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No. 15

## House of Representatives

The House was not in session today. Its next meeting will be held on Thursday, January 28, 2016, at 2 p.m.

## Senate

TUESDAY, JANUARY 26, 2016

The Senate met at 10 a.m. and was called to order by the Honorable SUSAN M. COLLINS, a Senator from the State of Maine.

### PRAYER

The Chaplain, Dr. Barry C. Black, offered the following prayer:

Let us pray.

Eternal God, the superintendent of life's seasons, thank You for the gift of this day.

Lord, the paralyzing snow reminds us that to everything there is a season, a time for every matter and purpose under Heaven. Give our lawmakers the wisdom to seize the opportunities of the myriad seasons. May it never be said about their labors that the harvest has past but the work has been left undone. Lord, inspire them to seize the seasons of planting and reaping, of removing and building, of speaking and listening, of weeping and laughing, of dividing and uniting, of scattering and gathering. May the opportunities provided in this season enable our Senators to be Your ambassadors on Earth. We pray in Your great Name. Amen.

### PLEDGE OF ALLEGIANCE

The Presiding Officer led the Pledge of Allegiance, as follows:

I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

### APPOINTMENT OF ACTING PRESIDENT PRO TEMPORE

The PRESIDING OFFICER. The clerk will please read a communication to the Senate from the President pro tempore (Mr. HATCH).

The bill clerk read the following letter:

U.S. SENATE,  
PRESIDENT PRO TEMPORE,  
Washington, DC, January 26, 2016.

To the Senate:

Under the provisions of rule I, paragraph 3, of the Standing Rules of the Senate, I hereby appoint the Honorable SUSAN M. COLLINS, a Senator from the State of Maine, to perform the duties of the Chair.

ORRIN G. HATCH,  
President pro tempore.

Ms. COLLINS thereupon assumed the Chair as Acting President pro tempore.

### MORNING BUSINESS

#### RECOGNITION OF THE ACTING MAJORITY LEADER

The ACTING PRESIDENT pro tempore. The Senator from Alaska is recognized.

#### MEASURE PLACED ON THE CALENDAR—S. 2464

Ms. MURKOWSKI. Madam President, I understand there is a bill at the desk that is due for a second reading.

The ACTING PRESIDENT pro tempore. The clerk will read the bill by title for the second time.

The senior assistant legislative clerk read as follows:

A bill (S. 2464) to implement equal protection under the 14th Amendment to the Constitution of the United States for the right to life of each born and preborn human person.

Ms. MURKOWSKI. Madam President, in order to place the bill on the calendar under the provisions of rule XIV, I object to further proceedings.

The ACTING PRESIDENT pro tempore. Objection is heard.

The bill will be placed on the calendar.

### ORDER OF PROCEDURE

Ms. MURKOWSKI. Madam President, I ask unanimous consent that the order for today with respect to the consideration of S. 2012 and the nomination in executive session be modified for tomorrow's session as follows: consideration of S. 2012 be for debate only until 2:15 p.m.; and that at 5:15 p.m. the Senate proceed to executive session to consider calendar No. 306 as under the previous order.

The ACTING PRESIDENT pro tempore. Is there objection?

Hearing none, it is so ordered.

### BLIZZARD OF 2016

Ms. MURKOWSKI. Madam President, before I complete the following close-out here, I want to make a comment this morning. What we have just done is move consideration of the energy bill—the Energy Policy Modernization Act—from today to tomorrow. It is a little bit unusual, but given what we have seen here, not only in Washington, DC, but all around the East

• This "bullet" symbol identifies statements or insertions which are not spoken by a Member of the Senate on the floor.



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Coast with the weather, the blizzard of 2016, it is understandable that we would allow for a period of time for our colleagues to return to the U.S. Senate.

I think it is more than an understatement to say that it has been challenging to travel, challenging to move. I think it is worth noting, however, that the Acting President pro tempore, the Senator from Maine, and myself, the Senator from Alaska—both kind of the bookends of the country, arctic States, if you will; certainly Alaska is, and Maine is right up there—are here braving the elements.

I might also note for a little historical perspective that as we convene this morning, and you look around the Chamber, the Acting President pro tempore is female, our Parliamentarian and all of our clerks are female, our floor managers are female, and all of our pages are female. This was not orchestrated in any way, shape or form. We came in this morning, looked around and thought: something is different this morning—different in a good way, I might add. But something is genuinely different, and I think it is genuinely fabulous. Perhaps it speaks to the hardness of women who put on their boots and put on their hat and get out and slog through the mess that is out there.

I don't know about you all, but I spent a good portion of my weekend shoveling. I feel stronger today, but I am ready to be back at work where it is a little less rigorous. It has been an interesting weekend with, again, the extent of the blizzard. I have been asked numerous times: Well, this must just be a normal day for you in Alaska. We haven't had the snow that we would like back home. In fact, we got as much snowfall here in the D.C. metropolitan area as Anchorage, my hometown, has had accumulated over the course of this season.

We have been feeling a little left out of the weather events. I was looking at Facebook over the weekend. There is one post out there that I thought was pretty Alaskan. It said: "Not to be outdone in winter, #Alaska sees East Coast blizzard and raises it with major #earthquake."

We had a little bit of excitement back home with a 7.1 earthquake. But the good news for us throughout the State is that while it certainly got everyone's attention at 1 o'clock in the morning, it did not cause significant damage. We are thankful for that.

We are also thankful that as we are digging out of the snowstorms here and throughout the East, people are making it through. But our thoughts and our prayers are for those who have suffered as a consequence of this weather-related tragedy in many, many cases.

#### TRIBUTE TO DAVID GRANNIS

• Mrs. FEINSTEIN. Madam President, today I wish to pay tribute and offer my heartfelt thanks to one of my most trusted advisers, David Grannis. David

has served me on the Senate Select Committee on Intelligence for over a decade, beginning as my designee in March of 2005, then as my staff director from January of 2009 when I took over as chairman of the Committee. Over this decade, I have grown to trust his expertise and advice on all aspects of our oversight of the Intelligence Community and to rely on David's keen abilities to manage the committee in a fair and bipartisan manner, while shepherding through some of the Nation's most important and sometimes controversial legislation.

Prior to joining the Intelligence Committee in 2005, David worked on the House Select Committee on Homeland Security and was the senior policy adviser to Representative Jane Harman on matters of national security. Before coming to Congress, David worked for 2 years at the National Research Council's Board on Chemical Sciences and Technology on projects studying the ability to make explosives more detectable and identifiable. He has a master's of public policy from the Kennedy School of Government at Harvard University, where he worked for now-Secretary of Defense Ash Carter, who I understand recommended him to Representative Harman. David is a proven expert on both process and substance, which I am certain he developed by applying his characteristic analytic approach to everything, a skill he developed while a student in chemistry at Cornell University.

David's accomplishments on the Intelligence Committee are extensive, so I will mention only a few of the highlights today. As staff director, David played a central role in assisting and guiding me and the committee through all stages of the committee's study of the CIA's detention and interrogation program, where a deft hand was required to negotiate numerous aspects of the review with the CIA and the administration. He played a significant role in prodding the administration to provide information and access to critically important material. He worked with the committee study team to declassify and secure release of a 500-page executive summary of the full 6,700-page report, a process that required months of excruciatingly detailed negotiations. The report is believed to be the largest review in congressional history. After the release of the declassified summary, David helped me and Senator MCCAIN draft and pass legislation that will help ensure these types of harsh interrogation techniques will never be used again by the CIA or any other agency or representative of the U.S. Government.

David also managed the bipartisan committee staff as it helped pass seven straight intelligence authorization bills from 2009 to the most recent one, which was signed by the President last month under the leadership of Chairman BURR. This effort, which helps ensure proper oversight of the intelligence community, was a significant

achievement as no legislative guidance had been provided to the intelligence community during the previous 5 years prior to 2009. I thank David for leading the staff development of these bills and helping to successfully push them through Senate passage to bring them to the President's desk.

Another recent significant accomplishment in which David's steady hand and expert advice helped achieve success is his work on the Cybersecurity Information Sharing Act of 2015. This act, which was signed by the President last month, will help this Nation defend itself from cyber attacks by encouraging increased information sharing on cyber intrusions between private industry and the government.

As staff director, David also oversaw the completion of two important committee reviews. The first one was a committee report on the 2009 Christmas Day attempted bombing of flight 253 over Detroit, and the second one was a bipartisan report on the 2012 Benghazi attacks. Each unflinchingly laid out the facts and helped determine what changes should be made as an appropriate response. David also worked to improve oversight of counterterrorism operations that helped assure the American public that Congress knew the details of what was being done by the executive branch, as well as provided recommendations for improvements.

In 2007, David worked on the committee's investigation into prewar intelligence regarding Iraq. David served as the co-lead for the committee's sixth and final report on this topic, which dealt with the subject of prewar statements by senior policymakers. This was an important and sensitive subject, and David and his staff colleagues handled it with objectivity and professionalism. The report, approved by a bipartisan majority of the committee in June 2008, helped resolve a number of important questions regarding the run-up to the Iraq War. The great work that David and his colleagues did on this project ensured that the public finally received the facts and helped conclude what had at times been a contentious chapter in the committee's history.

I also want to echo many of the comments that our committee staff has made about David including one that was passed onto me where a colleague said that he "has been the rock upon which the staff's foundation is built." He has been a solid and stable leader that has provided the confidence that the staff needs to flourish. David's intellect and knowledge of the intelligence community and his communication skills in conveying that knowledge to committee members has gained him the respect and admiration of the entire committee. Finally, his demeanor and behavior in dealing with people, both inside and outside the committee, on both sides of the aisle and in both bodies of Congress, as well

as with leaders of the intelligence community and the executive branch, is an example to be emulated.

As I mentioned earlier, these are just a few of David's traits and accomplishments that I have come to rely upon while he served on the Senate Select Committee on Intelligence. And I thank him for them. I also want to thank David's wife, Kerry Searle Grannis, for enduring the long hours and time away from home that is often a part of life in the Senate; and to acknowledge their three beautiful children—Owen, Amelia, and Nathaniel—who I hope now will have more time with their father, who can help them achieve more Boy Scout badges, excel in drama classes, and perfect that high board dive and soccer goal. Kerry has mentioned how wonderful a husband and father David has been, supporting her as she completed her Ph.D. and sharing all household chores, driving duties, and doctors' appointments for his busy crew.

I know David will thrive as he begins a new set of challenges as the Principal Deputy Under Secretary at the Department of Homeland Security's Office of Intelligence and Analysis. I wish him the very best and thank him for his many years of service and dedication to this country and to me.●

**MEASURES PLACED ON THE CALENDAR**

The following bill was read the second time, and placed on the calendar:

S. 2464. A bill to implement equal protection under the 14th Amendment to the Constitution of the United States for the right to life of each born and preborn human person.

**AMENDMENTS SUBMITTED AND PROPOSED**

SA 2953. Ms. MURKOWSKI submitted an amendment intended to be proposed by her to the bill S. 2012, to provide for the modernization of the energy policy of the United States, and for other purposes; which was ordered to lie on the table.

**TEXT OF AMENDMENTS**

**SA 2953.** Ms. MURKOWSKI submitted an amendment intended to be proposed by her to the bill S. 2012, to provide for the modernization of the energy policy of the United States, and for other purposes; which was ordered to lie on the table; as follows:

Strike all after the enacting clause and insert the following:

**SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

(a) **SHORT TITLE.**—This Act may be cited as the "Energy Policy Modernization Act of 2016".

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

- Sec. 1. Short title; table of contents.
- Sec. 2. Definitions.

**TITLE I—EFFICIENCY**  
**Subtitle A—Buildings**

Sec. 1001. Greater energy efficiency in building codes.

- Sec. 1002. Budget-neutral demonstration program for energy and water conservation improvements at multifamily residential units.
- Sec. 1003. Coordination of energy retrofitting assistance for schools.
- Sec. 1004. Energy efficiency retrofit pilot program.
- Sec. 1005. Utility energy service contracts.
- Sec. 1006. Use of energy and water efficiency measures in Federal buildings.
- Sec. 1007. Building training and assessment centers.
- Sec. 1008. Career skills training.
- Sec. 1009. Energy-efficient and energy-saving information technologies.
- Sec. 1010. Availability of funds for design updates.
- Sec. 1011. Energy efficient data centers.
- Sec. 1012. Weatherization Assistance Program.
- Sec. 1013. Reauthorization of State energy program.
- Sec. 1014. Smart building acceleration.
- Sec. 1015. Repeat of fossil phase-out.
- Sec. 1016. Federal building energy efficiency performance standards.
- Sec. 1017. Codification of Executive Order.
- Sec. 1018. Certification for green buildings.
- Sec. 1019. High performance green federal buildings.
- Sec. 1020. Evaluation of potentially duplicative green building programs within Department of Energy.
- Sec. 1021. Study and report on energy savings benefits of operational efficiency programs and services.

**Subtitle B—Appliances**

- Sec. 1101. Extended product system rebate program.
- Sec. 1102. Energy efficient transformer rebate program.
- Sec. 1103. Standards for certain furnaces.
- Sec. 1104. Third-party certification under Energy Star program.
- Sec. 1105. Energy conservation standards for commercial refrigeration equipment.
- Sec. 1106. Voluntary verification programs for air conditioning, furnace, boiler, heat pump, and water heater products.

**Subtitle C—Manufacturing**

- Sec. 1201. Manufacturing energy efficiency.
- Sec. 1202. Leveraging existing Federal agency programs to assist small and medium manufacturers.
- Sec. 1203. Leveraging smart manufacturing infrastructure at National Laboratories.

**Subtitle D—Vehicles**

- Sec. 1301. Short title.
- Sec. 1302. Objectives.
- Sec. 1303. Coordination and nonduplication.
- Sec. 1304. Authorization of appropriations.
- Sec. 1305. Reporting.

**PART I—VEHICLE RESEARCH AND DEVELOPMENT**

- Sec. 1306. Program.
- Sec. 1307. Manufacturing.

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

- Sec. 1308. Program.
- Sec. 1309. Class 8 truck and trailer systems demonstration.
- Sec. 1310. Technology testing and metrics.
- Sec. 1311. Nonroad systems pilot program.

**PART III—ADMINISTRATION**

- Sec. 1312. Repeat of existing authorities.

**Subtitle E—Short Title**

- Sec. 1401. Short title.

**TITLE II—INFRASTRUCTURE**

**Subtitle A—Cybersecurity**

- Sec. 2001. Cybersecurity threats.
- Sec. 2002. Enhanced grid security.

**Subtitle B—Strategic Petroleum Reserve**

- Sec. 2101. Strategic Petroleum Reserve modernization.

**Subtitle C—Trade**

- Sec. 2201. Action on applications to export liquefied natural gas.
- Sec. 2202. Public disclosure of liquefied natural gas export destinations.
- Sec. 2203. Energy data collaboration.

**Subtitle D—Electricity and Energy Storage**

- Sec. 2301. Grid storage program.
- Sec. 2302. Electric system grid architecture, scenario development, and modeling.
- Sec. 2303. Technology demonstration on the distribution system.
- Sec. 2304. Hybrid micro-grid systems for isolated and resilient communities.
- Sec. 2305. Voluntary model pathways.
- Sec. 2306. Performance metrics for electricity infrastructure providers.
- Sec. 2307. State and regional electricity distribution planning.
- Sec. 2308. Authorization of appropriations.
- Sec. 2309. Electric transmission infrastructure permitting.
- Sec. 2310. Report by transmission organizations on distributed energy resources and micro-grid systems.
- Sec. 2311. Net metering study guidance.

**Subtitle E—Computing**

- Sec. 2401. Exascale computer research program.

**TITLE III—SUPPLY**

**Subtitle A—Renewables**

**PART I—HYDROELECTRIC**

- Sec. 3001. Hydropower regulatory improvements.
- Sec. 3002. Hydroelectric production incentives and efficiency improvements.
- Sec. 3003. Extension of time for a Federal Energy Regulatory Commission project involving Clark Canyon Dam.
- Sec. 3004. Extension of time for a Federal Energy Regulatory Commission project involving Gibson Dam.

**PART II—GEOTHERMAL**

**SUBPART A—GEOTHERMAL ENERGY**

- Sec. 3005. National goals for production and site identification.
- Sec. 3006. Priority areas for development on Federal land.
- Sec. 3007. Facilitation of coproduction of geothermal energy on oil and gas leases.
- Sec. 3008. Noncompetitive leasing of adjoining areas for development of geothermal resources.
- Sec. 3009. Large-scale geothermal energy.
- Sec. 3010. Report to Congress.
- Sec. 3011. Authorization of appropriations.

**SUBPART B—GEOTHERMAL EXPLORATION**

- Sec. 3012. Geothermal exploration test projects.

**PART III—MARINE HYDROKINETIC**

- Sec. 3013. Definition of marine and hydrokinetic renewable energy.
- Sec. 3014. Marine and hydrokinetic renewable energy research and development.
- Sec. 3015. National Marine Renewable Energy Research, Development, and Demonstration Centers.
- Sec. 3016. Authorization of appropriations.

**PART IV—BIOMASS**

- Sec. 3017. Bio-power.
- Subtitle B—Oil and Gas**
- Sec. 3101. Amendments to the Methane Hydrate Research and Development Act of 2000.

