers; and

(vi) organizations representing consumers.

(c) REPORT.—

(1) IN GENERAL.—Not later than 18 months after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the performance standards adopted under subsection (b)(3).

(2) UPDATE.—Once every 2 years after the initial report is submitted under paragraph (1), the Secretary shall submit to Congress a report describing the progress made towards achieving the objectives and performance standards adopted under subsection (b)(3).

(d) FUNDING.—

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

(A) $610,000,000 for each of fiscal years 2017 through 2020; and

(B) $560,000,000 for fiscal year 2021.

(2) ALLOCATIONS.—The amounts made available under paragraph (1) shall be allocated as follows:

(A) For activities under the research and development program component described in subsection (b)(2)(A)—

(i) $275,000,000 for each of fiscal years 2017 through 2020; and

(ii) $200,000,000 for fiscal year 2021.

(B) For activities under the demonstration projects program component described in subsection (b)(2)(C)—

(i) $50,000,000 for each of fiscal years 2017 through 2020; and

(ii) $75,000,000 for fiscal year 2021.

(C) For activities under the large-scale pilot projects program component described in subsection (b)(2)(B), $285,000,000 for each of fiscal years 2017 through 2021.

[SEC. 963. CARBON CAPTURE AND SEQUESTRATION RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.

[(a) IN GENERAL.—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) OBJECTIVES.—The objectives of the program under subsection (a) 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) PROGRAMMATIC ACTIVITIES.—

[(1) FUNDAMENTAL SCIENCE AND ENGINEERING RESEARCH AND DEVELOPMENT AND DEMONSTRATION SUPPORTING CARBON CAPTURE AND SEQUESTRATION TECHNOLOGIES AND CARBON USE ACTIVITIES.—

[(A) IN GENERAL.—The Secretary shall carry out fundamental science and engineering research (including laboratory-scale experiments, numeric modeling, and simulations) to develop and document the performance of new approaches to capture and sequester, or use carbon dioxide to lead to an overall reduction of carbon dioxide emissions.

[(B) PROGRAM INTEGRATION.—The Secretary shall ensure that fundamental research carried out under this paragraph is appropriately applied to energy technology development activities, the field testing of carbon sequestration, and carbon use activities, including—

[(i) development of new or advanced technologies for the capture and sequestration of carbon dioxide;

[(ii) development of new or advanced technologies that reduce the cost and increase the efficacy of advanced compression of carbon dioxide required for the sequestration of carbon dioxide;

[(iii) modeling and simulation of geologic sequestration field demonstrations;

[(iv) quantitative assessment of risks relating to specific field sites for testing of sequestration technologies;

[(v) research and development of new and advanced technologies for carbon use, including recycling and reuse of carbon dioxide; and

[(vi) research and development of new and advanced technologies for the separation of oxygen from air.

[(2) FIELD VALIDATION TESTING ACTIVITIES.—

[(A) IN GENERAL.—The Secretary shall promote, to the maximum extent practicable, regional carbon sequestration partnerships to conduct geologic sequestration tests involving carbon dioxide injection and monitoring, mitigation, and verification operations in a variety of candidate geologic settings, including—

[(i) operating oil and gas fields;

[(ii) depleted oil and gas fields;

[(iii) unmineable coal seams;

[(iv) deep saline formations;

[(v) deep geologic systems that may be used as engineered reservoirs to extract economical quantities of

heat from geothermal resources of low permeability or porosity; and

[(vi) deep geologic systems containing basalt formations.

[(B) OBJECTIVES.—The objectives of tests conducted under this paragraph shall be—

[(i) to develop and validate geophysical tools, analysis, and modeling to monitor, predict, and verify carbon dioxide containment;

[(ii) to validate modeling of geologic formations;

[(iii) to refine sequestration capacity estimated for particular geologic formations;

[(iv) to determine the fate of carbon dioxide concurrent with and following injection into geologic formations;

[(v) to develop and implement best practices for operations relating to, and monitoring of, carbon dioxide injection and sequestration in geologic formations;

[(vi) to assess and ensure the safety of operations related to geologic sequestration of carbon dioxide;

[(vii) to allow the Secretary to promulgate policies, procedures, requirements, and guidance to ensure that the objectives of this subparagraph are met in large-scale testing and deployment activities for carbon capture and sequestration that are funded by the Department of Energy; and

[(viii) to provide information to States, the Environmental Protection Agency, and other appropriate entities to support development of a regulatory framework for commercial-scale sequestration operations that ensure the protection of human health and the environment.

[(3) LARGE-SCALE CARBON DIOXIDE SEQUESTRATION TESTING.—

[(A) IN GENERAL.—The Secretary shall conduct not less than 7 initial large-scale sequestration tests, not including the FutureGen project, for geologic containment of carbon dioxide to collect and validate information on the cost and feasibility of commercial deployment of technologies for geologic containment of carbon dioxide. These 7 tests may include any Regional Partnership projects awarded as of the date of enactment of the Department of Energy Carbon Capture and Sequestration Research, Development, and Demonstration Act of 2007.

[(B) DIVERSITY OF FORMATIONS TO BE STUDIED.—In selecting formations for study under this paragraph, the Secretary shall consider a variety of geologic formations across the United States, and require characterization and modeling of candidate formations, as determined by the Secretary.

[(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.

[(4) PREFERENCE IN PROJECT SELECTION FROM MERITORIOUS PROPOSALS.—In making competitive awards under this subsection, subject to the requirements of section 989, the Secretary shall—

[(A) give preference to proposals from partnerships among industrial, academic, and government entities; and

[(B) require recipients to provide assurances that all laborers and mechanics employed by contractors and subcontractors in the construction, repair, or alteration of new or existing facilities performed in order to carry out a demonstration or commercial application activity authorized under this subsection shall be paid wages at rates not less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code, and the Secretary of Labor shall, with respect to the labor standards in this paragraph, have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 Fed. Reg. 3176; 5 U.S.C. Appendix) and section 3145 of title 40, United States Code.

[(5) COST SHARING.—Activities under this subsection shall be considered research and development activities that are subject to the cost sharing requirements of section 988(b).

[(6) PROGRAM REVIEW AND REPORT.—During fiscal year 2011, the Secretary shall—

[(A) conduct a review of programmatic activities carried out under this subsection; and

[(B) make recommendations with respect to continuation of the activities.

[(d) 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.]

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SEC. 971. SCIENCE.

(a) IN GENERAL.—The Secretary shall conduct, through the Office of Science, programs of research, development, demonstration, and commercial application in high energy physics, nuclear physics, biological and environmental research, basic energy sciences, ad-

vanced scientific computing research, and fusion energy sciences, including activities described in this subtitle. The programs shall include support for facilities and infrastructure, education, outreach, information, analysis, and coordination activities.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out research, development, demonstration, and commercial application activities of the Office of Science, including activities authorized under this subtitle (including the amounts authorized under the amendment made by section 976(b) and including basic energy sciences, advanced scientific and computing research, biological and environmental research, fusion energy sciences, high energy physics, nuclear physics, research analysis, and infrastructure support)—

(1) $4,153,000,000 for fiscal year 2007;
(2) $4,586,000,000 for fiscal year 2008;
(3) $5,200,000,000 for fiscal year 2009;
(4) $5,814,000,000 for fiscal year 2010;
(5) $5,247,000,000 for fiscal year 2011;
(6) $5,614,000,000 for fiscal year 2012; [and]
(7) $6,007,000,000 for fiscal year 2013[.]*;*
(8) $5,271,000,000 for fiscal year 2016;
(9) $5,485,000,000 for fiscal year 2017;
(10) $5,704,000,000 for fiscal year 2018;
(11) $5,932,000,000 for fiscal year 2019; and
(12) $6,178,000,000 for fiscal year 2020.

(c) ALLOCATIONS.—From amounts authorized under subsection (b), the following sums are authorized:

(1) For activities under the Fusion Energy Sciences program (including activities under section 972)—
(A) $355,500,000 for fiscal year 2007;
(B) $369,500,000 for fiscal year 2008;
(C) $384,800,000 for fiscal year 2009; and
(D) in addition to the amounts authorized under subparagraphs (A), (B), and (C), such sums as may be necessary for ITER construction, consistent with the limitations of section 972(c)(5).

(2) For activities under the catalysis research program under section 973—
(A) $36,500,000 for fiscal year 2007;
(B) $38,200,000 for fiscal year 2008; and
(C) such sums as may be necessary for fiscal year 2009.

(3) For activities under the Systems Biology Program under section 977 such sums as may be necessary for each of fiscal years 2007 through 2009.

(4) For activities under the Energy and Water Supplies program under section 979, $30,000,000 for each of fiscal years 2007 through 2009.

(5) For the energy research fellowships programs under section 984, $40,000,000 for each of fiscal years 2007 through 2009.

(6) For the advanced scientific computing activities under section 976—
(A) $270,000,000 for fiscal year 2007;
(B) $350,000,000 for fiscal year 2008; and
(C) $375,000,000 for fiscal year 2009.

(7) For the science and engineering education pilot program under section 983—

(A) $4,000,000 for each of fiscal years 2007 and 2008; and

(B) $8,000,000 for fiscal year 2009.

(8) For the Department of Energy early career awards for science, engineering, and mathematics researchers program under section 5006 of the America COMPETES Act (42 U.S.C. 16534) and the distinguished scientist program under section 5011 of that Act (42 U.S.C. 16537), $150,000,000 for each of fiscal years 2016 through 2020, of which not more than 65 percent of the amount made available for a fiscal year under this paragraph may be used to carry out section 5006 or 5011 of that Act.

(d) INTEGRATED BIOENERGY RESEARCH AND DEVELOPMENT.—In addition to amounts otherwise authorized by this section, there are authorized to be appropriated to the Secretary for integrated bioenergy research and development programs, projects, and activities, $49,000,000 for each of the fiscal years 2005 through 2009. Activities funded under this subsection shall be coordinated with ongoing related programs of other Federal agencies, including the Plant Genome Program of the National Science Foundation. Of the funds authorized under this subsection, at least $5,000,000 for each fiscal year shall be for training and education targeted to minority and socially disadvantaged farmers and ranchers.

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SEC. 976. ADVANCED SCIENTIFIC COMPUTING FOR ENERGY MISSIONS.

(a) PROGRAM.—

(1) IN GENERAL.—The Secretary shall conduct an advanced scientific computing research and development program that includes activities related to applied mathematics and activities authorized by the **[**Department of Energy High-End Computing Revitalization Act of 2004**]** *Exascale Computing Act of 2015* (15 U.S.C. 5541 et seq.).

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SEC. 1001. IMPROVED TECHNOLOGY TRANSFER OF ENERGY TECHNOLOGIES.

(a) TECHNOLOGY TRANSFER COORDINATOR.—The Secretary shall appoint a Technology Transfer Coordinator to be the principal advisor to the Secretary on all matters relating to technology transfer and commercialization.

(b) QUALIFICATIONS.—The Coordinator shall be an individual who, by reason of professional background and experience, is specially qualified to advise the Secretary on matters pertaining to technology transfer at the Department.

(c) DUTIES OF THE COORDINATOR.—The Coordinator shall oversee—

(1) the activities of the Technology Transfer Working Group established under subsection (d);

(2) the expenditure of funds allocated for technology transfer within the Department;

(3) the activities of each technology partnership ombudsman appointed under section 11 of the Technology Transfer Commercialization Act of 2000 (42 U.S.C. 7261c); and

(4) efforts to engage private sector entities, including venture capital companies.

(d) TECHNOLOGY TRANSFER WORKING GROUP.—The Secretary shall establish a Technology Transfer Working Group, which shall consist of representatives of the National Laboratories and single-purpose research facilities, to—

(1) coordinate technology transfer activities occurring at National Laboratories and single-purpose research facilities;

(2) exchange information about technology transfer practices, including alternative approaches to resolution of disputes involving intellectual property rights and other technology transfer matters; and

(3) develop and disseminate to the public and prospective technology partners information about opportunities and procedures for technology transfer with the Department, including opportunities and procedures related to alternative approaches to resolution of disputes involving intellectual property rights and other technology transfer matters.

(e) TECHNOLOGY COMMERCIALIZATION FUND.—The Secretary shall establish an Energy Technology Commercialization Fund, using 0.9 percent of the amount made available to the Department for applied energy research, development, demonstration, and commercial application for each fiscal year based on future planned activities and the amount of the appropriations for the fiscal year, to be used to provide matching funds with private partners to promote promising energy technologies for commercial purposes.

(f) TECHNOLOGY TRANSFER RESPONSIBILITY.—Nothing in this section affects the technology transfer responsibilities of Federal employees under the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.).

(g) EARLY STAGE TECHNOLOGY DEMONSTRATION.—The Secretary shall permit the directors of the National Laboratories to use funds authorized to support technology transfer within the Department to carry out early stage and precommercial technology demonstration activities to remove technology barriers that limit private sector interest and demonstrate potential commercial applications of any research and technologies arising from National Laboratory activities.

[(g)**]***(h)* PLANNING AND REPORTING.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a technology transfer execution plan.

(2) UPDATES.—Each year after the submission of the plan under paragraph (1), the Secretary shall submit to Congress an updated execution plan and reports that describe progress toward meeting goals set forth in the execution plan and the funds expended under subsection (e).

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SEC. 1008. PRIZES FOR ACHIEVEMENT IN GRAND CHALLENGES OF SCIENCE AND TECHNOLOGY.

* * * * * * *

(g) E-PRIZE COMPETITION PILOT PROGRAM.—

(1) DEFINITIONS.—In this section:

(A) ELIGIBLE ENTITY.—The term eligible "entity" means—

(i) a private sector for-profit or nonprofit entity;

(ii) a public-private partnership; or

(iii) a local, municipal, or tribal governmental entity.

(B) HIGH-COST REGION.—The term "high-cost region" means a region in which the average annual unsubsidized costs of electrical power retail rates or household space heating costs per square foot exceed 150 percent of the national average, as determined by the Secretary.

(2) E-PRIZE COMPETITION PILOT PROGRAM.—

(A) IN GENERAL.—The Secretary shall establish an e-prize competition or challenge pilot program to broadly implement sustainable community and regional energy solutions that seek to reduce energy costs through increased efficiency, conservation, and technology innovation in high-cost regions.

(B) SELECTION.—In carrying out the pilot program under subparagraph (A), the Secretary shall award a prize purse, in amounts to be determined by the Secretary, to each eligible entity selected through 1 or more of the following competitions or challenges:

(i) A point solution competition that rewards and spurs the development of solutions for a particular, well-defined problem.

(ii) An exposition competition that helps identify and promote a broad range of ideas and practices that may not otherwise attract attention, facilitating further development of the idea or practice by third parties.

(iii) A participation competition that creates value during and after the competition by encouraging contestants to change their behavior or develop new skills that may have beneficial effects during and after the competition.

(iv) Such other types of prizes or challenges as the Secretary, in consultation with relevant heads of Federal agencies, considers appropriate to stimulate innovation that has the potential to advance the mission of the applicable Federal agency.

(3) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection $10,000,000, to remain available until expended.

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SEC. 1701. DEFINITIONS.

In this title:

* * * * * * *

(6) STATE.—The term "State" has the meaning given the term in section 202 of the Energy Conservation and Production Act (42 U.S.C. 6802).

(7) STATE ENERGY FINANCING INSTITUTION.—

(A) IN GENERAL.—The term "State energy financing institution" means a quasi-independent entity or an entity within a State agency or financing authority established by a State—

(i) to provide financing support or credit enhancements, including loan guarantees and loan loss reserves, for eligible projects; and

(ii) to create liquid markets for eligible projects, including warehousing and securitization, or take other steps to reduce financial barriers to the deployment of existing and new eligible projects.

(B) INCLUSION.—The term "State energy financing institution" includes an entity or organization established to achieve the purposes described in clauses (i) and (ii) of subparagraph (A) by an Indian tribal entity or an Alaska Native Corporation.

* * * * * * *

SEC. 1702. 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 *or to a State energy financing institution* on such terms and conditions as the Secretary determines, after consultation with the Secretary of the Treasury, only in accordance with this section.

(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—

[(1) IN GENERAL.—No guarantee] *Subject to subsection (l), no guarantee* shall be made unless—

[(A)]*(1)* an appropriation for the cost of the guarantee has been made;

[(B)]*(2)* the Secretary has received from the borrower a payment in full for the cost of the guarantee and deposited the payment into the Treasury; or

[(C)]*(3)* a combination of one or more appropriations under [subparagraph (A)] *paragraph (1)* and one or more payments from the borrower under [subparagraph (B)] *paragraph (2)* has been made that is sufficient to cover the cost of the guarantee.

* * * * * * *

(d) REPAYMENT.—

(1) IN GENERAL.—No guarantee shall be made unless the Secretary determines that there is reasonable prospect of repayment of the principal and interest on the obligation by the borrower.

(2) AMOUNT.—No guarantee shall be made unless the Secretary determines that the amount of the obligation (when combined with amounts available to the borrower from other sources) will be sufficient to carry out the project.

(3) SUBORDINATION.—The obligation shall be subject to the condition that the obligation [is not subordinate] *(including any reorganization, restructuring, or termination of the obligation) shall not at any time be subordinate to other financing.*

* * * * * * *

(l) BORROWER PAYMENT OF SUBSIDY COST.—

(1) IN GENERAL.—In addition to the requirement in subsection (b)(1), no guarantee shall be made unless the Secretary has received from the borrower not less than 25 percent of the cost of the guarantee.

(2) ESTIMATE.—The Secretary shall provide to the borrower, as soon as practicable, an estimate or range of the cost of the guarantee under paragraph (1).

(m) STATE ENERGY FINANCING INSTITUTIONS.—

(1) ELIGIBILITY.—To be eligible for a guarantee under this title, a State energy financing institution—

(A) shall meet the requirements of section 1703(a)(1); and

(B) shall not be required to meet the requirements of section 1703(a)(2).

(2) PARTNERSHIPS AUTHORIZED.—In carrying out a project receiving a loan guarantee under this title, State energy financing institutions may enter into partnerships with private entities, tribal entities, and Alaska Native corporations.

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SEC. 1703. ELIGIBLE PRIZES.

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(b) CATEGORIES.—Projects from the following categories shall be eligible for a guarantee under this section:

(1) Renewable energy systems (excluding the burning of commonly recycled paper that has been segregated from solid waste to generate electricity).

* * * * * * *

(f) LOAN STATUS.—

(1) REQUEST.—If the Secretary does not make a final decision on an application for a loan guarantee under this section by the date that is 270 days after receipt of the application by the Secretary, on that date and every 90 days thereafter until the final decision is made, the applicant may request that the Secretary provide to the applicant a description of the status of the application.

(2) RESPONSE.—Not later than 10 days after receiving a request from an applicant under paragraph (1), the Secretary shall provide to the applicant a response that includes—

(A) a summary of any factors that are delaying a final decision on the application; and

(B) an estimate of when review of the application will be completed.

* * * * * * *

[SEC. 1705. TEMPORARY PROGRAM FOR RAPID DEPLOYMENT OF RENEWABLE ENERGY AND ELECTRIC POWER TRANSMISSION PROJECTS.

[(a) IN GENERAL.—Notwithstanding section 1703, the Secretary may make guarantees under this section only for the following categories of projects that commence construction not later than September 30, 2011:

[(1) Renewable energy systems, including incremental hydropower, that generate electricity or thermal energy, and facilities that manufacture related components.

[(2) Electric power transmission systems, including upgrading and reconductoring projects.

[(3) Leading edge biofuel projects that will use technologies performing at the pilot or demonstration scale that the Secretary determines are likely to become commercial technologies

and will produce transportation fuels that substantially reduce life-cycle greenhouse gas emissions compared to other transportation fuels.

[(b) FACTORS RELATING TO ELECTRIC POWER TRANSMISSION SYSTEMS.—In determining to make guarantees to projects described in subsection (a)(2), the Secretary may consider the following factors:

[(1) The viability of the project without guarantees.

[(2) The availability of other Federal and State incentives.

[(3) The importance of the project in meeting reliability needs.

[(4) The effect of the project in meeting a State or region's environment (including climate change) and energy goals.

[(c) WAGE RATE REQUIREMENTS.—The Secretary shall require that each recipient of support under this section provide reasonable assurance that all laborers and mechanics employed in the performance of the project for which the assistance is provided, including those employed by contractors or subcontractors, will be paid wages at rates not less than those prevailing on similar work in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of part A of subtitle II of title 40, United States Code (commonly referred to as the "Davis-Bacon Act").

[(d) LIMITATION.—Funding under this section for projects described in subsection (a)(3) shall not exceed $500,000,000.

[(e) SUNSET.—The authority to enter into guarantees under this section shall expire on September 30, 2011.]

* * * * * * *

SEC. 1841. NET ENERGY METERING STUDY.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall—

(1) issue guidance on criteria required to be included in studies of net metering conducted by the Department; and

(2) undertake a study of net energy metering.

(b) REQUIREMENTS AND CONTENTS.—The model guidance issued under subsection (a) shall clarify without prejudice to other study criteria that any study of net energy metering, including the study conducted by the Department under subsection (a) shall—

(1) be publicly available; and

(2) assess benefits and costs of net energy metering, including—

(A) load data, including hourly profiles;

(B) distributed generation production data;

(C) best available technology, including inverter capability; and

(D) benefits and costs of distributed energy deployment, including—

(i) environmental benefits;

(ii) changes in electric system reliability;

(iii) changes in peak power requirements;

(iv) provision of ancillary services, including reactive power;

(v) changes in power quality;

(vi) changes in land-use effects;

(vii) changes in right-of-way acquisition costs;

(viii) changes in vulnerability to terrorism; and
(ix) changes in infrastructure resilience.

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ENERGY POLICY ACT OF 1992

Public Law 102–486, as amended

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[SEC. 131. ENERGY EFFICIENCY IN INDUSTRIAL FACILITIES.

[(a) GRANT PROGRAM.—

[(1) IN GENERAL.—The Secretary shall make grants to industry associations to support programs to improve energy efficiency in industry. In order to be eligible for a grant under this subsection, an industry association shall establish a voluntary energy efficiency improvement target program.

[(2) AWARDING OF GRANTS.—The Secretary shall request project proposals and provide annual grants on a competitive basis. In evaluating grant proposals under this subsection, the Secretary shall consider—

[(A) potential energy savings;

[(B) potential environmental benefits;

[(C) the degree of cost sharing;

[(D) the degree to which new and innovative technologies will be encouraged;

[(E) the level of industry involvement;

[(F) estimated project cost-effectiveness; and

[(G) the degree to which progress toward the energy improvement targets can be monitored.

[(3) ELIGIBLE PROJECTS.—Projects eligible for grants under this subsection may include the following:

[(A) Workshops.

[(B) Training seminars.

[(C) Handbooks.

[(D) Newsletters.

[(E) Data bases.

[(F) Other activities approved by the Secretary.

[(4) LIMITATION ON COST SHARING.—Grants provided under this subsection shall not exceed $250,000 and each grant shall not exceed 75 percent of the total cost of the project for which the grant is made.

[(5) AUTHORIZATION.—There are authorized to be appropriated such sums as are necessary to carry out this subsection.

[(b) AWARD PROGRAM.—The Secretary shall establish an annual award program to recognize those industry associations or individual industrial companies that have significantly improved their energy efficiency.

[(c) REPORT ON INDUSTRIAL REPORTING AND VOLUNTARY TARGETS.—Not later than one year after the date of the enactment of this Act, the Secretary shall, in consultation with affected industries, evaluate and report to the Congress regarding the establishment of Federally mandated energy efficiency reporting requirements and voluntary energy efficiency improvement targets for energy intensive industries. Such report shall include an evaluation of the costs and benefits of such reporting requirements and voluntary energy efficiency improvement targets, and recommendations regarding the role of such activities in improving energy efficiency in energy intensive industries.]

[SEC. 132. PROCESS-ORIENTED INDUSTRIAL ENERGY EFFICIENCY.

[(a) DEFINITIONS.—For the purposes of this section—

[(1) the term "covered industry" means the food and food products industry, lumber and wood products industry, petroleum and coal products industry, and all other manufacturing industries specified in Standard Industrial Classification Codes 20 through 39 (or successor classification codes);

[(2) the term "process-oriented industrial assessment" means—

[(A) the identification of opportunities in the production process (from the introduction of materials to final packaging of the product for shipping) for—

[(i) improving energy efficiency;

[(ii) reducing environmental impact; and

[(iii) designing technological improvements to increase competitiveness and achieve cost-effective product quality enhancement;

[(B) the identification of opportunities for improving the energy efficiency of lighting, heating, ventilation, air conditioning, and the associated building envelope; and

[(C) the identification of cost-effective opportunities for using renewable energy technology in the production process and in the systems described in subparagraph (B); and

[(3) the term "utility" means any person, State agency (including any municipality), or Federal agency, which sells electric or gas energy to retail customers.

[(b) GRANT PROGRAM.—

[(1) USE OF FUNDS.—The Secretary shall, to the extent funds are made available for such purpose, make grants to States which, consistent with State law, shall be used for the following purposes:

[(A) To promote, through appropriate institutions such as universities, nonprofit organizations, State and local government entities, technical centers, utilities, and trade organizations, the use of energy-efficient technologies in covered industries.

[(B) To establish programs to train individuals (on an industry-by-industry basis) in conducting process-oriented industrial assessments and to encourage the use of such trained assessors.

[(C) To assist utilities in developing, testing, and evaluating energy efficiency programs and technologies for industrial customers in covered industries.

[(2) CONSULTATION.—States receiving grants under this subsection shall consult with utilities and representatives of affected industries, as appropriate, in determining the most effective use of such funds consistent with the requirements of paragraph (1).

[(3) ELIGIBILITY CRITERIA.—Not later than 1 year after the date of the enactment of this Act, the Secretary shall establish eligibility criteria for grants made pursuant to this subsection. Such criteria shall require a State applying for a grant to demonstrate that such State—

[(A) pursuant to section 111(a) of the Public Utility and Regulatory Policies Act of 1978 (16 U.S.C. 2621(a)), has considered and made a determination regarding the implementation of the standards specified in paragraphs (7) and (8) of section 111(d) of such Act (with respect to integrated resources planning and investments in conservation and demand management); and

[(B) by legislation or regulation—

[(i) allows utilities to recover the costs prudently incurred in providing process-oriented industrial assessments; and

[(ii) encourages utilities to provide to covered industries—

[(I) process-oriented industrial assessments; and

[(II) financial incentives for implementing energy efficiency improvements.

[(4) ALLOCATION OF FUNDS.—Grants made pursuant to this subsection shall be allocated each fiscal year among States meeting the criteria specified in paragraph (3) who have submitted applications 60 days before the first day of such fiscal year. Such allocation shall be made in accordance with a formula to be prescribed by the Secretary based on each State's share of value added in industry (as determined by the Census

of Manufacturers) as a percentage of the value added by all such States.

[(5) RENEWAL OF GRANTS.—A grant under this subsection may continue to be renewed after 2 consecutive fiscal years during which a State receives a grant under this subsection, subject to the availability of funds, if—

[(A) the Secretary determines that the funds made available to the State during the previous 2 years were used in a manner required under paragraph (1); and

[(B) such State demonstrates, in a manner prescribed by the Secretary, utility participation in programs established pursuant to this subsection.

[(6) COORDINATION WITH OTHER FEDERAL PROGRAMS.—In carrying out the functions described in paragraph (1), States shall, to the extent practicable, coordinate such functions with activities and programs conducted by the Energy Analysis and Diagnostic Centers of the Department of Energy and the Manufacturing Technology Centers of the National Institute of Standards and Technology.

[(c) OTHER FEDERAL ASSISTANCE.—

[(1) ASSESSMENT CRITERIA.—Not later than 2 years after the date of the enactment of this Act, the Secretary shall, by contract with nonprofit organizations with expertise in process-oriented industrial energy efficiency technologies, establish and, as appropriate, update criteria for conducting process-oriented industrial assessments on an industry-by-industry basis. Such criteria shall be made available to State and local government, public utility commissions, utilities, representatives of affected process-oriented industries, and other interested parties.

[(2) DIRECTORY.—The Secretary shall establish a nationwide directory of organizations offering industrial energy efficiency assessments, technologies, and services consistent with the purposes of this section. Such directory shall be made available to State governments, public utility commissions, utilities, industry representatives, and other interested parties.

[(3) AWARD PROGRAM.—The Secretary shall establish an annual award program to recognize utilities operating outstanding or innovative industrial energy efficiency technology assistance programs.