- Sec. 3102. Liquefied natural gas study.  
 Sec. 3103. FERC process coordination with respect to regulatory approval of gas projects.  
 Sec. 3104. Pilot program.  
     Subtitle C—Helium  
 Sec. 3201. Rights to helium.  
     Subtitle D—Critical Minerals  
 Sec. 3301. Definitions.  
 Sec. 3302. Policy.  
 Sec. 3303. Critical mineral designations.  
 Sec. 3304. Resource assessment.  
 Sec. 3305. Permitting.  
 Sec. 3306. Federal Register process.  
 Sec. 3307. Recycling, efficiency, and alternatives.  
 Sec. 3308. Analysis and forecasting.  
 Sec. 3309. Education and workforce.  
 Sec. 3310. National geological and geophysical data preservation program.  
 Sec. 3311. Administration.  
 Sec. 3312. Authorization of appropriations.  
     Subtitle E—Coal  
 Sec. 3401. Fossil energy.  
 Sec. 3402. Establishment of coal technology program.  
     Subtitle F—Nuclear  
 Sec. 3501. Report on fusion and fission reactor prototypes.  
 Sec. 3502. Next generation nuclear plant project.  
     Subtitle G—Workforce Development  
 Sec. 3601. 21st Century Energy Workforce Advisory Board.  
 Sec. 3602. Energy workforce pilot grant program.  
     Subtitle H—Recycling  
 Sec. 3701. Recycled carbon fiber.  
 Sec. 3702. Energy generation and regulatory relief study regarding recovery and conversion of nonrecycled mixed plastics.  
 Sec. 3703. Eligible projects.
- TITLE IV—ACCOUNTABILITY**  
     Subtitle A—Loan Programs  
 Sec. 4001. Terms and conditions for incentives for innovative technologies.  
 Sec. 4002. State loan eligibility.  
 Sec. 4003. GAO Study on fossil loan guarantee incentive program.  
 Sec. 4004. Program eligibility for vessels.  
 Sec. 4005. Additional reforms.  
 Sec. 4006. Department of Energy Indian energy education planning and management assistance program.  
     Subtitle B—Energy-Water Nexus  
 Sec. 4101. Nexus of energy and water for sustainability.  
 Sec. 4102. Smart energy and water efficiency pilot program.  
     Subtitle C—Innovation  
 Sec. 4201. America COMPETES programs.  
 Sec. 4202. Inclusion of early stage technology demonstration in authorized technology transfer activities.  
 Sec. 4203. Supporting access of small business concerns to National Laboratories.  
 Sec. 4204. Microlab technology commercialization.  
     Subtitle D—Grid Reliability  
 Sec. 4301. Bulk-power system reliability impact statement.  
 Sec. 4302. Report by transmission organizations on diversity of supply.  
     Subtitle E—Management  
 Sec. 4401. Federal land management.  
 Sec. 4402. Quadrennial Energy Review.
- Sec. 4403. State oversight of oil and gas programs.  
 Sec. 4404. Under Secretary for Science and Energy.  
     Subtitle F—Markets  
 Sec. 4501. Enhanced information on critical energy supplies.  
 Sec. 4502. Working Group on Energy Markets.  
 Sec. 4503. Study of regulatory framework for energy markets.  
     Subtitle G—Affordability  
 Sec. 4601. E-prize competition pilot program.  
     Subtitle H—Code Maintenance  
 Sec. 4701. Repeal of off-highway motor vehicles study.  
 Sec. 4702. Repeal of methanol study.  
 Sec. 4703. Repeal of authorization of appropriations provision.  
 Sec. 4704. Repeal of residential energy efficiency standards study.  
 Sec. 4705. Repeal of weatherization study.  
 Sec. 4706. Repeal of report to Congress.  
 Sec. 4707. Repeal of report by General Services Administration.  
 Sec. 4708. Repeal of intergovernmental energy management planning and coordination workshops.  
 Sec. 4709. Repeal of Inspector General audit survey and President's Council on Integrity and Efficiency report to Congress.  
 Sec. 4710. Repeal of procurement and identification of energy efficient products program.  
 Sec. 4711. Repeal of national action plan for demand response.  
 Sec. 4712. Repeal of national coal policy study.  
 Sec. 4713. Repeal of study on compliance problem of small electric utility systems.  
 Sec. 4714. Repeal of study of socioeconomic impacts of increased coal production and other energy development.  
 Sec. 4715. Repeal of study of the use of petroleum and natural gas in combustors.  
 Sec. 4716. Repeal of submission of reports.  
 Sec. 4717. Repeal of electric utility conservation plan.  
 Sec. 4718. Emergency Energy Conservation repeals.  
 Sec. 4719. Energy Security Act repeals.  
 Sec. 4720. Nuclear Safety Research, Development, and Demonstration Act of 1980 repeals.  
 Sec. 4721. Elimination and consolidation of certain America COMPETES programs.  
 Sec. 4722. Repeal of state utility regulatory assistance.  
 Sec. 4723. Repeal of survey of energy saving potential.  
 Sec. 4724. Repeal of photovoltaic energy program.  
 Sec. 4725. Repeal of energy auditor training and certification.  
 Sec. 4726. Repeal of authorization of appropriations.  
 Sec. 4727. Repeal of Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989.  
 Sec. 4728. Repeal of hydrogen research, development, and demonstration program.  
 Sec. 4729. Repeal of study on alternative fuel use in nonroad vehicles and engines.  
 Sec. 4730. Repeal of low interest loan program for small business fleet purchases.  
 Sec. 4731. Repeal of technical and policy analysis for replacement fuel demand and supply information.
- Sec. 4732. Repeal of 1992 Report on Climate Change.  
 Sec. 4733. Repeal of Director of Climate Protector establishment.  
 Sec. 4734. Repeal of 1994 report on global climate change emissions.  
 Sec. 4735. Repeal of telecommuting study.  
 Sec. 4736. Repeal of advanced buildings for 2005 program.  
 Sec. 4737. Repeal of Energy Research, Development, Demonstration, and Commercial Application Advisory Board.  
 Sec. 4738. Repeal of study on use of energy futures for fuel purchase.  
 Sec. 4739. Repeal of energy subsidy study.
- TITLE V—CONSERVATION  
 REAUTHORIZATION**  
 Sec. 5001. National Park Service Maintenance and Revitalization Conservation Fund.  
 Sec. 5002. Land and Water Conservation Fund.  
 Sec. 5003. Historic Preservation Fund.
- SEC. 2. DEFINITIONS.**  
 In this Act:  
 (1) DEPARTMENT.—The term “Department” means the Department of Energy.  
 (2) SECRETARY.—The term “Secretary” means the Secretary of Energy.
- TITLE I—EFFICIENCY  
 Subtitle A—Buildings**  
**SEC. 1001. GREATER ENERGY EFFICIENCY IN BUILDING CODES.**  
 (a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) is amended—  
 (1) by striking paragraph (14) and inserting the following:  
 “(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.”; and  
 (2) by adding at the end the following:  
 “(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).”  
 (b) STATE BUILDING ENERGY EFFICIENCY CODES.—Section 304 of the Energy Conservation and Production Act (42 U.S.C. 6833) is amended to read as follows:  
**“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 requirements 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) the implementation of this section; and

“(iv) improvements in energy savings over time as a 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, local, and tribal 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 State, local, or tribal 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 is authorized to be appropriated to carry out this section and section 307 \$200,000,000, to remain available until expended.”.

(c) FEDERAL BUILDING ENERGY EFFICIENCY STANDARDS.—Section 305 of the Energy Conservation and Production Act (42 U.S.C. 6834) is amended by striking “voluntary building energy code” each place it appears in subsections (a)(2)(B) and (b) and inserting “model building energy code”.

(d) MODEL BUILDING ENERGY CODES.—Section 307 of the Energy Conservation and Production Act (42 U.S.C. 6836) is amended to read as follows:

**“SEC. 307. SUPPORT FOR MODEL BUILDING ENERGY 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 States, local governments, and Indian tribes, 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 sup-

porting 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.”.

**SEC. 1002. BUDGET-NEUTRAL DEMONSTRATION PROGRAM FOR ENERGY AND WATER CONSERVATION IMPROVEMENTS AT MULTIFAMILY RESIDENTIAL UNITS.**

(a) ESTABLISHMENT.—The Secretary of Housing and Urban Development (referred to in this section as the “Secretary”) shall establish a demonstration program under which, during the period beginning on the date of enactment of this Act, and ending on September 30, 2018, the Secretary may enter into budget-neutral, performance-based agreements that result in a reduction in energy or water costs with such entities as the Secretary determines to be appropriate under which the entities shall carry out projects for energy or water conservation improvements at not more than 20,000 residential units in multifamily buildings participating in—

(1) the project-based rental assistance program under section 8 of the United States Housing Act of 1937 (42 U.S.C. 1437f), other than assistance provided under section 8(o) of that Act;

(2) the supportive housing for the elderly program under section 202 of the Housing Act of 1959 (12 U.S.C. 1701q); or

(3) the supportive housing for persons with disabilities program under section 811(d)(2) of the Cranston-Gonzalez National Affordable Housing Act (42 U.S.C. 8013(d)(2)).

(b) REQUIREMENTS.—

(1) PAYMENTS CONTINGENT ON SAVINGS.—

(A) IN GENERAL.—The Secretary shall provide to an entity a payment under an agreement under this section only during applicable years for which an energy or water cost savings is achieved with respect to the applicable multifamily portfolio of properties, as determined by the Secretary, in accordance with subparagraph (B).

(B) PAYMENT METHODOLOGY.—

(i) IN GENERAL.—Each agreement under this section shall include a pay-for-success provision—

(I) that will serve as a payment threshold for the term of the agreement; and

(II) pursuant to which the Department of Housing and Urban Development shall share

a percentage of the savings at a level determined by the Secretary that is sufficient to cover the administrative costs of carrying out this section.

(ii) LIMITATIONS.—A payment made by the Secretary under an agreement under this section shall—

(I) be contingent on documented utility savings; and

(II) not exceed the utility savings achieved by the date of the payment, and not previously paid, as a result of the improvements made under the agreement.

(C) THIRD PARTY VERIFICATION.—Savings payments made by the Secretary under this section shall be based on a measurement and verification protocol that includes at least—

(i) establishment of a weather-normalized and occupancy-normalized utility consumption baseline established preretrofit;

(ii) annual third party confirmation of actual utility consumption and cost for owner-paid utilities;

(iii) annual third party validation of the tenant utility allowances in effect during the applicable year and vacancy rates for each unit type; and

(iv) annual third party determination of savings to the Secretary.

(2) TERM.—The term of an agreement under this section shall be not longer than 12 years.

(3) ENTITY ELIGIBILITY.—The Secretary shall—

(A) establish a competitive process for entering into agreements under this section; and

(B) enter into such agreements only with entities that demonstrate significant experience relating to—

(i) financing and operating properties receiving assistance under a program described in subsection (a);

(ii) oversight of energy and water conservation programs, including oversight of contractors; and

(iii) raising capital for energy and water conservation improvements from charitable organizations or private investors.

(4) GEOGRAPHICAL DIVERSITY.—Each agreement entered into under this section shall provide for the inclusion of properties with the greatest feasible regional and State variance.

(C) PLAN AND REPORTS.—

(1) PLAN.—Not later than 90 days after the date of enactment of this Act, the Secretary shall submit to the Committees on Appropriations of the House of Representatives and the Senate, the Committee on Energy and Natural Resources of the Senate, and the Committee on Energy and Commerce of the House of Representatives a detailed plan for the implementation of this section.

(2) REPORTS.—Not later than 1 year after the date of enactment of this Act, and annually thereafter, the Secretary shall—

(A) conduct an evaluation of the program under this section; and

(B) submit to Congress a report describing each evaluation conducted under subparagraph (A).

(d) FUNDING.—For each fiscal year during which an agreement under this section is in effect, the Secretary may use to carry out this section any funds appropriated to the Secretary for the renewal of contracts under a program described in subsection (a).

#### SEC. 1003. COORDINATION OF ENERGY RETROFITTING ASSISTANCE FOR SCHOOLS.

(a) DEFINITION OF SCHOOL.—In this section, the term “school” means—

(1) an elementary school or secondary school (as defined in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801));

(2) an institution of higher education (as defined in section 102(a) of the Higher Education Act of 1965 (20 U.S.C. 1002(a));

(3) a school of the defense dependents’ education system under the Defense Dependents’ Education Act of 1978 (20 U.S.C. 921 et seq.) or established under section 2164 of title 10, United States Code;

(4) a school operated by the Bureau of Indian Affairs;

(5) a tribally controlled school (as defined in section 5212 of the Tribally Controlled Schools Act of 1988 (25 U.S.C. 2511)); and

(6) a Tribal College or University (as defined in section 316(b) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b))).

(b) DESIGNATION OF LEAD AGENCY.—The Secretary, acting through the Office of Energy Efficiency and Renewable Energy, shall act as the lead Federal agency for coordinating and disseminating information on existing Federal programs and assistance that may be used to help initiate, develop, and finance energy efficiency, renewable energy, and energy retrofitting projects for schools.

(c) REQUIREMENTS.—In carrying out coordination and outreach under subsection (b), the Secretary shall—

(1) in consultation and coordination with the appropriate Federal agencies, carry out a review of existing programs and financing mechanisms (including revolving loan funds and loan guarantees) available in or from the Department of Agriculture, the Department of Energy, the Department of Education, the Department of the Treasury, the Internal Revenue Service, the Environmental Protection Agency, and other appropriate Federal agencies with jurisdiction over energy financing and facilitation that are currently used or may be used to help initiate, develop, and finance energy efficiency, renewable energy, and energy retrofitting projects for schools;

(2) establish a Federal cross-departmental collaborative coordination, education, and outreach effort to streamline communication and promote available Federal opportunities and assistance described in paragraph (1) for energy efficiency, renewable energy, and energy retrofitting projects that enables States, local educational agencies, and schools—

(A) to use existing Federal opportunities more effectively; and

(B) to form partnerships with Governors, State energy programs, local educational, financial, and energy officials, State and local government officials, nonprofit organizations, and other appropriate entities to support the initiation of the projects;

(3) provide technical assistance for States, local educational agencies, and schools to help develop and finance energy efficiency, renewable energy, and energy retrofitting projects—

(A) to increase the energy efficiency of buildings or facilities;

(B) to install systems that individually generate energy from renewable energy resources;

(C) to establish partnerships to leverage economies of scale and additional financing mechanisms available to larger clean energy initiatives; or

(D) to promote—

(i) the maintenance of health, environmental quality, and safety in schools, including the ambient air quality, through energy efficiency, renewable energy, and energy retrofit projects; and

(ii) the achievement of expected energy savings and renewable energy production through proper operations and maintenance practices;

(4) develop and maintain a single online resource website with contact information for relevant technical assistance and support

staff in the Office of Energy Efficiency and Renewable Energy for States, local educational agencies, and schools to effectively access and use Federal opportunities and assistance described in paragraph (1) to develop energy efficiency, renewable energy, and energy retrofitting projects; and

(5) establish a process for recognition of schools that—

(A) have successfully implemented energy efficiency, renewable energy, and energy retrofitting projects; and

(B) are willing to serve as resources for other local educational agencies and schools to assist initiation of similar efforts.

(d) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the implementation of this section.

#### SEC. 1004. ENERGY EFFICIENCY RETROFIT PILOT PROGRAM.

(a) DEFINITIONS.—In this section:

(1) APPLICANT.—The term “applicant” means a nonprofit organization that applies for a grant under this section.

(2) ENERGY-EFFICIENCY IMPROVEMENT.—

(A) IN GENERAL.—The term “energy-efficiency improvement” means an installed measure (including a product, equipment, system, service, or practice) that results in a reduction in use by a nonprofit organization for energy or fuel supplied from outside the nonprofit building.

(B) INCLUSIONS.—The term “energy-efficiency improvement” includes an installed measure described in subparagraph (A) involving—

(i) repairing, replacing, or installing—

(I) a roof or lighting system, or component of a roof or lighting system;

(II) a window;

(III) a door, including a security door; or

(IV) a heating, ventilation, or air conditioning system or component of the system (including insulation and wiring and plumbing improvements needed to serve a more efficient system);

(ii) a renewable energy generation or heating system, including a solar, photovoltaic, wind, geothermal, or biomass (including wood pellet) system or component of the system; and

(iii) any other measure taken to modernize, renovate, or repair a nonprofit building to make the nonprofit building more energy efficient.

(3) NONPROFIT BUILDING.—

(A) IN GENERAL.—The term “nonprofit building” means a building operated and owned by a nonprofit organization.

(B) INCLUSIONS.—The term “nonprofit building” includes a building described in subparagraph (A) that is—

(i) a hospital;

(ii) a youth center;

(iii) a school;

(iv) a social-welfare program facility;

(v) a faith-based organization; and

(vi) any other nonresidential and non-commercial structure.

(b) ESTABLISHMENT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall establish a pilot program to award grants for the purpose of retrofitting nonprofit buildings with energy-efficiency improvements.

(c) GRANTS.—

(1) IN GENERAL.—The Secretary may award grants under the program established under subsection (b).

(2) APPLICATION.—The Secretary may award a grant under this section if an applicant submits to the Secretary an application at such time, in such form, and containing such information as the Secretary may prescribe.

(3) CRITERIA FOR GRANT.—In determining whether to award a grant under this section,



the Secretary shall apply performance-based criteria, which shall give priority to applications based on—

- (A) the energy savings achieved;
- (B) the cost-effectiveness of the energy-efficiency improvement;
- (C) an effective plan for evaluation, measurement, and verification of energy savings;
- (D) the financial need of the applicant; and
- (E) the percentage of the matching contribution by the applicant.

(4) **LIMITATION ON INDIVIDUAL GRANT AMOUNT.**—Each grant awarded under this section shall not exceed—

- (A) an amount equal to 50 percent of the energy-efficiency improvement; and
- (B) \$200,000.

(5) **COST SHARING.**—

(A) **IN GENERAL.**—A grant awarded under this section shall be subject to a minimum non-Federal cost-sharing requirement of 50 percent.

(B) **IN-KIND CONTRIBUTIONS.**—The non-Federal share may be provided in the form of in-kind contributions of materials or services.

(d) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this section \$10,000,000 for each of fiscal years 2016 through 2020, to remain available until expended.

#### **SEC. 1005. UTILITY ENERGY SERVICE CONTRACTS.**

Section 546 of the National Energy Conservation Policy Act (42 U.S.C. 8256) is amended by adding at the end the following:

“(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.”.

#### **SEC. 1006. USE OF ENERGY AND WATER EFFICIENCY MEASURES IN FEDERAL BUILDINGS.**

(a) **ENERGY MANAGEMENT REQUIREMENTS.**—Section 543(f)(4) of the National Energy Conservation Policy Act (42 U.S.C. 8253(f)(4)) is amended—

(1) by redesignating subparagraphs (A) and (B) as clauses (i) and (ii), respectively, and indenting appropriately;

(2) by striking “Not later than” and inserting the following:

“(A) **IN GENERAL.**—Not later than”; and

(3) by adding at the end the following:

“(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.”.

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

(1) in paragraph (3), by striking “and” at the end;

(2) in paragraph (4), by striking the period at the end and inserting “; and”; and

(3) by adding at the end the following:

“(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.”.

(c) **DEFINITION OF ENERGY CONSERVATION MEASURES.**—Section 551(4) of the National Energy Conservation Policy Act (42 U.S.C. 8259(4)) is amended by striking “or retrofit activities” and inserting “retrofit activities, or energy consuming devices and required support structures”.

(d) **AUTHORITY TO ENTER INTO CONTRACTS.**—Section 801(a)(2)(F) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)(F)) is amended—

(1) in clause (i), by striking “or” at the end;

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

(3) by adding at the end the following:

“(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.”.

(e) **MISCELLANEOUS AUTHORITY.**—Section 801(a)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287(a)(2)) is amended by adding at the end the following:

“(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.”.

(f) **PAYMENT OF COSTS.**—Section 802 of the National Energy Conservation Policy Act (42 U.S.C. 8287a) is amended by striking “(and related operation and maintenance expenses)” and inserting “, including related operations and maintenance expenses”.

(g) **DEFINITION OF FEDERAL BUILDING.**—Section 551(6) of the National Energy Conservation Policy Act (42 U.S.C. 8259(6)) is amended by striking the semicolon at the end and inserting “the term does not include a dam, reservoir, or hydropower facility owned or operated by a Federal agency;”.

(h) **DEFINITION OF ENERGY SAVINGS.**—Section 804(2) of the National Energy Conservation Policy Act (42 U.S.C. 8287(c)(2)) is amended—

(1) in subparagraph (A), by striking “federally owned building or buildings or other federally owned facilities” and inserting “Federal building (as defined in section 551)” each place it appears;

(2) in subparagraph (C), by striking “; and” and inserting a semicolon;

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

(4) by adding at the end the following:

“(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.”.

#### **SEC. 1007. BUILDING TRAINING AND ASSESSMENT CENTERS.**

(a) **IN GENERAL.**—The Secretary shall provide grants to institutions of higher education (as defined in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001)) and Tribal Colleges or Universities (as defined in section 316(b) of that Act (20 U.S.C. 1059c(b))) to establish building training and assessment centers—

(1) to identify opportunities for optimizing energy efficiency and environmental performance in buildings;

(2) to promote the application of emerging concepts and technologies in commercial and institutional buildings;

(3) to train engineers, architects, building scientists, building energy permitting and enforcement officials, and building technicians in energy-efficient design and operation;

(4) to assist institutions of higher education and Tribal Colleges or Universities in training building technicians;

(5) to promote research and development for the use of alternative energy sources and distributed generation to supply heat and power for buildings, particularly energy-intensive buildings; and

(6) to coordinate with and assist State-accredited technical training centers, community colleges, Tribal Colleges or Universities, and local offices of the National Institute of Food and Agriculture and ensure appropriate services are provided under this section to each region of the United States.

(b) **COORDINATION AND NONDUPLICATION.**—

(1) **IN GENERAL.**—The Secretary shall coordinate the program with the industrial research and assessment centers program and with other Federal programs to avoid duplication of effort.

(2) **COLLOCATION.**—To the maximum extent practicable, building, training, and assessment centers established under this section shall be collocated with Industrial Assessment Centers.

(c) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this section \$10,000,000, to remain available until expended.

#### **SEC. 1008. CAREER SKILLS TRAINING.**

(a) **IN GENERAL.**—The Secretary shall pay grants to eligible entities described in subsection (b) to pay the Federal share of associated career skills training programs under which students concurrently receive classroom instruction and on-the-job training for the purpose of obtaining an industry-related certification to install energy efficient building technologies, including technologies described in section 307(b)(3) of the Energy Conservation and Production Act (42 U.S.C. 6836(b)(3)).

(b) **ELIGIBILITY.**—To be eligible to obtain a grant under subsection (a), an entity shall be a nonprofit partnership described in section 171(e)(2)(B)(ii) of the Workforce Investment Act of 1998 (29 U.S.C. 2916(e)(2)(B)(ii)).

(c) **FEDERAL SHARE.**—The Federal share of the cost of carrying out a career skills training program described in subsection (a) shall be 50 percent.

(d) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this section \$10,000,000, to remain available until expended.

#### **SEC. 1009. ENERGY-EFFICIENT AND ENERGY-SAVING INFORMATION TECHNOLOGIES.**

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

“(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 through reporting structures in use as of the date of enactment of the Energy Policy Modernization Act of 2016.”

#### SEC. 1010. AVAILABILITY OF FUNDS FOR DESIGN UPDATES.

Section 3307 of title 40, United States Code, is amended—

(1) by redesignating subsections (d) through (h) as subsections (e) through (i), respectively; and

(2) by inserting after subsection (c) the following:

“(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).”

#### SEC. 1011. ENERGY EFFICIENT DATA CENTERS.

Section 453 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17112) is amended—

(1) in subsection (b)—

(A) in paragraph (2)(D)(iv), by striking “the organization” and inserting “an organization”; and

(B) by striking paragraph (3); and

(2) by striking subsections (c) through (g) and inserting the following:

“(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 2016, 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.”

#### SEC. 1012. WEATHERIZATION ASSISTANCE PROGRAM.

(a) REAUTHORIZATION OF WEATHERIZATION ASSISTANCE PROGRAM.—Section 422 of the Energy Conservation and Production Act (42 U.S.C. 6872) is amended by striking “appropriated—” and all that follows through the period at the end and inserting “appropriated \$350,000,000 for each of fiscal years 2016 through 2020.”

(b) GRANTS FOR NEW, SELF-SUSTAINING LOW-INCOME, SINGLE-FAMILY AND MULTIFAMILY HOUSING ENERGY RETROFIT MODEL PROGRAMS TO ELIGIBLE MULTISTATE HOUSING AND ENERGY NONPROFIT ORGANIZATIONS.—The Energy Conservation and Production Act is amended by inserting after section 414B (42 U.S.C. 6864b) the following:

“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 multi-family 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 pro-

gram 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.

“(1) 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.”

(c) STANDARDS PROGRAM.—Section 415 of the Energy Conservation and Production Act (42 U.S.C. 6865) is amended by adding at the end the following:

“(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.”.

**SEC. 1013. REAUTHORIZATION OF STATE ENERGY PROGRAM.**

Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended by striking “\$125,000,000 for each of fiscal years 2007 through 2012” and inserting “\$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”.

**SEC. 1014. SMART BUILDING ACCELERATION.**

(a) DEFINITIONS.—In this section:

(1) PROGRAM.—The term “program” means the Federal Smart Building Program established under subsection (b)(1).

(2) SMART BUILDING.—The term “smart building” means a building, or collection of buildings, with an energy system that—

(A) is flexible and automated;

(B) has extensive operational monitoring and communication connectivity, allowing remote monitoring and analysis of all building functions;

(C) takes a systems-based approach in integrating the overall building operations for control of energy generation, consumption, and storage;

(D) communicates with utilities and other third-party commercial entities, if appropriate; and

(E) is cybersecurity.

(3) SMART BUILDING ACCELERATOR.—The term “smart building accelerator” means an initiative that is designed to demonstrate specific innovative policies and approaches—

(A) with clear goals and a clear timeline; and

(B) that, on successful demonstration, would accelerate investment in energy efficiency.

(b) FEDERAL SMART BUILDING PROGRAM.—

(1) ESTABLISHMENT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall establish a program to be known as the “Federal Smart Building Program” —

(A) to implement smart building technology; and

(B) to demonstrate the costs and benefits of smart buildings.

(2) SELECTION.—

(A) IN GENERAL.—The Secretary shall coordinate the selection of not fewer than 1 building from among each of several key Federal agencies, as described in paragraph (4), to compose an appropriately diverse set of smart buildings based on size, type, and geographic location.

(B) INCLUSION OF COMMERCIALY OPERATED BUILDINGS.—In making selections under subparagraph (A), the Secretary may include buildings that are owned by the Federal Government but are commercially operated.

(3) TARGETS.—Not later than 18 months after the date of enactment of this Act, the Secretary shall establish targets for the number of smart buildings to be commissioned and evaluated by key Federal agencies by 3 years and 6 years after the date of enactment of this Act.

(4) FEDERAL AGENCY DESCRIBED.—The key Federal agencies referred to in this subsection shall include buildings operated by—

(A) the Department of the Army;

(B) the Department of the Navy;

(C) the Department of the Air Force;

(D) the Department;

(E) the Department of the Interior;

(F) the Department of Veterans Affairs; and

(G) the General Services Administration.

(5) REQUIREMENT.—In implementing the program, the Secretary shall leverage existing financing mechanisms including energy savings performance contracts, utility energy service contracts, and annual appropriations.

(6) EVALUATION.—Using the guidelines of the Federal Energy Management Program relating to whole-building evaluation, measurement, and verification, the Secretary shall evaluate the costs and benefits of the buildings selected under paragraph (2), including an identification of—

(A) which advanced building technologies—

(i) are most cost-effective; and

(ii) show the most promise for—

(I) increasing building energy savings;

(II) increasing service performance to building occupants;

(III) reducing environmental impacts; and

(IV) establishing cybersecurity; and

(B) any other information the Secretary determines to be appropriate.

(7) AWARDS.—The Secretary may expand awards made under the Federal Energy Management Program and the Better Building Challenge to recognize specific agency achievements in accelerating the adoption of smart building technologies.

(c) SURVEY OF PRIVATE SECTOR SMART BUILDINGS.—

(1) SURVEY.—The Secretary shall conduct a survey of privately owned smart buildings throughout the United States, including commercial buildings, laboratory facilities, hospitals, multifamily residential buildings, and buildings owned by nonprofit organizations and institutions of higher education.

(2) SELECTION.—From among the smart buildings surveyed under paragraph (1), the Secretary shall select not fewer than 1 building each from an appropriate range of building sizes, types, and geographic locations.

(3) EVALUATION.—Using the guidelines of the Federal Energy Management Program relating to whole-building evaluation, measurement, and verification, the Secretary shall evaluate the costs and benefits of the buildings selected under paragraph (2), including an identification of—

(A) which advanced building technologies and systems—

(i) are most cost-effective; and

(ii) show the most promise for—

(I) increasing building energy savings;

(II) increasing service performance to building occupants;

(III) reducing environmental impacts; and

(IV) establishing cybersecurity; and

(B) any other information the Secretary determines to be appropriate.

(d) LEVERAGING EXISTING PROGRAMS.—

(1) BETTER BUILDING CHALLENGE.—As part of the Better Building Challenge of the Department, the Secretary, in consultation with major private sector property owners, shall develop smart building accelerators to demonstrate innovative policies and approaches that will accelerate the transition to smart buildings in the public, institutional, and commercial buildings sectors.

(2) RESEARCH AND DEVELOPMENT.—

(A) IN GENERAL.—The Secretary shall conduct research and development to address key barriers to the integration of advanced building technologies and to accelerate the transition to smart buildings.

(B) INCLUSION.—The research and development conducted under subparagraph (A) shall include research and development on—

(i) achieving whole-building, systems-level efficiency through smart system and component integration;

(ii) improving physical components, such as sensors and controls, to be adaptive, anticipatory, and networked;

(iii) reducing the cost of key components to accelerate the adoption of smart building technologies;

(iv) data management, including the capture and analysis of data and the interoperability of the energy systems;

(v) protecting against cybersecurity threats and addressing security vulnerabilities of building systems or equipment;

(vi) business models, including how business models may limit the adoption of smart building technologies and how to support transactive energy;

(vii) integration and application of combined heat and power systems and energy storage for resiliency;

(viii) characterization of buildings and components;

(ix) consumer and utility protections;

(x) continuous management, including the challenges of managing multiple energy systems and optimizing systems for disparate stakeholders; and

(xi) other areas of research and development, as determined appropriate by the Secretary.

(e) REPORT.—Not later than 2 years after the date of enactment of this Act, and every 2 years thereafter until a total of 3 reports have been made, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report on—

(1) the establishment of the Federal Smart Building Program and the evaluation of Federal smart buildings under subsection (b);

(2) the survey and evaluation of private sector smart buildings under subsection (c); and

(3) any recommendations of the Secretary to further accelerate the transition to smart buildings.

**SEC. 1015. REPEAL OF FOSSIL PHASE-OUT.**

Section 305(a)(3) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)(3)) is amended by striking subparagraph (D).

**SEC. 1016. FEDERAL BUILDING ENERGY EFFICIENCY PERFORMANCE STANDARDS.**

(a) DEFINITIONS.—Section 303 of the Energy Conservation and Production Act (42 U.S.C. 6832) (as amended by section 1001(a)) is amended—

(1) in paragraph (6), by striking “to be constructed” and inserting “constructed or altered”; and

(2) by adding at the end the following:

“(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.”.

(b) FEDERAL BUILDING EFFICIENCY STANDARDS.—Section 305(a)(3) of the Energy Conservation and Production Act (42 U.S.C. 6834(a)(3)) (as amended by section 1015) is amended—

(1) by striking “(3)(A) Not later than” and all that follows through subparagraph (B) and inserting the following:

“(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 2016, 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 2016; 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.”; and

(2) in subparagraph (C), by striking “(C) In the budget request” and inserting the following:

“(C) BUDGET REQUEST.—In the budget request”.

#### SEC. 1017. CODIFICATION OF EXECUTIVE ORDER.

Beginning in fiscal year 2016 and each fiscal year thereafter through fiscal year 2025, the head of each Federal agency shall, unless otherwise specified and where life-cycle cost-effective, promote building energy conservation, efficiency, and management by reducing, in Federal buildings of the agency, building energy intensity, as measured in British thermal units per gross square foot, by 2.5 percent each fiscal year, relative to the baseline of the building energy use of the applicable Federal buildings in fiscal year 2015 and after taking into account the progress of the Federal agency in preceding fiscal years.

#### SEC. 1018. CERTIFICATION FOR GREEN BUILDINGS.

Section 305 of the Energy Conservation and Production Act (42 U.S.C. 6834) (as amended by sections 1015 and 1016(b)) is amended—

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

“(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 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) 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 En-

ergy 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 2016) 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.”; and

(2) by striking subsections (c) and (d) and inserting the following:

“(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. 1019. HIGH PERFORMANCE GREEN FEDERAL BUILDINGS.

Section 436(h) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17092(h)) is amended—

(1) in the subsection heading, by striking “SYSTEM” and inserting “SYSTEMS”;

(2) by striking paragraph (1) and inserting the following:

“(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.”; and

(3) in paragraph (2)—

(A) in the matter preceding subparagraph (A), by striking “system” and inserting “systems”;

(B) by striking subparagraph (A) and inserting the following:

“(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.”;

(C) in subparagraph (E)(v), by striking “and” after the semicolon at the end;

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

(E) by adding at the end the following:

“(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.”.

**SEC. 1020. EVALUATION OF POTENTIALLY DUPLICATIVE GREEN BUILDING PROGRAMS WITHIN DEPARTMENT OF ENERGY.**

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATIVE EXPENSES.—

(A) IN GENERAL.—The term “administrative expenses” has the meaning given the term by the Director of the Office of Management and Budget under section 504(b)(2) of the Energy and Water Development and Related Agencies Appropriations Act, 2010 (31 U.S.C. 1105 note; Public Law 111-85).

(B) INCLUSIONS.—The term “administrative expenses” includes, with respect to an agency—

(i) costs incurred by—

(I) the agency; or

(II) any grantee, subgrantee, or other recipient of funds from a grant program or other program administered by the agency; and

(ii) expenses relating to personnel salaries and benefits, property management, travel, program management, promotion, reviews and audits, case management, and communication regarding, promotion of, and outreach for programs and program activities administered by the agency.

(2) APPLICABLE PROGRAM.—The term “applicable program” means any program that is—

(A) listed in Table 9 (pages 348–350) of the report of the Government Accountability Office entitled “2012 Annual Report: Opportunities to Reduce Duplication, Overlap and Fragmentation, Achieve Savings, and Enhance Revenue”; and

(B) administered by the Secretary.

(3) SERVICE.—

(A) IN GENERAL.—Subject to subparagraph (B), the term “service” has the meaning given the term by the Director of the Office of Management and Budget.

(B) REQUIREMENTS.—For purposes of subparagraph (A), the term “service” shall be limited to activities, assistance, or other aid that provides a direct benefit to a recipient, such as—

(i) the provision of technical assistance;

(ii) assistance for housing or tuition; or

(iii) financial support (including grants, loans, tax credits, and tax deductions).

(b) REPORT.—

(1) IN GENERAL.—Not later than January 1, 2016, the Secretary shall submit to Congress

and make available on the public Internet website of the Department a report that describes the applicable programs.

(2) REQUIREMENTS.—In preparing the report under paragraph (1), the Secretary shall—

(A) determine the approximate annual total administrative expenses of each applicable program;

(B) determine the approximate annual expenditures for services for each applicable program;

(C) describe the intended market for each applicable program, including the—

(i) estimated the number of clients served by each applicable program; and

(ii) beneficiaries who received services or information under the applicable program (if applicable and if data is readily available);

(D) estimate—

(i) the number of full-time employees who administer each applicable program; and

(ii) the number of full-time equivalents (the salary of whom is paid in part or full by the Federal Government through a grant or contract, a subaward of a grant or contract, a cooperative agreement, or another form of financial award or assistance) who assist in administering the applicable program;

(E) briefly describe the type of services each applicable program provides, such as information, grants, technical assistance, loans, tax credits, or tax deductions;

(F) identify the type of recipient who is intended to benefit from the services or information provided under the applicable program, such as individual property owners or renters, local governments, businesses, nonprofit organizations, or State governments; and

(G) identify whether written program goals are available for each applicable program.

(c) RECOMMENDATIONS.—Not later than January 1, 2016, the Secretary shall submit to Congress a report that includes—

(1) a recommendation of whether any applicable program should be eliminated or consolidated, including any legislative changes that would be necessary to eliminate or consolidate applicable programs; and

(2) methods to improve the applicable programs by establishing program goals or increasing collaboration to reduce any potential overlap or duplication, taking into account—

(A) the 2011 report of the Government Accountability Office entitled “Federal Initiatives for the Non-Federal Sector Could Benefit from More Interagency Collaboration”; and

(B) the report of the Government Accountability Office entitled “2012 Annual Report: Opportunities to Reduce Duplication, Overlap and Fragmentation, Achieve Savings, and Enhance Revenue”.

(d) ANALYSES.—Not later than January 1, 2016, the Secretary shall identify—

(1) which applicable programs were specifically authorized by Congress; and

(2) which applicable programs are carried out solely under the discretionary authority of the Secretary.

**SEC. 1021. STUDY AND REPORT ON ENERGY SAVINGS BENEFITS OF OPERATIONAL EFFICIENCY PROGRAMS AND SERVICES.**

(a) DEFINITION OF OPERATIONAL EFFICIENCY PROGRAMS AND SERVICES.—In this section, the term “operational efficiency programs and services” means programs and services that use information and communications technologies (including computer hardware, energy efficiency software, and power management tools) to operate buildings and equipment in the optimum manner at the optimum times.

(b) STUDY AND REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall conduct a study and

issue a report that quantifies the potential energy savings of operational efficiency programs and services for commercial, institutional, industrial, and governmental entities, including Federal agencies.

(c) MEASUREMENT AND VERIFICATION OF ENERGY SAVINGS.—The report required under this section shall include potential methodologies or protocols for utilities, utility regulators, and Federal agencies to evaluate, measure, and verify energy savings from operational efficiency programs and services.

**Subtitle B—Appliances**

**SEC. 1101. EXTENDED PRODUCT SYSTEM REBATE PROGRAM.**

(a) DEFINITIONS.—In this section:

(1) ELECTRIC MOTOR.—The term “electric motor” has the meaning given the term in section 431.12 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act).

(2) ELECTRONIC CONTROL.—The term “electronic control” means—

(A) a power converter; or

(B) a combination of a power circuit and control circuit included on 1 chassis.

(3) EXTENDED PRODUCT SYSTEM.—The term “extended product system” means an electric motor and any required associated electronic control and driven load that—

(A) offers variable speed or multispeed operation;

(B) offers partial load control that reduces input energy requirements (as measured in kilowatt-hours) as compared to identified base levels set by the Secretary; and

(C)(i) has greater than 1 horsepower; and

(ii) uses an extended product system technology, as determined by the Secretary.

(4) QUALIFIED EXTENDED PRODUCT SYSTEM.—

(A) IN GENERAL.—The term “qualified extended product system” means an extended product system that—

(i) includes an electric motor and an electronic control; and

(ii) reduces the input energy (as measured in kilowatt-hours) required to operate the extended product system by not less than 5 percent, as compared to identified base levels set by the Secretary.

(B) INCLUSIONS.—The term “qualified extended product system” includes commercial or industrial machinery or equipment that—

(i)(I) did not previously make use of the extended product system prior to the redesign described in subclause (II); and

(II) incorporates an extended product system that has greater than 1 horsepower into redesigned machinery or equipment; and

(ii) was previously used prior to, and was placed back into service during, calendar year 2016 or 2017.

(b) ESTABLISHMENT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish a program to provide rebates for expenditures made by qualified entities for the purchase or installation of a qualified extended product system.

(c) QUALIFIED ENTITIES.—

(1) ELIGIBILITY REQUIREMENTS.—A qualified entity under this section shall be—

(A) in the case of a qualified extended product system described in subsection (a)(4)(A), the purchaser of the qualified extended product that is installed; and

(B) in the case of a qualified extended product system described in subsection (a)(4)(B), the manufacturer of the commercial or industrial machinery or equipment that incorporated the extended product system into that machinery or equipment.

(2) APPLICATION.—To be eligible to receive a rebate under this section, a qualified entity shall submit to the Secretary—

(A) an application in such form, at such time, and containing such information as the Secretary may require; and

(B) a certification that includes demonstrated evidence—

(i) that the entity is a qualified entity; and  
(ii)(I) in the case of a qualified entity described in paragraph (1)(A)—

(aa) that the qualified entity installed the qualified extended product system during the 2 fiscal years following the date of enactment of this Act;

(bb) that the qualified extended product system meets the requirements of subsection (a)(4)(A); and

(cc) showing the serial number, manufacturer, and model number from the nameplate of the installed motor of the qualified entity on which the qualified extended product system was installed; or

(II) in the case of a qualified entity described in paragraph (1)(B), demonstrated evidence—

(aa) that the qualified extended product system meets the requirements of subsection (a)(4)(B); and

(bb) showing the serial number, manufacturer, and model number from the nameplate of the installed motor of the qualified entity with which the extended product system is integrated.

(d) AUTHORIZED AMOUNT OF REBATE.—

(1) IN GENERAL.—The Secretary may provide to a qualified entity a rebate in an amount equal to the product obtained by multiplying—

(A) an amount equal to the sum of the nameplate rated horsepower of—

(i) the electric motor to which the qualified extended product system is attached; and

(ii) the electronic control; and

(B) \$25.

(2) MAXIMUM AGGREGATE AMOUNT.—A qualified entity shall not be entitled to aggregate rebates under this section in excess of \$25,000 per calendar year.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$5,000,000 for each of the first 2 full fiscal years following the date of enactment of this Act, to remain available until expended.

#### SEC. 1102. ENERGY EFFICIENT TRANSFORMER REBATE PROGRAM.

(a) DEFINITIONS.—In this section:

(1) QUALIFIED ENERGY EFFICIENT TRANSFORMER.—The term “qualified energy efficient transformer” means a transformer that meets or exceeds the applicable energy conservation standards described in the tables in subsection (b)(2) and paragraphs (1) and (2) of subsection (c) of section 431.196 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act).

(2) QUALIFIED ENERGY INEFFICIENT TRANSFORMER.—The term “qualified energy inefficient transformer” means a transformer with an equal number of phases and capacity to a transformer described in any of the tables in subsection (b)(2) and paragraphs (1) and (2) of subsection (c) of section 431.196 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act) that—

(A) does not meet or exceed the applicable energy conservation standards described in paragraph (1); and

(B)(i) was manufactured between January 1, 1985, and December 31, 2006, for a transformer with an equal number of phases and capacity as a transformer described in the table in subsection (b)(2) of section 431.196 of title 10, Code of Federal Regulations (as in effect on the date of enactment of this Act); or

(ii) was manufactured between January 1, 1990, and December 31, 2009, for a transformer with an equal number of phases and capacity as a transformer described in the table in paragraph (1) or (2) of subsection (c) of that

section (as in effect on the date of enactment of this Act).