[(4) MEETINGS.—In order to further the purposes of this section, the Secretary shall convene annual meetings of parties interested in process-oriented industrial assessments, including representatives of State government, public utility commissions, utilities, and affected process-oriented industries.

[(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated such sums as may be necessary to carry out the purposes of this section.]

[SEC. 133. INDUSTRIAL INSULATION AND AUDIT GUIDELINES.

[(a) VOLUNTARY GUIDELINES FOR ENERGY EFFICIENCY AUDITING AND INSULATING.—Not later than 18 months after the date of the enactment of this Act, the Secretary, after consultation with utilities, major industrial energy consumers, and representatives of the insulation industry, shall establish voluntary guidelines for—

[(1) the conduct of energy efficiency audits of industrial facilities to identify cost-effective opportunities to increase energy efficiency; and

[(2) the installation of insulation to achieve cost-effective increases in energy efficiency in industrial facilities.

[(b) EDUCATIONAL AND TECHNICAL ASSISTANCE.—The Secretary shall conduct a program of educational and technical assistance to promote the use of the voluntary guidelines established under subsection (a).]

* * * * * * *

[SEC. 154. REPORT BY GENERAL SERVICES ADMINISTRATION.

[Not later than one year after the date of the enactment of this Act, and annually thereafter, the Administrator of General Services shall report to the Committee on Governmental Affairs and the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce, the Committee on Government Operations, and the Committee on Public Works and Transportation of the House of Representatives on the activities of the General Services Administration conducted pursuant to this subtitle.]

* * * * * * *

[SEC. 156. INTERGOVERNMENTAL ENERGY MANAGEMENT PLANNING AND COORDINATION.

[(a) CONFERENCE WORKSHOPS.—The Administrator of General Services, in consultation with the Secretary and the Task Force, shall hold regular, biennial conference workshops in each of the 10 standard Federal regions on energy management, conservation, efficiency, and planning strategy. The Administrator shall work and consult with the Department of Energy and other Federal agencies to plan for particular regional conferences. The Administrator shall invite Department of Energy, State, local, tribal, and county public officials who have responsibilities for energy management or may have an interest in such conferences and shall seek the input of, and be responsive to, the views of such officials in the planning and organization of such workshops.

[(b) FOCUS OF WORKSHOPS.—Such workshops and conferences shall focus on the following (but may include other topics):

[(1) Developing strategies among Federal, State, tribal, and local governments to coordinate energy management policies and to maximize available intergovernmental energy management resources within the region regarding the use of governmental facilities and buildings.

[(2) The design, construction, maintenance, and retrofitting of governmental facilities to incorporate energy efficient techniques.

[(3) Procurement and use of energy efficient products.

[(4) Dissemination of energy information on innovative programs, technologies, and methods which have proven successful in government.

[(5) Technical assistance to design and incorporate effective energy management strategies.

[(c) ESTABLISHMENT OF WORKSHOP TIMETABLE.—As a part of the first report to be submitted pursuant to section 154, the Adminis-

trator shall set forth the schedule for the regional energy management workshops to be conducted under this section. Not less than five such workshops shall be held by September 30, 1993, and at least one such workshop shall be held in each of the 10 Federal regions every two years beginning on September 30, 1993.]

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SEC. 159. FEDERAL ENERGY COST ACCOUNTING AND MANAGEMENT.

(a) GUIDELINES.—Not later than 120 days after the date of the enactment of this Act, the Director of the Office of Management and Budget, in cooperation with the Secretary, the Administrator of General Services, and the Secretary of Defense, shall establish guidelines to be employed by each Federal agency to assess accurate energy consumption for all buildings or facilities which the agency owns, operates, manages or leases, where the Government pays utilities separate from the lease and the Government operates the leased space. Such guidelines are to be used in reports required under section 548 of the National Energy Conservation Policy Act (42 U.S.C. 8258). Each agency shall implement such guidelines no later than 120 days after their establishment. Each facility energy manager shall maintain energy consumption and energy cost records for review by the Inspector General, the Congress, and the general public.

(b) CONTENTS OF GUIDELINES.—Such guidelines shall include the establishment of a monitoring system to determine—

(1) which facilities are the most costly to operate when measured on an energy consumption per square foot basis or other relevant analytical basis;

(2) unusual or abnormal changes in energy consumption; and

(3) the accuracy of utility charges for electric and gas consumption.

[(c) FEDERALLY LEASED SPACE ENERGY REPORTING REQUIREMENT.—The Administrator of General Services shall include, in each report submitted under section 154, the estimated energy cost of leased buildings or space in which the Federal Government does not directly pay the utility bills.]

SEC. 160. INSPECTOR GENERAL REVIEW AND AGENCY ACCOUNTABILITY.

[(a) AUDIT SURVEY.—Not later than 120 days after the date of the enactment of this Act, each Inspector General created to conduct and supervise audits and investigations relating to the programs and operations of the establishments listed in section 11(2) of the Inspector General Act of 1978 (5 U.S.C. App.), and the Chief Postal Inspector of the United States Postal Service, in accordance with section 8E(f)(1) as established by section 8E(a)(2) of the Inspector General Act Amendments of 1988 (Public Law 100–504) shall—

[(1) identify agency compliance activities to meet the requirements of section 543 of the National Energy Conservation Policy Act (42 U.S.C. 8253) and any other matters relevant to implementing the goals of such Act; and

[(2) determine if the agency has the internal accounting mechanisms necessary to assess the accuracy and reliability of energy consumption and energy cost figures required under such section.

[(b) PRESIDENTS COUNCIL ON INTEGRITY AND EFFICIENCY REPORT TO CONGRESS.—Not later than 150 days after the date of the enactment of this Act, the President's Council on Integrity and Efficiency shall submit a report to the Committee on Energy and Natural Resources and the Committee on Governmental Affairs of the Senate, the Committee on Energy and Commerce, the Committee on Government Operations, and the Committee on Public Works and Transportation of the House of Representatives, on the review conducted by the Inspector General of each agency under this section.]

(c) INSPECTOR GENERAL REVIEW.—Each Inspector General established under section 2 of the Inspector General Act of 1978 (5 U.S.C. App.) is encouraged to conduct periodic reviews of agency compliance with part 3 of title V of the National Energy Conservation Policy Act, the provisions of this subtitle, and other laws relating to energy consumption. Such reviews shall not be inconsistent with the performance of the required duties of the Inspector General's office.

[SEC. 161. PROCUREMENT AND IDENTIFICATION OF ENERGY EFFICIENT PRODUCTS.

[(a) PROCUREMENT.—The Administrator of General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency, each shall undertake a program to include energy efficient products in carrying out their procurement and supply functions.

[(b) IDENTIFICATION PROGRAM.—The Administrator of General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency, in consultation with the Secretary of Energy, each shall implement, in conjunction with carrying out their procurement and supply functions, a program to identify and designate those energy efficient products that offer significant potential savings, using, to the extent practicable, the life cycle cost methods and procedures developed under section 544 of the National Energy Conservation Policy Act (42 U.S.C. 8254). The Secretary of Energy shall, to the extent necessary to carry out this section and after consultation with the aforementioned agency heads, provide estimates of the degree of relative energy efficiency of products.

[(c) GUIDELINES.—The Administrator for Federal Procurement Policy, in consultation with the Administrator of General Services, the Secretary of Energy, the Secretary of Defense, and the Director of the Defense Logistics Agency, shall issue guidelines to encourage the acquisition and use by all Federal agencies of products identified pursuant to this section. The Secretary of Defense and the Director of the Defense Logistics Agency shall consider, and place emphasis on, the acquisition of such products as part of the Agency's ongoing review of military specifications.

[(d) REPORT TO CONGRESS.—Not later than December 31 of 1993 and of each year thereafter, the Secretary of Energy, in consultation with the Administrator for Federal Procurement Policy, the Administrator of General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency, shall report on the progress, status, activities, and results of the programs under subsections (a), (b), and (c). The report shall include—

[(1) the types and functions of each product identified under subsection (b), and efforts undertaken by the Administrator of

General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency to encourage the acquisition and use of such products;

[(2) the actions taken by the Administrator of General Services, the Secretary of Defense, and the Director of the Defense Logistics Agency to identify products under subsection (b), the barriers which inhibit implementation of identification of such products, and recommendations for legislative action, if necessary;

[(3) progress on the development and issuance of guidelines under subsection (c);

[(4) an indication of whether energy cost savings technologies identified by the Advanced Building Technology Council, under section 809(h) of the National Housing Act (12 U.S.C. 1701j–2), have been used in the identification of products under subsection (b);

[(5) an estimate of the potential cost savings to the Federal Government from acquiring products identified under subsection (b) with respect to which energy is a significant component of life cycle cost, based on the quantities of such products that could be utilized throughout the Government; and

[(6) the actual quantities acquired of products described in paragraph (5).]

* * * * * * *

SEC. 2101. GENERAL IMPROVED ENERGY EFFICIENCY.

(a) PROGRAM DIRECTION.—The Secretary shall conduct a 5-year program, in accordance with sections 3001 and 3002 of this Act, on cost effective technologies to improve energy efficiency and increase the use of renewable energy in the buildings, industrial, and utility sectors. Such program shall include a broad range of technological approaches, and shall include field demonstrations of sufficient scale and number to prove technical and economic viability to meet the goals stated in section 2001. Such program shall include the activities required under [sections 2102, 2103, 2104, 2105, 2106, 2107, and 2108] *sections 2102, 2104, 2105, 2106, and 2108 of this Act and sections 376 of the Energy Policy and Conservation Act* and ongoing activities of a similar nature at the Department of Energy. Such program shall also include the activities conducted pursuant to the Steel and Aluminum Energy Conservation and Technology Competitiveness Act of 1988 (Public Law 100–680) and the Department of Energy Metal Casting Competitiveness Research Act of 1990 (Public Law 101–425).

* * * * * * *

[SEC. 2103. PULP AND PAPER.

[(a) PROGRAM DIRECTION.—The Secretary shall conduct a 5-year program, in accordance with sections 3001 and 3002 of this Act, on advanced pulp and paper technologies. Such program shall include activities on energy generation technologies, boilers, combustion processes, pulping processes (excluding de-inking), chemical recovery, causticizing, source reduction processes, and other related technologies that can improve the energy efficiency of, and reduce the adverse environmental impacts of, pulp and papermaking oper-

ations. This section does not authorize projects involving the combustion of waste paper, other than gasification.

[(b) PROPOSALS.—Within 180 days after the date of enactment of this Act, the Secretary shall solicit proposals for conducting activities under this section.]

* * * * * * *

[SEC. 2107. IMPROVING EFFICIENCY IN ENERGY-INTENSIVE INDUSTRIES.

[(a) SECRETARIAL ACTION.—The Secretary, in accordance with sections 3001 and 3002 of this Act, shall—

[(1) pursue a research, development, demonstration and commercial application program intended to improve energy efficiency and productivity in energy-intensive industries and industrial processes; and

[(2) undertake joint ventures to encourage the commercialization of technologies developed under paragraph (1).

[(b) JOINT VENTURES.—(1) The Secretary shall—

[(A) conduct a competitive solicitation for proposals from private firms and investors for such joint ventures under subsection (a)(2); and

[(B) provide financial assistance to at least five such joint ventures.

[(2) The purpose of the joint ventures shall be to design, test, and demonstrate changes to industrial processes that will result in improved energy efficiency and productivity. The joint ventures may also demonstrate other improvements of benefit to such industries so long as demonstration of energy efficiency improvements is the principal objective of the joint venture.

[(3) In evaluating proposals for financial assistance and joint ventures under this section, the Secretary shall consider—

[(A) whether the activities conducted under this section improve the quality and energy efficiency of industries or industrial processes;

[(B) the regional distribution of the energy-intensive industries and industrial processes; and

[(C) whether the proposed joint venture project would be located in the region which has the energy-intensive industry and industrial processes that would benefit from the project.]

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SEC. 2602. INDIAN TRIBAL ENERGY RESOURCE DEVELOPMENT.

* * * * * * *

(b) DEPARTMENT OF ENERGY INDIAN ENERGY EDUCATION PLANNING AND MANAGEMENT ASSISTANCE PROGRAM.—

(1) The Director shall establish programs to assist consenting Indian tribes in meeting energy education, research and development, planning, and management needs.

(2) In carrying out this subsection, the Director may provide grants, on a competitive basis, to an Indian tribe or tribal energy resource development organization for use in carrying out—

(A) energy, energy efficiency, and energy conservation programs;

(B) studies and other activities supporting tribal acquisitions of energy supplies, services, and facilities, including the creation of tribal utilities to assist in securing electricity to promote electrification of homes and businesses on Indian land;

(C) planning, construction, development, operation, maintenance, and improvement of tribal electrical generation, transmission, and distribution facilities located on Indian land; and

(D) development, construction, and interconnection of electric power transmission facilities located on Indian land with other electric transmission facilities.

(3)(A) The Director shall develop a program to support and implement research projects that provide Indian tribes with opportunities to participate in carbon sequestration practices on Indian land, including—

(i) geologic sequestration;

(ii) forest sequestration;

(iii) agricultural sequestration; and

(iv) any other sequestration opportunities the Director considers to be appropriate.

(B) The activities carried out under subparagraph (A) shall be—

(i) coordinated with other carbon sequestration research and development programs conducted by the Secretary of Energy;

(ii) conducted to determine methods consistent with existing standardized measurement protocols to account and report the quantity of carbon dioxide or other greenhouse gases sequestered in projects that may be implemented on Indian land; and

(iii) reviewed periodically to collect and distribute to Indian tribes information on carbon sequestration practices that will increase the sequestration of carbon without threatening the social and economic well-being of Indian tribes.

(4)(A) The Director, in consultation with Indian tribes, may develop a formula for providing grants under this subsection.

(B) In providing a grant under this subsection, the Director shall give priority to any application received from an Indian tribe with inadequate electric service (as determined by the Director).

(C) In providing a grant under this subsection for an activity to provide, or expand the provision of, electricity on Indian land, the Director shall encourage cooperative arrangements between Indian tribes and utilities that provide service to Indian tribes, as the Director determines to be appropriate.

(5) The Secretary of Energy may issue such regulations as the Secretary determines to be necessary to carry out this subsection.

(6) There is authorized to be appropriated to carry out this subsection $20,000,000 for each of fiscal years 2006 through **[**2016**]** *2026*.

ENERGY POLICY AND CONSERVATION ACT

Public Law 94–163, as amended

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DEFINITIONS

SEC. 3. As used in this Act:

* * * * * * *

(8) The term "severe energy supply interruption" means a national energy supply shortage which the President determines—

(A) is, or is likely to be, of significant scope and duration, and of an emergency nature;

(B) may cause major adverse impact on national safety or the national economy; and

(C) results, or is likely to result, from (i) an interruption in the supply of imported petroleum products, (ii) an interruption in the supply of domestic petroleum products, or (iii) [sabotage or an act of God] *sabotage, an act of terrorism, or an act of God*.

* * * * * * *

TITLE I—MATTERS RELATED TO DOMESTIC SUPPLY AVAILABILITY

* * * * * * *

PART B—STRATEGIC PETROLEUM RESERVE

* * * * * * *

DEFINITIONS

SEC. 152. As used in this part and part C:

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(8) The term "related facility" means any necessary appurtenance to a storage facility, including pipelines, roadways, reservoirs, *terminals,* and salt brine lines.

* * * * * * *

DRAWDOWN AND SALE OF PETROLEUM PRODUCTS

SEC. 161. (a) The Secretary may drawdown and sell petroleum products in the Reserve only in accordance with the provisions of this section.

* * * * * * *

(g)(1) The Secretary shall conduct a continuing evaluation of the drawdown and sales procedures. In the conduct of an evaluation, the Secretary is authorized to carry out a test drawdown and sale or exchange of petroleum products from the Reserve. Such a test drawdown and sale or exchange may not exceed 5,000,000 barrels of petroleum products.

* * * * * * *

[(8) The Secretary shall transmit to both Houses of the Congress a detailed explanation of the test carried out under this subsection. Such explanation may be a part of any report made to the President and the Congress under section 165.]

(8) NOTICE TO CONGRESS.—

(A) PRIOR NOTICE.—Not less than 14 days before the date on which a test is carried out under this subsection, the Secretary shall notify both Houses of Congress of the test.

(B) EMERGENCY.—The prior notice requirement in subparagraph (A) shall not apply if the Secretary determines that an emergency exists which requires a test to be carried out, in which case the Secretary shall notify both Houses of Congress of the test as soon as possible.

(C) DETAILED DESCRIPTION.—

(i) IN GENERAL.—Not later than 180 days after the date on which a test is completed under this subsection, the Secretary shall submit to both Houses of Congress a detailed description of the test.

(ii) REPORT.—A detailed description submitted under clause (i) may be included as part of a report made to the President and Congress under section 165.

* * * * * * *

SPR PETROLEUM ACCOUNT

SEC. 167. (a) The Secretary of the Treasury shall establish in the Treasury of the United States an account to be known as the "SPR Petroleum Account" (hereinafter in this section referred to as the "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) 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) in the case of any fiscal year, notwithstanding section 660 of the Department of Energy Organization Act, in an ag-

gregate 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.]

(b) OBLIGATION OF FUNDS FOR THE ACQUISITION, TRANSPORTATION, AND INJECTION OF PETROLEUM PRODUCTS INTO SPR AND FOR OTHER PURPOSES.—

(1) PURPOSES.—Amounts in the Account may be obligated by the Secretary of Energy for—

(A) the acquisition, transportation, and injection of petroleum products into the Reserve;

(B) test sales of petroleum products from the Reserve;

(C) the drawdown, sale, and delivery of petroleum products from the Reserve;

(D) the construction, maintenance, repair, and replacement of storage facilities and related facilities; and

(E) carrying out non-Reserve projects needed to enhance the energy security of the United States by increasing the resilience, reliability, safety, and security of energy supply, transmission, storage, or distribution infrastructure.

(2) AMOUNTS.—Amounts in the Account may be obligated by the Secretary of Energy for purposes of paragraph (1), in the case of any fiscal year—

(A) subject to section 660 of the Department of Energy Organization Act (42 U.S.C. 7270), in such aggregate amounts as may be appropriated in advance in appropriations Acts; and

(B) notwithstanding section 660 of the Department of Energy Organization Act (42 U.S.C. 7270), 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 a distribution of the Reserve under section 161, including—

(i) a drawdown and distribution carried out under subsection (g) of that section; or

(ii) from the sale of petroleum products under section 160(f).

(3) AVAILABILITY OF FUNDS.—Funds available to the Secretary of Energy for obligation under this subsection may remain available without fiscal year limitation.

* * * * * * **

TITLE III—IMPROVING ENERGY EFFICIENCY

PART B—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS OTHER THAN AUTOMOBILES

* * * * * * *

ENERGY STAR PROGRAM

SEC. 324A. (a) IN GENERAL.— * * *

* * * * * * *

(e) THIRD-PARTY CERTIFICATION.—

(1) IN GENERAL.—Subject to paragraph (2), not later than 180 days after the date of enactment of this subsection, the Administrator shall revise the certification requirements for the labeling of consumer, home, and office electronic products for program partners that have complied with all requirements of the Energy Star program for a period of at least 18 months.

(2) ADMINISTRATION.—In the case of a program partner described in paragraph (1), the new requirements under paragraph (1)—

(A) shall not require third-party certification for a product to be listed; but

(B) may require that test data and other product information be submitted to facilitate product listing and performance verification for a sample of products.

(3) THIRD PARTIES.—Nothing in this subsection prevents the Administrator from using third parties in the course of the administration of the Energy Star program.

(4) TERMINATION.—

(A) IN GENERAL.—Subject to subparagraph (B), an exemption from third-party certification provided to a program partner under paragraph (1) shall terminate if the program partner is found to have violated program requirements with respect to at least 2 separate models during a 2-year period.

(B) RESUMPTION.—A termination for a program partner under subparagraph (A) shall cease if the program partner complies with all Energy Star program requirements for a period of at least 3 years.

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ENERGY CONSERVATION STANDARDS

SEC. 325. (a) PURPOSES.— * * *

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(f) STANDARDS FOR FURNACES AND BOILERS.—

* * * * * * *

(4)(A) The Secretary shall publish a final rule no later than January 1, 1992, to determine whether the standards established by paragraph (2) for mobile home furnaces should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 1, 1994.

(B) The Secretary shall publish a final rule no later than January 1, 1994, to determine whether the standards established by this subsection for furnaces (including mobile home furnaces) should be amended. Such rule shall provide that any amendment shall apply to products manufactured on or after January 1, 2002.

(C) After January 1, 1997, and before January 1, 2007, the Secretary shall publish a final rule to determine whether

standards in effect for such products should be amended. Such rule shall contain such amendment, if any, and provide that any amendment shall apply to products manufactured on or after January 1, 2012.

(D) Notwithstanding any other provision of this Act, if the requirements of subsection (o) are met, not later than December 31, 2013, the Secretary shall consider and prescribe energy conservation standards or energy use standards for electricity used for purposes of circulating air through duct work.

(E) RESTRICTION ON FINAL RULE FOR RESIDENTIAL NON-WEATHERIZED GAS FURNACES AND MOBILE HOME FURNACES.—

(i) IN GENERAL.—Notwithstanding any other provision of this Act, the Secretary shall not prescribe a final rule amending the efficiency standards for residential non-weatherized gas furnaces or mobile home furnaces until each of the following has occurred:

(I) The Secretary convenes a representative advisory group of interested stakeholders, including the manufacturers, distributors, and contractors of residential non-weatherized gas furnaces and mobile home furnaces, home builders, building owners, energy efficiency advocates, natural gas utilities, electric utilities, and consumer groups.

(II) Not later than 1 year after the date of enactment of this subparagraph, the advisory group described in subclause (I) completes an analysis of a nationwide requirement of a condensing furnace efficiency standard including—

(aa) a complete analysis of current market trends regarding the transition of sales from non-condensing furnaces to condensing furnaces;

(bb) the projected net loss in the industry of the present value of original equipment manufactured after adoption of the standard;

(cc) the projected consumer payback period and life cycle cost savings after adoption of the standard;

(dd) a determination of whether the standard is economically justified, based solely on the definition of energy under section 321; and

(ee) other common economic principles.

(III) The advisory group described in subclause (I) reviews the analysis and determines whether a nationwide requirement of a condensing furnace efficiency standard is technically feasible and economically justified.

(IV) The final determination of the advisory group under subclause (III) is published in the Federal Register.

(ii) AMENDED STANDARDS.—If the advisory group determines under clause (i)(III) that a nationwide requirement of a condensing furnace efficiency standard is not technically feasible and economically justified, the Secretary shall, not later than 180 days after the date on which the final determination of the advisory group is published in

the Federal Register under clause (i)(IV), establish amended standards through the negotiated rulemaking procedure provided for under subchapter III of chapter 5 of title 5, United States Code (commonly known as the "Negotiated Rulemaking Act of 1990").

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REQUIREMENTS OF MANUFACTURERS

SEC. 326. (a) IN GENERAL.— * * *

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(b) NOTIFICATION.—(1) Each manufacturer of a covered product to which a rule under section 324 applies shall notify the Secretary or the Commission—

(A) not later than 60 days after the date such rule takes effect, of the models in current production (and starting serial numbers of those models) to which such rule applies; and

(B) prior to commencement of production, of all models subsequently produced (and starting serial numbers of those models) to which such rule applies.

(2) If requested by the Secretary or Commission, the manufacturer of a covered product to which a rule under section 324 applies shall provide, within 30 days of the date of the request, the data from which the information included on the label and required by the rule was derived. Data shall be kept on file by the manufacturer for a period specified in the rule.

(3) When requested—

(A) by the Secretary for purposes of ascertaining whether a product subject to a standard established in or prescribed under section 325 is in compliance with that standard, or

(B) by the Commission for purposes of ascertaining whether the information set out on a label of a product, as required under section 324, is accurate,

each manufacturer of such a product shall supply at his expense a reasonable number of such covered products to any laboratory designated by the Secretary or the Commission, as the case may be. Any reasonable charge levied by the laboratory for such testing shall be borne by the United States, if and to the extent provided in appropriation Acts.

(4) Each manufacturer of a covered product to which a rule under section 324 applies shall annually, at a time specified by the Commission, supply to the Commission relevant data respecting energy consumption or water use developed in accordance with the test procedures applicable to such product under section 323.

(5) A rule under section 323, 324, or 325 may require the manufacturer or his agent to permit a representative designated by the Commission or the Secretary to observe any testing required by this part and inspect the results of such testing.

(6) VOLUNTARY VERIFICATION PROGRAMS FOR AIR CONDITIONING, FURNACE, BOILER, HEAT PUMP, AND WATER HEATER PRODUCTS.—

(A) RELIANCE ON VOLUNTARY PROGRAMS.—For the purpose of periodic testing to verify compliance with energy conservation standards and Energy Star specifications established under sections 324A, 325, and 342 for covered products described in paragraphs (3), (4), (5), (9), and (11) of section 322(a) and cov-

ered equipment described in subparagraphs (B), (C), (D), (F), (I), (J), and (K) of section 340(1), the Secretary and the Administrator of the Environmental Protection Agency shall rely on testing conducted by voluntary verification programs that are recognized by the Secretary in accordance with subparagraph (B).

(B) RECOGNITION OF VOLUNTARY VERIFICATION PROGRAMS.—

(i) IN GENERAL.—Not later than 180 days after the date of enactment of this paragraph, the Secretary shall initiate a negotiated rulemaking in accordance with subchapter III of chapter 5 of title 5, United States Code (commonly known as the "Negotiated Rulemaking Act of 1990") to develop criteria that have consensus support for achieving recognition by the Secretary as an approved voluntary verification program.

(ii) MINIMUM REQUIREMENTS.—The criteria developed under clause (i) shall, at a minimum, ensure that the voluntary verification program—

(I) is nationally recognized;

(II) is operated by a third party and not directly operated by a program participant;

(III) satisfies any applicable elements of—

(aa) International Organization for Standardization standard numbered 17025; and

(bb) any other relevant International Organization for Standardization standards identified and agreed to through the negotiated rulemaking under clause (i);

(IV) at least annually tests independently obtained products following the test procedures established under this title to verify the certified rating of a representative sample of products and equipment within the scope of the program;

(V) maintains a publicly available list of all ratings of products subject to verification;

(VI) requires the changing of the performance rating or removal of the product or equipment from the program if testing determines that the performance rating does not meet the levels the manufacturer has certified to the Secretary;

(VII) requires new program participants to substantiate ratings through test data generated in accordance with DOE regulations;

(VIII) allows for challenge testing of products and equipment within the scope of the program;

(IX) requires program participants to disclose the performance rating of all covered products and equipment within the scope of the program for the covered product or equipment;

(X) provides to the Secretary—

(aa) an annual report of all test results, the contents of which shall be determined through the negotiated rulemaking process under clause (i); and

(bb) test reports, on the request of the Secretary or the Administrator of the Environmental Protec-

tion Agency, that note any instructions specified by the manufacturer or the representative of the manufacturer for the purpose of conducting the verification testing, to be exempted from disclosure to the extent provided under section 552(b)(4) of title 5, United States Code (commonly known as the "Freedom of Information Act"); and

(XI) satisfies any additional requirements or standards that the Secretary and Administrator of the Environmental Protection Agency shall establish consistent with this subparagraph.

(iii) FINDING REQUIRED FOR CESSATION OF RECOGNITION.—The Secretary may only cease recognition of a voluntary verification program as an approved program described in subparagraph (A) on a finding that the program is not meeting its obligations for compliance through program review criteria established under this subparagraph.

(iv) REVISIONS.—

(I) IN GENERAL.—Major revisions to voluntary verification program criteria established under this subparagraph shall only be made pursuant to a subsequent negotiated rulemaking in accordance with subchapter III of chapter 5 'of title 5, United States Code (commonly known as the Negotiated Rulemaking Act of 1990').

(II) NONMAJOR REVISIONS.—

(aa) IN GENERAL.—The Secretary may make all other nonmajor criteria revisions by initiating a direct final rule in accordance with section 553(b)(3)(B) of title 5, United States Code, on a determination published in the Federal Register that revisions to the criteria are necessary and that substantive opposition to the proposed revisions is not expected.

(bb) CONDITIONS FOR EFFECTIVENESS.—If the Secretary does not receive adversarial comments with respect to the determination published under item (aa) during the 30-day-period following publication of that determination in the Federal Register, the direct final rule shall have the force and effect of law.