(3) QUALIFIED ENTITY.—The term “qualified entity” means an owner of industrial or manufacturing facilities, commercial buildings, or multifamily residential buildings, a utility, or an energy service company that fulfills the requirements of subsection (d).

(b) ESTABLISHMENT.—Not later than 90 days after the date of enactment of this Act, the Secretary shall establish a program to provide rebates to qualified entities for expenditures made by the qualified entity for the replacement of a qualified energy inefficient transformer with a qualified energy efficient transformer.

(c) REQUIREMENTS.—To be eligible to receive a rebate under this section, an entity shall submit to the Secretary an application in such form, at such time, and containing such information as the Secretary may require, including demonstrated evidence—

(1) that the entity purchased a qualified energy efficient transformer;

(2) of the core loss value of the qualified energy efficient transformer;

(3) of the age of the qualified energy inefficient transformer being replaced;

(4) of the core loss value of the qualified energy inefficient transformer being replaced—

(A) as measured by a qualified professional or verified by the equipment manufacturer, as applicable; or

(B) for transformers described in subsection (a)(2)(B)(i), as selected from a table of default values as determined by the Secretary in consultation with applicable industry; and

(5) that the qualified energy inefficient transformer has been permanently decommissioned and scrapped.

(d) AUTHORIZED AMOUNT OF REBATE.—The amount of a rebate provided under this section shall be—

(1) for a 3-phase or single-phase transformer with a capacity of not less than 10 and not greater than 2,500 kilovolt-amperes, twice the amount equal to the difference in Watts between the core loss value (as measured in accordance with paragraphs (2) and (4) of subsection (c)) of—

(A) the qualified energy inefficient transformer; and

(B) the qualified energy efficient transformer; or

(2) for a transformer described in subsection (a)(2)(B)(i), the amount determined using a table of default rebate values by rated transformer output, as measured in kilovolt-amperes, as determined by the Secretary in consultation with applicable industry.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$5,000,000 for each of fiscal years 2016 and 2017, to remain available until expended.

(f) TERMINATION OF EFFECTIVENESS.—The authority provided by this section terminates on December 31, 2017.

#### SEC. 1103. STANDARDS FOR CERTAIN FURNACES.

Section 325(f)(4) of the Energy Policy and Conservation Act (42 U.S.C. 6295(f)(4)) is amended by adding at the end the following:

“(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 stake-

holders, 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’).”

#### SEC. 1104. THIRD-PARTY CERTIFICATION UNDER ENERGY STAR PROGRAM.

Section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a) is amended by adding at the end the following:

“(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.”.

**SEC. 1105. ENERGY CONSERVATION STANDARDS FOR COMMERCIAL REFRIGERATION EQUIPMENT.**

(a) **DEADLINE.**—The requirements of the final rule entitled “Energy Conservation Program: Energy Conservation Standards for Commercial Refrigeration Equipment” (79 Fed. Reg. 17725 (March 28, 2014)), shall take effect on January 1, 2020, for equipment covered by the final rule that—

(1) uses natural refrigerants with a global warming potential of 10 or less that are approved for use by the Environmental Protection Agency under the Significant New Alternatives Program;

(2) is within 1 of the following product categories:

(A) VCT.SC.M vertical cooler with transparent door self contained medium temperature; or

(B) HCT.SC.M horizontal cooler with transparent door self contained medium temperature; and

(3) uses not more than 115 percent of the energy use allowed by applicable standards under Energy Star 3.0.

(b) **FUTURE RULEMAKINGS.**—Nothing in this section changes the criteria to be considered during future rulemakings undertaken by the Department under title III of the Energy Policy and Conservation Act (42 U.S.C. 6291 et seq.).

(c) **REVIEW.**—Notwithstanding subsection (a), the next review required under section 342(c)(6)(B) of the Energy Policy and Conservation Act (42 U.S.C. 6313(c)(6)(B)) shall be conducted based on an effective date of March 27, 2017.

**SEC. 1106. VOLUNTARY VERIFICATION PROGRAMS FOR AIR CONDITIONING, FURNACE, BOILER, HEAT PUMP, AND WATER HEATER PRODUCTS.**

Section 326(b) of the Energy Policy and Conservation Act (42 U.S.C. 6296(b)) is amended by adding at the end the following:

“(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 covered equipment described in subparagraphs (B), (C), (D), (F), (I), (J), and (K) of section 340(l), 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 Protection 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.”.

**Subtitle C—Manufacturing**

**SEC. 1201. MANUFACTURING ENERGY EFFICIENCY.**

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

(1) to reform and reorient the industrial efficiency programs of the Department;

(2) to establish a clear and consistent authority for industrial efficiency programs of the Department;

(3) to accelerate the deployment of technologies and practices that will increase industrial energy efficiency and improve productivity;

(4) to accelerate the development and demonstration of technologies that will assist the deployment goals of the industrial efficiency programs of the Department and increase manufacturing efficiency;

(5) to stimulate domestic economic growth and improve industrial productivity and competitiveness; and

(6) to strengthen partnerships between Federal and State governmental agencies and the private and academic sectors.



## (b) FUTURE OF INDUSTRY PROGRAM.—

(1) IN GENERAL.—Section 452 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111) is amended by striking the section heading and inserting the following: “**FUTURE OF INDUSTRY PROGRAM**”.

(2) DEFINITION OF ENERGY SERVICE PROVIDER.—Section 452(a) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(a)) is amended—

(A) by redesignating paragraphs (3) through (5) as paragraphs (4) through (6), respectively; and

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

“(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) INDUSTRIAL RESEARCH AND ASSESSMENT CENTERS.—Section 452(e) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111(e)) is amended—

(A) by redesignating paragraphs (1) through (5) as subparagraphs (A) through (E), respectively, and indenting appropriately;

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

“(1) IN GENERAL.—The Secretary”;

(C) in subparagraph (A) (as redesignated by subparagraph (A)), by inserting before the semicolon at the end the following: “, 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”; and

(D) by adding at the end the following:

“(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.”.

(c) SUSTAINABLE MANUFACTURING INITIATIVE.—

(1) IN GENERAL.—Part E of title III of the Energy Policy and Conservation Act (42 U.S.C. 6341) is amended by adding at the end the following:

“**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.”.

(2) TABLE OF CONTENTS.—The table of contents of the Energy Policy and Conservation Act (42 U.S.C. prec. 6201) is amended by adding at the end of the items relating to part E of title III the following:

“Sec. 376. Sustainable manufacturing initiative.”.

(d) CONFORMING AMENDMENTS.—

(1) Section 106 of the Energy Policy Act of 2005 (42 U.S.C. 15811) is repealed.

(2) Sections 131, 132, 133, 2103, and 2107 of the Energy Policy Act of 1992 (42 U.S.C. 6348, 6349, 6350, 13453, 13456) are repealed.

(3) Section 2101(a) of the Energy Policy Act of 1992 (42 U.S.C. 13451(a)) is amended in the third sentence by striking “sections 2102, 2103, 2104, 2105, 2106, 2107, and 2108” and inserting “sections 2102, 2104, 2105, 2106, and

2108 of this Act and section 376 of the Energy Policy and Conservation Act.”.

**SEC. 1202. LEVERAGING EXISTING FEDERAL AGENCY PROGRAMS TO ASSIST SMALL AND MEDIUM MANUFACTURERS.**

(a) DEFINITIONS.—In this section and section 1203:

(1) ENERGY MANAGEMENT SYSTEM.—The term “energy management system” means a business management process based on standards of the American National Standards Institute that enables an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, security, use, and consumption.

(2) INDUSTRIAL ASSESSMENT CENTER.—The term “industrial assessment center” means a center located at an institution of higher education that—

(A) receives funding from the Department;

(B) provides an in-depth assessment of small- and medium-size manufacturer plant sites to evaluate the facilities, services, and manufacturing operations of the plant site; and

(C) identifies opportunities for potential savings for small- and medium-size manufacturer plant sites from energy efficiency improvements, waste minimization, pollution prevention, and productivity improvement.

(3) NATIONAL LABORATORY.—The term “National Laboratory” has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(4) SMALL AND MEDIUM MANUFACTURERS.—The term “small and medium manufacturers” means manufacturing firms—

(A) classified in the North American Industry Classification System as any of sectors 31 through 33;

(B) with gross annual sales of less than \$100,000,000;

(C) with fewer than 500 employees at the plant site; and

(D) with annual energy bills totaling more than \$100,000 and less than \$2,500,000.

(5) SMART MANUFACTURING.—The term “smart manufacturing” means a set of advanced sensing, instrumentation, monitoring, controls, and process optimization technologies and practices that merge information and communication technologies with the manufacturing environment for the real-time management of energy, productivity, and costs across factories and companies.

(b) EXPANSION OF TECHNICAL ASSISTANCE PROGRAMS.—The Secretary shall expand the scope of technologies covered by the Industrial Assessment Centers of the Department—

(1) to include smart manufacturing technologies and practices; and

(2) to equip the directors of the Industrial Assessment Centers with the training and tools necessary to provide technical assistance in smart manufacturing technologies and practices, including energy management systems, to manufacturers.

(c) FUNDING.—The Secretary shall use unobligated funds of the Department to carry out this section.

**SEC. 1203. LEVERAGING SMART MANUFACTURING INFRASTRUCTURE AT NATIONAL LABORATORIES.**

(a) STUDY.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary shall conduct a study on ways in which the Department can increase access to existing high-performance computing resources in the National Laboratories, particularly for small and medium manufacturers.

(2) INCLUSIONS.—In identifying ways to increase access to National Laboratories under paragraph (1), the Secretary shall—

(A) focus on increasing access to the computing facilities of the National Laboratories; and

(B) ensure that—

(i) the information from the manufacturer is protected; and

(ii) the security of the National Laboratory facility is maintained.

(3) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the results of the study.

(b) ACTIONS FOR INCREASED ACCESS.—The Secretary shall facilitate access to the National Laboratories studied under subsection (a) for small and medium manufacturers so that small and medium manufacturers can fully use the high-performance computing resources of the National Laboratories to enhance the manufacturing competitiveness of the United States.

#### Subtitle D—Vehicles

##### SEC. 1301. SHORT TITLE.

This subtitle may be cited as the “Vehicle Innovation Act of 2016”.

##### SEC. 1302. OBJECTIVES.

The objectives of this subtitle are—

(1) to establish a consistent and consolidated authority for the vehicle technology program at the Department;

(2) to develop United States technologies and practices that—

(A) improve the fuel efficiency and emissions of all vehicles produced in the United States; and

(B) reduce vehicle reliance on petroleum-based fuels;

(3) to support domestic research, development, engineering, demonstration, and commercial application and manufacturing of advanced vehicles, engines, and components;

(4) to enable vehicles to move larger volumes of goods and more passengers with less energy and emissions;

(5) to develop cost-effective advanced technologies for wide-scale utilization throughout the passenger, commercial, government, and transit vehicle sectors;

(6) to allow for greater consumer choice of vehicle technologies and fuels;

(7) to shorten technology development and integration cycles in the vehicle industry;

(8) to ensure a proper balance and diversity of Federal investment in vehicle technologies; and

(9) to strengthen partnerships between Federal and State governmental agencies and the private and academic sectors.

##### SEC. 1303. COORDINATION AND NONDUPLICATION.

The Secretary shall ensure, to the maximum extent practicable, that the activities authorized by this subtitle do not duplicate those of other programs within the Department or other relevant research agencies.

##### SEC. 1304. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary for research, development, engineering, demonstration, and commercial application of vehicles and related technologies in the United States, including activities authorized under this subtitle—

(1) for fiscal year 2016, \$313,567,000;

(2) for fiscal year 2017, \$326,109,000;

(3) for fiscal year 2018, \$339,154,000;

(4) for fiscal year 2019, \$352,720,000; and

(5) for fiscal year 2020, \$366,829,000.

##### SEC. 1305. REPORTING.

(a) TECHNOLOGIES DEVELOPED.—Not later than 18 months after the date of enactment of this Act and annually thereafter through 2020, the Secretary shall submit to Congress a report regarding the technologies developed as a result of the activities authorized by this subtitle, with a particular emphasis on whether the technologies were success-

fully adopted for commercial applications, and if so, whether products relying on those technologies are manufactured in the United States.

(b) ADDITIONAL MATTERS.—At the end of each fiscal year through 2020, the Secretary shall submit to the relevant Congressional committees of jurisdiction an annual report describing activities undertaken in the previous year under this Act, active industry participants, the status of public private partnerships, progress of the program in meeting goals and timelines, and a strategic plan for funding of activities across agencies.

#### PART I—VEHICLE RESEARCH AND DEVELOPMENT

##### SEC. 1306. PROGRAM.

(a) ACTIVITIES.—The Secretary shall conduct a program of basic and applied research, development, engineering, demonstration, and commercial application activities on materials, technologies, and processes with the potential to substantially reduce or eliminate petroleum use and the emissions of the Nation’s passenger and commercial vehicles, including activities in the areas of—

(1) electrification of vehicle systems;

(2) batteries, ultracapacitors, and other energy storage devices;

(3) power electronics;

(4) vehicle, component, and subsystem manufacturing technologies and processes;

(5) engine efficiency and combustion optimization;

(6) waste heat recovery;

(7) transmission and drivetrains;

(8) hydrogen vehicle technologies, including fuel cells and internal combustion engines, and hydrogen infrastructure, including hydrogen energy storage to enable renewables and provide hydrogen for fuel and power;

(9) natural gas vehicle technologies;

(10) aerodynamics, rolling resistance (including tires and wheel assemblies), and accessory power loads of vehicles and associated equipment;

(11) vehicle weight reduction, including lightweighting materials and the development of manufacturing processes to fabricate, assemble, and use dissimilar materials;

(12) friction and wear reduction;

(13) engine and component durability;

(14) innovative propulsion systems;

(15) advanced boosting systems;

(16) hydraulic hybrid technologies;

(17) engine compatibility with and optimization for a variety of transportation fuels including natural gas and other liquid and gaseous fuels;

(18) predictive engineering, modeling, and simulation of vehicle and transportation systems;

(19) refueling and charging infrastructure for alternative fueled and electric or plug-in electric hybrid vehicles, including the unique challenges facing rural areas;

(20) gaseous fuels storage systems and system integration and optimization;

(21) sensing, communications, and actuation technologies for vehicle, electrical grid, and infrastructure;

(22) efficient use, substitution, and recycling of potentially critical materials in vehicles, including rare earth elements and precious metals, at risk of supply disruption;

(23) aftertreatment technologies;

(24) thermal management of battery systems;

(25) retrofitting advanced vehicle technologies to existing vehicles;

(26) development of common standards, specifications, and architectures for both transportation and stationary battery applications;

(27) advanced internal combustion engines;

(28) mild hybrid;

(29) engine down speeding;

(30) vehicle-to-vehicle, vehicle-to-pedestrian, and vehicle-to-infrastructure technologies; and

(31) other research areas as determined by the Secretary.

(b) TRANSFORMATIONAL TECHNOLOGY.—The Secretary shall ensure that the Department continues to support research, development, engineering, demonstration, and commercial application activities and maintains competency in mid- to long-term transformational vehicle technologies with potential to achieve reductions in emissions, including activities in the areas of—

(1) hydrogen vehicle technologies, including fuel cells, hydrogen storage, infrastructure, and activities in hydrogen technology validation and safety codes and standards;

(2) multiple battery chemistries and novel energy storage devices, including nonchemical batteries and electromechanical storage technologies such as hydraulics, flywheels, and compressed air storage;

(3) communication and connectivity among vehicles, infrastructure, and the electrical grid; and

(4) other innovative technologies research and development, as determined by the Secretary.

(c) INDUSTRY PARTICIPATION.—To the maximum extent practicable, activities under this Act shall be carried out in partnership or collaboration with automotive manufacturers, heavy commercial, vocational, and transit vehicle manufacturers, qualified plug-in electric vehicle manufacturers, compressed natural gas vehicle manufacturers, vehicle and engine equipment and component manufacturers, manufacturing equipment manufacturers, advanced vehicle service providers, fuel producers and energy suppliers, electric utilities, universities, national laboratories, and independent research laboratories. In carrying out this Act the Secretary shall—

(1) determine whether a wide range of companies that manufacture or assemble vehicles or components in the United States are represented in ongoing public private partnership activities, including firms that have not traditionally participated in federally sponsored research and development activities, and where possible, partner with such firms that conduct significant and relevant research and development activities in the United States;

(2) leverage the capabilities and resources of, and formalize partnerships with, industry-led stakeholder organizations, nonprofit organizations, industry consortia, and trade associations with expertise in the research and development of, and education and outreach activities in, advanced automotive and commercial vehicle technologies;

(3) develop more effective processes for transferring research findings and technologies to industry;

(4) support public-private partnerships, dedicated to overcoming barriers in commercial application of transformational vehicle technologies, that utilize such industry-led technology development facilities of entities with demonstrated expertise in successfully designing and engineering pre-commercial generations of such transformational technology; and

(5) promote efforts to ensure that technology research, development, engineering, and commercial application activities funded under this Act are carried out in the United States.

(d) INTERAGENCY AND INTRAAGENCY COORDINATION.—To the maximum extent practicable, the Secretary shall coordinate research, development, demonstration, and commercial application activities among—

(1) relevant programs within the Department, including—

- (A) the Office of Energy Efficiency and Renewable Energy;
- (B) the Office of Science;
- (C) the Office of Electricity Delivery and Energy Reliability;
- (D) the Office of Fossil Energy;
- (E) the Advanced Research Projects Agency—Energy; and
- (F) other offices as determined by the Secretary; and

(2) relevant technology research and development programs within other Federal agencies, as determined by the Secretary.

(e) **FEDERAL DEMONSTRATION OF TECHNOLOGIES.**—The Secretary shall make information available to procurement programs of Federal agencies regarding the potential to demonstrate technologies resulting from activities funded through programs under this Act.

(f) **INTERGOVERNMENTAL COORDINATION.**—The Secretary shall seek opportunities to leverage resources and support initiatives of State and local governments in developing and promoting advanced vehicle technologies, manufacturing, and infrastructure.

(g) **CRITERIA.**—When awarding grants under this program, the Secretary shall give priority to those technologies (either individually or as part of a system) that—

- (1) provide the greatest aggregate fuel savings based on the reasonable projected sales volumes of the technology; and
- (2) provide the greatest increase in United States employment.

#### **SEC. 1307. MANUFACTURING.**

The Secretary shall carry out a research, development, engineering, demonstration, and commercial application program of advanced vehicle manufacturing technologies and practices, including innovative processes—

(1) to increase the production rate and decrease the cost of advanced battery and fuel cell manufacturing;

(2) to vary the capability of individual manufacturing facilities to accommodate different battery chemistries and configurations;

(3) to reduce waste streams, emissions, and energy intensity of vehicle, engine, advanced battery and component manufacturing processes;

(4) to recycle and remanufacture used batteries and other vehicle components for reuse in vehicles or stationary applications;

(5) to develop manufacturing processes to effectively fabricate, assemble, and produce cost-effective lightweight materials such as advanced aluminum and other metal alloys, polymeric composites, and carbon fiber for use in vehicles;

(6) to produce lightweight high pressure storage systems for gaseous fuels;

(7) to design and manufacture purpose-built hydrogen fuel cell vehicles and components;

(8) to improve the calendar life and cycle life of advanced batteries; and

(9) to produce permanent magnets for advanced vehicles.

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

##### **SEC. 1308. PROGRAM.**

The Secretary, in partnership with relevant research and development programs in other Federal agencies, and a range of appropriate industry stakeholders, shall carry out 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, including activities in the areas of—

(1) engine efficiency and combustion research;

(2) onboard storage technologies for compressed and liquefied natural gas;

(3) development and integration of engine technologies designed for natural gas operation of a variety of vehicle platforms;

(4) waste heat recovery and conversion;

(5) improved aerodynamics and tire rolling resistance;

(6) energy and space-efficient emissions control systems;

(7) mild hybrid, heavy hybrid, hybrid hydraulic, plug-in hybrid, and electric platforms, and energy storage technologies;

(8) drivetrain optimization;

(9) friction and wear reduction;

(10) engine idle and parasitic energy loss reduction;

(11) electrification of accessory loads;

(12) onboard sensing and communications technologies;

(13) advanced lightweighting materials and vehicle designs;

(14) increasing load capacity per vehicle;

(15) thermal management of battery systems;

(16) recharging infrastructure;

(17) compressed natural gas infrastructure;

(18) advanced internal combustion engines;

(19) complete vehicle and power pack modeling, simulation, and testing;

(20) hydrogen vehicle technologies, including fuel cells and internal combustion engines, and hydrogen infrastructure, including hydrogen energy storage to enable renewables and provide hydrogen for fuel and power;

(21) retrofitting advanced technologies onto existing truck fleets;

(22) advanced boosting systems;

(23) engine down speeding; and

(24) integration of these and other advanced systems onto a single truck and trailer platform.

#### **SEC. 1309. CLASS 8 TRUCK AND TRAILER SYSTEMS DEMONSTRATION.**

(a) **IN GENERAL.**—The Secretary shall conduct a competitive grant program to demonstrate the integration of multiple advanced technologies on Class 8 truck and trailer platforms, including a combination of technologies listed in section 1308.

(b) **APPLICANT TEAMS.**—Applicant teams may be comprised of truck and trailer manufacturers, engine and component manufacturers, fleet customers, university researchers, and other applicants as appropriate for the development and demonstration of integrated Class 8 truck and trailer systems.

#### **SEC. 1310. TECHNOLOGY TESTING AND METRICS.**

The Secretary, in coordination with the partners of the interagency research program described in section 1308—

(1) shall develop standard testing procedures and technologies for evaluating the performance of advanced heavy vehicle technologies under a range of representative duty cycles and operating conditions, including for heavy hybrid propulsion systems;

(2) shall evaluate heavy vehicle performance using work performance-based metrics other than those based on miles per gallon, including those based on units of volume and weight transported for freight applications, and appropriate metrics based on the work performed by nonroad systems; and

(3) may construct heavy duty truck and bus testing facilities.

#### **SEC. 1311. NONROAD SYSTEMS PILOT PROGRAM.**

The Secretary shall undertake a pilot program of research, development, demonstration, and commercial applications of technologies to improve total machine or system efficiency for nonroad mobile equipment including agricultural, construction, air, and sea port equipment, and shall seek opportunities to transfer relevant research findings and technologies between the nonroad and on-highway equipment and vehicle sectors.

#### **PART III—ADMINISTRATION**

##### **SEC. 1312. REPEAL OF EXISTING AUTHORITIES.**

(a) **IN GENERAL.**—Sections 706, 711, 712, and 933 of the Energy Policy Act of 2005 (42 U.S.C. 16051, 16061, 16062, 16233) are repealed.

(b) **ENERGY EFFICIENCY.**—Section 911 of the Energy Policy Act of 2005 (42 U.S.C. 16191) is amended—

(1) in subsection (a)—

(A) in paragraph (1)(A), by striking “vehicles, buildings,” and inserting “buildings”; and

(B) in paragraph (2)—

(i) by striking subparagraph (A); and

(ii) by redesignating subparagraphs (B) through (E) as subparagraphs (A) through (D), respectively; and

(2) in subsection (c)—

(A) by striking paragraph (3);

(B) by redesignating paragraph (4) as paragraph (3); and

(C) in paragraph (3) (as so redesignated), by striking “(a)(2)(D)” and inserting “(a)(2)(C)”.

##### **Subtitle E—Short Title**

##### **SEC. 1401. SHORT TITLE.**

This title may be cited as the “Portman-Shaheen Energy Efficiency Improvement Act of 2016”.

#### **TITLE II—INFRASTRUCTURE**

##### **Subtitle A—Cybersecurity**

##### **SEC. 2001. CYBERSECURITY THREATS.**

Part II of the Federal Power Act (16 U.S.C. 824 et seq.) is amended by adding at the end the following:

##### **“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 subdivi-

sion, 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.”.

#### SEC. 2002. ENHANCED GRID SECURITY.

(a) DEFINITIONS.—In this section:

(1) ELECTRIC UTILITY.—The term “electric utility” has the meaning given the term in section 3 of the Federal Power Act (16 U.S.C. 796).

(2) ES-ISAC.—The term “ES-ISAC” means the Electricity Sector Information Sharing and Analysis Center.

(3) NATIONAL LABORATORY.—The term “National Laboratory” has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(4) SECTOR-SPECIFIC AGENCY.—The term “Sector-Specific Agency” has the meaning given the term in the Presidential policy directive entitled “Critical Infrastructure Security and Resilience”, numbered 21, and dated February 12, 2013.

(b) SECTOR-SPECIFIC AGENCY FOR CYBERSECURITY FOR THE ENERGY SECTOR.—

(1) IN GENERAL.—The Department shall be the lead Sector-Specific Agency for cybersecurity for the energy sector.

(2) DUTIES.—As the designated Sector-Specific Agency for cybersecurity, the duties of the Department shall include—

(A) coordinating with the Department of Homeland Security and other relevant Federal departments and agencies;

(B) collaborating with—

(i) critical infrastructure owners and operators; and

(ii) as appropriate—

(I) independent regulatory agencies; and

(II) State, local, tribal and territorial entities;

(C) serving as a day-to-day Federal interface for the dynamic prioritization and coordination of sector-specific activities;

(D) carrying out incident management responsibilities consistent with applicable law (including regulations) and other appropriate policies or directives;

(E) providing, supporting, or facilitating technical assistance and consultations for the energy sector to identify vulnerabilities and help mitigate incidents, as appropriate; and

(F) supporting the reporting requirements of the Department of Homeland Security under applicable law by providing, on an annual basis, sector-specific critical infrastructure information.

(c) CYBERSECURITY FOR THE ENERGY SECTOR RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.—

(1) IN GENERAL.—The Secretary, in consultation with appropriate Federal agencies, the energy sector, the States, and other stakeholders, shall carry out a program—

(A) to develop advanced cybersecurity applications and technologies for the energy sector—

(i) to identify and mitigate vulnerabilities, including—

(I) dependencies on other critical infrastructure; and

(II) impacts from weather and fuel supply; and

(ii) to advance the security of field devices and third-party control systems, including—

(I) systems for generation, transmission, distribution, end use, and market functions;

(II) specific electric grid elements including advanced metering, demand response, distributed generation, and electricity storage;

(III) forensic analysis of infected systems; and

(IV) secure communications;

(B) to leverage electric grid architecture as a means to assess risks to the energy sector, including by implementing an all-hazards approach to communications infrastructure, control systems architecture, and power systems architecture;

(C) to perform pilot demonstration projects with the energy sector to gain experience with new technologies; and

(D) to develop workforce development curricula for energy sector-related cybersecurity.

(2) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection \$65,000,000 for each of fiscal years 2017 through 2025.

(d) ENERGY SECTOR COMPONENT TESTING FOR CYBERRESILIENCE PROGRAM.—

(1) IN GENERAL.—The Secretary shall carry out a program—

(A) to establish a cybertesting and mitigation program to identify vulnerabilities of energy sector supply chain products to known threats;

(B) to oversee third-party cybertesting; and

(C) to develop procurement guidelines for energy sector supply chain components.

(2) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this subsection \$15,000,000 for each of fiscal years 2017 through 2025.

(e) ENERGY SECTOR OPERATIONAL SUPPORT FOR CYBERRESILIENCE PROGRAM.—

(1) IN GENERAL.—The Secretary may carry out a program—

(A) to enhance and periodically test—

(i) the emergency response capabilities of the Department; and

(ii) the coordination of the Department with other agencies, the National Laboratories, and private industry;

(B) to expand cooperation of the Department with the intelligence communities for

energy sector-related threat collection and analysis;

(C) to enhance the tools of the Department and ES-ISAC for monitoring the status of the energy sector;

(D) to expand industry participation in ES-ISAC; and

(E) to provide technical assistance to small electric utilities for purposes of assessing cybermaturity level.

(2) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this subsection \$10,000,000 for each of fiscal years 2017 through 2025.

(f) **MODELING AND ASSESSING ENERGY INFRASTRUCTURE RISK.**—

(1) **IN GENERAL.**—The Secretary shall develop an advanced energy security program to secure energy networks, including electric, natural gas, and oil exploration, transmission, and delivery.

(2) **SECURITY AND RESILIENCY OBJECTIVE.**—The objective of the program developed under paragraph (1) is to increase the functional preservation of the electric grid operations or natural gas and oil operations in the face of natural and human-made threats and hazards, including electric magnetic pulse and geomagnetic disturbances.

(3) **ELIGIBLE ACTIVITIES.**—In carrying out the program developed under paragraph (1), the Secretary may—

(A) develop capabilities to identify vulnerabilities and critical components that pose major risks to grid security if destroyed or impaired;

(B) provide modeling at the national level to predict impacts from natural or human-made events;

(C) develop a maturity model for physical security and cybersecurity;

(D) conduct exercises and assessments to identify and mitigate vulnerabilities to the electric grid, including providing mitigation recommendations;

(E) conduct research hardening solutions for critical components of the electric grid;

(F) conduct research mitigation and recovery solutions for critical components of the electric grid; and

(G) provide technical assistance to States and other entities for standards and risk analysis.

(4) **AUTHORIZATION OF APPROPRIATIONS.**—There is authorized to be appropriated to carry out this subsection \$10,000,000 for each of fiscal years 2017 through 2025.

(g) **LEVERAGING EXISTING PROGRAMS.**—The programs established under this section shall be carried out consistent with—

(1) the report of the Department entitled “Roadmap to Achieve Energy Delivery Systems Cybersecurity” and dated 2011;

(2) existing programs of the Department; and

(3) any associated strategic framework that links together academic and National Laboratory researchers, electric utilities, manufacturers, and any other relevant private industry organizations, including the Electricity Sub-sector Coordinating Council.

(h) **STUDY.**—

(1) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act, the Secretary, in consultation with the Federal Energy Regulatory Commission and the North American Electric Reliability Corporation, shall conduct a study to explore alternative management structures and funding mechanisms to expand industry membership and participation in ES-ISAC.

(2) **REPORT.**—The Secretary shall submit to the appropriate committees of Congress a report describing the results of the study conducted under paragraph (1).

### Subtitle B—Strategic Petroleum Reserve

#### SEC. 2101. STRATEGIC PETROLEUM RESERVE MODERNIZATION.

(a) **REAFFIRMATION OF POLICY.**—Congress reaffirms the continuing strategic importance and need for the Strategic Petroleum Reserve as found and declared in section 151 of the Energy Policy and Conservation Act (42 U.S.C. 6231).

(b) **SPR PETROLEUM ACCOUNT.**—Section 167(b) of the Energy Policy and Conservation Act (42 U.S.C. 6247(b)) is amended to read as follows:

“(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.”.

(c) **DEFINITION OF RELATED FACILITY.**—Section 152(8) of the Energy Policy and Conservation Act (42 U.S.C. 6232(8)) is amended by inserting “terminals,” after “reservoirs,”.

### Subtitle C—Trade

#### SEC. 2201. ACTION ON APPLICATIONS TO EXPORT LIQUEFIED NATURAL GAS.

(a) **DECISION DEADLINE.**—For proposals that must also obtain authorization from the Federal Energy Regulatory Commission or the Maritime Administration to site, construct, expand, or operate liquefied natural gas export facilities, the Secretary shall issue a final decision on any application for the authorization to export natural gas under section 3(a) of the Natural Gas Act (15 U.S.C. 717b(a)) not later than 45 days after the later of—

(1) the conclusion of the review to site, construct, expand, or operate the liquefied natural gas export facilities required by the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.); or

(2) the date of enactment of this Act.

(b) **CONCLUSION OF REVIEW.**—For purposes of subsection (a), review required by the Na-

tional Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) shall be considered concluded when the lead agency—

(1) for a project requiring an Environmental Impact Statement, publishes a Final Environmental Impact Statement;

(2) for a project for which an Environmental Assessment has been prepared, publishes a Finding of No Significant Impact; or

(3) determines that an application is eligible for a categorical exclusion pursuant to National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) implementing regulations.

(c) **JUDICIAL REVIEW.**—

(1) **IN GENERAL.**—Except for review in the Supreme Court, the United States Court of Appeals for the District of Columbia Circuit or the circuit in which the liquefied natural gas export facility will be located pursuant to an application described in subsection (a) shall have original and exclusive jurisdiction over any civil action for the review of—

(A) an order issued by the Secretary with respect to such application; or

(B) the failure of the Secretary to issue a final decision on such application.

(2) **ORDER.**—If the Court in a civil action described in paragraph (1) finds that the Secretary has failed to issue a final decision on the application as required under subsection (a), the Court shall order the Secretary to issue the final decision not later than 30 days after the order of the Court.

(3) **EXPEDITED CONSIDERATION.**—The Court shall—

(A) set any civil action brought under this subsection for expedited consideration; and

(B) set the matter on the docket as soon as practicable after the filing date of the initial pleading.

(4) **TRANSFERS.**—In the case of an application described in subsection (a) for which a petition for review has been filed—

(A) upon motion by an applicant, the matter shall be transferred to the United States Court of Appeals for the District of Columbia Circuit or the circuit in which a liquefied natural gas export facility will be located pursuant to an application described in section 3(a) of the Natural Gas Act (15 U.S.C. 717b(a)); and

(B) the provisions of this section shall apply.

#### SEC. 2202. PUBLIC DISCLOSURE OF LIQUEFIED NATURAL GAS EXPORT DESTINATIONS.

Section 3 of the Natural Gas Act (15 U.S.C. 717b) is amended by adding at the end the following:

“(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.”.

**SEC. 2203. ENERGY DATA COLLABORATION.**

(a) IN GENERAL.—The Administrator of the Energy Information Administration (referred to in this section as the “Administrator”) shall collaborate with the appropriate officials in Canada and Mexico, as determined by the Administrator, to improve—

(1) the quality and transparency of energy data in North America through reconciliation of data on energy trade flows among the United States, Canada, and Mexico;

(2) the extension of energy mapping capabilities in the United States, Canada, and Mexico; and

(3) the development of common energy data terminology among the United States, Canada, and Mexico.

(b) PERIODIC UPDATES.—The Administrator shall periodically 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 update on—

(1) the extent to which energy data is being shared under subsection (a); and

(2) whether forward-looking projections for regional energy flows are improving in accuracy as a result of the energy data sharing under that subsection.

**Subtitle D—Electricity and Energy Storage**

**SEC. 2301. GRID STORAGE PROGRAM.**

(a) IN GENERAL.—The Secretary shall conduct a program of research, development, and demonstration of electric grid energy storage that addresses the principal challenges identified in the 2013 Department of Energy Strategic Plan for Grid Energy Storage.

(b) AREAS OF FOCUS.—The program under this section shall focus on—

(1) materials and electrochemical systems research;

(2) power conversion technologies research;

(3) developing—

(A) empirical and science-based industry standards to compare the storage capacity, cycle length and capabilities, and reliability of different types of electricity storage; and

(B) validation and testing techniques;

(4) other fundamental and applied research critical to widespread deployment of electricity storage;

(5) device development that builds on results from research described in paragraphs (1), (2), and (4), including combinations of power electronics, advanced optimizing controls, and energy storage as a general purpose element of the electric grid;

(6) grid-scale testing and analysis of storage devices, including test-beds and field trials;

(7) cost-benefit analyses that inform capital expenditure planning for regulators and owners and operators of components of the electric grid;

(8) electricity storage device safety and reliability, including potential failure modes, mitigation measures, and operational guidelines;

(9) standards for storage device performance, control interface, grid interconnection, and interoperability; and

(10) maintaining a public database of energy storage projects, policies, codes, standards, and regulations.

(c) ASSISTANCE TO STATES.—The Secretary may provide technical and financial assistance to States, Indian tribes, or units of local government to participate in or use research, development, or deployment of technology developed under this section.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$50,000,000 for each of fiscal years 2017 through 2026.

(e) NO EFFECT ON OTHER PROVISIONS OF LAW.—Nothing in this subtitle or an amend-

ment made by this subtitle authorizes regulatory actions that would duplicate or conflict with regulatory requirements, mandatory standards, or related processes under section 215 of the Federal Power Act (16 U.S.C. 824o).

**SEC. 2302. ELECTRIC SYSTEM GRID ARCHITECTURE, SCENARIO DEVELOPMENT, AND MODELING.**

(a) GRID ARCHITECTURE AND SCENARIO DEVELOPMENT.—

(1) IN GENERAL.—Subject to paragraph (2), the Secretary shall establish and facilitate 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 (including different quantities of distributed energy resources and large-scale, central generation) on the electric grid.

(2) MARKET STRUCTURE.—The grid architecture and scenarios developed under paragraph (1) shall account for differences in market structure, including an examination of the potential for stranded costs in each type of market structure.

(3) FINDINGS.—Based on the findings of grid architecture developed under paragraph (1), the Secretary shall—

(A) determine whether any additional standards are necessary to ensure the interoperability of grid systems and associated communications networks; and

(B) if the Secretary makes a determination that additional standards are necessary under subparagraph (A), make recommendations for additional standards, including, as may be appropriate, to the Electric Reliability Organization under section 215 of the Federal Power Act (16 U.S.C. 824o).

(b) MODELING.—Subject to subsection (c), the Secretary shall—

(1) conduct modeling based on the scenarios developed under subsection (a); and

(2) analyze and evaluate the technical and financial impacts of the models to assist States, utilities, and other stakeholders in—

(A) enhancing strategic planning efforts;

(B) avoiding stranded costs; and

(C) maximizing the cost-effectiveness of future grid-related investments.

(c) INPUT.—The Secretary shall develop the scenarios and conduct the modeling and analysis under subsections (a) and (b) with participation or input, as appropriate, from—

(1) the National Laboratories;

(2) States;

(3) State regulatory authorities;

(4) transmission organizations;

(5) representatives of the electric industry;

(6) academic institutions;

(7) independent research institutes; and

(8) other entities.

**SEC. 2303. TECHNOLOGY DEMONSTRATION ON THE DISTRIBUTION SYSTEM.**

(a) IN GENERAL.—The Secretary shall establish a grant program to carry out eligible projects related to the modernization of the electric grid, including the application of technologies to improve observability, advanced controls, and prediction of system performance on the distribution system.

(b) ELIGIBLE PROJECTS.—To be eligible for a grant under subsection (a), a project shall—

(1) be designed to improve the performance and efficiency of the future electric grid, while ensuring the continued provision of safe, secure, reliable, and affordable power; and

(2) demonstrate—

(A) secure integration and management of 2 or more energy resources, including distributed energy generation, combined heat and power, micro-grids, energy storage, electric vehicles, energy efficiency, demand response, and intelligent loads; and

(B) secure integration and interoperability of communications and information technologies.

(c) PARTICIPATION.—Projects conducted under subsection (b) shall include the participation of a partnership consisting of 2 or more entities that—

(1) may include

(A) any institution of higher education;

(B) a National Laboratory;

(C) a representative of a State or local government;

(D) a representative of an Indian tribe; or

(E) a Federal power marketing administration; and

(2) shall include at least 1 of any of—

(A) an investor-owned electric utility;

(B) a publicly owned utility;

(C) a technology provider;

(D) a rural electric cooperative;

(E) a regional transmission organization;

or

(F) an independent system operator

(d) CYBERSECURITY PLAN.—Each demonstration project conducted under subsection (a) shall include the development of a cybersecurity plan approved by the Secretary.

(e) PRIVACY RISK ANALYSIS.—Each demonstration project conducted under subsection (a) shall include a privacy impact assessment that evaluates the project against the 5 core concepts in the Voluntary Code of Conduct of the Department, commonly known as the “DataGuard Energy Data Privacy Program”, or the most recent revisions to the privacy program of the Department.