(cc) WITHDRAWAL OF FINAL RULE.—Receipt of any adversarial comment with respect to the determination published under item (aa) shall require the Secretary to withdraw the direct final rule and publish—

(AA) a notice of proposed rulemaking pursuant to section 553 of title 5, United States Code; or

(BB) a notice of proposed rulemaking pursuant to section 553 of title 5, United States Code, that includes a determination that revisions to the criteria are necessary.

(C) ADMINISTRATION.—

(i) IN GENERAL.—The Secretary and the Administrator of the Environmental Protection Agency shall not require—

(I) manufacturers to participate in a voluntary verification program described in subparagraph (A); or

(II) participating manufacturers to provide information that has already been provided to the Secretary or the Administrator.

(ii) LIST OF COVERED PRODUCTS.—The Secretary or the Administrator of the Environmental Protection Agency may maintain a publicly available list of covered products and equipment that distinguishes between products that are, and are not covered products and equipment verified through a voluntary verification program described in subparagraph (A);

(iii) PERIODIC VERIFICATION TESTING.—

(I) IN GENERAL.—The Secretary—

(aa) shall not subject products or equipment that have been verification tested under a voluntary verification program described in subparagraph (A) to periodic verification testing that verifies the accuracy of the certified performance rating of the products or equipment; but

(bb) may test products or equipment described in subclause (I) if the testing is necessary—

(AA) to assess the overall performance of a voluntary verification program;

(BB) to address specific performance issues;

(CC) for use in updating test procedures and standards; or

(DD) for other purposes consistent with this title.

(II) ADDITIONAL TESTING.—The Secretary may subject products or equipment described in subclause (I) to periodic verification testing outside the restrictions of subclause (I)(bb), if agreed to during the rulemaking described in subparagraph (B)

(D) EFFECT ON OTHER AUTHORITY.—Nothing in this paragraph limits the authority of the Secretary or the Administrator of the Environmental Protection Agency to enforce compliance with any law.

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PART D—STATE ENERGY CONSERVATION PROGRAMS

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GENERAL PROVISIONS

SEC. 365. (a) The Secretary may prescribe such rules as may be necessary or appropriate to carry out his authority under this part.

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(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**]** *$90,000,000 for each of fiscal years 2016 through*

2020, of which not greater than 5 percent may be used to provide competitively awarded financial assistance.

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PART E—INDUSTRIAL ENERGY EFFICIENCY

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SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.

(a) IN GENERAL.—As part of the Office of Energy Efficiency and Renewable Energy, the Secretary, on the request of a manufacturer, shall conduct on-site technical assessments to identify opportunities for—

(1) maximizing the energy efficiency of industrial processes and cross-cutting systems;

(2) preventing pollution and minimizing waste;

(3) improving efficient 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 the private sector and appropriate agencies, including the National Institute of Standards and Technology, to accelerate adoption of new and existing technologies and processes that improve energy efficiency.

(c) RESEARCH AND DEVELOPMENT PROGRAM FOR SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECHNOLOGIES AND PROCESSES.—As part of the industrial efficiency programs of the Department of Energy, the Secretary shall carry out a joint industry-government partnership program to research, develop, and demonstrate new sustainable manufacturing and industrial technologies and processes that maximize the energy efficiency of industrial plants, reduce pollution, and conserve natural resources.

* * * * * * *

[PART I—OFF-HIGHWAY MOTOR VEHICLES

[OFF-HIGHWAY MOTOR VEHICLE CONSERVATION STUDY

[SEC. 385. Not later than 1 year after the date of the enactment of this section, the Secretary of Transportation shall complete a study of the energy conservation potential of recreational motor vehicles, including, but not limited to, aircraft and motor boats which are designed for recreational use, and shall submit a report to the President and to the Congress containing the results of such study.]

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PART J—ENCOURAGING THE USE OF ALETERNATIVE FUELS

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SEC. 400EE. STUDIES AND REPORTS.

[(a) METHANOL STUDY.—(1) The Secretary shall study methanol plants, including the costs and practicability of such plants, that are—

[(A) capable of utilizing current domestic supplies of unutilized natural gas;

[(B) relocatable; or

[(C) suitable for natural gas to methanol conversion by natural gas distribution companies.

[(2) For purposes of this subsection, the term "unutilized natural gas" means gas that is available in small remote fields and cannot be economically transported to natural gas pipelines, or gas the quality of which is so poor that extensive and uneconomic pretreatment is required prior to its introduction into the natural gas distribution system.

[(3) The Secretary shall submit a report under this subsection to the Committees on Commerce, Science, and Transportation and Governmental Affairs of the Senate, and the Committee on Energy and Commerce of the House of Representatives, no later than September 30, 1990.]

[(b)]*(a)* INDEPENDENT ENVIRONMENTAL STUDY.—(1) The Administrator of the Environmental Protection Agency shall submit to the Committees on Commerce, Science, and Transportation and Governmental Affairs of the Senate, and the Committee on Energy and Commerce of the House of Representatives, in December of 1990, and once every two years thereafter, a report which includes—

(A) a comprehensive analysis of the air quality, global climate change, and other positive and negative environmental impacts, if any, including fuel displacement effects, associated with the production, storage, distribution, and use of all alternative motor vehicle fuels under the Alternative Motor Fuels Act of 1988, as compared to gasoline and diesel fuels; and

(B) an extended reasonable forecast of the change, if any, in air quality, global climate change, and other environmental effects of producing, storing, distributing, and using alternative motor vehicle fuels, utilizing such reasonable energy security, policy, economic, and other scenarios as may be appropriate.

(2) In carrying out the study under this subsection, the Administrator of the Environmental Protection Agency shall consult with the Secretaries of Energy and Transportation. Nothing in this paragraph shall be construed to require such Administrator to obtain the approval of the Secretary of Energy or the Secretary of Transportation for any actions taken under this subsection.

(3) There are authorized to be appropriated to carry out the purposes of this subsection $500,000.

[(c)]*(b)* PUBLIC PARTICIPATION.—Adequate opportunity shall be provided for public comment on the reports required by this section before they are submitted to the Congress, and a summary of such comments shall be attached to such reports.

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ENERGY SECURITY ACT

Public Law 96–294, as amended

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TITLE II—BIOMASS ENERGY AND ALCOHOL FUELS SHORT TITLE

SEC. 201. This title may be cited as the "Biomass Energy and Alcohol Fuels Act of 1980".

* * * * * * *

DEFINITIONS

SEC. 203. As used in this title—

* * * * * * *

[(16) The term "Office of Alcohol Fuels" means the Office of Alcohol Fuels established under section 220.]

[(17)]*(16)* The term "person" means any individual, company, cooperative, partnership, corporation, association, consortium, unincorporated organization, trust, estate, or any entity organized for a common business purpose, any State or local government (including any special purpose district or similar governmental unit) or any agency or instrumentality thereof, or any Indian tribe or tribal organization.

[(18)]*(17)* The term "State" means any of the fifty States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands of the United States, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands.

[(19)]*(18)* The term "small scale biomass energy project" means a biomass energy project with an anticipated annual production capacity of not more than 1,000,000 gallons of ethanol per year, or its energy equivalent of other forms of biomass energy.

* * * * * * *

[FUNDING FOR SUBTITLES A AND B]

SEC. 204. (a) To the extent provided in advance in appropriation Acts, for the two year period beginning October 1, 1980, there is authorized to be appropriated and transferred $1,170,000,000 from the Energy Security Reserve established in the Treasury of the United States under title II of the Act entitled "An Act making appropriations for the Department of the Interior and related agencies for the fiscal year ending September 30, 1980, and for other purposes" (Public Law 96–126; 93 Stat. 970) and made available for obligation by such Act only to the extent provided in advance in appropriation Acts, as follows:

(1) $460,000,000 to the Secretary of Agriculture for carrying out activities under subtitle A, except of the amount of the financial assistance provided by the Secretary of Agriculture under subtitle A, up to one-third shall be for small-scale biomass energy projects; *and*

(2) $460,000,000 to the Secretary of Energy for carrying out biomass energy activities under subtitle A, of which at least $500,000,000 shall be available to the Office of Alcohol Fuels for carrying out its activities, and any amount not made available to the Office of Alcohol Fuels shall be available to the Sec-

retary to carry out the purposes of subtitle A under available authorities of the Secretary, including authorities under subtitle A[; and].

[(3) $250,000,000 shall be available to the Secretary of Energy for carrying out activities under subtitle B.]

(b) Funds made available under subsection (a) shall remain available until expended.

(c)(1) For purposes of determining the amount of such appropriations which remain available for purposes of this title—

(A) loans shall be counted at the initial face value of the loan;

(B) loan guarantees shall be counted at the initial face value of such loan guarantee;

(C) price guarantees and purchase agreements shall be counted at the value determined by the Secretary concerned as of the date of each such contract based upon the Secretary's determination of the maximum potential liability of the United States under the contract; and

(D) any increase in the liability of the United States pursuant to any amendment or other modification to a contract for a loan, loan guarantee, price guarantee, or purchase agreement, shall be counted to the extent of such increase.

(2) Determinations under paragraph (1) shall be made in accordance with generally accepted accounting principles, consistently applied.

(3) If more than one form of financial assistance is to be provided to any one project, the obligations and commitments thereunder shall be counted at the maximum potential exposure of the United States on such project at any time during the life of such project.

(4) Any commitment to provide financial assistance shall be treated the same as such assistance for purposes of this subsection; except that any such commitment which is nullified or voided for any reason shall not be considered for purposes of this subsection.

(d) Financial assistance may be provided under this title only to the extent provided in advance in appropriation Acts.

* * * * * * *

[Subtitle A—General Biomass Energy Development

[BIOMASS ENERGY DEVELOPMENT PLANS

[SEC. 211. (a) Not later than 180 days after the date of the enactment of this Act, the Secretary of Agriculture and the Secretary of Energy shall jointly prepare, and transmit to the President and the Congress, a plan for maximizing in accordance with this subtitle biomass energy production and use. Such plan shall be designed to achieve a total level of alcohol production and use within the United States of at least 60,000 barrels per day of alcohol by December 31, 1982.

[(b)(1) Not later than January 1, 1982, the Secretary of Agriculture and the Secretary of Energy shall jointly prepare, and transmit to the President and the Congress, a comprehensive plan for maximizing in accordance with this subtitle biomass energy

production and use, for the period beginning January 1, 1983, and ending December 31, 1990. Such plan shall be designed to achieve a level of alcohol production within the United States equal to at least 10 percent of the level of gasoline consumption within the United States as estimated by the Secretary of Energy for the calendar year 1990.

[(2) The plan prepared under this subsection shall evaluate the feasibility of reaching the goals set forth in such subsection.

[(c) The plans prepared under subsections (a) and (b) shall each include guidelines for use in awarding financial assistance under this subtitle which are designed to increase, during the period covered by the plan, the amount of motor fuel displaced by biomass energy.

[PROGRAM RESPONSIBILITY AND ADMINISTRATION; EFFECT ON OTHER PROGRAMS

[SEC. 212. (a)(1) Except as provided in paragraph (2), in the case of any financial assistance under this subtitle for a biomass energy project, the Secretary concerned shall be—

[(A) the Secretary of Agriculture, in the case of any biomass energy project which will have an anticipated annual production capacity of less than 15,000,000 gallons of ethanol (or the energy equivalent of other forms of biomass energy) and which will use feedstocks other than aquatic plants; and

[(B) the Secretary of Energy, in the case of any biomass energy project which will use aquatic plants as feedstocks or which will have an anticipated annual production capacity of 15,000,000 gallons or more of ethanol (or the energy equivalent of other forms of biomass energy).

[(2)(A) Either the Secretary of Agriculture or the Secretary of Energy may be the Secretary concerned in the case of any biomass energy project which will have an anticipated annual production capacity of 15,000,000 gallons or more of ethanol (or the energy equivalent of other forms of biomass energy) and—

[(i) which will use wood or wood wastes or residue, or

[(ii) which is owned and operated by a cooperative and will use feedstocks other than aquatic plants.

[(B) Financial assistance may not be provided by either Secretary under subparagraph (A) without the written concurrence of the other Secretary. Such concurrence shall be granted or denied by such Secretary in accordance with subparagraph (C) and on the same standards as that Secretary applies in making his own awards of financial assistance under this paragraph.

[(C)(i) In the case of a project described in subparagraph (A), the Secretary concerned shall provide the other Secretary a copy of the application and such supporting information as may be material, and shall provide the other Secretary at least 15 days to review the project. If during such 15–day period the reviewing Secretary provides written notification to the Secretary concerned specifying reasons why such project should not proceed, the Secretary concerned shall defer the final decision on the application for an additional 30 days. During such 30–day period, both Secretaries shall attempt to reach agreement regarding all issues raised in the written notice. Before the end of the 30–day period, the reviewing Secretary shall notify the Secretary concerned of his decision regarding con-

currence. If the reviewing Secretary fails to provide such notice before the end of such period, concurrence shall be deemed to have been given.

[(ii) The project applicant may reapply for financial assistance for such project, after making such modifications to the project as may be necessary to address issues raised by the reviewing Secretary in the original notice of objection. The subsequent review of such project by the reviewing Secretary shall be limited to the issues originally raised by the reviewing Secretary and any issues raised by changed circumstances.

[(D) Both Secretaries may jointly act as the Secretary concerned in accordance with such procedures as the Secretaries may jointly prescribe, in which case—

[(i) subparagraphs (B) and (C) and subsection (c) shall not apply, and

[(ii) the proportion of financial assistance provided by each Secretary shall be determined in accordance with the procedures jointly prescribed.

[(b)(1) Each Secretary shall take such action as may be necessary to assure that—

[(A) guidelines for soliciting and receiving applications for financial assistance are established within 90 days after the date of the enactment of this Act;

[(B) applications for financial assistance for biomass energy projects are initially solicited within 30 days after such guidelines are established;

[(C) additional applications for financial assistance are solicited within 1 year after the date of the initial solicitation;

[(D) any application is evaluated and a decision made on such application within 120 days after the receipt of the application, including review under subsections (a)(2)(C), (a)(2)(D), or (c); and

[(E) all interested persons are provided the easiest possible access to the application process, including procedures which assure that—

[(i) information concerning financial assistance from either Secretary is available through all appropriate offices of the Department of Agriculture and the Department of Energy, and other regional and local offices of the Federal Government, as may be appropriate;

[(ii) all such locations where such information is available will be able to accept and file applications, and will forward them to the Secretary concerned; and

[(iii) the procedures established for accepting, evaluating, and awarding financial assistance will provide for categories of biomass energy projects, according to size and provide to the maximum extent practicable the simplest procedures for small producers.

[(2) The procedural requirements of subparagraph (A) through (D) of paragraph (1) shall not apply to either Secretary to the extent that the Secretary finds that other procedures are adopted for the solicitation, evaluation, and awarding of financial assistance which will result in applications being processed more expeditiously.

[(c)(1) After evaluating any application and before awarding any financial assistance on the basis of that application, the Secretary concerned shall provide the other Secretary with—

[(A) a copy of the application and such supporting material as may be appropriate, and

[(B) an opportunity of not less than 15 days to review the application.

[This subsection shall not apply in the case of a project subject to review under subsection (a)(2)(C).

[(2) If the reviewing Secretary provides written notice specifying any issues regarding matters subject to the Secretary's review to the Secretary concerned before the end of the 15–day review period, the Secretary concerned shall defer a final decision on the application for an additional 30 days to provide an opportunity for both Secretaries to answer and resolve such issues. At the expiration of the 30–day period, the Secretary concerned may make a final decision with respect to the application, using the best judgment of the Secretary concerned to resolve any remaining issues.

[(3) Reviews of projects under the provisions of subsection (a)(2)(C) or paragraph (1)(B) by the Secretary of Agriculture shall be for the purpose of considering the national, regional, and local agricultural policy impacts of such project on agricultural supply, production, and use, and reviews by the Secretary of Energy under such provisions shall be for the purpose of considering national energy policy impacts and the technical feasibility of the project.

[(4) The Secretary of Agriculture and the Secretary of Energy may jointly establish categories of projects to which paragraphs (1) and (2) shall not apply. Within 90 days after the date of the enactment of this Act, the Secretaries shall identify potential categories and make an initial determination of exempted categories.

[(d) If any application for financial assistance under this subtitle is disapproved, the applicant shall be provided written notice of the reasons for the disapproval.

[(e)(1) The functions assigned under this subtitle to the Secretary of Agriculture may be carried out by any of the administrative entities in the Department of Agriculture which the Secretary of Agriculture may designate. Within 30 days after the date of the enactment of this Act, the Secretary of Agriculture shall make such designations and notify the Congress of the administrative entity or entities so designated and the officials in such administrative entity or entities who are to be responsible for such functions.

[(2) The Secretary of Agriculture may issue such regulations as are necessary to carry out functions assigned to the Secretary of Agriculture under this subtitle.

[(3) The entities or entity designated under paragraph (1) shall coordinate the administration of functions assigned to it under this subsection with any other biomass energy programs within the Department of Agriculture established under other provisions of law.

[(f) The functions under this subtitle which are assigned to the Secretary of Energy and which relate to alcohol production shall be carried out by the Office of Alcohol Fuels.

[(g) For purposes of this subtitle, the quantity of any biomass energy which is the energy equivalent to 15,000,000 gallons of ethanol shall be prescribed jointly by the Secretary of Agriculture and

the Secretary of Energy within 30 days after the date of the enactment of this Act.

[INSURED LOANS

[SEC. 213. (a) Subject to sections 212 and 217, the Secretary of Agriculture may commit to make, and make, insured loans in amounts not to exceed $1,000,000 per project for the construction of small-scale biomass energy projects.

[(b)(1) Any insured loan under this section—

[(A) may not exceed 90 per centum of the total estimated cost of construction of the biomass energy project involved, and

[(B) shall bear interest at rates determined by the Secretary of Agriculture, taking into consideration the current average market yield on outstanding marketable obligations of the United States with remaining periods to maturity comparable to the average maturities of such loans, plus not to exceed one per centum, as determined by the Secretary of Agriculture, and adjusted to the nearest one-eighth of one per centum.

[(2) In the event the total estimated costs of construction of the project thereafter exceed the total estimated costs initially determined by the Secretary of Agriculture, the Secretary may in addition, upon application therefor, make an insured loan for so much of the additional estimated total costs as does not exceed 10 per centum of the total costs initially estimated.

[(c)(1) The Secretary of Agriculture shall make insured loans under this section using, to the extent provided in advance in appropriations Acts, the Agricultural Credit Insurance Fund in section 309 of the Consolidated Farm and Rural Development Act or the Rural Development Insurance Fund in section 309A of such Act (hereinafter in this section referred to as the "Funds"). The Secretary of Agriculture may not use an aggregate amount of funds to make or commit to make insured loans under this section in excess of the aggregate amount for insured loans and administrative costs appropriated and transferred under section 204. The terms, conditions, and requirements applicable to such insured loans shall be in accordance with this subtitle.

[(2) There shall be reimbursed to the Funds, from appropriations made under section 204, amounts equal to the operating and administrative costs incurred by the Secretary of Agriculture in insuring loans under this section.

[(3) Notwithstanding any provision of the Consolidated Farm and Rural Development Act, no funds made available to the Secretary of Agriculture under this section for insured loans shall be used for any other purpose.

[(4) For purposes of this section, the term "insured loan" means a loan which is made, sold, and insured.

[(d) An insured loan may not be made under this section unless the applicant for such loan has established to the satisfaction of the Secretary that the applicant is unable without such a loan to obtain sufficient credit elsewhere at reasonable rates and terms, taking into consideration prevailing private and cooperative rates and terms for loans for similar purposes and periods of time, to finance the construction of the biomass energy project for which such loan is sought.

[LOAN GUARANTEES

[SEC. 214. (a) Subject to sections 212 and 217, the Secretary concerned may commit to guarantee, and guarantee, against loss of principal and interest, loans which are made to provide funds for the construction of biomass energy projects.

[(b)(1) Any guarantee of a loan under this section may not exceed 90 per centum of the cost of the construction of the biomass energy project involved, as estimated by the Secretary on the date of the guarantee or commitment to guarantee.

[(2) In the event the construction costs of the project are thereafter estimated by the Secretary concerned to exceed the construction costs initially estimated by the Secretary, the Secretary may in addition, upon application therefor, guarantee, against loss of principal and interest, a loan for up to 60 per centum of the difference between the construction costs then estimated and the construction costs initially estimated.

[(c) Notwithstanding the provisions of the Federal Financing Bank Act of 1973 (12 U.S.C. 2281 et seq.) or any other provision of law (except as may be specifically provided by reference to this subsection in any Act enacted after the date of the enactment of this Act), no debt obligation which is guaranteed or committed to be guaranteed by the Secretary of Agriculture or the Secretary of Energy under this section shall be eligible for purchase by, or commitment to purchase by, or sale or issuance to, the Federal Financing Bank or any Federal agency.

[(d) The terms and conditions of loan guarantees under this section shall provide that, if the Secretary concerned makes a payment of principal or interest upon the default by a borrower, the Secretary shall be subrogated to the rights of the recipient of such payment (and such subrogation shall be expressly set forth in the loan guarantee or related agreements).

[(e) Any loan guarantee under this section shall not be terminated, canceled, or otherwise revoked, except in accordance with the terms thereof and shall be conclusive evidence that such guarantee complies fully with the provisions of this title and of the approval and legality of the principal amount, interest rate, and all other terms of the securities, obligations, or loans and of the guarantee.

[(f) If the Secretary concerned determines that—

[(1) the borrower is unable to meet payments and is not in default,

[(2) it is in the public interest to permit the borrower to continue with such project, and

[(3) the probable net benefit to the United States in paying the principal and interest due under the loan will be greater than that which would result in the event of a default, then the Secretary may pay to the lender under a loan guarantee agreement an amount not greater than the principal and interest which the borrower is obligated to pay to such lender, if the borrower agrees to reimburse the Secretary for such payment on terms and conditions, including interest, which the Secretary determines are sufficient to protect the financial interests of the United States.

[(g)(1) A loan may not be guaranteed under this section unless the applicant for such loan has established to the satisfaction of the Secretary concerned that the lender is not willing without such a guarantee to extend credit to the applicant at reasonable rates and terms, taking into consideration prevailing rates and terms for loans for similar purposes and periods of time, to finance the construction of the biomass energy project for which such loan is sought.

[(2) The Secretary concerned shall ensure that the lender bears a reasonable degree of risk in the financing of such project.

[PRICE GUARANTEES

[SEC. 215. (a) Subject to sections 212 and 217, the Secretary concerned may commit to guarantee, and guarantee, that the price that the owner or operator of any biomass energy project will receive for all or part of the production from that project shall not be less than a specified sales price determined as of the date of execution of the price guarantee or commitment to guarantee.

[(b)(1) No price guarantee under this section may be based upon a cost-plus arrangement, or variant thereof, which guarantees a profit to the owner or operator involved.

[(2) The use of a cost-of-service pricing mechanism by a person pursuant to law, or by a regulatory body establishing rates for a regulated person, shall not be deemed to be a cost-plus arrangement, or variant thereof, for purposes of paragraph (1).

[(c) Each price guarantee, or commitment to guarantee, which is made under this section shall specify the maximum dollar amount of liability of the United States under that guarantee.

[(d) If the Secretary determines, in the discretion of the Secretary, that—

[(1) a biomass energy project would not otherwise be satisfactorily completed or continued, and

[(2) completion or continuation of such project would be necessary to achieve the purposes of this title, the sales price set forth in the price guarantee, and maximum liability under such guarantee, may be renegotiated.

[PURCHASE AGREEMENTS

[SEC. 216. (a) Subject to sections 212 and 217, the Secretary concerned may commit to make, and make, purchase agreements for all or part of the biomass energy production of any biomass energy project, if the Secretary determines—

[(1) that such biomass energy is of a type, quantity, and quality that can be used by Federal agencies; and

[(2) that the quantity of such biomass energy, if delivery is accepted, would not exceed the likely needs of Federal agencies.

[Each Secretary concerned shall consult with the other Secretary before making any determination under paragraph (2).

[(b) The sales price specified in a purchase agreement under this section may not exceed the estimated prevailing market price as of the date of delivery, as determined by the Secretary of Energy, unless the Secretary concerned determines that such sales price must

exceed the estimated prevailing market price in order to ensure the production of biomass energy to achieve the purposes of this title.

[(c) The Secretary concerned in entering into, or committing to enter into, a purchase agreement under this section shall require—

[(1) assurances that the quality of the biomass energy purchased will meet standards for the use for which such energy is purchased;

[(2) assurances that the ordered quantities of such energy will be delivered on a timely basis; and

[(3) such other assurances as may reasonably be required.

[(d) The Secretary concerned may take delivery of biomass energy pursuant to a purchase agreement under this section if appropriate arrangements have been made for its distribution to and use by one or more Federal agencies. Any Federal agency receiving such energy shall be charged (in accordance with otherwise applicable law), from sums appropriated to such Federal agency, for the prevailing market price as of the date of delivery, as determined by the Secretary of Energy, for the product which the biomass energy is replacing.

[(e) The Secretary concerned shall consult with the Secretary of Defense and the Administrator of the General Services Administration in carrying out this section.

[(f) Each purchase agreement, and commitment to enter into a purchase agreement, under this section shall provide that the Secretary concerned retains the right to refuse delivery of the biomass energy involved upon such terms and conditions as shall be specified in the purchase agreement.

[(g) Each purchase agreement, or commitment to enter into a purchase agreement, which is made under this section shall specify the maximum dollar amount of liability of the United States under that agreement.

[(h) If the Secretary concerned determines, in the discretion of the Secretary, that—

[(1) a biomass energy project would not otherwise be satisfactorily completed or continued, and

[(2) completion or continuation of such project would be necessary to achieve the purposes of this title, the sales price set forth in the purchase agreement, and maximum liability under such agreement, may be renegotiated.

[GENERAL REQUIREMENTS REGARDING FINANCIAL ASSISTANCE

[SEC. 217. (a)(1) Priority for financial assistance under this subtitle, and the most favorable financial terms available, shall be provided to a person for any biomass energy project that—

[(A) uses a primary fuel other than petroleum or natural gas in the production of biomass fuel, such as geothermal energy resources, solar energy resources, or waste heat; or

[(B) applies new technologies which expand the possible feedstocks, produces new forms of biomass energy, or produces biomass fuel using improved or new technologies.

Nothing in this paragraph shall be construed to exclude financial assistance for any project which does not use such a fuel or apply such a technology.

[(2)(A) Financial assistance under this subtitle shall be available for a biomass energy project only if the Secretary concerned finds that the Btu content of the motor fuels to be used in the facility involved to produce the biomass fuel will not exceed the Btu content of the biomass fuel produced in the facility.

[(B) In making the determination under subparagraph (A), the Secretary concerned shall take into account any displacement of motor fuel or other petroleum products which the applicant has demonstrated to the satisfaction of the Secretary would result from the use of the biomass fuel produced in the facility involved.

[(3) No financial assistance may be provided under this subtitle to any person for any biomass energy project if the Secretary concerned finds that the process to be used by the project will not extract the protein content of the feedstock for utilization as food or feed for readily available markets in any case in which to do so would be technically and economically practicable.

[(4) Financial assistance may not be provided under this subtitle to any person unless the Secretary concerned—

[(A) finds that necessary feedstocks are available and it is reasonable to expect they will continue to be available in the future, and, for biomass energy projects using wood or wood wastes or residues from the National Forest System, there shall be taken into account current levels of use by then existing facilities;

[(B) has obtained assurance that the person receiving such financial assistance will bear a reasonable degree of risk in the construction and operation of the project; and

[(C) has determined that the amount of financial assistance provided for the project is not greater than is necessary to achieve the purposes of this title.

[(5) In providing financial assistance under this subtitle, the Secretary concerned shall give due consideration to promoting competition.

[(6) In determining the amount of financial assistance for any biomass energy project which will yield byproducts in addition to biomass energy, the Secretary shall consider the potential value of such byproducts and the costs attributable to their production.

[(b) An insured loan may not be made, and a loan guarantee may not be issued, under this subtitle unless the Secretary concerned determines that the terms, conditions, maturity, security, and schedule and amounts of repayments with respect to such loan are reasonable and meet such standards as the Secretary determines are sufficient to protect the financial interests of the United States.

[(c)(1) No financial assistance may be provided to any person under this subtitle unless an application therefor—

[(A) has been submitted to the Secretary concerned by that person in such form and under such procedures as the Secretary shall prescribe, consistent with the requirements of this subtitle, and

[(B) has been approved by the Secretary in accordance with such procedures.

[(2) Each such application shall include information regarding the construction costs of the biomass energy project involved, and estimates of operating costs and income relating to that project (in-

cluding the sale of any byproducts from that project). In addition, each applicant shall provide—

[(A) access at reasonable times to such other information, and

[(B) such assurances, as the Secretary concerned may require.

[(d)(1) Every recipient of financial assistance under this subtitle shall, as a condition precedent thereto, consent to such examinations and reports regarding the biomass energy project involved as the Secretary concerned may require.

[(2) With respect to each biomass energy project for which financial assistance is provided under this subtitle, the Secretary shall—

[(A) require from the recipient of financial assistance such reports and records relating to that project as the Secretary deems necessary;

[(B) prescribe the manner in which such recipient shall keep such records; and

[(C) have access to such records at reasonable times for the purpose of ensuring compliance with the terms and conditions upon which financial assistance is provided.

[(e) All contracts and instruments of the Secretary concerned to provide, or providing, for financial assistance shall be general obligations of the United States backed by its full faith and credit.

[(f) Subject to the conditions of any contract for financial assistance, such contract shall be incontestable in the hands of the holder, except as to fraud or material misrepresentation on the part of the holder.

[(g)(1) A fee or fees may be charged and collected by the Secretary concerned for any loan guarantee, price guarantee, or purchase agreement provided under this subtitle.

[(2) The amount of such fee shall be based on the estimated administrative costs and risk of loss, except that such fee may not exceed 1 per centum of the amount of the financial assistance provided.

[(h) All amounts received by the Secretary of Agriculture or the Secretary of Energy as fees, interest, repayment of principal, and any other moneys received by either Secretary from activities under this subtitle shall be deposited in the Treasury of the United States as miscellaneous receipts. The preceding sentence shall not apply to insured loans made under section 213.

[REPORTS

[SEC. 218. * * *

[(b) Within 120 days after the date of enactment of this Act, the Secretary of Energy and the Secretary of Agriculture shall submit to the Congress a comprehensive list of all the types of loans, grants, incentives, rebates, or any other such private, State, or Federal economic or financial benefits now in effect or proposed which can be or have been used for production of alcohol to be used as a motor fuel or petroleum substitute.

[(c)(1)(A) The Office of Alcohol Fuels shall submit to the Congress and the President annual reports containing a general description of the Office's operations during the year and a description and evaluation of each biomass energy project for which financial assistance by the Office is then in effect.

[(B) Each annual report shall describe progress made toward meeting the goals of this subtitle and contain specific recommendations on what actions the Congress could take in order to facilitate the work of the Office in achieving such goals.

[(C) Each annual report under this subsection shall contain financial statements prepared by the Office.

[(2) On or before September 30, 1990, the Office shall submit to the Congress and the President a report evaluating the overall impact made by the Office and describing the status of each biomass energy project which has received financial assistance under this subtitle from the Office. Such report shall contain a plan for the termination of the work of the Office.

[REVIEW; REORGANIZATION

[SEC. 219. (a) The President shall review periodically the progress of the Secretary of Agriculture and the Secretary of Energy in carrying out the purposes of this subtitle.

[(b) If the President determines it necessary in order to achieve such purposes the President may, in accordance with the provisions of chapter 9 of title 5, United States Code, provide for a reorganization, including any required realignment of the respective programs of the Secretaries under this subtitle.

[ESTABLISHMENT OF OFFICE OF ALCOHOL FUELS IN DEPARTMENT OF ENERGY

[SEC. 220. (a) There is hereby established within the Department of Energy an Office of Alcohol Fuels (hereinafter in this section referred to as the "Office") to be headed by a Director, who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall be compensated at the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code.

[(b)(1) The Director shall be responsible for carrying out the functions of the Secretary of Energy under this subtitle which relate to alcohol, including the terms and conditions of financial assistance and the selection of recipients for that assistance, subject to the general supervision of the Secretary of Energy.

[(2) The Director shall be responsible directly to the Secretary of Energy.

[(c) In each annual authorization and appropriation request, the Secretary shall identify the portion thereof intended for the support of the Office and include a statement by the Office (1) showing the amount requested by the Office in its budgetary presentation to the Secretary and the Office of Management and Budget and (2) an assessment of the budgetary needs of the Office. Whenever the Office submits to the Secretary, the President, or the Office of Management and Budget, any formal legislative recommendation or testimony, or comments on legislation, prepared for submission to Congress, the Office shall concurrently transmit a copy thereof to the appropriate committees of Congress.

[(d) The Secretary of Energy, after consultation with the Director, shall consult with the Secretary of the Treasury, the Secretary of Agriculture, the Secretary of Transportation, the Secretary of Commerce, the Administrator of the Community Services Adminis-

tration, the Administrator of the Environmental Protection Agency, or their appointed representatives, in order to coordinate the programs under the Director's responsibility with other programs within the Department of Energy and in such Federal agencies, which are related to the production of alcohol.

[TERMINATION

[SEC. 221. No insured loan, loan guarantee, price guarantee, or purchase agreement may be committed to or made under this subtitle after September 30, 1984, except that all conditional commitments for loan guarantees under this subtitle which were in existence on September 30, 1984, are hereby extended through June 30, 1987. This section shall not be construed to affect the authority of the Secretary concerned to spend funds after such date pursuant to any contract for financial assistance made on or before that date under this subtitle. Notwithstanding any other provision of this subtitle, the Secretary of Energy may modify the terms and conditions of any conditional commitment for a loan guarantee under this subtitle made before October 1, 1984, including the amount of the loan guarantee. Nothing in this section shall be interpreted as indicating Congressional approval with respect to any pending conditional commitments under this Act.]

[Subtitle B—Municipal Waste Biomass Energy

[MUNICIPAL WASTE ENERGY DEVELOPMENT PLAN

[SEC. 231. (a) The Secretary of Energy shall prepare a comprehensive plan for carrying out this subtitle. In the preparation of such plan, the Secretary shall consult with the Administrator of the Environmental Protection Agency, the Secretary of Commerce, and the head of such other Federal agencies as the Secretary deems appropriate.

[(b) Not later than 90 days after the date of the enactment of this Act, the Secretary shall transmit the comprehensive plan to the President and the Congress.

[(c) The comprehensive plan under this section shall include a statement setting forth—

[(1) the anticipated research, development, demonstration, and commercialization objectives to be achieved;

[(2) the management structure and approach to be adopted to carry out such plan;

[(3) the program strategies, including detailed milestone goals to be achieved;

[(4) the specific funding requirements for individual program elements and activities, including the total estimated construction costs of proposed projects; and

[(5) the estimated relative financial contributions of the Federal Government and non-Federal participants in the program.

[(d) Not later than January 1, 1982, the Secretary shall prepare and submit to the President and the Congress a report containing a complete description of any financial, institutional, environmental, and social barriers to the development and application of technologies for the recovery of energy from municipal wastes.

[CONSTRUCTION LOANS

[SEC. 232. (a) Subject to sections 235 and 236, the Secretary of Energy may commit to make, and make, loans for the construction of municipal waste energy projects.

[(b)(1) Any loan under this section—

[(A) may not exceed 80 per centum of the total estimated cost of the construction of the municipal waste energy project involved, and

[(B) shall bear interest at a rate determined by the Secretary of Energy (taking into consideration the current average market yield on outstanding marketable obligations of the United States with remaining periods to maturity comparable to the average maturities of such loans) plus not to exceed one per centum, as determined by the Secretary of Energy, and adjusted to the nearest one-eighth of one per centum.

[(2) In the event the total estimated costs of construction of the project thereafter exceed the total estimated costs initially determined by the Secretary of Energy, the Secretary may in addition, upon application therefor, make a loan for so much of the additional estimated costs as does not exceed 10 per centum of the initial total estimated costs of construction.

[(c) A loan may not be made under this section unless the person applying for such loan has established to the satisfaction of the Secretary of Energy that the applicant is unable without such a loan to obtain sufficient credit elsewhere at reasonable rates and terms, taking into consideration prevailing market rates and terms for loans for similar periods of time, to finance the construction of the project for which such loan is sought.

[GUARANTEED CONSTRUCTION LOANS

[SEC. 233. (a) Subject to sections 235 and 236, the Secretary of Energy may commit to guarantee, and guarantee, against loss on up to 90 per centum of the principal and interest, any loan which is made solely to provide funds for the construction of a municipal waste energy project and which does not exceed 90 per centum of the cost of the construction of the project involved, as estimated by the Secretary on the date of the guarantee or commitment to guarantee.

[(b) In the event the total estimated costs of construction of the project thereafter exceed the total estimated costs initially determined by the Secretary of Energy, the Secretary may in addition, upon application therefor, guarantee, against loss on up to 90 per centum of the principal and interest, a loan for so much of the additional estimated total costs as does not exceed 10 per centum of the total estimated costs.

[(c) The terms and conditions of loan guarantees under this section shall provide that, if the Secretary of Energy makes a payment of principal or interest upon the default by a borrower, the Secretary shall be subrogated to the rights of the recipient of such payment (and such subrogation shall be expressly set forth in the loan guarantee or related agreements).

[(d) Any loan guarantee under this section shall not be terminated, canceled, or otherwise revoked, except in accordance with the terms thereof and shall be conclusive evidence that such guar-

antee complies fully with the provisions of this title and of the approval and legality of the principal amount, interest rate, and all other terms of the securities, obligations, or loans and of the guarantee.

[(e) If the Secretary of Energy determines that—

[(1) the borrower is unable to meet payments and is not in default,

[(2) it is in the public interest to permit the borrower to continue to pursue the purposes of such project, and

[(3) the probable net benefit to the United States in paying the principal and interest due under a loan guarantee agreement will be greater than that which would result in the event of a default, then the Secretary may pay to the lender under a loan guarantee agreement an amount not greater than the principal and interest which the borrower is obligated to pay to such lender, if the borrower agrees to reimburse the Secretary for such payment on terms and conditions, including interest, which the Secretary determines are sufficient to protect the financial interests of the United States.

[(f) A loan may not be guaranteed under this section unless the applicant for such loan has established to the satisfaction of the Secretary of Energy that the lender is not willing without such a guarantee to extend credit to the applicant at reasonable rates and terms, taking into consideration prevailing market rates and terms for loans for similar periods of time, to finance the construction of the project for which such loan is sought.

[(g)(1) With respect to any loan or debt obligation which is—

[(A) issued after the date of the enactment of this Act by, or on behalf of, any State or any political subdivision or governmental entity thereof,

[(B) guaranteed by the Secretary of Energy under this section, and

[(C) not supported by the full faith and credit of the issuer as a general obligation of the issuer, the interest paid on such obligation and received by the purchaser thereof (or the purchaser's successors in interest) shall be included in gross income for the purposes of chapter 1 of the Internal Revenue Code of 1954.

[(2) With respect to the amount of obligations described in paragraph (1) that the issuer would have been able to issue as tax exempt obligations (other than obligations secured by the full faith and credit of the issuer as a general obligation of the issuer), the Secretary of Energy is authorized to pay only to the issuer any portion of the interest on such obligations, as determined by the Secretary of the Treasury after taking into account the interest rate which would have been paid on the obligations had they been issued as tax exempt obligations without being so guaranteed by the Secretary of Energy and the interest rate actually paid on the obligations when issued as taxable obligations. Such payments shall be made in amounts determined by the Secretary of Energy, and in accordance with such terms and conditions as the Secretary of the Treasury shall require.

[(h)(1) A fee or fees may be charged and collected by the Secretary of Energy for any loan guarantee under this section.

[(2) The amount of such fee shall be based on the estimated administrative costs and risk of loss, except that such fee may not exceed 1 per centum of the maximum of the guarantee.

[PRICE SUPPORT LOANS AND PRICE GUARANTEES

[SEC. 234. (a)(1) In the case of any existing municipal waste energy project which produces and sells biomass energy, the Secretary of Energy may commit to make, and make, a price support loan in amounts determined under paragraph (3) for the operation of such project. Payments under any such loan shall be disbursed on an annual basis, as determined (in accordance with paragraph (3)) on the basis of the amount of biomass energy produced and sold by that project during the 12-month period involved and the type and cost of fuel displaced by the biomass energy sold.

[(2)(A) In the case of any support loan under this section for an existing municipal waste energy project—

[(i) disbursements under such loan may not be made for more than 5 consecutive 12-month periods;

[(ii) the amount of the disbursement for the second and any subsequent 12-month period for which disbursements are to be made under the support loan shall be reduced by an amount determined by multiplying the amount calculated under paragraph (3) by a factor determined by dividing the number of 12-month periods for which disbursements are made under the support loan into the number of such periods which have elapsed;

[(iii) commencing at the end of the last of such 12-month periods, the support loan shall be repayable over a period equal to the then remaining useful life of the project (as determined by the Secretary) or 10 years, whichever is shorter; and

[(iv) commencing at the end of such last 12-month period, such loan shall bear interest at a rate determined by the Secretary of Energy (taking into consideration the current average market yield on outstanding marketable obligations of the United States with remaining periods to maturity comparable to the average maturities of such loans) plus not to exceed one per centum, as determined by the Secretary of Energy, and adjusted to the nearest one-eighth of one per centum.

[(3) The amount of the loan payment to be disbursed under this subsection for any year with respect to each type of biomass energy produced and sold by an existing municipal waste energy project shall be equal to—

[(A)(i) the standard support price reduced by the cost of the fuel displaced by the biomass energy sold, or (ii) $2.00, whichever is lower, multiplied by

[(B) the amount of such biomass energy sold (in millions of Btu's).

[(b)(1) In the case of any new municipal waste energy project which produces and sells biomass energy, the Secretary of Energy may commit to make, and make, a price support loan in amounts determined in accordance with the provisions of subsection (a), except as provided in paragraph (2).

[(2) In the case of any loan under this subsection for a new municipal waste energy project—

[(A) disbursements under such loan may not be made for more than 7 consecutive 12-month periods (with reductions as provided in subsection (a)(2)(A)(ii));

[(B) such loan shall bear interest at a rate not in excess of the rate prescribed under subsection (a); and

[(C) the principal of or interest on such loan shall, in accordance with the support loan agreement, be repayable, commencing at the end of the last 12-month period covered by the support loan, over a period not in excess of the period equal to the then remaining useful life of the project (as determined by the Secretary) or 15 years, whichever is shorter.

[(c)(1) In the case of any new municipal waste energy project which produces and sells biomass energy, the Secretary of Energy may commit to make, and make, a price guarantee for the operation of such project which guarantees that the price the owner or operator will receive for all or part of the production from that project shall not be less than a specified sales price determined as of the date of execution of the guarantee agreement.

[(2)(A) No price guarantee under this section may be based upon a cost-plus arrangement, or variant thereof, which guarantees a profit to the owner or operator involved.

[(B) The use of a cost-of-service pricing mechanism by a person pursuant to law, or by a regulatory body establishing rates for a regulated person, shall not be deemed to be a cost-plus arrangement, or variant thereof, for purposes of subparagraph (A).

[(3) In the case of any price guarantee under this subsection for a new municipal waste energy project—

[(A) disbursements under such guarantee may not be made for more than 7 consecutive 12-month periods; and

[(B) amounts paid under this subsection may be required to be repaid to the Secretary of Energy under such terms and conditions as the Secretary may prescribe, including interest at a rate not in excess of the rate prescribed under subsection (a).

[(d) For purposes of this section—

[(1) The term "new municipal waste energy project" means any municipal waste energy project which—

[(A) is initially placed in service after the date of the enactment of this Act; or

[(B) if initially placed in service before such date, has an increased capacity by reason of additional construction, and as such is placed in service after such date.

[(2) The term "existing municipal waste energy project" means any municipal waste energy project which is not a new municipal waste project.

[(3) The term "placed in service" means operated at more than 50 percent of the estimated operational capacity.

[(4)(A) Except as provided in subparagraphs (B) and (C), the term "standard support price" means the average price (per million Btu's) for No. 6 fuel oil imported into the United States on the date of the enactment of this Act, as determined, by rule, by the Secretary of Energy not later than 90 days after the date of the enactment of this Act.

[(B) In any case in which the fuel displaced is No. 6 fuel oil or any higher grade of petroleum (as determined by the Secretary of Energy), the term "standard support price" means

125 per centum of the price determined by rule under subparagraph (A).

[(C) In any case in which biomass energy produced and sold by a project is steam or electricity, the term "standard support price" means the price determined by rule under subparagraph (A), subject to such adjustments as the Secretary of Energy may authorize by rule.

[(5) The term "cost of the fuel displaced" means the cost of the fuel (per million Btu's) which the purchaser of biomass energy would have purchased if the biomass energy had not been available for sale to that purchaser.

[(6) Any biomass energy produced by a municipal waste energy project which may be retained for use by the owner or operator of such project shall be considered to be sold at such price as the Secretary of Energy determines.

[(7) Not later than 90 days after the date of the enactment of this Act, the Secretary of Energy shall prescribe, by rule, the manner of determining the fuel displaced by the sale of any biomass energy, and the price of the fuel displaced.

[GENERAL REQUIREMENTS REGARDING FINANCIAL ASSISTANCE

[SEC. 235. (a)(1) Priority for financial assistance under the provisions of sections 232, 233, and 234, and the most favorable financial terms available, shall be provided for any municipal waste energy project that will—

[(A) produce a liquid fuel from municipal waste; or

[(B) will displace petroleum or natural gas as a fuel.

[(2)(A) With respect to projects producing biomass energy other than biomass fuel, financial assistance under the provisions of sections 232, 233, and 234 shall be available only if the Secretary of Energy finds that the project does not use petroleum or natural gas except for flame stabilization or start-up.

[(B) With respect to projects producing biomass fuel, financial assistance under such provisions shall be available to such project only if the Secretary of Energy finds that the Btu content of the biomass fuel produced substantially exceeds the Btu content of any petroleum or natural gas used in the project to produce the biomass fuel.

[(3) Financial assistance may not be provided under section 232, 233, or 234 unless the Secretary of Energy finds that necessary municipal waste feedstocks are available and it is reasonable to expect they will continue to be available for the expected economic life of the project.

[(4) In providing financial assistance under section 232, 233, or 234, the Secretary of Energy shall give due consideration to promoting competition.

[(5) In determining the amount of financial assistance for any municipal waste energy project which will yield byproducts in addition to biomass energy, the Secretary shall consider the value of such byproducts and the costs attributable to their production.

[(6) The Secretary of Energy shall not provide financial assistance under section 232, 233, or 234 for any municipal waste energy unless the Secretary determines—

[(A) the project will be technically and economically viable;

[(B) the financial assistance provided encourages and supplements, but does not compete with nor supplant, any private capital investment which otherwise would be available to the proposed municipal waste energy project on reasonable terms and conditions which would permit such project to be undertaken;

[(C) assurances are provided that the project will not use, in any substantial quantities, waste paper which would otherwise be recycled for a use other than as a fuel and will not substantially compete with facilities in existence on the date of the financial assistance which are engaged in the separation or recovery of reuseable materials from municipal waste; and

[(D) that the amount of financial assistance provided for the project is not greater than is necessary to achieve the purposes of this title.

[(b) Financial assistance may not be provided under section 232, 233, or 234 unless the Secretary of Energy determines that—

[(1) the terms, conditions, maturity, security and schedule and amounts of repayments with respect to such assistance are reasonable and meet such standards as the Secretary determines are sufficient to protect the financial interests of the United States; and

[(2) the person receiving such financial assistance will bear a reasonable degree of risk with respect to the project.

[(c)(1) No financial assistance may be provided to any person under section 232, 233, or 234 unless an application therefor—

[(A) has been submitted to the Secretary of Energy by such person in such form and under such procedures as the Secretary shall prescribe, consistent with the requirements of this subtitle, and

[(B) has been approved by the Secretary in accordance with such procedures.

[(2) Each such application shall include information regarding the construction costs of the municipal waste energy project involved (if appropriate), and estimates of operating costs and income relating to that project (including the sale of any byproducts from that project). In addition, each applicant shall provide—

[(A) access at reasonable times to such other information, and

[(B) such assurances, as the Secretary of Energy may require.

[(d)(1) Every person receiving financial assistance under section 232, 233, or 234 shall, as a condition precedent thereto, consent to such examinations and reports thereon regarding the municipal waste energy project involved as the Secretary of Energy may require.

[(2) With respect to each municipal waste energy project for which financial assistance is provided under section 232, 233, or 234, the Secretary shall—

[(A) require from the recipient of financial assistance such reports and records relating to that project as the Secretary deems necessary;

[(B) prescribe the manner in which such recipient shall keep such records; and

[(C) have access to such records at reasonable times for the purpose of ensuring compliance with the terms and conditions upon which financial assistance is provided.

[(e) All amounts received by the Secretary of Energy as fees, interest, repayment of principal, and any other moneys received by the Secretary from operations under section 232, 233, or 234 shall be deposited in the general fund of Treasury of the United States as miscellaneous receipts.

[(f) All contracts and instruments of the Secretary of Energy to provide, or providing, for financial assistance shall be general obligations of the United States backed by its full faith and credit.

[(g) Subject to the conditions of any contract for financial assistance, such contract shall be incontestable in the hands of the holder, except as to fraud or material misrepresentation on the part of the holder.

[(h) Notwithstanding the provisions of the Federal Financing Bank Act of 1973 (12 U.S.C. 2281 et seq.) or any other provision of law (except as may be specifically provided by reference to this subsection in any Act enacted after the date of the enactment of this Act), no debt obligation which is made or committed to be made, or which is guaranteed or committed to be guaranteed by the Secretary of Energy under section 232, 233, or 234 shall be eligible for purchase by, or commitment to purchase by, or sale or issuance to, the Federal Financing Bank or any Federal agency.

[FINANCIAL ASSISTANCE PROGRAM ADMINISTRATION

[SEC. 236. The Secretary of Energy shall establish procedures and take such other actions as may be necessary regarding the solicitation, review, and evaluation of applications, and awarding of financial assistance under section 232, 233, or 234 as may be necessary to carry out the plan established under section 231.

[COMMERCIALIZATION DEMONSTRATION PROGRAM PURSUANT TO FEDERAL NONNUCLEAR ENERGY RESEARCH AND DEVELOPMENT ACT OF 1974

[SEC. 237. (a)(1) The Secretary of Energy shall establish and conduct, pursuant to the authorities contained in the Federal Nonnuclear Energy Research and Development Act of 1974, an accelerated research, development, and demonstration program for promoting the commercial viability of processes for the recovery of energy from municipal wastes.

[(2) The provisions of subsections (d), (m), and (x)(2) of section 19 of such Act shall not apply with respect to the program established under this section.

[(3) As part of the program established under this section, the Secretary, after consulting with the Administrator of the Environmental Protection Agency and the Secretary of Commerce, shall undertake—

[(A) the research, development, and demonstration of technologies to recover energy from municipal wastes;

[(B) the development and application of new municipal waste-to-energy recovery technologies;

[(C) the assessment, evaluation, demonstration, and improvement of the performance of existing municipal waste-to-

energy recovery technologies with respect to capital costs, operating and maintenance costs, total project financing, recovery efficiency, and the quality of recovered energy and energy intensive materials;

[(D) the evaluation of municipal waste energy projects for the purpose of developing a base of engineering data that can be used in the design of future municipal waste energy projects to recover energy from municipal wastes; and

[(E) research studies on the size and other significant characteristics of potential markets for municipal waste-to-energy recovery technologies, and recovered energy, and energy intensive materials.

[(b) Under such program, the Secretary of Energy may provide financial assistance consisting of price supports, loans, and loan guarantees, for the cost of planning, designing, constructing, operating, and maintaining demonstration facilities, and, in the case of existing facilities, modifications of such facilities solely for demonstration purposes, for the conversion of municipal wastes into energy or the recovery of materials.

[(c) Priority for funding of activities under subsection (a) and financial assistance under subsection (b) shall be provided for any activity or project for the demonstration of technologies for the production of liquid fuels or biomass energy which substitute for petroleum or natural gas.

[(d) The Secretary of Energy may not obligate or expend any funds authorized under this title in carrying out subsection (b) of this section until the plan required under section 231(a) has been prepared and submitted to the Congress.

[(e) All amounts received by the Secretary of Energy as fees, interest, repayment of principal, and any other moneys received by the Secretary from operations under this section shall be deposited in the general fund of the Treasury of the United States as miscellaneous receipts.

[JURISDICTION OF DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION AGENCY

[SEC. 238. The provisions of section 20(c) of the Federal Nonnuclear Research and Development Act of 1974, relating to the responsibilities of the Environmental Protection Agency and the Department of Energy, shall apply with respect to actions under this subtitle to the same extent and in the same manner as such provisions apply to actions under section 20 of such Act.

[ESTABLISHMENT OF OFFICE OF ENERGY FROM MUNICIPAL WASTE IN DEPARTMENT OF ENERGY

[SEC. 239. (a) There is hereby established within the Department of Energy an Office of Energy from Municipal Waste (hereinafter in this section referred to as the "Office") to be headed by a Director, who shall be appointed by the Secretary of Energy.

[(b) It shall be the function of the Office to perform—

[(1) the research, development, demonstration, and commercialization activities authorized under this subtitle (including those authorized under section 237), and

[(2) such other duties relating to the production of energy from municipal waste as the Secretary of Energy may assign to the Office.

[(c) In carrying out functions tranferred or assigned to the Office, the Secretary of Energy shall consult with the Administrator of the Environmental Protection Agency, the Secretary of Commerce, and the heads of such other Federal agencies, as appropriate.

[(d) The Secretary shall provide for the transfer to the Office of the functions relating to, and personnel of the Department who are responsible for the administration of, programs in existence on the date of the enactment of this Act which relate to the research, development, demonstration, and commercialization of technologies for the recovery of energy from municipal waste.

[TERMINATION

[SEC. 240. No financial assistance may be committed to or made under this subtitle after September 30, 1984. This section shall not be construed to affect the authority of the Secretary of Energy to spend funds after such date pursuant to any award of financial assistance made on or before that date.]

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Subtitle D—Miscellaneous Biomass Provisions

[USE OF GASOHOL IN FEDERAL MOTOR VEHICLES

[SEC. 271. (a) The President shall, by executive order, require that motor vehicles which are owned or leased by Federal agencies and are capable of operating on gasohol shall use gasohol where available at reasonable prices and in reasonable quantities.

[(b) The President may provide for exceptions to the requirement of subsection (a) where necessary, including to protect the national security.

[(c) Such executive order shall specify the alcohol-gasoline mixture or mixtures which shall constitute "gasohol" for purposes of such order, as well as specifications for its use.]

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TITLE V—SOLAR ENERGY AND ENERGY CONSERVATION

* * * * * * *

[Subtitle F—Energy Auditor Training and Certification

[PURPOSE

[SEC. 581. It is the purpose of this subtitle to encourage the training and certification of individuals to conduct energy audits for residential and commercial buildings in order to serve the various private and public needs of the Nation for energy audits.

[DEFINITIONS

[SEC. 582. For the purposes of this subtitle—

[(1) the term "Governor" means the chief executive officer of each State, including the Mayor of the District of Columbia;

[(2) the term "State" means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands;

[(3) the term "energy audit" means an inspection as described in section 215 (b)(1)(A) of the National Energy Conservation Policy Act, or an energy audit as defined in section 710(b)(7) of such Act, which in addition may provide information on the utilization of renewable resources and may make energy-related improvements in the building; and

[(4) the term "Secretary" means the Secretary of Energy.

[GRANTS

[SEC. 583. (a) The Secretary may make grants to any Governor of a State for the training and certification of individuals to conduct energy audits.

[(b) Before making a grant under subsection (a) to a Governor, the Secretary must receive from the Governor an application containing—

[(A) any information which the Secretary deems is necessary to carry out this subtitle; and

[(B) an assurance that the grant will supplement and not supplant other funds available for such training and certification and will be used to increase the total amount of funds available for such training and certification.

[(c)(1) Before making any grant under subsection (a) the Secretary shall establish minimum standards for the training and certification of individuals to conduct energy audits.

[(2) The Secretary shall require each Governor receiving any grant under this subtitle to agree to meet the standards established pursuant to paragraph (1) in any training and certification conducted using funds provided under this subtitle.

[AUTHORIZATION OF APPROPRIATIONS

[SEC. 584. (a) To carry out this subtitle there is authorized to be appropriated the sum of $10,000,000 for the fiscal year ending on September 30, 1981, and the sum of $15,000,000 for the fiscal year ending on September 30, 1982.

[(b) Any funds appropriated under the authorization contained in this section shall remain available until expended.]