**SEC. 2304. HYBRID MICRO-GRID SYSTEMS FOR ISOLATED AND RESILIENT COMMUNITIES.**

(a) DEFINITIONS.—In this section:

(1) HYBRID MICRO-GRID SYSTEM.—The term “hybrid micro-grid system” means a stand-alone electrical system that—

(A) is comprised of conventional generation and at least 1 alternative energy resource; and

(B) may use grid-scale energy storage.

(2) ISOLATED COMMUNITY.—The term “isolated community” means a community that is powered by a stand-alone electric generation and distribution system without the economic and reliability benefits of connection to a regional electric grid.

(3) MICRO-GRID SYSTEM.—The term “micro-grid system” means a standalone electrical system that uses grid-scale energy storage.

(4) STRATEGY.—The term “strategy” means the strategy developed pursuant to subsection (b)(2)(B).

(b) PROGRAM.—

(1) ESTABLISHMENT.—The Secretary shall establish a program to promote the development of—

(A) hybrid micro-grid systems for isolated communities; and

(B) micro-grid systems to increase the resilience of critical infrastructure.

(2) PHASES.—The program established under paragraph (1) shall be divided into the following phases:

(A) Phase I, which shall consist of the development of a feasibility assessment for—

(i) hybrid micro-grid systems in isolated communities; and

(ii) micro-grid systems to enhance the resilience of critical infrastructure.

(B) Phase II, which shall consist of the development of an implementation strategy, in accordance with paragraph (3), to promote the development of hybrid micro-grid systems for isolated communities, particularly for those communities exposed to extreme weather conditions and high energy costs, including electricity, space heating and cooling, and transportation.

(C) Phase III, which shall be carried out in parallel with Phase II and consist of the development of an implementation strategy to



promote the development of micro-grid systems that increase the resilience of critical infrastructure.

(D) Phase IV, which shall consist of cost-shared demonstration projects, based upon the strategies developed under subparagraph (B) that include the development of physical and cybersecurity plans to take appropriate measures to protect and secure the electric grid.

(E) Phase V, which shall establish a benefits analysis plan to help inform regulators, policymakers, and industry stakeholders about the affordability, environmental and resilience benefits associated with Phases II, III and IV.

(3) REQUIREMENTS FOR STRATEGY.—In developing the strategy under paragraph (2)(B), the Secretary shall consider—

(A) establishing future targets for the economic displacement of conventional generation using hybrid micro-grid systems, including displacement of conventional generation used for electric power generation, heating and cooling, and transportation;

(B) the potential for renewable resources, including wind, solar, and hydropower, to be integrated into a hybrid micro-grid system;

(C) opportunities for improving the efficiency of existing hybrid micro-grid systems;

(D) the capacity of the local workforce to operate, maintain, and repair a hybrid micro-grid system;

(E) opportunities to develop the capacity of the local workforce to operate, maintain, and repair a hybrid micro-grid system;

(F) leveraging existing capacity within local or regional research organizations, such as organizations based at institutions of higher education, to support development of hybrid micro-grid systems, including by testing novel components and systems prior to field deployment;

(G) the need for basic infrastructure to develop, deploy, and sustain a hybrid micro-grid system;

(H) input of traditional knowledge from local leaders of isolated communities in the development of a hybrid micro-grid system;

(I) the impact of hybrid micro-grid systems on defense, homeland security, economic development, and environmental interests;

(J) opportunities to leverage existing interagency coordination efforts and recommendations for new interagency coordination efforts to minimize unnecessary overhead, mobilization, and other project costs; and

(K) any other criteria the Secretary determines appropriate.

(c) COLLABORATION.—The program established under subsection (b)(1) shall be carried out in collaboration with relevant stakeholders, including, as appropriate—

- (1) States;
- (2) Indian tribes;
- (3) regional entities and regulators;
- (4) units of local government;
- (5) institutions of higher education; and
- (6) private sector entities.

(d) REPORT.—Not later than 180 days after the date of enactment of this Act, and annually thereafter, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report on the efforts to implement the program established under subsection (b)(1) and the status of the strategy developed under subsection (b)(2)(B).

#### SEC. 2305. VOLUNTARY MODEL PATHWAYS.

(a) ESTABLISHMENT OF VOLUNTARY MODEL PATHWAYS.—

(1) ESTABLISHMENT.—Not later than 90 days after the date of enactment of this Act, the Secretary shall initiate the development of voluntary model pathways for modernizing

the electric grid through a collaborative, public-private effort that—

(A) produces illustrative policy pathways that can be adapted for State and regional applications by regulators and policymakers;

(B) facilitates the modernization of the electric grid to achieve the objectives described in paragraph (2);

(C) ensures a reliable, resilient, affordable, safe, and secure electric system; and

(D) acknowledges and provides for different priorities, electric systems, and rate structures across States and regions.

(2) OBJECTIVES.—The pathways established under paragraph (1) shall facilitate achievement of the following objectives:

(A) Near real-time situational awareness of the electric system.

(B) Data visualization.

(C) Advanced monitoring and control of the advanced electric grid.

(D) Enhanced certainty for private investment in the electric system.

(E) Increased innovation.

(F) Greater consumer empowerment.

(G) Enhanced grid resilience, reliability, and robustness.

(H) Improved—

(i) integration of distributed energy resources;

(ii) interoperability of the electric system; and

(iii) predictive modeling and capacity forecasting.

(3) STEERING COMMITTEE.—Not later than 90 days after the date of enactment of this Act, the Secretary shall establish a steering committee to facilitate the development of the pathways under paragraph (1), to be composed of members appointed by the Secretary, consisting of persons with appropriate expertise representing a diverse range of interests in the public, private, and academic sectors, including representatives of—

(A) the Smart Grid Task Force; and

(B) the Smart Grid Advisory Committee.

(b) TECHNICAL ASSISTANCE.—The Secretary may provide technical assistance to States, Indian tribes, or units of local government to adopt 1 or more elements of the pathways developed under subsection (a)(1).

#### SEC. 2306. PERFORMANCE METRICS FOR ELECTRICITY INFRASTRUCTURE PROVIDERS.

(a) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to the appropriate committees of Congress a report that includes—

(1) an evaluation of the performance of the electric grid as of the date of the report; and

(2) a description of the quantified costs and benefits associated with the changes evaluated under the scenarios developed under section 2302.

(b) CONSIDERATIONS FOR DEVELOPMENT OF METRICS.—In developing metrics for evaluating and quantifying the electric grid under subsection (a), the Secretary shall consider—

(1) standard methodologies for calculating improvements or deteriorations in the performance metrics, such as reliability, grid efficiency, power quality, consumer satisfaction, sustainability, and financial incentives;

(2) standard methodologies for calculating value to ratepayers, including broad economic and related impacts from improvements to the performance metrics;

(3) appropriate ownership and operating roles for electric utilities that would enable improved performance through the adoption of emerging, commercially available or advanced grid technologies or solutions, including—

- (A) multicustomer micro-grids;
- (B) distributed energy resources;
- (C) energy storage;
- (D) electric vehicles;

(E) electric vehicle charging infrastructure;

(F) integrated information and communications systems;

(G) transactive energy systems; and

(H) advanced demand management systems; and

(4) with respect to States, the role of the grid operator in enabling a robust future electric system to ensure that—

(A) electric utilities remain financially viable;

(B) electric utilities make the needed investments that ensure a reliable, secure, and resilient grid; and

(C) costs incurred to transform to an integrated grid are allocated and recovered responsibly, efficiently, and equitably.

#### SEC. 2307. STATE AND REGIONAL ELECTRICITY DISTRIBUTION PLANNING.

(a) IN GENERAL.—Upon the request of a State or regional organization, the Secretary shall partner with States and regional organizations to facilitate the development of State and regional electricity distribution plans by—

(1) conducting a resource assessment and analysis of future demand and distribution requirements; and

(2) developing open source tools for State and regional planning and operations.

(b) RISK AND SECURITY ANALYSIS.—The assessment under subsection (a)(1) shall include—

(1) the evaluation of the physical and cybersecurity needs of an advanced distribution management system and the integration of distributed energy resources; and

(2) advanced use of grid architecture to analyze risks in an all-hazards approach that includes communications infrastructure, control systems architecture, and power systems architecture.

(c) TECHNICAL ASSISTANCE.—For the purpose of developing State and regional electricity distribution plans, the Secretary shall provide technical assistance to—

- (1) States;
- (2) regional reliability entities; and
- (3) other distribution asset owners and operators.

#### SEC. 2308. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to the Secretary to carry out sections 2302 through 2307 \$200,000,000 for each of fiscal years 2017 through 2026.

#### SEC. 2309. ELECTRIC TRANSMISSION INFRASTRUCTURE PERMITTING.

(a) INTERAGENCY RAPID RESPONSE TEAM FOR TRANSMISSION.—

(1) ESTABLISHMENT.—There is established an interagency rapid response team, to be known as the “Interagency Rapid Response Team for Transmission” (referred to in this subsection as the “Team”), to expedite and improve the permitting process for electric transmission infrastructure on Federal land and non-Federal land.

(2) MISSION.—The mission of the Team shall be—

(A) to improve the timeliness and efficiency of electric transmission infrastructure permitting; and

(B) to facilitate the performance of maintenance and upgrades to electric transmission lines on Federal land and non-Federal land.

(3) MEMBERSHIP.—The Team shall be comprised of representatives of—

- (A) the Federal Energy Regulatory Commission;
- (B) the Department;
- (C) the Department of the Interior;
- (D) the Department of Defense;
- (E) the Department of Agriculture;
- (F) the Council on Environmental Quality;
- (G) the Department of Commerce;



(H) the Advisory Council on Historic Preservation; and

(I) the Environmental Protection Agency.

(4) DUTIES.—The Team shall—

(A) facilitate coordination and unified environmental documentation among electric transmission infrastructure project applicants, Federal agencies, States, and Indian tribes involved in the siting and permitting process;

(B) establish clear timelines for the review and coordination of electric transmission infrastructure projects by the applicable agencies;

(C) ensure that each electric transmission infrastructure project is posted on the Federal permitting transmission tracking system known as “e-Trans”, including information on the status and anticipated completion date of each project; and

(D) regularly notify all participating members of the Team involved in any specific permit of—

(i) any outstanding agency action that is required with respect to the permit; and

(ii) any approval or required comment that has exceeded statutory or agency timelines for completion, including an identification of any Federal agency, department, or field office that has not met the applicable timeline.

(5) ANNUAL REPORTS.—Annually, the Team 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 describes the average completion time for specific categories of regionally and nationally significant transmission projects, based on information obtained from the applicable Federal agencies.

(6) USE OF DATA BY OMB.—Using data provided by the Team, the Director of the Office of Management and Budget shall prioritize inclusion of individual electric transmission infrastructure projects on the website operated by the Office of Management and Budget in accordance with section 1122 of title 31, United States Code.

(b) TRANSMISSION OMBUDSPERSON.—

(1) ESTABLISHMENT.—To enhance and ensure the reliability of the electric grid, there is established within the Council on Environmental Quality the position of Transmission Ombudsperson (referred to in this subsection as the “Ombudsperson”), to provide a unified point of contact for—

(A) resolving interagency or intra-agency issues or delays with respect to electric transmission infrastructure permits; and

(B) receiving and resolving complaints from parties with outstanding or in-process applications relating to electric transmission infrastructure.

(2) DUTIES.—The Ombudsperson shall—

(A) establish a process for—

(i) facilitating the permitting process for performance of maintenance and upgrades to electric transmission lines on Federal land and non-Federal land, with a special emphasis on facilitating access for immediate maintenance, repair, and vegetation management needs;

(ii) resolving complaints filed with the Ombudsperson with respect to in-process electric transmission infrastructure permits; and

(iii) issuing recommended resolutions to address the complaints filed with the Ombudsperson; and

(B) hear, compile, and share any complaints filed with Ombudsperson relating to in-process electric transmission infrastructure permits.

(c) AGREEMENTS.—

(1) IN GENERAL.—The Secretary of the Interior, with respect to public lands (as defined in section 103(e) of the Federal Land Policy

and Management Act (43 U.S.C. 1702(e)), and the Secretary of Agriculture, with respect to National Forest System land, shall provide for continuity of the existing use and occupancy for the transmission of electric energy by any Federal department or agency granted across public lands or National Forest System land.

(2) AGREEMENTS.—The Secretary of the Interior or the Secretary of Agriculture, as applicable, within 30 days after receiving a request from the Federal department or agency administering the electric energy transmission facilities, shall, in consultation with that department or agency, initiate agreements regarding the use and occupancy or right-of-way (including vegetation management agreements, where applicable).

**SEC. 2310. REPORT BY TRANSMISSION ORGANIZATIONS ON DISTRIBUTED ENERGY RESOURCES AND MICRO-GRID SYSTEMS.**

(a) DEFINITIONS.—In this section:

(1) DISTRIBUTED ENERGY RESOURCE.—The term “distributed energy resource” means an electricity supply resource that, as permitted by State law—

(A)(i) is interconnected to the electric system operated by a transmission organization at or below 69kV; and

(ii) is subject to dispatch by the transmission organization; and

(B)(i) generates electricity using any primary energy source, including solar energy and other renewable resources; or

(ii) stores energy and is capable of supplying electricity to the electric system operated by the transmission organization from the storage reservoir.

(2) ELECTRIC GENERATING CAPACITY RESOURCE.—The term “electric generating capacity resource” means an electric generating resource, as measured by the maximum load-carrying ability of the resource, exclusive of station use and planned, unplanned, or other outage or derating, that is subject to dispatch by a transmission organization to meet the resource adequacy needs of the systems operated by the transmission organization.

(3) MICRO-GRID SYSTEM.—The term “micro-grid system” means an electrically distinct system under common control that—

(A) serves an electric load at or below 69kV from a distributed energy resource or electric generating capacity resource; and

(B) is subject to dispatch by a transmission organization.

(4) TRANSMISSION ORGANIZATION.—The term “transmission organization” has the meaning given the term in section 3 of the Federal Power Act (16 U.S.C. 796).

(b) REPORT.—

(1) NOTICE.—Not later than 14 days after the date of enactment of this section, the Commission shall submit to each transmission organization notice that the transmission organization is required to file with the Commission a report in accordance with paragraph (2).

(2) REPORT.—Not later than 180 days after the date on which a transmission organization receives a notice under paragraph (1), the transmission organization shall submit to the Commission a report that—

(A)(i) identifies distributed energy resources and micro-grid systems that are subject to dispatch by the transmission organization as of the date of the report; and

(ii) describes the fuel sources and operational characteristics of such distributed energy resources and micro-grid systems, including, to the extent practicable, a discussion of the benefits and costs associated with the distributed energy resources and micro-grid systems identified under clause (i);

(B) evaluates, with due regard for operational and economic benefits and costs, the

potential for distributed energy resources and micro-grid systems to be deployed to the transmission organization over the short- and long-term periods in the planning cycle of the transmission organization; and

(C) identifies—

(i) over the short- and long-term periods in the planning cycle of the transmission organization, barriers to the deployment to the transmission organization of distributed energy resources and micro-grid systems; and

(ii) potential changes to the operational requirements for, or charges associated with, the interconnection of distributed energy resources and micro-grid systems to the transmission organization that would reduce the barriers identified under clause (i).

**SEC. 2311. NET METERING STUDY GUIDANCE.**

Title XVIII of Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 1122) is amended by adding at the end the following:

**“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.”.

**Subtitle E—Computing**

**SEC. 2401. EXASCALE COMPUTER RESEARCH PROGRAM.**

(a) RENAMING OF ACT.—

(1) IN GENERAL.—Section 1 of the Department of Energy High-End Computing Revitalization Act of 2004 (15 U.S.C. 5501 note; Public Law 108–423) is amended by striking “Department of Energy High-End Computing Revitalization Act of 2004” and inserting “Exascale Computing Act of 2016”.

(2) CONFORMING AMENDMENT.—Section 976(a)(1) of the Energy Policy Act of 2005 (42 U.S.C. 16316(1)) is amended by striking “Department of Energy High-End Computing Revitalization Act of 2004” and inserting “Exascale Computing Act of 2016”.

(b) DEFINITIONS.—Section 2 of the Exascale Computing Act of 2016 (15 U.S.C. 5541) is amended—

(1) by redesignating paragraphs (2) through (5) as paragraphs (3) through (6), respectively;

(2) by striking paragraph (1) and inserting the following:

“(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.”; and

(3) in paragraph (6) (as redesignated by paragraph (1)), by striking “, acting through the Director of the Office of Science of the Department of Energy”.

(C) DEPARTMENT OF ENERGY HIGH-END COMPUTING RESEARCH AND DEVELOPMENT PROGRAM.—Section 3 of the Exascale Computing Act of 2016 (15 U.S.C. 5542) is amended—

(1) in subsection (a)(1), by striking “program” and inserting “coordinated program across the Department”;

(2) in subsection (b)(2), by striking “, which may” and all that follows through “architectures”; and

(3) by striking subsection (d) and inserting the following:

“(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 architectures 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.”.

(d) AUTHORIZATION OF APPROPRIATIONS.—Section 4 of the Exascale Computing Act of 2016 (15 U.S.C. 5543) is amended—

(1) by striking “this Act” and inserting “section 3(d)”;

(2) by striking paragraphs (1) through (3) and inserting the following:

“(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.”.

### TITLE III—SUPPLY

#### Subtitle A—Renewables

#### PART I—HYDROELECTRIC

#### SEC. 3001. HYDROPOWER REGULATORY IMPROVEMENTS.

(a) SENSE OF CONGRESS ON THE USE OF HYDROPOWER RENEWABLE RESOURCES.—It is the sense of Congress that—

(1) hydropower is a renewable resource for purposes of all Federal programs and is an essential source of energy in the United States; and

(2) the United States should increase substantially the capacity and generation of clean, renewable hydropower resources that would improve environmental quality in the United States.

(b) MODIFYING THE DEFINITION OF RENEWABLE ENERGY TO INCLUDE HYDROPOWER.—Section 203 of the Energy Policy Act of 2005 (42 U.S.C. 15852) is amended—

(1) in subsection (a), by striking “the following amounts” and all that follows through paragraph (3) and inserting “not less than 15 percent in fiscal year 2016 and each fiscal year thereafter shall be renewable energy.”; and

(2) in subsection (b), by striking paragraph (2) and inserting the following:

“(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.”.

(c) LICENSES FOR CONSTRUCTION.—Section 4(e) of the Federal Power Act (16 U.S.C. 797(e)) is amended, in the first proviso, by striking “deem” and inserting “determine to be”.

(d) PRELIMINARY PERMITS.—Section 5 of the Federal Power Act (16 U.S.C. 798) is amended—

(1) in subsection (a), by striking “three” and inserting “4”; and

(2) in subsection (b)—

(A) by striking “Commission may extend the period of a preliminary permit once for not more than 2 additional years beyond the 3 years” and inserting the following: “Commission may—

“(1) extend the period of a preliminary permit once for not more than 4 additional years beyond the 4 years”;

(B) by striking the period at the end and inserting “; and”; and

(C) by adding at the end the following:

“(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.”.

(e) TIME LIMIT FOR CONSTRUCTION OF PROJECT WORKS.—Section 13 of the Federal Power Act (16 U.S.C. 806) is amended in the second sentence by striking “once but not longer than two additional years” and inserting “for not more than 8 additional years.”.

(f) LICENSE TERM.—Section 15(e) of the Federal Power Act (16 U.S.C. 808(e)) is amended—

(1) by striking “(e) Except” and inserting the following:

“(e) LICENSE TERM ON RELICENSING.—

“(1) IN GENERAL.—Except”; and

(2) by adding at the end the following:

“(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.”.

(g) OPERATION OF NAVIGATION FACILITIES.—Section 18 of the Federal Power Act (16 U.S.C. 811) is amended by striking the second, third, and fourth sentences.

(h) ALTERNATIVE CONDITIONS AND PRESCRIPTIONS.—Section 33 of the Federal Power Act (16 U.S.C. 823d) is amended—

(1) in subsection (a)—

(A) in paragraph (1), by striking “deems” and inserting “determines”; and

(B) in paragraph (2)(B), in the matter preceding clause (i), by inserting “determined to be necessary” before “by the Secretary”; and

(C) by striking paragraph (4); and

(D) by striking paragraph (5);

(2) in subsection (b)—

(A) by striking paragraph (4); and

(B) by striking paragraph (5); and

(3) by adding at the end the following:

“(c) FURTHER CONDITIONS.—This section applies to any further conditions or prescriptions proposed or imposed pursuant to section 4(e), 6, or 18.”.