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FEDERAL POWER ACT

Act of June 10, 1920, Chapter 285, as amended

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PART I

* * * * * * *

SEC. 4. The Commission is hereby authorized and empowered—

* * * * * * *

(e) To issue licenses to citizens of the United States, or to any association of such citizens, or to any corporation organized under the laws of the United States or any State thereof, or to any State or municipality for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from or in any of the streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, or upon any part of the public lands and reservations of the United States (including the Territories), or for the purpose of utilizing the surplus water or water power from any Government dam, except as herein provided: Provided, That licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired, and shall be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall [deem] *determine to be* necessary for the adequate protection and utilization of such reservation: Provided further, That no license affecting the navigable capacity of any navigable waters of the United States shall be issued until the plans of the dam or other structures affecting navigation have been approved by the Chief of Engineers and the Secretary of the Army. Whenever the contemplated improvement is, in the judgment of the Commission, desirable and justified in the public interest for the purpose of improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, a finding to that effect shall be made by the Commission and shall become a part of the records of the Commission: Provided further, That in case the Commission shall find that any Government dam may be advantageously used by the United States for public purposes in addition to navigation, no license therefor shall be issued until two years after it shall have reported to Congress the facts and conditions relating thereto, except that this provision shall not apply to any Government dam constructed prior to June 10, 1920: And provided further, That upon the filing of any application for a license which has not been preceded by a preliminary permit under subsection (f) of this section, notice shall be given and published as required by the proviso of said subsection. In deciding whether to issue any license under this Part for any project, the Commission, in addition to the power and development purposes for which licenses are issued, shall give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the pro-

tection of recreational opportunities, and the preservation of other aspects of environmental quality.

* * * * * * *

SEC. 5. (a) Each preliminary permit issued under this Part shall be for the sole purpose of maintaining priority of application for a license under the terms of this Act for such period or periods, not exceeding a total of [three] *4* years, as in the discretion of the Commission may be necessary for making examinations and surveys, for preparing maps, plans, specifications, and estimates, and for making financial arrangements.

(b) The [Commission may extend the period of a preliminary permit once for not more than 2 additional years beyond the 3 years] *Commission may—*

(1) extend the period of a preliminary permit once for not more than 4 additional years beyond the 4 years permitted by subsection (a) if the Commission finds that the permittee has carried out activities under such permit in good faith and with reasonable diligence[.]*; and*

(2) after the end of an extension period granted under paragraph (1), issue an additional permit to the permittee if the Commission determines that there are extraordinary circumstances that warrant the issuance of the additional permit.

(c) Each such permit shall set forth the conditions under which priority shall be maintained.

(d) Such permits shall not be transferable, and may be canceled by order of the Commission upon failure of permittees to comply with the conditions thereof or for other good cause shown after notice and opportunity for hearing.

* * * * * * *

SEC. 13. That the licensee shall commence the construction of the project works within the time fixed in the license, which shall not be more than two years from the date thereof, shall thereafter in good faith and with due diligence prosecute such construction, and shall within the time fixed in the license complete and put into operation such part of the ultimate development as the Commission shall deem necessary to supply the reasonable needs of the then available market, and shall from time to time thereafter construct such portion of the balance of such development as the Commission may direct, so as to supply adequately the reasonable market demands until such development shall have been completed. The periods for the commencement of construction may be extended [once but not longer than two additional years] *for not more than 8 additional years,* and the period for the completion of construction carried on in good faith and with reasonable diligence may be extended by the Commission when not incompatible with the public interests. In case the licensee shall not commence actual construction of the project works, or of any specified part thereof, within the time prescribed in the license or as extended by the commission, then, after due notice given, the license shall, as to such project works or part thereof, be terminated upon written order of the Commission. In case the construction of the project works, or of any specified part thereof, have been begun but not completed within the time prescribed in the license, or as extended by the commission, then the Attorney General, upon the request of the

Commission, shall institute proceedings in equity in the district court of the United States for the district in which any part of the project is situated for the revocation of said license, the sale of the works constructed, and such other equitable relief as the case may demand, as provided for in section 26 hereof.

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SEC. 15. (a) (1) * * *

* * * * * * *

[(e) Except]*(e) LICENSE TERM ON RELICENSING.—*

(1) IN GENERAL.—Except for an annual license, any license issued by the Commission under this section shall be for a term which the Commission determines to be in the public interest but not less than 30 years, nor more than 50 years, from the date on which the license is issued.

(2) CONSIDERATION.—In determining the term of a license under paragraph (1), the Commission shall consider project-related investments by the licensee over the term of the existing license (including any terms under annual licenses) that resulted in new development, construction, capacity, efficiency improvements, or environmental measures, but which did not result in the extension of the term of the license by the Commission.

* * * * * * *

SEC. 18. The Commission shall require the construction, maintenance, and operation by a licensee at its own expense of such lights and signals as may be directed by the Secretary of the Department in which the Coast Guard is operating, and such fishways as may be prescribed by the Secretary of Commerce. [The license applicant and any party to the proceeding shall be entitled to a determination on the record, after opportunity for an agency trial-type hearing of no more than 90 days, on any disputed issues of material fact with respect to such fishways. All disputed issues of material fact raised by any party shall be determined in a single trial-type hearing to be conducted by the relevant resource agency in accordance with the regulations promulgated under this subsection and within the time frame established by the Commission for each license proceeding. Within 90 days of the date of enactment of the Energy Policy Act of 2005, the Secretaries of the Interior, Commerce, and Agriculture shall establish jointly, by rule, the procedures for such expedited trial-type hearing, including the opportunity to undertake discovery and cross-examine witnesses, in consultation with the Federal Energy Regulatory Commission.] The operation of any navigation facilities which may be constructed as a part of or in connection with any dam or diversion structure built under the provisions of this Act, whether at the expense of a licensee hereunder or of the United States, shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including the control of the level of the pool caused by such dam or diversion structure as may be made from time to time by the Secretary of the Army, and for willful failure to comply with any such rule or regulation such licensee shall be deemed guilty of

a misdemeanor, and upon conviction thereof shall be punished as provided in section 316 hereof.

* * * * * * *

SEC. 33. ALTERNATIVE CONDITIONS AND PRESCRIPTIONS.

(a) ALTERNATIVE CONDITIONS.—(1) Whenever any person applies for a license for any project works within any reservation of the United States, and the Secretary of the department under whose supervision such reservation falls (referred to in this subsection as the "Secretary") [deems] *determines* a condition to such license to be necessary under the first proviso of section 4(e), the license applicant or any other party to the license proceeding may propose an alternative condition.

(2) Notwithstanding the first proviso of section 4(e), the Secretary shall accept the proposed alternative condition referred to in paragraph (1), and the Commission shall include in the license such alternative condition, if the Secretary determines, based on substantial evidence provided by the license applicant, any other party to the proceeding, or otherwise available to the Secretary, that such alternative condition—

(A) provides for the adequate protection and utilization of the reservation; and

(B) will either, as compared to the condition initially *determined to be necessary* by the Secretary—

(i) cost significantly less to implement; or

(ii) result in improved operation of the project works for electricity production.

(3) In making a determination under paragraph (2), the Secretary shall consider evidence provided for the record by any party to a licensing proceeding, or otherwise available to the Secretary, including any evidence provided by the Commission, on the implementation costs or operational impacts for electricity production of a proposed alternative.

[(4) The Secretary concerned shall submit into the public record of the Commission proceeding with any condition under section 4(e) or alternative condition it accepts under this section, a written statement explaining the basis for such condition, and reason for not accepting any alternative condition under this section. The written statement must demonstrate that the Secretary gave equal consideration to the effects of the condition adopted and alternatives not accepted on energy supply, distribution, cost, and use; flood control; navigation; water supply; and air quality (in addition to the preservation of other aspects of environmental quality); based on such information as may be available to the Secretary, including information voluntarily provided in a timely manner by the applicant and others. The Secretary shall also submit, together with the aforementioned written statement, all studies, data, and other factual information available to the Secretary and relevant to the Secretary's decision.]

[(5) If the Commission finds that the Secretary's final condition would be inconsistent with the purposes of this part, or other applicable law, the Commission may refer the dispute to the Commission's Dispute Resolution Service. The Dispute Resolution Service shall consult with the Secretary and the Commission and issue a non-binding advisory within 90 days. The Secretary may accept the

Dispute Resolution Service advisory unless the Secretary finds that the recommendation will not adequately protect the reservation. The Secretary shall submit the advisory and the Secretary's final written determination into the record of the Commission's proceeding.]

(b) ALTERNATIVE PRESCRIPTIONS.—(1) Whenever the Secretary of the Interior or the Secretary of Commerce prescribes a fishway under section 18, the license applicant or any other party to the license proceeding may propose an alternative to such prescription to construct, maintain, or operate a fishway.

(2) Notwithstanding section 18, the Secretary of the Interior or the Secretary of Commerce, as appropriate, shall accept and prescribe, and the Commission shall require, the proposed alternative referred to in paragraph (1), if the Secretary of the appropriate department determines, based on substantial evidence provided by the license applicant, any other party to the proceeding, or otherwise available to the Secretary, that such alternative—

(A) will be no less protective than the fishway initially prescribed by the Secretary; and

(B) will either, as compared to the fishway initially prescribed by the Secretary—

(i) cost significantly less to implement; or

(ii) result in improved operation of the project works for electricity production.

(3) In making a determination under paragraph (2), the Secretary shall consider evidence provided for the record by any party to a licensing proceeding, or otherwise available to the Secretary, including any evidence provided by the Commission, on the implementation costs or operational impacts for electricity production of a proposed alternative.

[(4) The Secretary concerned shall submit into the public record of the Commission proceeding with any prescription under section 18 or alternative prescription it accepts under this section, a written statement explaining the basis for such prescription, and reason for not accepting any alternative prescription under this section. The written statement must demonstrate that the Secretary gave equal consideration to the effects of the prescription adopted and alternatives not accepted on energy supply, distribution, cost, and use; flood control; navigation; water supply; and air quality (in addition to the preservation of other aspects of environmental quality); based on such information as may be available to the Secretary, including information voluntarily provided in a timely manner by the applicant and others. The Secretary shall also submit, together with the aforementioned written statement, all studies, data, and other factual information available to the Secretary and relevant to the Secretary's decision.]

[(5) If the Commission finds that the Secretary's final prescription would be inconsistent with the purposes of this part, or other applicable law, the Commission may refer the dispute to the Commission's Dispute Resolution Service. The Dispute Resolution Service shall consult with the Secretary and the Commission and issue a non-binding advisory within 90 days. The Secretary may accept the Dispute Resolution Service advisory unless the Secretary finds that the recommendation will not adequately protect the fish resources. The Secretary shall submit the advisory and the Sec-

retary's final written determination into the record of the Commission's proceeding.]

(c) FURTHER CONDITIONS.—This section applies to any further conditions or prescriptions proposed or imposed pursuant to section 4(e), 6, or 18.

SEC. 34. LICENSING PROCESS IMPROVEMENTS.

(a) LICENSE STUDIES.—

(1) IN GENERAL.—To facilitate the timely and efficient completion of the license proceedings under this part, the Commission shall—

(A) conduct an investigation of best practices in performing licensing studies, including methodologies and the design of studies to assess the full range of environmental impacts of a project;

(B) compile a comprehensive collection of studies and data accessible to the public that could be used to inform license proceedings under this paragraph; and

(C) encourage license applicants and cooperating agencies to develop and use, for the purpose of fostering timely and efficient consideration of license applications, a limited number of open-source methodologies and tools applicable across a wide array of projects, including water balance models and streamflow analyses.

(2) USE OF EXISTING STUDIES.—To the maximum extent practicable, the Commission shall use existing studies and data in individual licensing proceedings under this part in accordance with paragraph (1).

(3) NONDUPLICATION REQUIREMENT.—To the maximum extent practicable, the Commission shall ensure that studies and data required for any Federal authorization (as defined in section 35(a)) applicable to a particular project or facility are not duplicated in other licensing proceedings under this part.

(4) BIOLOGICAL OPINIONS.—To the maximum extent practicable, the Secretary of Commerce shall ensure that relevant offices within the National Marine Fisheries Service prepare any biological opinion under section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1536) that forms the basis for a prescription under section 18 on a concurrent rather than sequential basis.

(5) WATER QUALITY CERTIFICATION DEADLINE.—

(A) IN GENERAL.—For purposes of issuing a license under this part, the deadline for a certifying agency to act under section 401(a) of the Federal Water Pollution Control Act (33 U.S.C. 1341(a)) shall take effect only on the submission of a request for certification determined to be complete by the certifying agency.

(B) NOTICE OF COMPLETE REQUEST.—The certifying agency shall inform the Commission when a request for certification is determined to be complete.

SEC. 35. LICENSING PROCESS COORDINATION.

(a) DEFINITION OF FEDERAL AUTHORIZATION.—In this section, the term "Federal authorization" means any authorization required under Federal law (including any license, permit, special use au-

thorization, certification, opinion, consultation, determination, or other approval) with respect to—

(1) a project licensed under section 4 or 15; or

(2) a facility exempted under—

(A) section 30; or

(B) section 405(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2705(d)).

(b) DESIGNATION AS LEAD AGENCY.—

(1) IN GENERAL.—The Commission shall act as the lead agency for the purposes of coordinating all applicable Federal authorizations.

(2) OTHER AGENCIES.—Each Federal and State agency considering an aspect of an application for Federal authorization shall cooperate with the Commission.

(c) SCHEDULE.—

(1) TIMING FOR ISSUANCE.—It is the sense of Congress that all Federal authorizations required for a project or facility, including a license or exemption order of the Commission, should be issued by the date that is 3 years after the date on which an application is considered to be complete by the Commission.

(2) COMMISSION SCHEDULE.—

(A) IN GENERAL.—The Commission shall establish a schedule for the issuance of all Federal authorizations.

(B) REQUIREMENTS.—In establishing the schedule under subparagraph (A), the Commission shall—

(i) consult and cooperate with the Federal and State agencies responsible for a Federal authorization;

(ii) ensure the expeditious completion of all proceedings relating to a Federal authorization; and

(iii) comply with applicable schedules established by Federal law with respect to a Federal authorization.

(3) RESOLUTION OF INTERAGENCY DISPUTES.—If the Federal agency fails to adhere to the schedule established by the Commission under paragraph (2), or if the final condition of the Secretary under section 4(e) or prescription under section 18 has been unreasonably delayed in derogation of the schedule established under paragraph (2), or if a proposed alternative condition or prescription has been unreasonably denied, or if a final condition or prescription would be inconsistent with the purposes of this part or other applicable law, the Commission may refer the matter to the Chairman of the Council on Environmental Quality—

(A) to ensure timely participation;

(B) to ensure a timely decision;

(C) to mediate the dispute; or

(D) to refer the matter to the President.

(d) CONSOLIDATED RECORD.—

(1) IN GENERAL.—The Commission shall maintain official consolidated records of all license proceedings under this part.

(2) SUBMISSION OF RECOMMENDATIONS.—Any Federal or State agency that is providing recommendations with respect to a license proceeding under this part shall submit to the Commission for inclusion in the consolidated record relating to the license proceeding maintained under paragraph (1)—

(A) the recommendations;

(B) the rationale for the recommendations; and

(C) any supporting materials relating to the recommendations.

(3) WRITTEN STATEMENT.—In a case in which a Federal agency is making a determination with respect to a covered measure (as defined in section 36(a)), the head of the Federal agency shall include in the consolidated record a written statement demonstrating that the Federal agency gave equal consideration to the effects of the covered measure on—

(A) energy supply, distribution, cost, and use;

(B) flood control;

(C) navigation;

(D) water supply; and

(E) air quality and the preservation of other aspects of environmental quality.

SEC. 36. TRIAL-TYPE HEARINGS.

(a) DEFINITION OF COVERED MEASURE.—In this section, the term "covered measure" means—

(1) a condition prescribed under section 4(e), including an alternative condition proposed under section 33(a);

(2) fishways prescribed under section 18, including an alternative prescription proposed under section 33(b); or

(3) any further condition pursuant to section 4(e), 6, or 18.

(b) AUTHORIZATION OF TRIAL-TYPE HEARING.—The license applicant (including an applicant for a license under section 15) and any party to the proceeding shall be entitled to a determination on the record, after opportunity for a trial-type hearing of not more than 120 days, on any disputed issues of material fact with respect to an applicable covered measure.

(c) DEADLINE FOR REQUEST.—A request for a trial-type hearing under this section shall be submitted not later than 60 days after the date on which, as applicable—

(1) the Secretary submits the condition under section 4(e) or prescription under section 18; or

(2)(A) the Commission publishes notice of the intention to use the reserved authority of the Commission to order a further condition under section 6; or

(B) the Secretary exercises reserved authority under the license to prescribe, submit, or revise any condition to a license under the first proviso of section 4(e) or fishway prescribed under section 18, as appropriate.

(d) NO REQUIREMENT TO EXHAUST.—By electing not to request a trial-type hearing under subsection (d), a license applicant and any other party to a license proceeding shall not be considered to have waived the right of the applicant or other party to raise any issue of fact or law in a non-trial-type proceeding, but no issue may be raised for the first time on rehearing or judicial review of the license decision of the Commission.

(e) ADMINISTRATIVE LAW JUDGE.—All disputed issues of material fact raised by a party in a request for a trial-type hearing submitted under subsection (d) shall be determined in a single trial-type hearing to be conducted by an Administrative Law Judge within the Office of Administrative Law Judges and Dispute Resolution of the Commission, in accordance with the Commission rules of practice and procedure under part 385 of title 18, Code of Federal Regula-

tions (or successor regulations), and within the timeframe established by the Commission for each license proceeding (including a proceeding for a license under section 15) under section 35(c).

(f) STAY.—The Administrative Law Judge may impose a stay of a trial-type hearing under this section for a period of not more than 120 days to facilitate settlement negotiations relating to resolving the disputed issues of material fact with respect to the covered measure.

(g) DECISION OF THE ADMINISTRATIVE LAW JUDGE.—

(1) CONTENTS.—The decision of the Administrative Law Judge shall contain—

(A) findings of fact on all disputed issues of material fact;

(B) conclusions of law necessary to make the findings of fact, including rulings on materiality and the admissibility of evidence; and

(C) reasons for the findings and conclusions.

(2) LIMITATION.—The decision of the Administrative Law Judge shall not contain conclusions as to whether—

(A) any condition or prescription should be adopted, modified, or rejected; or

(B) any alternative condition or prescription should be adopted, modified, or rejected.

(3) FINALITY.—A decision of an Administrative Law Judge under this section with respect to a disputed issue of material fact shall not be subject to further administrative review.

(4) SERVICE.—The Administrative Law Judge shall serve the decision on each party to the hearing and forward the complete record of the hearing to the Commission and the Secretary that proposed the original condition or prescription.

(h) SECRETARIAL DETERMINATION.—

(1) IN GENERAL.—Not later than 60 days after the date on which the Administrative Law Judge issues the decision under subsection (g) and in accordance with the schedule established by the Commission under section 35(c), the Secretary proposing a condition under section 4(e) or a prescription under section 18 shall file with the Commission a final determination to adopt, modify, or withdraw any condition or prescription that was the subject of a hearing under this section, based on the decision of the Administrative Law Judge.

(2) RECORD OF DETERMINATION.—The final determination of the Secretary filed with the Commission shall identify the reasons for the decision and any considerations taken into account that were not part of, or inconsistent with, the findings of the Administrative Law Judge and shall be included in the consolidated record in section 35(d).

(i) LICENSING DECISION OF THE COMMISSION.—Notwithstanding sections 4(e) and 18, if the Commission finds that the final condition or prescription of the Secretary is inconsistent with the purposes of this part or other applicable law, the Commission may refer the matter to the Chairman of the Council on Environmental Quality under section 35(c).

(j) JUDICIAL REVIEW.—The decision of the Administrative Law Judge and the record of determination of the Secretary shall be included in the record of the applicable licensing proceeding and sub-

ject to judicial review of the final licensing decision of the Commission under section 313(b).

SEC. 37. PUMPED STORAGE PROJECTS.

In carrying out section 6(a) of the Hydropower Regulatory Efficiency Act of 2013 (16 U.S.C. 797 note; Public Law 113–23), the Commission shall consider a closed loop pumped storage project to include a project—

(1) in which the upper and lower reservoirs do not impound or directly withdraw water from a navigable stream; or

(2) that is not continuously connected to a naturally flowing water feature.

SEC. 38. ANNUAL REPORTS.

(a) COMMISSION ANNUAL REPORT.—

(1) IN GENERAL.—The Commission 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 an annual report that—

(A) describes and quantifies, for each licensed, exempted, or proposed project under this part or section 405(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2705(d)) (referred to in this subsection as the "covered project"), the quantity of energy and capacity authorized for new development and reauthorized for continued operation during the reporting year, including an assessment of the economic, climactic, air quality, and other environmental benefits achieved by the new and reauthorized energy and capacity;

(B) describes and quantifies the loss of energy, capacity, or ancillary services as a result of any licensing action under this part or other requirement under Federal law during the reporting year;

(C) identifies any application to license, relicense, or expand a covered project pending as of the date of the annual report, including a quantification of the new energy and capacity with the potential to be gained or lost by action relating to the covered project; and

(D) lists all proposed covered projects that, as of the date of the annual report, are subject to a preliminary permit issued under section 4(f), including a description of the quantity of new energy and capacity that would be achieved through the development of each proposed covered project.

(2) AVAILABILITY.—The Commission shall establish and maintain a publicly available website or comparable resource that tracks all information required for the annual report under paragraph (1).

(b) RESOURCE AGENCY ANNUAL REPORT.—

(1) IN GENERAL.—Any Federal or State resource agency that is participating in any Commission proceeding under this part or that has responsibilities for any Federal authorization 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 that—

(A) describes each term, condition, or other requirement prepared by the resource agency during the reporting year

with respect to a Commission proceeding under this part, including—

(i) an assessment of whether implementation of the term, condition, or other requirement would result in the loss of energy, capacity, or ancillary services at the project, including a quantification of the losses;

(ii) an analysis of economic, air quality, climactic and other environmental effects associated with implementation of the term, condition, or other requirement;

(iii) a demonstration, based on evidence in the record of the Commission, that the resource agency prepared the term, condition, or other requirement in a manner that meets the policy established by this part while discharging the responsibilities of the resource agency under this part or any other applicable requirement under Federal law; and

(iv) a statement of whether the head of the applicable Federal agency has rendered final approval of the term, condition, or other requirement, or whether the term, condition, or other requirement remains a preliminary recommendation of staff of the resource agency; and

(B) identifies all pending, scheduled, and anticipated proceedings under this part that, as of the date of the annual report, the resource agency expects to participate in, or has any approval or participatory responsibilities for under Federal law, including—

(i) an accounting of whether the resource agency met all deadlines or other milestones established by the resource agency or the Commission during the reporting year; and

(ii) the specific plans of the resource agency for allocating sufficient resources for each project during the upcoming year.

(2) AVAILABILITY.—Any resource agency preparing an annual report to Congress under paragraph (1) shall establish and maintain a publicly available website or comparable resource that tracks all information required for the annual report.

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

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INTERCONNECTION AND COORDINATION OF FACILITIES; EMERGENCIES; TRANSMISSION TO FOREIGN COUNTRIES

SEC. 202. (a) * * *

* * * * * * *

[(c) DURING**]** *(c) AUTHORIZATION DURING WAR OR EMERGENCY.—*

(1) IN GENERAL.—During the continuance of any war in which the United States is engaged, or whenever the Commission determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage

of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes, the Commission shall have authority, either upon its own motion or upon complaint, with or without notice, hearing, or report, to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest. If the parties affected by such order fail to agree upon the terms of any arrangement between them in carrying out such order, the Commission, after hearing held either before or after such order takes effect, may prescribe by supplemental order such terms as it finds to be just and reasonable, including the compensation or reimbursement which should be paid to or by any such party.

(2) NO LIABILITY.—Subject to paragraph (3), any party subject to an order issued under this subsection or under subsection 224(b)(1) shall not be liable for actions carried out in compliance with the order.

(3) EXCEPTIONS.—The waiver of liability under paragraph (2) shall not apply in a case of gross negligence or willful misconduct.

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SEC. 215. ELECTRIC RELIABILITY.

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(g) RELIABILITY REPORTS.—**[**The ERO**]**

(1) IN GENERAL.—The ERO shall conduct periodic assessments of the reliability and adequacy of the bulk-power system in North America.

(2) REGIONAL ENTITIES.—Not later than 180 days after the date of enactment of this paragraph and not less than every 3 years thereafter, each regional entity shall submit to the appropriate committees of Congress and the Commission a report that describes, as of the date of the report—

(A) the state of and prospects for the reliability of electricity within the geographic area covered by the regional entity; and

(B) the most significant risks to the reliability of the bulk-power system that might arise or need to be monitored within the geographic area covered by the regional entity, including risks from proposed or final Federal regulations.

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(l) RELIABILITY IMPACT STATEMENT.—

(1) SOLICITATION BY COMMISSION.—Not later than 15 days after the date on which the head of a Federal agency proposes a major rule (as defined in section 804 of title 5, United States Code) that may significantly affect the reliable operation of the bulk-power system, the Commission shall solicit from any applicable regional entity affected by the proposed rule a reliability impact statement with respect to the proposed rule.

(2) VOLUNTARY SUBMISSION BY REGIONAL ENTITY.—A regional entity may prepare, on the initiative of the regional entity, a reliability impact statement for any proposed major Federal rule

that the regional entity determines would significantly affect the reliable operation of the bulk-power system within the area covered by the regional entity.

(3) MULTIJURISDICTIONAL COORDINATION.—If a proposed rule subject to a reliability impact statement under paragraph (1) or (2) affects an area broader than the area covered by a single regional entity, the ERO shall convene a committee of the affected regional entities to produce a single reliability impact statement that demonstrates for each affected area the reliability impact of the proposed rule.

(4) REQUIREMENTS.—A reliability impact statement under paragraph (1) or (2) shall include a detailed statement on—

(A) the impact of the proposed rule on the reliable operation of the bulk-power system;

(B) any adverse effects on the reliable operation of the bulk-power system if the proposed rule was implemented; and

(C) alternatives to cure the identified adverse reliability impacts, including, at the discretion of the regional entity, a no-action alternative.

(5) SUBMISSION TO COMMISSION.—On completion of a reliability impact statement under paragraph (1) or (2), the regional entity or a committee of affected regional entities convened under paragraph (3) shall submit to the Commission the reliability impact statement.

(6) TRANSMITTAL TO HEAD OF FEDERAL AGENCY.—On receipt of a reliability impact statement submitted to the Commission under paragraph (5), the Commission shall transmit to the head of the applicable Federal agency the reliability impact statement prepared under this subsection for inclusion in the public record.

(7) Inclusion of detailed response in final rule.—With respect to a final major rule subject to a reliability impact statement prepared under paragraph (1) or (2), the head of the Federal agency shall—

(A) consider the reliability impact statement;

(B) give due weight to the technical expertise of the regional entity with respect to matters that are the subject of the reliability impact statement; and

(C) include in the final rule a detailed response to the reliability impact statement that reasonably addresses the detailed statements required under paragraph (4).

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SEC. 224. CYBERSECURITY THREATS.

(a) DEFINITIONS.—In this section:

(1) BULK-POWER SYSTEM.—The term "bulk-power system" has the meaning given the term in section 215.

(2) CRITICAL ELECTRIC INFRASTRUCTURE.—The term "critical electric infrastructure" means a system or asset of the bulk-power system, whether physical or virtual, the incapacity or destruction of which would negatively affect national security, economic security, public health or safety, or any combination of those matters.

(3) CRITICAL ELECTRIC INFRASTRUCTURE INFORMATION.—

(A) IN GENERAL.—The term "critical electric infrastructure information" means information related to critical electric infrastructure, or proposed critical electric infrastructure, generated by or provided to the Commission or other Federal agency, other than classified national security information, that is designated as critical electric infrastructure information by the Commission under subsection (d)(2).

(B) INCLUSIONS.—The term "critical electric infrastructure information" includes information that qualifies as critical energy infrastructure information under regulations promulgated by the Commission.

(4) CYBERSECURITY THREAT.—The term "cybersecurity threat" means the imminent danger of an act that severely disrupts, attempts to severely disrupt, or poses a significant risk of severely disrupting the operation of programmable electronic devices or communications networks (including hardware, software, and data) essential to the reliable operation of the bulk-power system.

(5) ELECTRIC RELIABILITY ORGANIZATION.—The term "Electric Reliability Organization" has the meaning given the term in section 215.

(6) REGIONAL ENTITY.—The term "regional entity" has the meaning given the term in section 215.

(7) SECRETARY.—The term "Secretary" means the Secretary of Energy.

(b) EMERGENCY AUTHORITY OF SECRETARY.—

(1) IN GENERAL.—If the President notifies the Secretary that the President has made a determination that immediate action is necessary to protect the bulk-power system from a cybersecurity threat, the Secretary may require, by order and with or without notice, any entity that is registered with the Electric Reliability Organization as an owner, operator, or user of the bulk-power system to take such actions as the Secretary determines will best avert or mitigate the cybersecurity threat.

(2) WRITTEN EXPLANATION.—As soon as practicable after notifying the Secretary under paragraph (1), the President shall—

(A) provide to the Secretary, in writing, a record of the determination and an explanation of the reasons for the determination; and

(B) promptly notify, in writing, congressional committees of relevant jurisdiction, including the Committee on Energy and Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, of the contents of, and justification for, the directive or determination.

(3) COORDINATION WITH CANADA AND MEXICO.—In exercising the authority pursuant to this subsection, the Secretary is encouraged to consult and coordinate with the appropriate officials in Canada and Mexico responsible for the protection of cybersecurity of the interconnected North American electricity grid.

(4) CONSULTATION.—Before exercising authority pursuant to this subsection, to the maximum extent practicable, taking into consideration the nature of an identified cybersecurity threat

and the urgency of need for action, the Secretary shall consult regarding implementation of actions that will effectively address the cybersecurity threat with—

(A) any entities potentially subject to the cybersecurity threat that own, control, or operate bulk-power system facilities;

(B) the Electric Reliability Organization;

(C) the Electricity Sub-sector Coordinating Council (as established by the Electric Reliability Organization); and

(D) officials of other Federal departments and agencies, as appropriate.

(5) COST RECOVERY.—

(A) IN GENERAL.—The Commission shall adopt regulations that permit entities subject to an order under paragraph (1) to seek recovery of prudently incurred costs required to implement actions ordered by the Secretary under this subsection.

(B) REQUIREMENTS.—Any rate or charge approved under regulations adopted pursuant to this paragraph—

(i) shall be just and reasonable; and

(ii) shall not be unduly discriminatory or preferential.

(c) DURATION OF EMERGENCY ORDERS.—An order issued by the Secretary pursuant to subsection (b) shall remain in effect for not longer than the 30-day period beginning on the effective date of the order, unless, during that 30 day-period, the Secretary—

(1) provides to interested persons an opportunity to submit written data, recommendations, and arguments; and

(2) affirms, amends, or repeals the order, subject to the condition that an amended order shall not exceed a total duration of 90 days.

(d) PROTECTION AND SHARING OF CRITICAL ELECTRIC INFRASTRUCTURE.—

(1) PROTECTION OF CRITICAL ELECTRIC INFRASTRUCTURE.—Critical electric infrastructure information—

(A) shall be exempt from disclosure under section 552(b)(3) of title 5, United States Code; and

(B) shall not be made available by any State, political subdivision, or tribal authority pursuant to any State, political subdivision, or tribal law requiring disclosure of information or records.

(2) DESIGNATION AND SHARING OF CRITICAL ELECTRIC INFRASTRUCTURE INFORMATION.—Not later than 1 year after the date of enactment of this section, the Commission, in consultation with the Secretary of Energy, shall promulgate such regulations and issue such orders as necessary—

(A) to designate critical electric infrastructure information;

(B) to prohibit the unauthorized disclosure of critical electric infrastructure information; and

(C) to ensure there are appropriate sanctions in place for Commissioners, officers, employees, or agents of the Commission who knowingly and willfully disclose critical electric infrastructure information in a manner that is not authorized under this section;

(3) CONSIDERATIONS.—In promulgating regulations and issuing orders under paragraph (2), the Commission shall take into consideration the role of State commissions in—

(A) reviewing the prudence and cost of investments;

(B) determining the rates and terms of conditions for electric services; and (C) ensuring the safety and reliability of the bulk-power system and distribution facilities within the respective jurisdictions of the State commissions.

(4) NO REQUIRED SHARING OF INFORMATION.—Nothing in this section requires a person or entity in possession of critical electric infrastructure information to share the information with Federal, State, political subdivision, or tribal authorities, or any other person or entity.

(5) DISCLOSURE OF NONCRITICAL ELECTRIC INFRASTRUCTURE INFORMATION—In carrying out this section, the Commission shall segregate critical electric infrastructure information within documents and electronic communications, wherever feasible, to facilitate disclosure of information that is not designated as critical electric infrastructure information.

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FARM SECURITY RURAL INVESTMENT ACT OF 2002

Public Law 107–171, as amended

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TITLE IX—ENERGY

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SEC. 9008. BIOMASS RESEARCH AND DEVELOPMENT.

(a) DEFINITIONS.—In this section:

(1) BIOBASED PRODUCT.—The term "biobased product" means—

(A) an industrial product (including chemicals, materials, and polymers) produced from biomass; or

(B) a commercial or industrial product (including animal feed and electric power) derived in connection with the conversion of biomass to fuel.

(2) BIO-POWER.—The term "bio-power" means the use of woody biomass to generate electricity.

(3) BOARD.—The term "Board" means the Biomass Research and Development Board.

[(2)**]***(4)* DEMONSTRATION.—The term "demonstration" means demonstration of technology in a pilot plant or semi-works scale facility, including a plant or facility located on a farm.

[(3)**]***(5)* INITIATIVE.—The term "Initiative" means the Biomass Research and Development Initiative established under subsection (e).

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(c) BIOMASS RESEARCH AND DEVELOPMENT BOARD.—

(1) ESTABLISHMENT.—There is established the Biomass Research and Development Board to carry out the duties described in paragraph (3).

(2) MEMBERSHIP.—The Board shall consist of—

(A) the point of contacts of the Department of Energy and the Department of Agriculture, who shall serve as co-chairpersons of the Board;

(B) a senior officer of each of the Department of the Interior, the Environmental Protection Agency, the National Science Foundation, and the Office of Science and Technology Policy, each of whom shall have a rank that is equivalent to the rank of the points of contact; and

(C) at the option of the Secretary of Agriculture and the Secretary of Energy, other members appointed by the Secretaries (after consultation with the Board).

(3) DUTIES.—The Board shall—

(A) coordinate research and development activities relating to [biofuels and biobased products] *biofuels, biobased products, bio-power, and woody biomass heat projects—*

* * * * * * *

(f) WOODY BIOMASS HEAT AND BIO-POWER GRANTS.—

(1) ESTABLISHMENT.—The Secretary of Agriculture and the Secretary of Energy, in consultation with the Board, shall establish a program under which the Secretary of Agriculture and the Secretary of Energy shall provide grants to relevant projects to support innovation and market development in woody biomass heat and bio-power.

(2) APPLICATIONS.—To be eligible to receive a grant under this subsection, the owner or operator of a relevant project shall submit to the Secretary of Agriculture and the Secretary of Energy an application at such time, in such manner, and containing such information as the Secretary of Agriculture and the Secretary of Energy may require.

(3) ALLOCATION.—Of the amounts appropriated to carry out this subsection, the Secretary of Agriculture and the Secretary of Energy shall not provide more than—

(A) $15,000,000 for projects that develop innovative techniques for preprocessing biomass for woody biomass heat and bio-power, with the goals of lowering the costs of—

(i) distributed preprocessing technologies, including technologies designed to promote densification, torrefaction, and the broader commoditization of bioenergy feedstocks; and

(ii) transportation; and

(B) $15,000,000 for innovative woody biomass heat and bio-power demonstration projects, including—

(i) district energy projects;

(ii) innovation in transportation; and

(iii) projects addressing the challenges of retrofitting existing coal-fired electricity generation facilities to use biomass.

(4) REGIONAL DISTRIBUTION.—In selecting projects to receive grants under this subsection, the Secretary of Agriculture and the Secretary of Energy shall ensure, to the maximum extent

practicable, diverse geographical distribution among the projects.

(5) COST SHARE.—The Federal share of the cost of a project carried out using a grant under this subsection shall be 50 percent.

(6) DUTIES OF RECIPIENTS.—As a condition of receiving a grant under this subsection, the owner or operator of a project shall—

(A) participate in the applicable working group under paragraph (7);

(B) submit to the Secretary of Agriculture and the Secretary of Energy a report that includes—

(i) a description of the project and any relevant findings; and

(ii) such other information as the Secretary of Agriculture and the Secretary of Energy determine to be necessary to complete the report of the Secretary under paragraph (9); and

(C) carry out such other activities as the Secretary of Agriculture and the Secretary of Energy determine to be necessary.

(7) WORKING GROUPS.—The Secretary of Agriculture and the Secretary of Energy shall establish 2 working groups to share best practices and collaborate in project implementation, of which—

(A) 1 shall be comprised of representatives of projects that receive grants under paragraph (3)(A); and

(B) 1 shall be comprised of representatives of projects that receive grants under paragraph (3)(B).

(8) INCLUSION OF OILSEED CROPS.—A grant may be provided under this subsection to relevant projects to support innovation and market development in oilseed crops.

(9) REPORTS.—Not later than 5 years after the date of enactment of this Act, the Secretary of Agriculture and the Secretary of Energy shall submit to Congress a report describing—

(A) each project for which a grant has been provided under this subsection;

(B) any findings as a result of those projects; and

(C) the state of market and technology development, including market barriers and opportunities.

[(f)**]***(g)* ADMINISTRATIVE SUPPORT AND FUNDS.—

(1) IN GENERAL.—The Secretary of Energy and the Secretary of Agriculture may provide such administrative support and funds of the Department of Energy and the Department of Agriculture to the Board and the Advisory Committee as are necessary to enable the Board and the Advisory Committee to carry out their duties under this section.

(2) OTHER AGENCIES.—The heads of the agencies referred to in subsection (c)(2)(B), and the other members of the Board appointed under subsection (c)(2)(C), are encouraged to provide administrative support and funds of their respective agencies to the Board and the Advisory Committee.

(3) LIMITATION.—Not more than 4 percent of the amount made available for each fiscal year under subsection (h) may

be used to pay the administrative costs of carrying out this section.

[(g)]*(h)* REPORTS.—For each fiscal year for which funds are made available to carry out this section, the Secretary of Energy and the Secretary of Agriculture shall jointly submit to Congress a detailed report on—

(1) the status and progress of the Initiative, including a report from the Advisory Committee on whether funds appropriated for the Initiative have been distributed and used in a manner that is consistent with the objectives and requirements of this section;

(2) the general status of cooperation and research and development efforts carried out at each agency with respect to biofuels and biobased products; and

(3) the plans of the Secretary of Energy and the Secretary of Agriculture for addressing concerns raised in the report, including concerns raised by the Advisory Committee.

[(h)]*(i)* FUNDING.—

(1) MANDATORY FUNDING.—Of the funds of the Commodity Credit Corporation, the Secretary of Agriculture shall use to carry out this section, to remain available until expended—

(A) $20,000,000 for fiscal year 2009;

(B) $28,000,000 for fiscal year 2010;

(C) $30,000,000 for fiscal year 2011;

(D) $40,000,000 for fiscal year 2012; and

(E) $3,000,000 for each of fiscal years 2014 through 2017.

(2) DISCRETIONARY FUNDING.—In addition to any other funds made available to carry out this section, there is authorized to be appropriated to carry out this section $20,000,000 for each of fiscal years 2014 through 2018.

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GEOTHERMAL STEAM ACT OF 1970

Public Law 109–58, as amended

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SEC. 4. LEASING PROCEDURES.

(a) NOMINATIONS.—The Secretary shall accept nominations of land to be leased at any time from qualified companies and individuals under this Act.

(b) COMPETITIVE LEASE SALE REQUIRED.—

(1) IN GENERAL.—Except as otherwise specifically provided by this Act, all land to be leased that is not subject to leasing under subsection (c) shall be leased as provided in this subsection to the highest responsible qualified bidder, as determined by the Secretary.

(2) COMPETITIVE LEASE SALES.—The Secretary shall hold a competitive lease sale at least once every 2 years for land in a State that has nominations pending under subsection (a) if the land is otherwise available for leasing.

(3) LANDS SUBJECT TO MINING CLAIMS.—Lands that are subject to a mining claim for which a plan of operations has been

approved by the relevant Federal land management agency may be available for noncompetitive leasing under this section to the mining claim holder.

(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 noncompetitive leasing under this section to 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) national energy security will be improved by the issuance of such a lease; and

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

(5) ADJOINING LAND.—

(A) DEFINITIONS.—In this paragraph:

(i) FAIR MARKET VALUE PER ACRE.—The term 'fair market value per acre' means a dollar amount per acre that—

(I) except as provided in this clause, shall be equal to the market value per acre (taking into account the determination under subparagraph (B)(iii) regarding a valid discovery on the adjoining land), as determined by the Secretary under regulations issued under this paragraph;

(II) shall be determined by the Secretary with respect to a lease under this paragraph, by not later than the end of the 180-day period beginning on the date the Secretary receives an application for the lease; and

(III) shall be not less than the greater of—

(aa) 4 times the median amount paid per acre for all land leased under this Act during the preceding year; or

"(bb) $50.

(ii) INDUSTRY STANDARDS.—The term "industry standards" means the standards by which a qualified geothermal professional assesses whether downhole or flowing temperature measurements with indications of permeability are sufficient to produce energy from geothermal resources, as determined through flow or injection testing or measurement of lost circulation while drilling.

(iii) QUALIFIED FEDERAL LAND.—The term "qualified Federal land" means land that is otherwise available for leasing under this Act.

(iv) QUALIFIED GEOTHERMAL PROFESSIONAL.—The term "qualified geothermal professional" means an individual who is an engineer or geoscientist in good professional standing with at least 5 years of experience in geothermal exploration, development, or project assessment.

(v) QUALIFIED LESSEE.—The term "qualified lessee" means a person that is eligible to hold a geothermal lease under this Act (including applicable regulations).

(vi) VALID DISCOVERY.—The term 'valid discovery' means a discovery of a geothermal resource by a new or existing slim hole or production well, that exhibits downhole or flowing temperature measurements with indications of permeability that are sufficient to meet industry standards.

(B) AUTHORITY.—An area of qualified Federal land that adjoins other land for which a qualified lessee holds a legal right to develop geothermal resources may be available for a noncompetitive lease under this section to the qualified lessee at the fair market value per acre, if—

(i) the area of qualified Federal land—

(I) consists of not less than 1 acre and not more than 640 acres; and

(II) is not already leased under this Act or nominated to be leased under subsection (a);

(ii) the qualified lessee has not previously received a noncompetitive lease under this paragraph in connection with the valid discovery for which data has been submitted under clause (iii)(I); and

(iii) sufficient geological and other technical data prepared by a qualified geothermal professional has been submitted by the qualified lessee to the applicable Federal land management agency that would lead individuals who are experienced in the subject matter to believe that—

(I) there is a valid discovery of geothermal resources on the land for which the qualified lessee holds the legal right to develop geothermal resources; and

(II) that thermal feature extends into the adjoining areas.

(C) DETERMINATION OF FAIR MARKET VALUE.—

(i) IN GENERAL.—The Secretary shall—

(I) publish a notice of any request to lease land under this paragraph;

(II) determine fair market value for purposes of this paragraph in accordance with procedures for making those determinations that are established by regulations issued by the Secretary;

(III) provide to a qualified lessee and publish, with an opportunity for public comment for a period of 30 days, any proposed determination under this subparagraph of the fair market value of an area that the qualified lessee seeks to lease under this paragraph; and

(IV) provide to the qualified lessee and any adversely affected party the opportunity to appeal the final determination of fair market value in an administrative proceeding before the applicable Federal land management agency, in accordance with applicable law (including regulations).

(ii) LIMITATION ON NOMINATION.—After publication of a notice of request to lease land under this paragraph, the Secretary may not accept under subsection (a) any nomination of the land for leasing unless the request has been denied or withdrawn.

(iii) ANNUAL RENTAL.—For purposes of section 5(a)(3), a lease awarded under this paragraph shall be considered a lease awarded in a competitive lease sale.

(D) REGULATIONS.—Not later than 270 days after the date of enactment of the Energy Policy Modernization Act of 2015, the Secretary shall issue regulations to carry out this paragraph.

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SEC. 30. GEOTHERMAL EXPLORATION TEST PROJECTS.

(a) DEFINITIONS.—In this section:

(1) COVERED LAND.—The term "covered land" means land that is—

(A) subject to geothermal leasing in accordance with section 3; and

(B) not excluded from the development of geothermal energy under—

(i) a final land use plan established under the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.);

(ii) a final land and resource management plan established under the National Forest Management Act of 1976 (16 U.S.C. 1600 et seq.); or

(iii) any other applicable law.

(2) 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, with respect to land managed by the Bureau of Land Management (including land held for the benefit of an Indian tribe).

(b) NEPA REVIEW OF GEOTHERMAL EXPLORATION TEST PROJECTS.—

(1) IN GENERAL.—An eligible activity described in paragraph (2) carried out on covered land shall be considered an action categorically excluded from the requirements for an environmental assessment or an environmental impact statement under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) or section 1508.4 of title 40, Code of Federal Regulations (or a successor regulation) if—

(A) the action is for the purpose of geothermal resource exploration operations; and

(B) the action is conducted pursuant to this Act.

(2) ELIGIBLE ACTIVITY.—An eligible activity referred to in paragraph (1) is—

(A) a geophysical exploration activity that does not require drilling, including a seismic survey;

(B) the drilling of a well to test or explore for geothermal resources on land leased by the Secretary concerned for the development and production of geothermal resources that—

(i) is carried out by the holder of the lease;

(ii) causes—

(I) fewer than 5 acres of soil or vegetation disruption at the location of each geothermal exploration well; and

(II) not more than an additional 5 acres of soil or vegetation disruption during access or egress to the project site;

(iii) is completed in fewer than 90 days, including the removal of any surface infrastructure from the project site; and

(iv) requires the restoration of the project site not later than 3 years after the date of completion of the project to approximately the condition that existed at the time the project began, unless—

(I) the project site is subsequently used as part of energy development on the lease; or

(II) the project—

(aa) yields geothermal resources; and

(bb) the use of the geothermal resources will be carried out under another geothermal generation project in existence at the time of the discovery of the geothermal resources; or

(C) the drilling of a well to test or explore for geothermal resources on land leased by the Secretary concerned for the development and production of geothermal resources that—

(i) causes an individual surface disturbance of fewer than 5 acres if—

(I) the total surface disturbance on the leased land is not more than 150 acres; and

(II) a site-specific analysis has been prepared under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);

(ii) involves the drilling of a geothermal well at a location or well pad site at which drilling has occurred within 5 years before the date of spudding the well; or

(iii) involves the drilling of a geothermal well in a developed field for which—

(I) an approved land use plan or any environmental document prepared under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) analyzed the drilling as a reasonably foreseeable activity; and

(II) the land use plan or environmental document was approved within 10 years before the date of spudding the well.

(3) LIMITATION BASED ON EXTRAORDINARY CIRCUMSTANCES.—The categorical exclusion established under paragraph (1) shall be subject to extraordinary circumstances in accordance with the Departmental Manual, 516 DM 2.3A(3) and 516 DM 2, Appendix 2 (or successor provisions).

(c) NOTICE OF INTENT; REVIEW AND DETERMINATION.—

(1) REQUIREMENT TO PROVIDE NOTICE.—Not later than 30 days before the date on which drilling begins, a leaseholder intending to carry out an eligible activity shall provide notice to the Secretary concerned.

(2) REVIEW OF PROJECT.—Not later than 10 days after receipt of a notice of intent provided under paragraph (1), the Secretary concerned shall—

(A) review the project described in the notice and determine whether the project is an eligible activity; and

(B)(i) if the project is an eligible activity, notify the leaseholder that under subsection (b), the project is considered a categorical exclusion under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and section 1508.4 of title 40, Code of Federal Regulations (or a successor regulation); or

(ii) if the project is not an eligible activity—

(I) notify the leaseholder that section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) applies to the project;

(II) include in that notification clear and detailed findings on any deficiencies in the project that prevent the application of subsection (b) to the project; and

(III) provide an opportunity to the leaseholder to remedy the deficiencies described in the notification before the date on which the leaseholder plans to begin the project under paragraph (1).

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METHANE HYDRATE RESEARCH AND DEVELOPMENT ACT OF 2000

Public Law 106–193, as amended

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SEC. 4. METHANE HYDRATE RESEARCH AND DEVELOPMENT PROGRAM.

* * * * * * *

[(b) GRANTS, CONTRACTS, COOPERATIVE AGREEMENTS, INTERAGENCY FUNDS TRANSFER AGREEMENTS, AND FIELD WORK PROPOSALS.—

[(1) ASSISTANCE AND COORDINATION.—In carrying out the program of methane hydrate research and development authorized by this section, the Secretary may award grants to, or enter into contracts or cooperative agreements with, institutions of higher education, oceanographic institutions, and industrial enterprises to—

[(A) conduct basic and applied research to identify, explore, assess, and develop methane hydrate as a commercially viable source of energy;

[(B) identify methane hydrate resources through remote sensing;

[(C) acquire and reprocess seismic data suitable for characterizing methane hydrate accumulations;

[(D) assist in developing technologies required for efficient and environmentally sound development of methane hydrate resources;

[(E) promote education and training in methane hydrate resource research and resource development through fellowships or other means for graduate education and training;

[(F) conduct basic and applied research to assess and mitigate the environmental impact of hydrate degassing (including both natural degassing and degassing associated with commercial development);

[(G) develop technologies to reduce the risks of drilling through methane hydrates; and

[(H) conduct exploratory drilling, well testing, and production testing operations on permafrost and non-permafrost gas hydrates in support of the activities authorized by this paragraph, including drilling of one or more full-scale production test wells.

[(2) COMPETITIVE PEER REVIEW.—Funds made available under paragraph (1) shall be made available based on a competitive process using external scientific peer review of proposed research.]

(b) GRANTS, CONTRACTS, COOPERATIVE AGREEMENTS, INTERAGENCY 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—

(A) to conduct basic and applied research—

(i) to identify, explore, assess, and develop methane hydrate as a commercially viable source of energy; and

(ii) to identify the environmental, health, and safety impacts of methane hydrate development;

(B) to identify and characterize methane hydrate resources using remote sensing and seismic data, including the characterization of hydrate concentrations in marine reservoirs in the Gulf of Mexico or the Atlantic Ocean Basin by the date that is 4 years after the date of enactment of the Energy Policy Modernization Act of 2015;

(C) to develop technologies required for efficient and environmentally sound development of methane hydrate resources;

(D) to 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) to develop technologies to reduce the risks of drilling through methane hydrates;

(F) to 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—

(i) drilling of a test well and performing a long-term hydrate production test on land in the United States

Arctic region by the date that is 4 years after the date of enactment of the Energy Policy Modernization Act of 2015;

(ii) drilling of a test well and performing a long-term hydrate production test in a marine environment by the date that is 10 years after the date of enactment of the Energy Policy Modernization Act of 2015; and

(iii) drilling a full-scale production test well at a location to be determined by the Secretary; or

(G) to 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 AND RESEARCH.—The Secretary shall conduct a long-term environmental monitoring and research 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.

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(e) RESPONSIBILITIES OF THE SECRETARY.—In carrying out [subsection (b)(1)] paragraphs (1) and (2) of subsection (b), the Secretary shall—

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[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 is authorized to be appropriated to carry out this Act $35,000,000 for each of fiscal years 2017 through 2021.

* * * * * * *

MINERAL LEASING ACT

Act of February 25, 1920, 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, * * *

The term "oil" shall embrace * * *

The term "combined hydrocarbon lease" shall refer * * *

The term "special tar sand area" means * * *

[The United States reserves the ownership of and the right to extract helium from all gas produced from lands leased or other-

wise granted under the provisions of this Act, under such rules and regulations as shall be prescribed by the Secretary of the Interior: Provided further, That in the extraction of helium from gas produced from such lands it shall be so extracted as to cause no substantial delay in the delivery of gas produced from the well to the purchaser thereof.]

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MINERAL LEASING ACT FOR ACQUIRED LANDS

Public Law 80–382

* * * * * * *

SEC. 12. RIGHTS TO HELIUM.

Any lease issued under this Act that authorizes exploration for, or development or production of, gas shall be considered to grant to the lessee a right of first refusal to engage in exploration for, and development and production of, helium on land that is subject to the lease in accordance with regulations issued by the Secretary.

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NATIONAL CRITICAL MATERIALS ACT OF 1984

Public Law 98–373, as amended

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SHORT TITLE

[SEC. 201. This title may be cited as the "National Critical Materials Act of 1984".

[FINDINGS AND PURPOSES

[SEC. 202. (a) The Congress finds that—

[(1) the availability of adequate supplies of strategic and critical industrial minerals and materials continues to be essential for national security, economic well-being, and industrial production;

[(2) the United States is increasingly dependent on foreign sources of materials and vulnerable to supply interruption in the case of many of those minerals and materials essential to the Nation's defense and economic well-being;

[(3) together with increasing import dependence, the Nation's industrial base, including the capacity to process minerals and materials, is deteriorating—both in terms of facilities and in terms of a trained labor force;

[(4) research, development, and technological innovation, especially related to improved materials and new processing technologies, are important factors which affect our long-term capability for economic competitiveness, as well as for adjustment to interruptions in supply of critical minerals and materials;

[(5) while other nations have developed and implemented specific long-term research and technology programs to develop high-performance materials, no such policy and program evolution has occurred in the United States;

[(6) establishing critical materials reserves, by both the public and private sectors and with proper organization and management, represents one means of responding to the genuine risks to our economy and national defense from dependency on foreign sources;

[(7) there exists no single Federal entity with the authority and responsibility for establishing critical materials policy and for coordinating and implementing that policy; and

[(8) the importance of materials to national goals requires an organizational means for establishing responsibilities for materials programs and for the coordination, within and at a suitably high level of the Executive Office of the President, with other existing policies within the Federal Government.

[(b) It is the purpose of this title—

[(1) to establish a National Critical Materials Council under and reporting to the Executive Office of the President which shall—

[(A) establish responsibilities for and provide for necessary coordination of critical materials policies, including all facets of research and technology, among the various agencies and departments of the Federal Government, and make recommendations for the implementation of such policies;

[(B) bring to the attention of the President, the Congress, and the general public such materials issues and concerns, including research and development, as are deemed critical to the economic and strategic health of the Nation; and

[(C) ensure adequate and continuing consultation with the private sector concerning critical materials, materials research and development, use of materials, Federal materials policies, and related matters;

[(2) to establish a national Federal program for advanced materials research and technology, including basic phenomena through processing and manufacturing technology; and

[(3) to stimulate innovation and technology utilization in basic as well as advanced materials industries.

[ESTABLISHMENT OF THE NATIONAL CRITICAL MATERIALS COUNCIL

[SEC. 203. There is hereby established a National Critical Materials Council (hereinafter referred to as the "Council") under and reporting to the Executive Office of the President. The Council shall be composed of three members who shall be appointed by the President and who shall serve at the pleasure of the President. Members so appointed who are not already Senate-confirmed officers of the Government shall be appointed by and with the advice and consent of the Senate. The President shall designate one of the members to serve as Chairman. Each member shall be a person who, as a result of training, experience, and achievement, is qualified to carry out the duties and functions of the Council, with par-

ticular emphasis placed on fields relating to materials policy or materials science and engineering. In addition, at least one of the members shall have a background in and understanding of environmentally related issues.

[RESPONSIBILITIES AND AUTHORITIES OF THE COUNCIL

[SEC. 204. (a) It shall be the primary responsibility of the Council—

[(1) to assist and advise the President in establishing coherent national materials policies consistent with other Federal policies, and making recommendations necessary to implement such policies;

[(2) to assist in establishing responsibilities for, and to coordinate, Federal materials-related policies, programs, and research and technology activities, as well as recommending to the Office of Management and Budget budget priorities for materials activities in each of the Federal departments and agencies;

[(3) to review and appraise the various programs and activities of the Federal Government in accordance with the policy and directions given in the National Materials and Minerals Policy, Research and Development Act of 1980 (*30 U.S.C. 1601*), and to determine the extent to which such programs and activities are contributing to the achievement of such policy and directions;

[(4) to monitor and evaluate the critical materials needs of basic and advanced technology industries and the Government, including the critical materials research and development needs of the private and public sectors;

[(5) to advise the President of mineral and material [materials] trends, both domestic and foreign, the implications thereof for the United States and world economies and the national security, and the probable effects of such trends on domestic industries;

[(6) to assess through consultation with the materials academic community the adequacy and quality of materials-related educational institutions and the supply of materials scientists and engineers;

[(7) to make or furnish such studies, analyses, reports, and recommendations with respect to matters of materials-related policy and legislation as the President may request;

[(8) (A) to prepare a report providing a domestic inventory of critical materials with projections on the prospective needs of Government and industry for these materials, including a long-range assessment, prepared in conjunction with the Office of Science and Technology Policy in accordance with the National Materials and Minerals Policy, Research and Development Act of 1980, and in conjunction with such other Government departments or agencies as may be considered necessary, of the prospective major critical materials problems which the United States is likely to confront in the immediate years ahead and providing advice as to how these problems may best be addressed, with the first such report being due on April 1, 1985, and (B) review and update such report and assessment

as appropriate and report thereon to the Congress at least biennially; and

[(9) to recommend to the Congress such changes in current policies, activities, and regulations of the Federal Government, and such legislation, as may be considered necessary to carry out the intent of this title and the National Materials and Minerals Policy, Research and Development Act of 1980 .