(i) LICENSING PROCESS IMPROVEMENTS AND COORDINATION.—Part I of the Federal Power Act (16 U.S.C. 792 et seq.) is amended by adding at the end the following:

#### “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 authorization, 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 Com-

mission, in accordance with the Commission rules of practice and procedure under part 385 of title 18, Code of Federal Regulations (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 subject 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 Hydro-power 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 pre-

liminary 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.”.

(j) PILOT PROGRAM.—

(1) IN GENERAL.—The Commission (as the term is defined in section 3 of the Federal Power Act (16 U.S.C. 796)) shall establish a voluntary pilot program covering at least 1 region in which the Commission, in consultation with the heads of cooperating agencies, shall direct a set of region-wide studies to inform subsequent project-level studies within each region.

(2) DESIGNATION.—Not later than 2 years after the date of enactment of this Act, if the conditions under paragraph (3) are met, the Commission, in consultation with the heads of cooperating agencies, shall designate 1 or more regions to be studied under this subsection.

(3) VOLUNTARY BASIS.—The Commission may only designate regions under paragraph (2) in which every licensee, on a voluntary basis and in writing, agrees—

(A) to be included in the pilot program; and

(B) to any cost-sharing arrangement with other licensees and applicable Federal and State agencies with respect to conducting basin-wide studies.

(4) SCALE.—The regions designated under paragraph (2) shall—

(A) be at an adequately large scale to cover at least 5 existing projects that—

(i) are licensed under this part; and

(ii) the licenses of which shall expire not later than 15 years after the date of enactment of this section; and

(B) be likely to yield region-wide studies and information that will significantly reduce the need for and scope of subsequent project-level studies and information.

(5) PROJECT LICENSE TERMS.—The Commission may extend the term of any existing license within a region designated under paragraph (2) by up to 8 years to provide sufficient time for relevant region-wide studies to inform subsequent project-level studies.

**SEC. 3002. HYDROELECTRIC PRODUCTION INCENTIVES AND EFFICIENCY IMPROVEMENTS.**

(a) HYDROELECTRIC PRODUCTION INCENTIVES.—Section 242 of the Energy Policy Act of 2005 (42 U.S.C. 15881) is amended—

(1) in subsection (c), by striking “10” and inserting “20”;

(2) in subsection (f), by striking “20” and inserting “30”;

(3) in subsection (g), by striking “each of the fiscal years 2006 through 2015” and inserting “each of fiscal years 2016 through 2025”.

(b) HYDROELECTRIC EFFICIENCY IMPROVEMENT.—Section 243(c) of the Energy Policy Act of 2005 (42 U.S.C. 15882(c)) is amended by striking “each of the fiscal years 2006 through 2015” and inserting “each of fiscal years 2016 through 2025”.

**SEC. 3003. EXTENSION OF TIME FOR A FEDERAL ENERGY REGULATORY COMMISSION PROJECT INVOLVING CLARK CANYON DAM.**

Notwithstanding the time period described in section 13 of the Federal Power Act (16 U.S.C. 806) that would otherwise apply to the Federal Energy Regulatory Commission project numbered 12429, the Federal Energy Regulatory Commission (referred to in this section as the “Commission”) shall, at the request of the licensee for the project, and after reasonable notice and in accordance with the procedures of the Commission under that section, reinstate the license and extend the time period during which the licensee is required to commence construction of project works for the 3-year period beginning on the date of enactment of this Act.

**SEC. 3004. EXTENSION OF TIME FOR A FEDERAL ENERGY REGULATORY COMMISSION PROJECT INVOLVING GIBSON DAM.**

(a) IN GENERAL.—Notwithstanding the requirements of section 13 of the Federal Power Act (16 U.S.C. 806) that would otherwise apply to the Federal Energy Regulatory Commission project numbered 12478-003, the Federal Energy Regulatory Commission (referred to in this section as the “Commission”) may, at the request of the licensee for the project, and after reasonable notice and in accordance with the procedures of the Commission under that section, extend the time period during which the licensee is required to commence construction of the project for a 6-year period that begins on the date described in subsection (b).

(b) DATE DESCRIBED.—The date described in this subsection is the date of the expiration of the extension of the period required for commencement of construction for the project described in subsection (a) that was issued by the Commission prior to the date of enactment of this Act under section 13 of the Federal Power Act (16 U.S.C. 806).

**PART II—GEOTHERMAL**

**Subpart A—Geothermal Energy**

**SEC. 3005. NATIONAL GOALS FOR PRODUCTION AND SITE IDENTIFICATION.**

It is the sense of Congress that, not later than 10 years after the date of enactment of this Act—

(1) the Secretary of the Interior shall seek to approve a significant increase in new geothermal energy capacity on public land across a geographically diverse set of States using the full range of available technologies; and

(2) the Director of the Geological Survey and the Secretary should identify sites capable of producing a total of 50,000 megawatts of geothermal power, using the full range of available technologies.

**SEC. 3006. PRIORITY AREAS FOR DEVELOPMENT ON FEDERAL LAND.**

The Director of the Bureau of Land Management, in consultation with other appropriate Federal agencies, shall—

(1) identify high priority areas for new geothermal development; and

(2) take any actions the Director determines necessary to facilitate that development, consistent with applicable laws.

**SEC. 3007. FACILITATION OF COPRODUCTION OF GEOTHERMAL ENERGY ON OIL AND GAS LEASES.**

Section 4(b) of the Geothermal Steam Act of 1970 (30 U.S.C. 1003(b)) is amended by adding at the end the following:

“(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.”.

**SEC. 3008. NONCOMPETITIVE LEASING OF ADJOINING AREAS FOR DEVELOPMENT OF GEOTHERMAL RESOURCES.**

Section 4(b) of the Geothermal Steam Act of 1970 (30 U.S.C. 1003(b)) (as amended by section 3007) is amended by adding at the end the following:

“(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 2016, the Secretary shall issue regulations to carry out this paragraph.”.

**SEC. 3009. LARGE-SCALE GEOTHERMAL ENERGY.**

Title VI of the Energy Independence and Security Act of 2007 is amended by inserting after section 616 (42 U.S.C. 17195) the following:

**“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 drilling 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).”.

#### SEC. 3010. REPORT TO CONGRESS.

Not later than 3 years after the date of enactment of this Act and not less frequently than once every 5 years thereafter, the Secretary of the Interior and the Secretary shall submit to Congress a report describing the progress made towards achieving the goals described in section 3005.

#### SEC. 3011. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to carry out this subpart—

(1) \$65,000,000 for fiscal year 2017; and

(2) \$75,000,000 for each of fiscal years 2018 through 2021.

#### Subpart B—Geothermal Exploration

#### SEC. 3012. GEOTHERMAL EXPLORATION TEST PROJECTS.

The Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.) is amended by adding at the end the following:

#### “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).”.

#### PART III—MARINE HYDROKINETIC

#### SEC. 3013. DEFINITION OF MARINE AND HYDROKINETIC RENEWABLE ENERGY.

Section 632 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17211) is amended in the matter preceding paragraph (1) by striking “electrical”.

#### SEC. 3014. MARINE AND HYDROKINETIC RENEWABLE ENERGY RESEARCH AND DEVELOPMENT.

Section 633 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17212) is amended to read as follows:

#### “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. 3015. NATIONAL MARINE RENEWABLE ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION CENTERS.**

Section 634 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17213) is amended by striking subsection (b) and inserting the following:

“(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.”.

**SEC. 3016. AUTHORIZATION OF APPROPRIATIONS.**

Section 636 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17215) is amended by striking “\$50,000,000 for each of the fiscal years 2008 through 2012” and inserting “\$55,000,000 for each of fiscal years 2017 and 2018 and \$60,000,000 for each of fiscal years 2019 through 2021”.

**PART IV—BIOMASS**

**SEC. 3017. BIO-POWER.**

(a) WOODY BIOMASS HEAT AND BIO-POWER INITIATIVE.—

(1) DEFINITIONS OF WOODY BIOMASS HEAT AND BIO-POWER.—Section 9008(a) of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8108(a)) is amended—

(A) by redesignating paragraphs (2) and (3) as paragraphs (4) and (5), respectively;

(B) by inserting after paragraph (1) the following:

“(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.”; and

(C) by adding at the end the following:

“(6) WOODY BIOMASS HEAT.—The term ‘woody biomass heat’ means the use of woody biomass to generate heat.”.

(2) BIOMASS RESEARCH AND DEVELOPMENT BOARD.—Section 9008(c)(3)(A) of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8108(c)(3)(A)) is amended by striking “biofuels and biobased products” and inserting “biofuels, biobased products, bio-power, and woody biomass heat projects”.

(3) WOODY BIOMASS HEAT AND BIO-POWER GRANTS.—Section 9008 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8108) is amended—

(A) by redesignating subsections (f), (g), and (h) as subsections (g), (h), and (i), respectively; and

(B) by inserting after subsection (e) the following:

“(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.”.

(b) LOAN PROGRAMS; STRATEGIC ANALYSIS AND RESEARCH.—

(1) LOW-INTEREST LOANS.—

(A) ESTABLISHMENT.—The Secretary of Agriculture shall establish, within the Rural Development Office, a low-interest loan program to support construction of residential, commercial or institutional, and industrial woody biomass heat and bio-power systems.

(B) REQUIREMENTS.—The program under this subsection shall be carried out in accordance with such requirements as the Secretary of Agriculture may establish, by regulation, in taking into consideration best practices.

(C) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary of Agriculture to carry out this subsection \$50,000,000.

(2) ENERGY EFFICIENCY AND CONSERVATION LOAN PROGRAM.—In addition to loans under paragraph (1), woody biomass heat residential, commercial or institutional, and industrial wood energy systems shall be eligible to receive loans under the energy efficiency and conservation loan program of the Department of Agriculture under section 2 of the Rural Electrification Act of 1936 (7 U.S.C. 902).

**Subtitle B—Oil and Gas**

**SEC. 3101. AMENDMENTS TO THE METHANE HYDRATE RESEARCH AND DEVELOPMENT ACT OF 2000.**

(a) METHANE HYDRATE RESEARCH AND DEVELOPMENT PROGRAM.—

(1) IN GENERAL.—Section 4 of the Methane Hydrate Research and Development Act of 2000 (30 U.S.C. 2003) is amended by striking subsection (b) and inserting the following:

“(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 2016;

“(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 2016;

“(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 2016; 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.”

(2) CONFORMING AMENDMENT.—Section 4(e) of the Methane Hydrate Research and Development Act of 2000 (30 U.S.C. 2003(e)) is amended in the matter preceding paragraph (1) by striking “subsection (b)(1)” and inserting “paragraphs (1) and (2) of subsection (b)”.

(b) AUTHORIZATION OF APPROPRIATIONS.—The Methane Hydrate Research and Development Act of 2000 is amended by striking section 7 (30 U.S.C. 2006) and inserting the following:

**“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.”

**SEC. 3102. LIQUEFIED NATURAL GAS STUDY.**

(a) STUDY.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary, in consultation with the National Association of Regulatory Utility Commissioners and the National Association of State Energy Officials, shall conduct a study of the State, regional, and national implications of exporting liquefied natural gas with respect to consumers and the economy.

(2) CONTENTS.—The study conducted under paragraph (1) shall include an analysis of—

(A) the economic impact that exporting liquefied natural gas will have in regions that currently import liquefied natural gas;

(B) job creation in the manufacturing sectors; and

(C) such other issues as the Secretary considers appropriate.

(b) REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of this Act, the Administrator shall submit to Congress a report on the results of the study conducted under subsection (a).

**SEC. 3103. FERC PROCESS COORDINATION WITH RESPECT TO REGULATORY APPROVAL OF GAS PROJECTS.**

(a) DEFINITIONS.—In this section:

(1) COMMISSION.—The term “Commission” means the Federal Energy Regulatory Commission.

(2) FEDERAL AUTHORIZATION.—

(A) IN GENERAL.—The term “Federal authorization” means any authorization required under Federal law with respect to an application for authorization or a certificate of public convenience and necessity relating to gas transportation subject to the jurisdiction of the Commission.

(B) INCLUSIONS.—The term “Federal authorization” includes any permits, special use authorizations, certifications, opinions, or other approvals as may be required under Federal law with respect to an application for authorization or a certificate of public convenience and necessity relating to gas transportation subject to the jurisdiction of the Commission.

(b) DESIGNATION AS LEAD AGENCY.—

(1) IN GENERAL.—The Commission shall act as the lead agency for the purposes of—

(A) coordinating all applicable Federal authorizations; and

(B) compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(2) OTHER AGENCIES.—Each Federal and State agency considering an aspect of an application for Federal authorization shall cooperate with the Commission.

(c) SCHEDULE.—

(1) TIMING FOR ISSUANCE.—It is the sense of Congress that all Federal authorizations required for a project or facility should be issued by not later than the date that is 90 days 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 under Federal law with respect to a Federal authorization.

(3) RESOLUTION OF INTERAGENCY DISPUTES.—If the Federal agency with responsibility fails to adhere to the schedule established by the Commission under paragraph (2), or if a Federal authorization has been unreasonably denied, or if a Federal authorization would be inconsistent with the purposes of this section or other applicable law, the Commission shall 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.—The Commission shall maintain official consolidated records of all license proceedings under this section.

(e) DEFERENCE TO COMMISSION.—In making a decision with respect to a Federal authorization, each agency shall give deference, to the maximum extent authorized by law, to the scope of environmental review that the Commission determines to be appropriate.

(f) CONCURRENT REVIEWS.—Pursuant to the schedule established under subsection (c)(2), each agency considering an aspect of an application for Federal authorization shall—

(1) to the maximum extent authorized by law, carry out the obligations of that agency under applicable law concurrently and in conjunction with the review required by the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), unless doing so would impair the ability of the agency to conduct needed analysis or otherwise carry out those obligations;

(2) formulate and implement administrative, policy, and procedural mechanisms to enable the agency to complete the required Federal authorizations in accordance with the schedule described in subsection (c); and

(3) transmit to the Commission a statement—

(A) acknowledging notice of the schedule described in subsection (c); and

(B) describing the plan formulated under paragraph (2).

(g) FAILURE TO MEET DEADLINE.—If an agency does not complete a proceeding for an approval that is required for a Federal authorization in accordance with the schedule described in subsection (c), the head of the relevant Federal agency (including, in the case of a failure by the State agency or unit of local government, the Federal agency overseeing the delegated authority) shall—

(1) notify Congress and the Commission of the failure; and

(2) describe in that notification an implementation plan to ensure completion.

(h) ACCOUNTABILITY; TRANSPARENCY; EFFICIENCY.—

(1) IN GENERAL.—For applications requiring multiple Federal authorizations, the Commission, in consultation with any agency considering an aspect of the application, shall track and make available to the public on the website of the Commission information relating to the actions required to complete permitting, reviews, and other requirements.

(2) INCLUSIONS.—Information tracked under paragraph (1) shall include the following:

(A) The schedule described in subsection (c).

(B) A list of all the actions required by each applicable agency to complete permitting, reviews, and other requirements necessary to obtain a final decision on the Federal authorization.

(C) The expected completion date for each action listed under subparagraph (B).

(D) A point of contact at the agency accountable for each action listed under subparagraph (B).

(E) In the event that an action is still pending as of the expected date of completion, a brief explanation of the reason for the delay.

**SEC. 3104. PILOT PROGRAM.**

(a) ESTABLISHMENT.—The Secretary of the Interior, acting through the Director of the Bureau of Land Management (referred to in this section as the “Director”), shall establish a pilot program in 1 State with at least 2,000 oil and gas drilling spacing units (as defined under State law), in which—

(1) 25 percent or less of the minerals are owned or held in trust by the Federal Government; and

(2) there is no surface land owned or held in trust by the Federal Government.

(b) **ACTIVITIES.**—In carrying out the pilot program, the Director shall identify and implement ways to streamline the review and approval of Applications for Permits to Drill for oil and gas drilling spacing units of the State in order to achieve a processing time for those oil and gas drilling spacing units similar to that of spacing units that require an Application for Permit to Drill and are not part of the pilot program in the same State.

(c) **FUNDING.**—Beginning in fiscal year 2016, and for a period of 3 years thereafter, to carry out the pilot program efficiently, the Director may fund up to 10 full-time equivalents at appropriate field offices.

(d) **REPORT.**—Not later than 4 years after the date of enactment of this Act, the Director shall submit to Congress a report on the results of the pilot program.

(e) **WAIVER.**—The Secretary of the Interior may waive the requirement for an Application for Permit to Drill if the Director determines that the mineral interest of the United States in the spacing units in land covered by this section is adequately protected, if otherwise in accordance with applicable laws, regulations, and lease terms.

#### Subtitle C—Helium

##### SEC. 3201. RIGHTS TO HELIUM.

(a) **DEFINITION OF HELIUM-RELATED PROJECT.**—The term “helium-related project” means a project—

- (1) to explore or produce crude helium; and
- (2) to sell crude or refined helium.

(b) **EXPEDITED COMPLETION.**—Notwithstanding any other provision of law, applicable environmental reviews under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) for helium-related projects shall be completed on an expeditious basis and the shortest existing applicable process under that Act shall be used for such projects.

(c) **REPEAL OF RESERVATION OF HELIUM RIGHTS.**—The first section of the Mineral Leasing Act (30 U.S.C. 181) is amended by striking the flush text that follows the last undesignated subsection.

(d) **RIGHTS TO HELIUM UNDER LEASES UNDER MINERAL LEASING ACT FOR ACQUIRED LANDS.**—The Mineral Leasing Act for Acquired Lands (30 U.S.C. 351 et seq.) is amended by adding at the end the following:

##### “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.”

#### Subtitle D—Critical Minerals

##### SEC. 3301. DEFINITIONS.

In this subtitle:

(1) **CRITICAL MINERAL.**—

(A) **IN GENERAL.**—The term “critical mineral” means any mineral, element, substance, or material designated as critical pursuant to section 3303.

(B) **EXCLUSIONS.**—The term “critical mineral” does not include—

- (i) fuel minerals, including oil, natural gas, or any other fossil fuels; or
- (ii) water, ice, or snow.

(2) **CRITICAL MINERAL MANUFACTURING.**—The term “critical mineral manufacturing” means—

(A) the production, processing, refining, alloying, separation, concentration, magnetic sintering, melting, or beneficiation of critical minerals within the United States;

(B) the fabrication, assembly, or production, within the United States, of equipment,

components, or other goods with energy technology-, defense-, agriculture-, consumer electronics-, or health care-related applications; or

(C) any other value-added, manufacturing-related use of critical minerals undertaken within the United States.

(3) **INDIAN TRIBE.**—The term “Indian tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b).

(4) **STATE.**—The term “State” means—

- (A) a State;
- (B) the District of Columbia;
- (C) the Commonwealth of Puerto Rico;
- (D) Guam;
- (E) American Samoa;
- (F) the Commonwealth of the Northern Mariana Islands; and
- (G) the United States Virgin Islands.

##### SEC. 3302. POLICY.

(a) **IN GENERAL.**—Section 3 of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1602) is amended in the second sentence—

(1) by striking paragraph (3) and inserting the following:

“(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;”;

(2) in paragraph (6), by striking “and” after the semicolon at the end; and

(3) by striking paragraph (7) and inserting the following:

“(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.”

(b) **CONFORMING AMENDMENT.**—Section 2(b) of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1601(b)) is amended by striking “(b) As used in this Act, the term” and inserting the following:

“(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 2016.

“(2) **MATERIALS.**—The term”.

##### SEC. 3303. CRITICAL MINERAL DESIGNATIONS.

(a) **DRAFT METHODOLOGY.**—Not later than 90 days after the date of enactment of this Act, the Secretary of the Interior (acting through the Director of the United States Geological Survey) (referred to in this subtitle as the “Secretary”), in consultation with relevant Federal agencies and entities,

shall publish in the Federal Register for public comment a draft methodology for determining which minerals qualify as critical minerals based on an assessment of whether the minerals are—

(1) subject to potential supply restrictions (including restrictions associated with foreign political risk, abrupt demand growth, military conflict, violent unrest, anti-competitive or protectionist behaviors, and other risks throughout the supply chain); and

(2) important in use (including energy technology-, defense-, currency-, agriculture-, consumer electronics-, and health care-related applications).