[(b) In carrying out its responsibilities under this section the Council shall have the authority—

[(1) to establish such special advisory panels as it considers necessary, with each such panel consisting of representatives of industry, academia, and other members of the private sector, not to exceed ten members, and being limited in scope of subject and duration; and

[(2) to establish and convene such Federal interagency committees as it considers necessary in carrying out the intent of this title.

[(c) In seeking to achieve the goals of this title and related Acts, the Council and other Federal departments and agencies with responsibilities or jurisdiction related to materials or materials policy, including the National Security Council, the Council on Environmental Quality, the Office of Management and Budget, and the Office of Science and Technology Policy, shall work collaboratively and in close cooperation.

[PROGRAM AND POLICY FOR ADVANCED MATERIALS RESEARCH AND TECHNOLOGY

[SEC. 205.(a) In addition to the responsibilities described in section 204, the Council shall be responsible for coordination with appropriate agencies and departments of the Federal Government relative to Federal materials research and development policies and programs. Such policies and programs shall be consistent with the policies and goals described in the National Materials and Minerals Policy, Research and Development Act of 1980. In carrying out this responsibility the Council shall—

[(1) (A) establish a national Federal program plan for advanced materials research and development, recommend the designation of the key responsibilities for carrying out such research, and to provide [and provide] for coordination of this plan with the Office of Science and Technology Policy, the Office of Management and Budget, and such other Federal offices and agencies as may be deemed appropriate, and (B) annually review such plan and report thereon to the Congress;

[(2) review annually the materials research, development, and technology authorization requests and budgets of all Federal agencies and departments; and in this activity the Council shall make recommendations, in cooperation with the Office of Science and Technology Policy, the Office of Management and Budget, and all other Federal offices and agencies deemed appropriate, to ensure close coordination of the goals and directions of such programs with the policies determined by the Council; and

[(3) assist the Office of Science and Technology Policy in the preparation of such long-range materials assessments and reports as may be required by the National Materials and Min-

erals Policy, Research and Development Act of 1980, and assist other Federal entities in the preparation of analyses and reporting relating to critical and advanced materials.

[(b) The Office of Management and Budget, in reviewing the materials research, development, and technology authorization requests of the various Federal departments and agencies for any fiscal year, and the recommendations of the Council, shall consider all of such requests and recommendations as an integrated, coherent, multiagency request which shall be reviewed by the Office of Management and Budget for its adherence to the national Federal materials program plan in effect for such fiscal year under subsection (a).

[INNOVATION IN BASIC AND ADVANCED MATERIALS INDUSTRIES

[SEC. 206. (a)(1) In order to promote the use of more cost-effective, advanced technology and other means of providing for innovation and increased productivity within the basic and advanced materials industries, the Council shall evaluate and make recommendations regarding the establishment of Centers for Industrial Technology as provided in Public Law 96–480(15 U.S.C. 3705).

[(2) The activities of such Centers shall focus on, but not be limited to, the following generic materials areas: corrosion; welding and joining of materials; advanced processing and fabrication technologies; microfabrication; and fracture and fatigue.

[(b) In order to promote better use and innovation of materials in design for improved safety or efficiency, the Council shall establish in cooperation with the appropriate Federal agencies and private industry, an effective mechanism for disseminating materials property data in an efficient and timely manner. In carrying out this responsibility, the Council shall consider, where appropriate, the establishment of a computerized system taking into account, to the maximum extent practicable, existing available resources.

[COMPENSATION OF MEMBERS AND REIMBURSEMENTS

[SEC. 207. (a) The Chairman of the Council, if not otherwise a paid officer or employee of the Federal Government, shall be paid at the rate not to exceed the rate of basic pay provided for level II of the Executive Schedule. The other members of the Council, if not otherwise paid officers or employees of the Federal Government, shall be paid at a per diem rate comparable to the rate not to exceed the rate of basic pay provided for level III of the Executive Schedule.

[(b) Subject to existing law and regulations governing conflicts of interest, the Council may accept reimbursement from any private nonprofit organization or from any department, agency, or instrumentality of the Federal Government, from any State or local government, for reasonable travel expenses incurred by any member or employee of the Council in connection with such member's or employee's attendance at any conference, seminar, or similar meeting.

[POSITION AND AUTHORITIES OF EXECUTIVE DIRECTOR

[SEC. 208. (a) There shall be an Executive Director (hereinafter referred to as the "Director"), who shall be chief administrator of the Council. The Director shall be appointed by the Council full time and shall be paid at the rate not to exceed the rate of basic pay provided for level III of the Executive Schedule.

[(b) Personnel and services of experts and consultants; rules and regulations. The Director is authorized—

[(1) to employ such personnel as may be necessary for the Council to carry out its duties and functions under this title, but not to exceed twelve compensated employees;

[(2) to obtain the services of experts and consultants in accordance with the provisions of section 3109 of title 5, United States Code; and

[(3) to develop, subject to approval by the Council, rules and regulations necessary to carry out the purposes of this title.

[(c) In exercising his responsibilities and duties under this title, the Director—

[(1) may consult with representatives of academia, industry, labor, State and local governments, and other groups; and

[(2) shall utilize to the fullest extent possible the services, facilities, and information (including statistical information) of public and private agencies, organizations, and individuals.

[(d) Notwithstanding section 367(b) of the Revised Statutes (31 U.S.C. 665(b)), the Council may utilize voluntary and uncompensated labor and services in carrying out its duties and functions.

[RESPONSIBILITIES AND DUTIES OF THE DIRECTOR

[SEC. 209. In carrying out his functions the Director shall assist and advise the Council on policies and programs of the Federal Government affecting critical and advanced materials by—

[(1) providing the professional and administrative staff and support for the Council;

[(2) assisting the Federal agencies and departments in appraising the effectiveness of existing and proposed facilities, programs, policies, and activities of the Federal Government, including research and development, which affect critical materials availability and needs;

[(3) cataloging, as fully as possible, research and development activities of the Government, private industry, and public and private institutions; and

[(4) initiating Government and private studies and analyses, including those to be conducted by or under the auspices of the Council, designed to advance knowledge of critical or advanced materials issues and develop alternative proposals, including research and development, to resolve national critical materials problems.

[AUTHORITY

[SEC. 210. The Council is authorized—

[(1) to establish such internal rules and regulations as may be necessary for its operation;

[(2) to enter into contracts and acquire materials and supplies necessary for its operation to such extent or in such amounts as are provided for in appropriation Acts;

[(3) to publish, consistent with title 44 of the United States Code [44 USCS §§ 101 et seq.], or arrange to publish critical materials information that it deems to be useful to the public and private industry to the extent that such publication is consistent with the national defense and economic interest;

[(4) to utilize such services or personnel as may be provided to the Council on a nonreimbursable basis by any agency of the United States; and

[(5) to exercise such authorities as may be necessary and incidental to carrying out its responsibilities and duties under this title.

[AUTHORIZATION OF APPROPRIATIONS

[SEC. 211. There are hereby authorized to be appropriated to carry out the provisions of this title a sum not to exceed $ 500,000 for the fiscal year ending September 30, 1985, and such sums as may be necessary thereafter: Provided, That the authority provided for in this title shall expire on September 30, 1992, unless otherwise authorized by Congress.

[DEFINITION

[SEC. 212. As used in this title, the term "materials" has the meaning given it by section 2(b) of the National Materials and Minerals Policy, Research and Development Act of 1980.]

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NATIONAL ENERGY CONSERVATION POLICY ACT

Public Law 95–619, as amended

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SEC. 101. SHORT TITLE AND TABLE OF CONTENTS.

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TITLE II—RESIDENTIAL ENERGY CONSERVATION

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PART 4—MISCELLANEOUS

Sec. 251. Energy-conserving improvements for assisted housing.
Sec. 252. Energy conserving standards for newly constructed residential housing insured by Federal Housing Administration or assisted by Farmers Home Administration.
[Sec. 253. Residential energy efficiency standards study.]
[Sec. 254. Weatherization study.]
Sec. 255. Authorization for appropriations for new building performance standards grants.

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PART 6—RESIDENTIAL ENERGY EFFICIENCY RATING GUIDELINES

Sec. 271. Voluntary rating guidelines.

[SEC. 253. RESIDENTIAL ENERGY EFFICIENCY STANDARDS STUDY.

[(a) GENERAL AUTHORITY.—The Secretary of Housing and Urban Development (hereinafter in this section referred to as the "Secretary") shall, in coordination with the Secretary of Agriculture, the Secretary of the Treasury, the Secretary of Veterans Affairs, the Secretary of Energy, and such other representatives of Federal, State, and local governments as the Secretary shall designate, conduct a study, utilizing the services of the National Institute of Building Sciences pursuant to appropriate contractual arrangements, for the purpose of determining the need for, the feasibility of, and the problems of requiring, by mandatory Federal action, that all residential dwelling units meet applicable energy efficient standards. The subjects to be examined shall include, but not be limited to, mandatory notification to purchasers, and policies to prohibit exchange or sale, of properties which do not conform to such standards.

[(b) SPECIFIC FACTORS.—In conducting such study, the Secretary shall consider at least the following factors—

[(1) the extent to which such requirement would protect a prospective purchaser from the uncertainty of not knowing the energy efficiency of the property he proposes to purchase;

[(2) the extent to which such requirement would contribute to the Nation's energy conservation goals;

[(3) the extent to which such a requirement would affect the real estate, home building, and mortgage banking industries;

[(4) the sanctions which might be necessary to make such a requirement effective and the administrative impediments there might be to enforcement of such sanctions;

[(5) the possible impact on sellers and purchasers as a result of the implementation of mandatory Federal actions, taking into account the experience of the Federal Government in imposing mandatory requirements concerning the purchase and sale of real property as occurred under the Real Estate Settlement Procedures Act of 1974 and the Federal Disaster Protection Act of 1973;

[(6) an analysis of the effect of such a requirement on the economy as a whole and on the Nation's security as compared to the impact on the credit and housing markets caused by such a requirement;

[(7) the effect of such a requirement on availability of credit in the housing industry;

[(8) the extent to which the imposition of mandatory Federal requirements would temporarily reduce the number of residential dwellings available for sale and the resulting effect of such mandatory actions on the price of those remaining dwelling units eligible for sale; and

[(9) the possible uncertainty, during the period of developing the standards, as to what standards might be imposed and any resulting effect on major housing rehabilitation efforts and voluntary efforts for energy conservation.

[(c) COMMENTS AND FINDINGS BY SECRETARY OF ENERGY.—The Secretary shall incorporate into such study comments by the Secretary of Energy on the effects on the economy as a whole and on the Nation's security which may result from the requirement described in subsection (a) as compared to the impact on the credit and housing markets likely to be caused by such a requirement. In addition, the Secretary shall incorporate into such study the following findings by the Secretary of Energy:

[(1) the savings in energy costs resulting from the requirement described in subsection (a) throughout the estimated remaining useful life of the existing residential buildings to which such requirement would apply; and

[(2) the total cost per barrel of oil equivalent, in obtaining the energy savings likely to result from such requirement, computed for each class of existing residential buildings to which such requirement would apply.

[(d) REPORT DATE.—The Secretary shall report, no later than one year after the date of enactment of this section, to both Houses of the Congress with regard to the findings made as a result of such study along with any recommendations for legislative proposals which the Secretary determines should be enacted with respect to the subject of such study.]

[SEC. 254. WEATHERIZATION STUDY.

[The President shall conduct a study which shall monitor the weatherization activities authorized by this Act and amendments made thereby and those weatherization activities undertaken, independently of this Act and such amendments. The President shall

report to the Congress within one year from the date of enactment of this Act, and annually thereafter, concerning—

[(1) the extent of progress being made through weatherization activities toward the achievement of national energy conservation goals;

[(2) adequacy and costs of materials necessary for weatherization activities; and

[(3) the need for and desirability of modifying weatherization activities authorized by this Act, and amendments made thereby and of extending such activities to a broader range of income groups than are being assisted under this Act and such amendments.]

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[SEC. 273. REPORT.

[Not later than 3 years after the date of the enactment of the Energy Policy Act of 1992, the Secretary shall transmit to the President and the Congress a final report containing—

[(1) a description of actions taken by the Secretary and other Federal agencies to implement this part;

[(2) a description of the action taken by States, local governments, and other organizations to implement the voluntary guidelines issued under section 271 and any problems encountered in implementing such guidelines; and

[(3) recommendations on the feasibility of requiring, as a prerequisite to receiving federally assisted, guaranteed, or insured mortgages, the achievement of a minimum energy efficiency rating.]

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SEC. 543. ENERGY MANAGEMENT REQUIREMENTS.

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(d) IMPLEMENTATION STEPS.—The Secretary shall consult with the Secretary of Defense and the Administrator of General Services in developing guidelines for the implementation of this part. To meet the requirements of this section, each agency shall—

(1) prepare and submit to the Secretary, not later than December 31, 1993, a plan describing how the agency intends to meet such requirements, including how it will—

(A) designate personnel primarily responsible for achieving such requirements;

(B) identify high priority projects through calculation of payback periods;

(C) take maximum advantage of contracts authorized under title VIII of this Act, of financial incentives and other services provided by utilities for efficiency investment, and of other forms of financing to reduce the direct costs to the Government; and

(D) otherwise implement this part;

(2) perform energy surveys of its Federal buildings to the extent necessary and update such surveys as needed[, incorporating any relevant information obtained from the survey conducted pursuant to section 550];

(3) using such surveys, determine the cost and payback period of energy and water conservation measures likely to achieve the requirements of this section;

(4) install energy and water conservation measures that will achieve the requirements of this section through the methods and procedures established pursuant to section 544; and

(5) ensure that the operation and maintenance procedures applied under this section are continued.

* * * * * * *

(f) USE OF ENERGY AND WATER EFFICIENCY MEASURES IN FEDERAL BUILDINGS.—

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(4) IMPLEMENTATION OF IDENTIFIED ENERGY AND WATER EFFICIENCY MEASURES.—[Not later than]

(A) IN GENERAL.—Not later than 2 years after the completion of each evaluation under paragraph (3), each energy manager may—

[(A)]*(i)* implement any energy- or water-saving measure that the Federal agency identified in the evaluation conducted under paragraph (3) that is life cycle cost-effective; and

[(B)]*(ii)* bundle individual measures of varying paybacks together into combined projects.

(B) MEASURES NOT IMPLEMENTED.—Each energy manager, as part of the certification system under paragraph (7) and using guidelines developed by the Secretary, shall provide an explanation regarding any life-cycle cost-effective measures described in subparagraph (A)(i) that have not been implemented.

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(h) FEDERAL IMPLEMENTATION STRATEGY FOR ENERGY-EFFICIENT AND ENERGY-SAVING INFORMATION TECHNOLOGIES.—

(1) DEFINITIONS.—In this subsection:

(A) DIRECTOR.—The term "Director" means the Director of the Office of Management and Budget.

(B) INFORMATION TECHNOLOGY.—The term "information technology" has the meaning given the term in section 11101 of title 40, United States Code.

(2) DEVELOPMENT OF IMPLEMENTATION STRATEGY.—Not later than 1 year after the date of enactment of this subsection, each Federal agency shall collaborate with the Director to develop an implementation strategy (including best-practices and measurement and verification techniques) for the maintenance, purchase, and use by the Federal agency of energy-efficient and energy-saving information technologies.

(3) ADMINISTRATION.—In developing an implementation strategy, each Federal agency shall consider—

(A) advanced metering infrastructure;

(B) energy efficient data center strategies and methods of increasing asset and infrastructure utilization;

(C) advanced power management tools;

(D) building information modeling, including building energy management; and

(E) secure telework and travel substitution tools.

(4) PERFORMANCE GOALS.—

(A) IN GENERAL.—Not later than September 30, 2015, the Director, in consultation with the Secretary, shall establish performance goals for evaluating the efforts of Federal agencies in improving the maintenance, purchase, and use of energy-efficient and energy-saving information technology systems.

(B) BEST PRACTICES.—The Chief Information Officers Council established under section 3603 of title 44, United States Code, shall supplement the performance goals established under this paragraph with recommendations on best practices for the attainment of the performance goals, to include a requirement for agencies to consider the use of—

(i) energy savings performance contracting; and

(ii) utility energy services contracting.

(5) 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 and results of the agency under this subsection.

(B) OMB GOVERNMENT EFFICIENCY REPORTS AND SCORECARDS.—Effective beginning not later than October 1, 2015, the Director shall include in the annual report and scorecard of the Director required under section 528 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17144) a description of the efforts and results of Federal agencies under this subsection.

(C) USE OF EXISTING REPORTING STRUCTURES.—The Director may require Federal agencies to submit any information required to be submitted under this subsection though reporting structures in use as of the date of enactment of the Energy Policy Modernization Act of 2015.

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SEC. 546. INCENTIVES FOR AGENCIES.

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(f) UTILITY ENERGY SERVICE CONTRACTS.—

(1) IN GENERAL.—Each Federal agency may use, to the maximum extent practicable, measures provided by law to meet energy efficiency and conservation mandates and laws, including through utility energy service contracts.

(2) CONTRACT PERIOD.—The term of a utility energy service contract entered into by a Federal agency may have a contract period that extends beyond 10 years, but not to exceed 25 years.

(3) REQUIREMENTS.—The conditions of a utility energy service contract entered into by a Federal agency shall include requirements for measurement, verification, and performance assurances or guarantees of the savings.

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SEC. 548. REPORTS.

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(b) REPORTS TO THE PRESIDENT AND CONGRESS.—The Secretary shall report, not later than April 2 of each year, with respect to each fiscal year beginning after the date of the enactment of this subsection, to the President and Congress—

(1) on all activities carried out under this part and on the progress made toward achievement of the objectives of this part, including—

(A) a copy of the list of the exclusions made under sections 543(a)(2) and 543(c)(3);

(B) the information required under section 543(b)(2); and

(C) a statement detailing the amount of funds awarded to each agency under section 546(b), the energy and water conservation measures installed with such funds, the projected energy and water savings to be realized from installed measures, and, for each installed measure for which the projected energy and water savings reported in the previous year were not realized, the percentage of such projected savings that was not realized, the reasons such savings were not realized, and proposals for, and projected costs of, achieving such projected savings in the future;

(2) the number of contracts entered into by all agencies under title VIII of this Act, the difficulties (if any) encountered in attempting to enter into such contracts, and proposed solutions to those difficulties;

(3) the extent and nature of interagency exchange of information concerning the conservation and efficient utilization of energy; **[**and**]**

(4) the information required under section 161(d) of the Energy Policy Act of 1992**[**.**]***; and*

(5)(A) the status of the energy savings performance contracts and utility energy service contracts of each agency;

(B) the investment value of the contracts;

(C) the guaranteed energy savings for the previous year as compared to the actual energy savings for the previous year;

(D) the plan for entering into the contracts in the coming year; and

(E) information explaining why any previously submitted plans for the contracts were not implemented.

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[SEC. 550. SURVEY OF ENERGY SAVING POTENTIAL.

[(a) IN GENERAL.—The Secretary shall, in consultation with the Interagency Energy Management Task Force established under section 547, carry out an energy survey for the purposes of—

[(1) determining the maximum potential cost effective energy savings that may be achieved in a representative sample of buildings owned or leased by the Federal Government in different areas of the country;

[(2) making recommendations for cost effective energy efficiency and renewable energy improvements in those buildings and in other similar Federal buildings; and

[(3) identifying barriers which may prevent an agency's ability to comply with section 543 and other energy management goals.

[(b) IMPLEMENTATION.—(1) The Secretary shall transmit to the Committee on Energy and Natural Resources and the Committee on Governmental Affairs of the Senate and the Committee on Energy and Commerce, the Committee on Government Operations, and the Committee on Public Works and Transportation of the House of Representatives, within 180 days after the date of the enactment of the Energy Policy Act of 1992, a plan for implementing this section.

[(2) The Secretary shall designate buildings to be surveyed in the project so as to obtain a sample of the buildings of the types and in the climates that is representative of buildings owned or leased by Federal agencies in the United States that consume the major portion of the energy consumed in Federal buildings. Such sample shall include, where appropriate, the following types of Federal facility space:

[(A) Housing.
[(B) Storage.
[(C) Office.
[(D) Services.
[(E) Schools.
[(F) Research and Development.
[(G) Industrial.
[(H) Prisons.
[(I) Hospitals.

[(3) For purposes of this section, an improvement shall be considered cost effective if the cost of the energy saved or displaced by the improvement exceeds the cost of the improvement over the remaining life of a Federal building or the remaining term of a lease of a building leased by the Federal Government as determined by the life cycle costing methodology developed under section 544.

[(c) PERSONNEL.—(1) In carrying out this section, the Secretary shall utilize personnel who are—

[(A) employees of the Department of Energy; or

[(B) selected by the agencies utilizing the buildings which are being surveyed under this section.

[(2) Such personnel shall be detailed for the purpose of carrying out this section without any reduction of salary or benefits.

[(d) REPORT.—As soon as practicable after the completion of the project carried out under this section, the Secretary shall transmit a report of the findings and conclusions of the project to the Committee on Energy and Natural Resources and the Committee on Governmental Affairs of the Senate, the Committee on Energy and Commerce, the Committee on Government Operations, and the Committee on Public Works and Transportation of the House of Representatives, and the agencies who own the buildings involved in such project. Such report shall include an analysis of the probability of each agency achieving each of the energy reduction goals established under section 543(a).]

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SEC. 551. DEFINITIONS.

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(4) the term "energy conservation measures" means measures that are applied to a Federal building that improve energy efficiency and are life cycle cost effective and that involve energy conservation, cogeneration facilities, renewable energy sources, improvements in operations and maintenance efficiencies, [or retrofit activities] *retrofit activities, or energy consuming devices and required support structures;*

* * * * * * *

(6) the term "Federal building" means any building, structure, or facility, or part thereof, including the associated energy consuming support systems, which is constructed, renovated, leased, or purchased in whole or in part for use by the Federal Government and which consumes energy; such term also means a collection of such buildings, structures, or facilities and the energy consuming support systems for such collection[;] *the term does not include a dam, reservoir, or hydropower facility owned or operated by a Federal agency.*

* * * * * * *

[PART 4—FEDERAL PHOTOVOLTAIC UTILIZATION

[SEC. 561. SHORT TITLE OF PART.

[This part may be cited as the "Federal Photovoltaic Utilization Act".

[SEC. 562. DEFINITIONS.

[For purposes of this part—

[(1) The term "Federal facility" means any building, structure, or fixture or part thereof which is owned by the United States or any Federal agency or which is held by the United States or any Federal agency under a lease-acquisition agreement under which the United States or a Federal agency will receive fee simple title under the terms of such agreement without further negotiation. Such term also applies to facilities related to programs administered by Federal agencies.

[(2) The term "Secretary" means the Secretary of Energy.

[SEC. 563. PHOTOVOLTAIC ENERGY PROGRAM.

[There is hereby established a photovoltaic energy commercialization program for the accelerated procurement and installation of photovoltaic solar electric systems for electric production in Federal facilities.

[SEC. 564. PURPOSE OF PROGRAM.

[The purpose of the program established by section 563 is to—

[(1) accelerate the growth of a commercially viable and competitive industry to make photovoltaic solar electric systems available to the general public as an option in order to reduce national consumption of fossil fuel;

[(2) reduce fossil fuel costs to the Federal Government;

[(3) stimulate the general use within the Federal Government of methods for the minimization of life cycle costs; and

[(4) develop performance data on the program established by section 563.

[SEC. 565. ACQUISITION OF SYSTEMS.

[The program established by section 563 shall provide for the acquisition of photovoltaic solar electric systems and associated storage capability by the Secretary for their use by Federal agencies, and for the acquisition of such systems and associated capability by Federal agencies for their own use in cases where the authority to make such acquisition has been delegated to the agency involved by the Secretary. The acquisition of photovoltaic solar electric systems shall be at an annual level substantial enough to allow use of low-cost production techniques by suppliers of such systems. The Secretary (or other Federal agency acting under delegation from the Secretary) is authorized to make such acquisitions through the use of multiyear contracts. Authority under this part to enter into acquisition contracts shall be only to the extent as may be provided in advance in appropriation Acts.

[SEC. 566. ADMINISTRATION.

[The Secretary shall administer the program established under section 563 and shall—

[(1) consult with the Secretary of Defense to insure that the installation and purchase of photovoltaic solar electric systems pursuant to this part shall not interfere with defense-related activities;

[(2) prescribe such requirements as may be appropriate to monitor and assess the performance and operation of photovoltaic electric systems installed pursuant to this part; and

[(3) report annually to the Congress on the status of the program.

[Notwithstanding any other provision of law, the Secretary shall not be subject to the requirements of section 553 of title 5, United States Code, in the performance of his functions under this part.

[SEC. 567. SYSTEM EVALUATION AND PURCHASE PROGRAM.

[(a) PROGRAM.—The Secretary shall establish, within 60 days after the date of the enactment of this part, a photovoltaic systems evaluation and purchase program to provide such systems as are required by the Federal agencies to carry out this part. In acquiring photovoltaic solar electric systems under this part, the Secretary (or other Federal agency acting under delegation from the Secretary) shall insure that such systems reflect to the maximum extent practicable the most advanced and reliable technologies and shall schedule purchases in a manner which will stimulate the early development of a permanent low-cost private photovoltaic production capability in the United States, and to stimulate the private sector market for photovoltaic power systems. The Secretary and other Federal agencies acting under delegation from the Secretary shall, subject to the availability of appropriated funds, procure not more than 30 megawatts of photovoltaic solar electric systems during fiscal years ending September 30, 1979, September 30, 1980, and September 30, 1981.

[(b) OTHER PROCUREMENT.—Nothing in this part shall preclude any Federal agency from directly procuring a photovoltaic solar electric system (in lieu of obtaining one under the program under subsection (a)), except that any such Federal agency shall consult with the Secretary before procuring such a system.

[SEC. 568. ADVISORY COMMITTEE.

[(a) ESTABLISHMENT.—There is hereby established an advisory committee to assist the Secretary in the establishment and conduct of the programs established under this part.

[(b) MEMBERSHIP.—Such committee shall be composed of the Secretary of Defense, the Secretary of Housing and Urban Development, the Administrator of the National Aeronautics and Space Administration, the Administrator of the General Services Administration, the Secretary of Transportation, the Administrator of the Small Business Administration, the chairman of the Federal Trade Commission, the Postmaster General, and such other persons as the Secretary deems necessary. The Secretary shall appoint such other nongovernmental persons to the extent necessary to assure that the membership of the committee will be fairly balanced in terms of the point of view represented and the functions to be performed by the committee.

[(c) TERMINATION.—The advisory committee shall terminate October 1, 1981.

[SEC. 569. AUTHORIZATION OF APPROPRIATIONS.

[For the purposes of this part, there is authorized to be appropriated to the Secretary not to exceed $98,000,000, for the period beginning October 1, 1978, and ending September 30, 1981.]

[PART 5—PEAK DEMAND REDUCTION

[SEC. 571. NATIONAL ACTION PLAN FOR DEMAND RESPONSE.

[(a) NATIONAL ASSESSMENT AND REPORT.—The Federal Energy Regulatory Commission ("Commission") shall conduct a National Assessment of Demand Response. The Commission shall, within 18 months of the date of enactment of this part, submit a report to Congress that includes each of the following:

[(1) Estimation of nationwide demand response potential in 5 and 10 year horizons, including data on a State-by-State basis, and a methodology for updates of such estimates on an annual basis.

[(2) Estimation of how much of this potential can be achieved within 5 and 10 years after the enactment of this part accompanied by specific policy recommendations that if implemented can achieve the estimated potential. Such recommendations shall include options for funding and/or incentives for the development of demand response resources.

[(3) The Commission shall further note any barriers to demand response programs offering flexible, non-discriminatory, and fairly compensatory terms for the services and benefits made available, and shall provide recommendations for overcoming such barriers.

[(4) The Commission shall seek to take advantage of preexisting research and ongoing work, and shall insure that there is no duplication of effort.

[(b) NATIONAL ACTION PLAN ON DEMAND RESPONSE.—The Commission shall further develop a National Action Plan on Demand Response, soliciting and accepting input and participation from a broad range of industry stakeholders, State regulatory utility commissioners, and non-governmental groups. The Commission shall seek consensus where possible, and decide on optimum solutions to

issues that defy consensus. Such Plan shall be completed within 1 year after the completion of the National Assessment of Demand Response, and shall meet each of the following objectives:

[(1) Identification of requirements for technical assistance to States to allow them to maximize the amount of demand response resources that can be developed and deployed.

[(2) Design and identification of requirements for implementation of a national communications program that includes broad-based customer education and support.

[(3) Development or identification of analytical tools, information, model regulatory provisions, model contracts, and other support materials for use by customers, States, utilities and demand response providers.

[(c) Upon completion, the National Action Plan on Demand Response shall be published, together with any favorable and dissenting comments submitted by participants in its preparation. Six months after publication, the Commission, together with the Secretary of Energy, shall submit to Congress a proposal to implement the Action Plan, including specific proposed assignments of responsibility, proposed budget amounts, and any agreements secured for participation from State and other participants.

[(d) AUTHORIZATION.—There are authorized to be appropriated to the Commission to carry out this section not more than $10,000,000 for each of the fiscal years 2008, 2009, and 2010.]

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TITLE VIII—ENERGY SAVINGS PERFORMANCE CONTRACTS

SEC. 801. AUTHORITY TO ENTER INTO CONTRACTS.

(a) IN GENERAL.—(1) * * *

(2)(A) * * *

* * * * * * *

(F) PROMOTION OF CONTRACTS.—In carrying out this section, a Federal agency shall not—

(i) establish a Federal agency policy that limits the maximum contract term under subparagraph (D) to a period shorter than 25 years; [or]

(ii) limit the total amount of obligations under energy savings performance contracts or other private financing of energy savings measures[.]*; or*

(iii) limit the recognition of operation and maintenance savings associated with systems modernized or replaced with the implementation of energy conservation measures, water conservation measures, or any combination of energy conservation measures and water conservation measures.

* * * * * * *

(H) MISCELLANEOUS AUTHORITY.—Notwithstanding any other provision of law, a Federal agency may sell or transfer energy savings and apply the proceeds of the sale or transfer to fund a contract under this title.

SEC. 802. PAYMENT OF COSTS.

Any amount paid by a Federal agency pursuant to any contract entered into under this title may be paid only from funds appropriated or otherwise made available to the agency for fiscal year 1986 or any fiscal year thereafter for the payment of energy, water, or wastewater treatment expenses, *including related operations and maintenance expenses* **[**(and related operation and maintenance expenses)**]**.

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SEC. 804. DEFINITIONS.

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(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**]** *Federal building (as defined in section 551)* 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**]** *Federal building (as defined in section 551)*; 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;

(C) if otherwise authorized by Federal or State law (including regulations), the sale or transfer of electrical or thermal energy generated on-site from renewable energy sources or cogeneration, but in excess of Federal needs, to utilities or non-Federal energy users**[**; and**]***;*

(D) the increased efficient use of existing water sources in interior or exterior applications**[**.**]***;*

(E) the use, sale, or transfer of energy incentives, rebates, or credits (including renewable energy credits) from Federal, State, or local governments or utilities; and

(F) any revenue generated from a reduction in energy or water use, more efficient waste recycling, or additional energy generated from more efficient equipment.

* * * * * * *

NATIONAL MATERIALS AND MINERALS POLICY, RESEARCH AND DEVELOPMENT ACT OF 1980

Public Law 96–479, as amended

* * * * * * *

FINDINGS

SEC. 2. (a) The Congress finds that—* * *

* * * * * * *

[(b) As used in this Act]

(b) DEFINITIONS.—In this Act:

(1) CRITICAL MINERAL.—The term "critical mineral" means any mineral or element designated as a critical mineral pursuant to section 3303 of the Energy Policy Modernization Act of 2015.

(2) MATERIALS.—The term "materials" means substances, including minerals, of current or potential use that will be needed to supply the industrial, military, and essential civilian needs of the United States in the production of goods or services, including those which are primarily imported or for which there is a prospect of shortages or uncertain supply, or which present opportunities in terms of new physical properties, use, recycling, disposal or substitution, with the exclusion of food and of energy fuels used as such.

DECLARATION OF POLCY

SEC. 3. The Congress declares that it is the continuing policy of the United States to promote an adequate and stable supply of materials necessary to maintain national security, economic well-being and industrial production, with appropriate attention to a long-term balance between resource production, energy use, a healthy environment, natural resources conservation, and social needs. The Congress further declares that implementation of this policy requires that the President shall, through the Executive Office of the President, coordinate the responsible departments and agencies to, among other measures—

(1) identify materials needs and assist in the pursuit of measures that would assure the availability of materials critical to commerce, the economy, and national security;

(2) establish a mechanism for the coordination and evaluation of Federal materials programs, including those involving research and development so as to complement related efforts by the private sector as well as other domestic and international agencies and organizations;

[(3) establish a long-range assessment capability concerning materials demands, supply and needs, and provide for the policies and programs necessary to meet those needs;]

(3) establish an analytical and forecasting capability for identifying critical mineral demand, supply, and other factors to allow informed actions to be taken to avoid supply shortages, mitigate price volatility, and prepare for demand growth and other market shifts;

(4) promote a vigorous, comprehensive, and coordinated program of materials research and development consistent with the policies and priorities set forth in the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6601 et seq.);

(5) promote cooperative research and development programs with other nations for the equitable and frugal use of materials and energy;

(6) promote and encourage private enterprise in the development of economically sound and stable domestic materials industries; [and]

[(7) encourage Federal agencies to facilitate availability and development of domestic resources to meet critical materials needs.]

(7) encourage Federal agencies to facilitate the availability, development, and environmentally responsible production of domestic resources to meet national material or critical mineral needs;

(8) avoid duplication of effort, prevent unnecessary paperwork, and minimize delays in the administration of applicable laws (including regulations) and the issuance of permits and authorizations necessary to explore for, develop, and produce critical minerals and to construct critical mineral manufacturing facilities in accordance with applicable environmental and land management laws;

(9) strengthen educational and research capabilities and workforce training;

(10) bolster international cooperation through technology transfer, information sharing, and other means;

(11) promote the efficient production, use, and recycling of critical minerals;

(12) develop alternatives to critical minerals; and

(13) establish contingencies for the production of, or access to, critical minerals for which viable sources do not exist within the United States.

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NATURAL GAS ACT

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

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EXPORTATION OR IMPORTATION OF NATURAL GAS; LNG TERMINALS

SEC. 3. (a) * * *

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(g) PUBLIC DISCLOSURE OF LNG EXPORT DESTINATIONS.—

(1) IN GENERAL.—In the case of any authorization to export liquefied natural gas, the Secretary of Energy shall require the applicant to report to the Secretary of Energy the names of the 1 or more countries of destination to which the exported liquefied natural gas is delivered.

(2) TIMING.—The applicant shall file the report required under paragraph (1) not later than—

(A) in the case of the first export, the last day of the month following the month of the first export; and

(B) in the case of subsequent exports, the date that is 30 days after the last day of the applicable month concerning the activity of the previous month.

(3) DISCLOSURE.—The Secretary of Energy shall publish the information reported under this subsection on the website of the Department of Energy and otherwise make the information available to the public.

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NUCLEAR SAFETY RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACT OF 1980

Public Law 96–567, as amended

* * * * * * *

[NATIONAL REACTOR ENGINEERING SIMULATOR FEASIBILITY STUDY

[SEC. 5. (a) The Secretary, in consultation with the Commission and the Advisory Committee, shall initiate a study of the need for and feasibility of establishing a reactor engineering simulator facility at a national laboratory, for the primary purpose of fostering research in generic design improvements and simplifications through the simulation of the performance of various types of light water reactors under a wide variety of abnormal conditions and postulated accident conditions.

[(b) In performing the study, the Secretary shall consider relevant factors including, but not limited to—

[(1) the potential advantages that would accrue from the establishment of such a facility;

[(2) the extent to which such a facility would further the generic safety research and development program established by this Act;

[(3) the extent to which such a facility can be established by nongovernmental entities;

[(4) the opportunities for cost sharing by nongovernmental entities in the construction and operation of such a facility;

[(5) the importance of such a facility in emergencies to limit the extent of any future nuclear powerplant excursions;

[(6) the potential for international cooperation in the establishment and operation of such a facility; and

[(7) the appropriate national laboratory for siting such a facility.

[(c) The Secretary shall, by January 1, 1982, submit to the Committee on Science and Technology [Committee on Science, Space, and Technology] of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report characterizing the study and the resulting conclusions and recommendations.

[FEDERAL NUCLEAR OPERATIONS CORPS' STUDY

[SEC. 6. (a) The Secretary, in cooperation with the Nuclear Regulatory Commission, shall initiate a study as to the sufficiency of efforts in the United States to provide specially trained professionals to operate the controls of nuclear powerplants and other facilities in the back-end of the nuclear fuel cycle. In carrying out the study, the Secretary shall coordinate his activities with the ongoing programs of the utility industry and other Federal governmental agencies for obtaining high standards of operator performance.

[(b)(1) In conducting the study the Secretary shall assess the desirability and feasibility of creating a Federal Corps of such professionals to inspect and supervise such operations.

[(2) The assessment shall consider the establishment of an academy to train Corps professionals in all aspects of nuclear technology, nuclear operations, nuclear regulatory and related law, and health science.

[(3) The assessment shall include the appropriate organizational approach for the establishment of a Federal Corps within the executive branch.

[(c) The Secretary shall complete the study within one year after the date of enactment of this Act and shall submit a report along with his recommendations to the Congress.]

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NATIONAL SUPERCONDUCTIVITY AND COMPETITIVENESS ACT OF 1988

Public Law 100–697

* * * * * * *

SEC. 3. NATIONAL ACTION PLAN ON SUPERCONDUCTIVITY RESEARCH AND DEVELOPMENT.

* * * * * * *

(d) UPDATE REPORTS.—The Office of Science and Technology Policy[, with the assistance of the National Critical Materials Council as specified in the National Critical Materials Act of 1984 (30 U.S.C. 1801 et seq.),] shall prepare an annual report setting forth and evaluating the progress of the Superconductivity Action Plan. This report shall include a description of the amount of funds expended in the previous year by all Federal departments and agencies involved with superconductivity. This report shall be submitted with the President's annual budget request to the Committee on Science, Space, and Technology of the House of Representatives, and to the Committees on Energy and Natural Resources, and Commerce, Science, and Transportation of the Senate.

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POWERPLANT AND INDUSTRIAL FUEL USE ACT OF 1978

Public Law 95–620, as amended

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SEC. 101. SHORT TITLE; TABLE OF CONTENTS.

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(b) TABLE OF CONTENTS.—

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TITLE VII—ADMINISTRATION AND ENFORCEMENT

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SUBTITLE E—STUDIES

[SUBTITLE F—APPROPRIATIONS AUTHORIZATION]

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TITLE VIII—MISCELLANEOUS PROVISIONS

* * * * * * *

SEC. 712. COMPLIANCE REPORT.

[(a) GENERALLY.—]Any person owning, operating, or proposing to operate one or more existing electric powerplants required to come into compliance with the prohibitions of this Act shall on or before January 1, 1980, and annually thereafter, submit to the Secretary a report identifying all such existing electric powerplants owned or operated by such person. Such report shall—

(1) set forth the anticipated schedule for compliance with the applicable requirements and prohibitions by each such electric powerplant;

(2) indicate proposed or existing contracts or other commitments or good faith negotiations for such contracts or commitments for coal or another alternate fuel, equipment, or combinations thereof, which would enable such powerplant to comply with such prohibitions; and

(3) identify those electric powerplants, if any, for which application for temporary or permanent exemption from the prohibitions of this Act may be filed.

[(b) REPORT ON IMPLEMENTATION OF SECTION 808 PLAN.—Any electric utility required to submit a conservation plan under section 808 shall annually submit to the Secretary a report identifying the steps taken during the preceding year to implement such plan.]

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[SEC. 741. NATIONAL COAL POLICY STUDY.

[(a) STUDY.—The President, acting through the Secretary and the Administrator of the Environmental Protection Agency, shall make a full and complete investigation and study of the alternative national uses of coal available in the United States to meet the Nation's energy requirements consistent with national policies for the protection and enhancement of the quality of the environment and for economic recovery and full employment. In particular the study should identify and evaluate—

[(1) current and prospective coal requirements of the United States;

[(2) current and prospective voluntary and mandatory energy conservation measures and their potential for reduction of the United States coal requirements;

[(3) current and prospective coal resource production, transportation, conversion, and utilization requirements;

[(4) the extent and adequacy of coal research, development, and demonstration programs being carried out by Federal, State, local, and nongovernmental entities (including financial resources, manpower, and statutory authority);

[(5) programs for the development of coal mining technologies which increase coal production and utilization while protecting the health and safety of coal miners;

[(6) alternative strategies for meeting anticipated United States coal requirements, consistent with achieving other national goals, including national security and environmental protection;

[(7) existing and prospective governmental policies and laws affecting the coal industry with the view of determining what, if any, changes in and implementation of such policies and laws may be advisable in order to consolidate, coordinate, and provide an effective and equitable national energy policy consistent with other national policies; and

[(8) the most efficient use of the Nation's coal resources considering economic (including capital and consumer costs, and balance of payments), social (including employment), environmental, technological, national defense, and other aspects.

[(b) REPORT.—Within 18 months after the effective date of this Act, the President shall submit to the Congress a report with respect to the studies and investigations, together with findings and recommendations in order that the Congress may have such information in a timely fashion. Such report shall include the President's determinations and recommendations with respect to—

[(1) the Nation's projected coal needs nationally and regionally, for the next 2 decades with particular reference to electric power;

[(2) the coal resources available or which must be developed to meet those needs, including, as applicable, the programs for research, development, and demonstration necessary to provide

technological advances which may greatly enhance the Nation's ability to efficiently and economically utilize its fuel resources, consistent with applicable environmental requirements;

[(3) the air, water, and other pollution created by coal requirements, including any programs to overcome promptly and efficiently any technological or economic barriers to the elimination of such pollution;

[(4) the existing policies and programs of the Federal Government and of State and local governments, which have any significant impact on the availability, production or efficient and economic utilization of coal resources and on the ability to meet the Nation's energy needs and environmental requirements; and

[(5) the adequacy of various transportation systems, including roads, railroads, and waterways to meet projected increases in coal production and utilization.

[Before submitting a report to the Congress under subsection (b), the President shall publish in the Federal Register a notice and summary of the proposed report, make copies of such report available, and accord interested persons an opportunity (of not less than 90 days' duration) to present written comments; and shall make such modifications of such report as he may consider appropriate on the basis of such comments.

[(c) AUTHORIZATION OF APPROPRIATIONS.—There is hereby authorized to be appropriated to the Secretary for allocation between the Department of Energy and the Environmental Protection Agency for fiscal years 1979 and 1980, not to exceed $18,000,000, for use in carrying out the purposes of this section.]

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[SEC. 744. STUDY OF COMPLIANCE PROBLEM OF SMALL ELECTRIC UTILITY SYSTEMS.

[(a) STUDY.—The Secretary shall conduct a study of the problems of compliance with this Act experienced by those electric utility systems which have a total system generating capacity of less than 2,000 megawatts. The Secretary shall report his findings and his recommendations to the Congress not later than 2 years after the effective date of this Act.

[(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary for the fiscal year 1979 not to exceed $500,000 to carry out the provisions of this section.]

[SEC. 746. SOCIOECONOMIC IMPACTS OF INCREASED COAL PRODUCTION AND OTHER ENERGY DEVELOPMENT.

[(a) COMMITTEE.—There is hereby established an interagency committee composed of the heads of the Departments of Energy, Commerce, Interior, Transportation, Housing and Urban Development, and Health, Education, and Welfare, the Environmental Protection Agency, the Appalachian Regional Commission, the Farmers' Home Administration, the Office of Management and Budget, and such other Federal agencies as the Secretary shall designate. In carrying out its functions the committee shall consult with the National Governors' Conference and interested persons, organizations, and entities. The chairman of the committee shall be designated by the President. The committee shall terminate 90 days after the submission of its report under subsection (c).

[(b) FUNCTIONS OF COMMITTEE.—It is the function of the committee to conduct a study of the socioeconomic impacts of expanded coal production and rapid energy development in general, on States, including local communities, and on the public, including the adequacy of housing and public, recreational, and cultural facilities for coal miners and their families and the effect of any Federal or State laws or regulations on providing such housing and facilities. The committee shall gather data and information on—

[(1) the level of assistance provided under this Act and any other programs related to impact assistance,

[(2) the timeliness of assistance in meeting impacts caused by Federal decisions on energy policy as well as private sector decisions, and

[(3) the obstacles to effective assistance contained in regulations of existing programs related to impact assistance.

[(c) REPORT.—Within 1 year after the effective date of this Act, the committee shall submit a detailed report on the results of such study to the Congress, together with any recommendations for additional legislation it may consider appropriate.]

[SEC. 747. USE OF PETROLEUM AND NATURAL GAS IN COMBUSTORS.

[The Secretary shall conduct a detailed study of the uses of petroleum and natural gas as a primary energy source for combustors and installations not subject to the prohibitions of this Act. In conducting such study, the Secretary shall—

[(1) identify those categories of major fuel-burning installations in which the substitution of coal or other alternate fuels for petroleum and natural gas is economically and technically feasible, and

[(2) determine the estimated savings of natural gas and petroleum expected from such substitution.

[Within 1 year after the effective date of this Act, the Secretary shall submit a detailed report on the results of such study to the Congress, together with any recommendations for legislation he may consider appropriate.]

[Subtitle F—Appropriations Authorization

[SEC. 751. AUTHORIZATION OF APPROPRIATIONS.

[There is authorized to be appropriated to the Secretary for fiscal year 1979 $11,900,000, to carry out the provisions of this Act (other than provisions for which an appropriations authorization is otherwise expressly provided in this Act) and section 2 of the Energy Supply and Environmental Coordination Act of 1974.]

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[SEC. 807. SUBMISSION OF REPORTS.

[Copies of any report required by this Act to be submitted to the Congress shall be separately submitted to the Committee on Interstate and Foreign Commerce of the House of Representatives and the Committee on Energy and Natural Resources of the Senate.]

[SEC. 808. ELECTRIC UTILITY CONSERVATION PLAN.

[(a) APPLICABILITY.—An electric utility is subject to this subsection if—

[(1) the utility owns or operates any existing electric powerplant in which natural gas was used as a primary energy source at any time during the 1–year period ending on the date of the enactment of this section, and

[(2) the utility plans to use natural gas as a primary energy source in any electric powerplant.

[(b) SUBMISSION AND APPROVAL OF PLAN.—The Secretary shall require each electric utility subject to this section to—

[(1) submit, within 1 year after the date of the enactment of this section, and have approved by the Secretary, a conservation plan which meets the requirements of subsection (c); and

[(2) implement such plan during the 5–year period beginning on the date of the initial approval of such plan.

[(c) CONTENTS OF PLAN.—(1) Any conservation plan under this section shall set forth means determined by the utility to achieve conservation of electric energy not later than the 5th year after its initial approval at a level, measured on an annual basis, at least equal to 10 percent of the electric energy output of that utility during the most recent 4 calendar quarters ending prior to the date of the enactment of this section which is attributable to natural gas.

[(2) The conservation plan shall include—

[(A) all activities required for such utility by part 1 of title II of the National Energy Conservation Policy Act;

[(B) an effective public information program for conservation; and

[(C) such other measures as the utility may consider appropriate.

[(3) Any such plan may set forth a program for the use of renewable energy sources (other than hydroelectric power).

[(4) Any such plan shall contain procedures to permit the amounts expended by such utility in developing and implementing the plan to be recovered in a manner specified by the appropriate State regulatory authority (or by the utility in the case of a nonregulated utility).

[(d) PLAN APPROVAL.—(1) The Secretary shall, by order, approve or disapprove any conservation plan proposed under this subsection by an electric utility within 120 days after its submission. The Secretary shall approve any such proposed plan unless the Secretary finds that such plan does not meet the requirements of subsection (c) and states in writing the reasons therefor.

[(2) In the event the Secretary disapproves under paragraph (1) the plan originally submitted, the Secretary shall provide a reasonable period of time for resubmission.

[(3) An electric utility may amend any approved plan, except that the plan as amended shall be subject to approval in accordance with paragraph (1).]

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UNITED STATES CODE

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TITLE 40—PUBLIC BUILDINGS, PROPERTY, AND WORKS

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§ 3307. Congressional approval of proposed projects

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(d) AVAILABILITY OF FUNDS FOR DESIGN UPDATES.—

(1) IN GENERAL.—Subject to paragraph (2), for any project for which congressional approval is received under subsection (a) and for which the design has been substantially completed but construction has not begun, the Administrator of General Services may use appropriated funds to update the project design to meet applicable Federal building energy efficiency standards established under section 305 of the Energy Conservation and Production Act (42 U.S.C. 6834) and other requirements established under section 3312.

(2) LIMITATION.—The use of funds under paragraph (1) shall not exceed 125 percent of the estimated energy or other cost savings associated with the updates as determined by a life cycle cost analysis under section 544 of the National Energy Conservation Policy Act (42 U.S.C. 8254).

[(d)**]***(e)* RESCISSION OF APPROVAL.—If an appropriation is not made within one year after the date a project for construction, alteration, or acquisition is approved under subsection (a), the Committee on Environment and Public Works of the Senate or the Committee on Transportation and Infrastructure of the House of Representatives by resolution may rescind its approval before an appropriation is made.

[(e)**]***(f)* EMERGENCY LEASES BY THE ADMINISTRATOR.—This section does not prevent the Administrator from entering into emergency leases during any period declared by the President to require emergency leasing authority. An emergency lease may not be for more than 180 days without approval of a prospectus for the lease in accordance with subsection (a).

[(f)**]***(g)* MINIMUM PERFORMANCE REQUIREMENTS FOR LEASED SPACE.—With respect to space to be leased, the Administrator shall include, to the maximum extent practicable, minimum performance requirements requiring energy efficiency and the use of renewable energy.

[(g)**]***(h)* LIMITATION ON LEASING CERTAIN SPACE.—

(1) IN GENERAL.—The Administrator may not lease space to accommodate any of the following if the average rental cost of leasing the space will exceed $1,500,000:

(A) Computer and telecommunications operations.

(B) Secure or sensitive activities related to the national defense or security, except when it would be inappropriate to locate those activities in a public building or other facility identified with the Government.

(C) A permanent courtroom, judicial chamber, or administrative office for any United States court.

(2) EXCEPTION.—The Administrator may lease space with respect to which paragraph (1) applies if the Administrator—

(A) decides, for reasons set forth in writing, that leasing the space is necessary to meet requirements which cannot be met in public buildings; and

(B) submits the reasons to the Committee on Environment and Public Works of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.

[(h)]*(i)* DOLLAR AMOUNT ADJUSTMENT.—The Administrator annually may adjust any dollar amount referred to in this section to reflect a percentage increase or decrease in construction costs during the prior calendar year, as determined by the composite index of construction costs of the Department of Commerce. Any adjustment shall be expeditiously reported to the Committee on Environment and Public Works of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.

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TITLE 54—NATIONAL PARK SERVICE AND RELATED PROGRAMS

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CHAPTER 1049—MISCELLANEOUS

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§ 104908. National Park Service Maintenance and Revitalization Conservation Fund

(a) IN GENERAL.—There is established in the Treasury a fund, to be known as the "National Park Service Critical Maintenance and Revitalization Conservation Fund" (referred to in this section as the "Fund").

(b) DEPOSITS TO FUND.—Notwithstanding any provision of law providing that the proceeds shall be credited to miscellaneous receipts of the Treasury, for each fiscal year, there shall be deposited in the Fund, from revenues due and payable to the United States under section 9 of the Outer Continental Shelf Lands Act (43 U.S.C. 1338) $150,000,000.

(c) USE AND AVAILABILITY.—

(1) IN GENERAL.—Amounts deposited in the Fund shall—

(A) be used only for the purposes described in subsection (d); and

(B) be available for expenditure only after the amounts are appropriated for those purposes.

(2) AVAILABILITY.—Any amounts in the Fund not appropriated shall remain available in the Fund until appropriated.

(3) NO LIMITATION.—Appropriations from the Fund pursuant to this section may be made without fiscal year limitation.

(d) NATIONAL PARK SYSTEM CRITICAL DEFERRED MAINTENANCE.—The Secretary shall use amounts appropriated from the Fund for high-priority deferred maintenance needs of the Service that support critical infrastructure and visitor services.

(e) LAND ACQUISITION PROHIBITION.—Amounts in the Fund shall not be used for land acquisition.

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CHAPTER 2003—LAND AND WATER CONSERVATION FUND

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§ 200302. Establishment of Land and Water Conservation Fund

(a) ESTABLISHMENT.—There is established in the Treasury the Land and Water Conservation Fund.

(b) DEPOSITS.—**[**During the period ending September 30, 2015, there**]** *There* shall be deposited in the Fund the following revenues and collections:

(1) All proceeds (except so much thereof as may be otherwise obligated, credited, or paid under authority of the provisions of law set forth in section 572(a) or 574(a) to (c) of title 40 or under authority of any appropriation Act that appropriates an amount, to be derived from proceeds from the transfer of excess property and the disposal of surplus property, for necessary expenses, not otherwise provided for, incident to the utilization and disposal of excess and surplus property) received from any disposal of surplus real property and related personal property under chapter 5 of title 40, notwithstanding any provision of law that such proceeds shall be credited to miscellaneous receipts of the Treasury. Nothing in this chapter shall affect existing laws or regulations concerning disposal of real or personal surplus property to schools, hospitals, and States and their political subdivisions.

(2) The amounts provided for in section 200310 of this title.

(c) AUTHORIZATION OF APPROPRIATIONS.—

(1) IN GENERAL.—In addition to the sum of the revenues and collections estimated by the Secretary to be deposited in the Fund pursuant to this section, there are authorized to be appropriated annually to the Fund out of any money in the Treasury not otherwise appropriated such amounts as are necessary to make the income of the Fund not less than $900,000,000 for each fiscal year **[**through September 30, 2015**]**.

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§ 200304. Statement of estimated requirements

[There**]** *(a) IN GENERAL.—There* shall be submitted with the annual budget of the United States a comprehensive statement of estimated requirements during the ensuing fiscal year for appropriations from the Fund. **[**Not less than 40 percent of such appropriations shall be available for Federal purposes.**]**

(b) ALLOCATION.—Of the appropriations from the Fund—

(1) not less than 40 percent shall be used collectively for Federal purposes under section 200306;

(2) not less than 40 percent shall be used collectively—

(A) to provide financial assistance to States under section 200305;

(B) for the Forest Legacy Program established under section 7 of the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2103c);

(C) for cooperative endangered species grants authorized under section 6 of the Endangered Species Act of 1973 (16 U.S.C. 1535); and

(D) for the American Battlefield Protection Program established under chapter 3081; and

(3) not less than 1.5 percent or $10,000,000, whichever is greater, shall be used for projects that secure recreational public access to Federal public land for hunting, fishing, or other recreational purposes.

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§ 200306. Allocation of Fund amounts for Federal purposes

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(c) CONSERVATION EASEMENTS.—The Secretary and the Secretary of Agriculture shall consider the acquisition of conservation easements and other similar interests in land where appropriate and feasible.

(d) ACQUISITION CONSIDERATIONS.—The Secretary and the Secretary of Agriculture shall take into account the following in determining the land or interests in land to acquire:

(1) Management efficiencies.

(2) Management cost savings.

(3) Geographic distribution.

(4) Significance of the acquisition.

(5) Urgency of the acquisition.

(6) Threats to the integrity of the land to be acquired.

(7) The recreational value of the land.

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CHAPTER 3031—HISTORIC PRESERVATION FUND

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§ 303102. Contents

For each **[**of fiscal years 2012 to 2015**]** *fiscal year*, $150,000,000 shall be deposited in the Historic Preservation Fund from revenues due and payable to the United States under section 9 of the Outer Continental Shelf Lands Act (43 U.S.C. 1338), section 7433(b) of title 10, or both, notwithstanding any provision of law that those proceeds shall be credited to miscellaneous receipts of the Treasury.

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