(b) **AVAILABILITY OF DATA.**—If available data is insufficient to provide a quantitative basis for the methodology developed under this section, qualitative evidence may be used to the extent necessary.

(c) **FINAL METHODOLOGY.**—After reviewing public comments on the draft methodology under subsection (a) and updating the draft methodology as appropriate, not later than 270 days after the date of enactment of this Act, the Secretary shall publish in the Federal Register a description of the final methodology for determining which minerals qualify as critical minerals.

(d) **DESIGNATIONS.**—

(1) **IN GENERAL.**—For purposes of carrying out this subtitle, the Secretary shall maintain a list of minerals and elements designated as critical, pursuant to the methodology under subsection (c).

(2) **INITIAL LIST.**—Subject to paragraph (1), not later than 1 year after the date of enactment of this Act, the Secretary shall publish in the Federal Register an initial list of minerals designated as critical pursuant to the final methodology under subsection (c) for the purpose of carrying out this subtitle.

(3) **INCLUSIONS.**—Notwithstanding the criteria under subsection (c), the Secretary may designate and include on the list any mineral or element determined by another Federal agency to be strategic and critical to the defense or national security of the United States.

(e) **SUBSEQUENT REVIEW.**—

(1) **IN GENERAL.**—The Secretary shall review the methodology and designations under subsections (c) and (d) at least every 3 years, or more frequently as the Secretary considers to be appropriate.

(2) **REVISIONS.**—Subject to subsection (d)(1), the Secretary may—

(A) revise the methodology described in this section;

(B) determine that minerals or elements previously determined to be critical minerals are no longer critical minerals; and

(C) designate additional minerals or elements as critical minerals.

(f) **NOTICE.**—On finalization of the methodology under subsection (c), the list under subsection (d), or any revision to the methodology or list under subsection (e), the Secretary shall submit to Congress written notice of the action.

##### SEC. 3304. RESOURCE ASSESSMENT.

(a) **IN GENERAL.**—Not later than 4 years after the date of enactment of this Act, in consultation with applicable State (including geological surveys), local, academic, industry, and other entities, the Secretary shall complete a comprehensive national assessment of each critical mineral that—

(1) identifies and quantifies known critical mineral resources, using all available public and private information and datasets, including exploration histories; and

(2) provides a quantitative and qualitative assessment of undiscovered critical mineral resources throughout the United States, including probability estimates of tonnage and grade, using all available public and private

information and datasets, including exploration histories.

(b) **SUPPLEMENTARY INFORMATION.**—In carrying out this section, the Secretary may carry out surveys and field work (including drilling, remote sensing, geophysical surveys, geological mapping, and geochemical sampling and analysis) to supplement existing information and datasets available for determining the existence of critical minerals in the United States.

(c) **TECHNICAL ASSISTANCE.**—At the request of the Governor of a State or the head of an Indian tribe, the Secretary may provide technical assistance to State governments and Indian tribes conducting critical mineral resource assessments on non-Federal land.

(d) **PRIORITIZATION.**—

(1) **IN GENERAL.**—The Secretary may sequence the completion of resource assessments for each critical mineral such that critical minerals considered to be most critical under the methodology established under section 3303 are completed first.

(2) **REPORTING.**—During the period beginning not later than 1 year after the date of enactment of this Act and ending on the date of completion of all of the assessments required under this section, the Secretary shall submit to Congress on an annual basis an interim report that—

(A) identifies the sequence and schedule for completion of the assessments if the Secretary sequences the assessments; or

(B) describes the progress of the assessments if the Secretary does not sequence the assessments.

(e) **UPDATES.**—The Secretary may periodically update the assessments conducted under this section based on—

(1) the generation of new information or datasets by the Federal Government; or

(2) the receipt of new information or datasets from critical mineral producers, State geological surveys, academic institutions, trade associations, or other persons.

(f) **ADDITIONAL SURVEYS.**—The Secretary shall complete a resource assessment for each additional mineral or element subsequently designated as a critical mineral under section 3303(e)(2) not later than 2 years after the designation of the mineral or element.

(g) **REPORT.**—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the status of geological surveying of Federal land for any mineral commodity—

(1) for which the United States was dependent on a foreign country for more than 25 percent of the United States supply, as depicted in the report issued by the United States Geological Survey entitled “Mineral Commodity Summaries 2015”; but

(2) that is not designated as a critical mineral under section 3303.

#### **SEC. 3305. PERMITTING.**

(a) **PERFORMANCE IMPROVEMENTS.**—To improve the quality and timeliness of decisions, the Secretary (acting through the Director of the Bureau of Land Management) and the Secretary of Agriculture (acting through the Chief of the Forest Service) (referred to in this section as the “Secretaries”) shall, to the maximum extent practicable, with respect to critical mineral production on Federal land, complete Federal permitting and review processes with maximum efficiency and effectiveness, while supporting vital economic growth, by—

(1) establishing and adhering to timelines and schedules for the consideration of, and final decisions regarding, applications, operating plans, leases, licenses, permits, and other use authorizations for mineral-related activities on Federal land;

(2) establishing clear, quantifiable, and temporal permitting performance goals and tracking progress against those goals;

(3) engaging in early collaboration among agencies, project sponsors, and affected stakeholders—

(A) to incorporate and address the interests of those parties; and

(B) to minimize delays;

(4) ensuring transparency and accountability by using cost-effective information technology to collect and disseminate information regarding individual projects and agency performance;

(5) engaging in early and active consultation with State, local, and Indian tribal governments to avoid conflicts or duplication of effort, resolve concerns, and allow for concurrent, rather than sequential, reviews;

(6) providing demonstrable improvements in the performance of Federal permitting and review processes, including lower costs and more timely decisions;

(7) expanding and institutionalizing permitting and review process improvements that have proven effective;

(8) developing mechanisms to better communicate priorities and resolve disputes among agencies at the national, regional, State, and local levels; and

(9) developing other practices, such as preapplication procedures.

(b) **REVIEW AND REPORT.**—Not later than 1 year after the date of enactment of this Act, the Secretaries shall submit to Congress a report that—

(1) identifies additional measures (including regulatory and legislative proposals, as appropriate) that would increase the timeliness of permitting activities for the exploration and development of domestic critical minerals;

(2) identifies options (including cost recovery paid by permit applicants) for ensuring adequate staffing and training of Federal entities and personnel responsible for the consideration of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land;

(3) quantifies the amount of time typically required (including range derived from minimum and maximum durations, mean, median, variance, and other statistical measures or representations) to complete each step (including those aspects outside the control of the executive branch, such as judicial review, applicant decisions, or State and local government involvement) associated with the development and processing of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land, which shall serve as a baseline for the performance metric under subsection (c); and

(4) describes actions carried out pursuant to subsection (a).

(c) **PERFORMANCE METRIC.**—Not later than 90 days after the date of submission of the report under subsection (b), the Secretaries, after providing public notice and an opportunity to comment, shall develop and publish a performance metric for evaluating the progress made by the executive branch to expedite the permitting of activities that will increase exploration for, and development of, domestic critical minerals, while maintaining environmental standards.

(d) **ANNUAL REPORTS.**—Beginning with the first budget submission by the President under section 1105 of title 31, United States Code, after publication of the performance metric required under subsection (c), and annually thereafter, the Secretaries shall submit to Congress a report that—

(1) summarizes the implementation of recommendations, measures, and options identified in paragraphs (1) and (2) of subsection (b);

(2) using the performance metric under subsection (c), describes progress made by

the executive branch, as compared to the baseline established pursuant to subsection (b)(3), on expediting the permitting of activities that will increase exploration for, and development of, domestic critical minerals; and

(3) compares the United States to other countries in terms of permitting efficiency and any other criteria relevant to the globally competitive critical minerals industry.

(e) **INDIVIDUAL PROJECTS.**—Using data from the Secretaries generated under subsection (d), the Director of the Office of Management and Budget shall prioritize inclusion of individual critical mineral projects on the website operated by the Office of Management and Budget in accordance with section 1122 of title 31, United States Code.

(f) **REPORT OF SMALL BUSINESS ADMINISTRATION.**—Not later than 1 year and 300 days after the date of enactment of this Act, the Administrator of the Small Business Administration shall submit to the applicable committees of Congress a report that assesses the performance of Federal agencies with respect to—

(1) complying with chapter 6 of title 5, United States Code (commonly known as the “Regulatory Flexibility Act”), in promulgating regulations applicable to the critical minerals industry; and

(2) performing an analysis of regulations applicable to the critical minerals industry that may be outmoded, inefficient, duplicative, or excessively burdensome.

#### **SEC. 3306. FEDERAL REGISTER PROCESS.**

(a) **DEPARTMENTAL REVIEW.**—Absent any extraordinary circumstance, and except as otherwise required by law, the Secretary and the Secretary of Agriculture shall ensure that each Federal Register notice described in subsection (b) shall be—

(1) subject to any required reviews within the Department of the Interior or the Department of Agriculture; and

(2) published in final form in the Federal Register not later than 45 days after the date of initial preparation of the notice.

(b) **PREPARATION.**—The preparation of Federal Register notices required by law associated with the issuance of a critical mineral exploration or mine permit shall be delegated to the organizational level within the agency responsible for issuing the critical mineral exploration or mine permit.

(c) **TRANSMISSION.**—All Federal Register notices regarding official document availability, announcements of meetings, or notices of intent to undertake an action shall be originated in, and transmitted to the Federal Register from, the office in which, as applicable—

(1) the documents or meetings are held; or

(2) the activity is initiated.

#### **SEC. 3307. RECYCLING, EFFICIENCY, AND ALTERNATIVES.**

(a) **ESTABLISHMENT.**—The Secretary of Energy (referred to in this section as the “Secretary”) shall conduct a program of research and development—

(1) to promote the efficient production, use, and recycling of critical minerals throughout the supply chain; and

(2) to develop alternatives to critical minerals that do not occur in significant abundance in the United States.

(b) **COOPERATION.**—In carrying out the program, the Secretary shall cooperate with appropriate—

(1) Federal agencies and National Laboratories;

(2) critical mineral producers;

(3) critical mineral processors;

(4) critical mineral manufacturers;

(5) trade associations;

(6) academic institutions;

(7) small businesses; and

(8) other relevant entities or individuals.

(c) **ACTIVITIES.**—Under the program, the Secretary shall carry out activities that include the identification and development of—

(1) advanced critical mineral extraction, production, separation, alloying, or processing technologies that decrease the energy consumption, environmental impact, and costs of those activities, including—

(A) efficient water and wastewater management strategies;

(B) technologies and management strategies to control the environmental impacts of radionuclides in ore tailings; and

(C) technologies for separation and processing;

(2) technologies or process improvements that minimize the use, or lead to more efficient use, of critical minerals across the full supply chain;

(3) technologies, process improvements, or design optimizations that facilitate the recycling of critical minerals, and options for improving the rates of collection of products and scrap containing critical minerals from post-consumer, industrial, or other waste streams;

(4) commercial markets, advanced storage methods, energy applications, and other beneficial uses of critical minerals processing byproducts;

(5) alternative minerals, metals, and materials, particularly those available in abundance within the United States and not subject to potential supply restrictions, that lessen the need for critical minerals; and

(6) alternative energy technologies or alternative designs of existing energy technologies, particularly those that use minerals that—

(A) occur in abundance in the United States; and

(B) are not subject to potential supply restrictions.

(d) **REPORTS.**—Not later than 2 years after the date of enactment of this Act, and annually thereafter, the Secretary shall submit to Congress a report summarizing the activities, findings, and progress of the program.

#### **SEC. 3308. ANALYSIS AND FORECASTING.**

(a) **CAPABILITIES.**—In order to evaluate existing critical mineral policies and inform future actions that may be taken to avoid supply shortages, mitigate price volatility, and prepare for demand growth and other market shifts, the Secretary, in consultation with the Energy Information Administration, academic institutions, and others in order to maximize the application of existing competencies related to developing and maintaining computer-models and similar analytical tools, shall conduct and publish the results of an annual report that includes—

(1) as part of the annually published Mineral Commodity Summaries from the United States Geological Survey, a comprehensive review of critical mineral production, consumption, and recycling patterns, including—

(A) the quantity of each critical mineral domestically produced during the preceding year;

(B) the quantity of each critical mineral domestically consumed during the preceding year;

(C) market price data or other price data for each critical mineral;

(D) an assessment of—

(i) critical mineral requirements to meet the national security, energy, economic, industrial, technological, and other needs of the United States during the preceding year;

(ii) the reliance of the United States on foreign sources to meet those needs during the preceding year; and

(iii) the implications of any supply shortages, restrictions, or disruptions during the preceding year;

(E) the quantity of each critical mineral domestically recycled during the preceding year;

(F) the market penetration during the preceding year of alternatives to each critical mineral;

(G) a discussion of international trends associated with the discovery, production, consumption, use, costs of production, prices, and recycling of each critical mineral as well as the development of alternatives to critical minerals; and

(H) such other data, analyses, and evaluations as the Secretary finds are necessary to achieve the purposes of this section; and

(2) a comprehensive forecast, entitled the “Annual Critical Minerals Outlook”, of projected critical mineral production, consumption, and recycling patterns, including—

(A) the quantity of each critical mineral projected to be domestically produced over the subsequent 1-year, 5-year, and 10-year periods;

(B) the quantity of each critical mineral projected to be domestically consumed over the subsequent 1-year, 5-year, and 10-year periods;

(C) an assessment of—

(i) critical mineral requirements to meet projected national security, energy, economic, industrial, technological, and other needs of the United States;

(ii) the projected reliance of the United States on foreign sources to meet those needs; and

(iii) the projected implications of potential supply shortages, restrictions, or disruptions;

(D) the quantity of each critical mineral projected to be domestically recycled over the subsequent 1-year, 5-year, and 10-year periods;

(E) the market penetration of alternatives to each critical mineral projected to take place over the subsequent 1-year, 5-year, and 10-year periods;

(F) a discussion of reasonably foreseeable international trends associated with the discovery, production, consumption, use, costs of production, and recycling of each critical mineral as well as the development of alternatives to critical minerals; and

(G) such other projections relating to each critical mineral as the Secretary determines to be necessary to achieve the purposes of this section.

(b) **PROPRIETARY INFORMATION.**—In preparing a report described in subsection (a), the Secretary shall ensure, consistent with section 5(f) of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1604(f)), that—

(1) no person uses the information and data collected for the report for a purpose other than the development of or reporting of aggregate data in a manner such that the identity of the person or firm who supplied the information is not discernible and is not material to the intended uses of the information;

(2) no person discloses any information or data collected for the report unless the information or data has been transformed into a statistical or aggregate form that does not allow the identification of the person or firm who supplied particular information; and

(3) procedures are established to require the withholding of any information or data collected for the report if the Secretary determines that withholding is necessary to protect proprietary information, including any trade secrets or other confidential information.

#### **SEC. 3309. EDUCATION AND WORKFORCE.**

(a) **WORKFORCE ASSESSMENT.**—Not later than 1 year and 300 days after the date of enactment of this Act, the Secretary of Labor (in consultation with the Secretary, the Director of the National Science Foundation, institutions of higher education with substantial expertise in mining, institutions of higher education with significant expertise in minerals research, including fundamental research into alternatives, and employers in the critical minerals sector) shall submit to Congress an assessment of the domestic availability of technically trained personnel necessary for critical mineral exploration, development, assessment, production, manufacturing, recycling, analysis, forecasting, education, and research, including an analysis of—

(1) skills that are in the shortest supply as of the date of the assessment;

(2) skills that are projected to be in short supply in the future;

(3) the demographics of the critical minerals industry and how the demographics will evolve under the influence of factors such as an aging workforce;

(4) the effectiveness of training and education programs in addressing skills shortages;

(5) opportunities to hire locally for new and existing critical mineral activities;

(6) the sufficiency of personnel within relevant areas of the Federal Government for achieving the policies described in section 3 of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1602); and

(7) the potential need for new training programs to have a measurable effect on the supply of trained workers in the critical minerals industry.

(b) **CURRICULUM STUDY.**—

(1) **IN GENERAL.**—The Secretary and the Secretary of Labor shall jointly enter into an arrangement with the National Academy of Sciences and the National Academy of Engineering under which the Academies shall coordinate with the National Science Foundation on conducting a study—

(A) to design an interdisciplinary program on critical minerals that will support the critical mineral supply chain and improve the ability of the United States to increase domestic, critical mineral exploration, development, production, manufacturing, research, including fundamental research into alternatives, and recycling;

(B) to address undergraduate and graduate education, especially to assist in the development of graduate level programs of research and instruction that lead to advanced degrees with an emphasis on the critical mineral supply chain or other positions that will increase domestic, critical mineral exploration, development, production, manufacturing, research, including fundamental research into alternatives, and recycling;

(C) to develop guidelines for proposals from institutions of higher education with substantial capabilities in the required disciplines for activities to improve the critical mineral supply chain and advance the capacity of the United States to increase domestic, critical mineral exploration, research, development, production, manufacturing, and recycling; and

(D) to outline criteria for evaluating performance and recommendations for the amount of funding that will be necessary to establish and carry out the program described in subsection (c).

(2) **REPORT.**—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a description of the results of the study required under paragraph (1).

(c) **PROGRAM.**—

(1) ESTABLISHMENT.—The Secretary and the Secretary of Labor shall jointly conduct a competitive grant program under which institutions of higher education may apply for and receive 4-year grants for—

(A) startup costs for newly designated faculty positions in integrated critical mineral education, research, innovation, training, and workforce development programs consistent with subsection (b);

(B) internships, scholarships, and fellowships for students enrolled in programs related to critical minerals;

(C) equipment necessary for integrated critical mineral innovation, training, and workforce development programs; and

(D) research of critical minerals and their applications, particularly concerning the manufacture of critical components vital to national security.

(2) RENEWAL.—A grant under this subsection shall be renewable for up to 2 additional 3-year terms based on performance criteria outlined under subsection (b)(1)(D).

**SEC. 3310. NATIONAL GEOLOGICAL AND GEO-PHYSICAL DATA PRESERVATION PROGRAM.**

Section 351(k) of the Energy Policy Act of 2005 (42 U.S.C. 15908(k)) is amended by striking “\$30,000,000 for each of fiscal years 2006 through 2010” and inserting “\$5,000,000 for each of fiscal years 2017 through 2026, to remain available until expended”.

**SEC. 3311. ADMINISTRATION.**

(a) IN GENERAL.—The National Critical Materials Act of 1984 (30 U.S.C. 1801 et seq.) is repealed.

(b) CONFORMING AMENDMENT.—Section 3(d) of the National Superconductivity and Competitiveness Act of 1988 (15 U.S.C. 5202(d)) is amended in the first sentence by striking “, 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.)”.

(c) SAVINGS CLAUSES.—

(1) IN GENERAL.—Nothing in this subtitle or an amendment made by this subtitle modifies any requirement or authority provided by—

(A) the matter under the heading “GEOLOGICAL SURVEY” of the first section of the Act of March 3, 1879 (43 U.S.C. 31(a)); or

(B) the first section of Public Law 87–626 (43 U.S.C. 31(b)).

(2) POTASH.—Nothing in this subtitle affects any aspect of Secretarial Order 3324, issued by the Secretary of the Interior on December 3, 2012, with respect to potash and oil and gas operators.

**SEC. 3312. AUTHORIZATION OF APPROPRIATIONS.**

There is authorized to be appropriated to carry out this subtitle \$50,000,000 for each of fiscal years 2017 through 2026.

**Subtitle E—Coal**

**SEC. 3401. FOSSIL ENERGY.**

Section 961(a) of the Energy Policy Act of 2005 (42 U.S.C. 16291(a)) is amended by adding at the end the following:

“(8) Improving the conversion, use, and storage of carbon dioxide produced from fossil fuels.”.

**SEC. 3402. ESTABLISHMENT OF COAL TECHNOLOGY PROGRAM.**

(a) REPEALS.—

(1) IN GENERAL.—

(A) Sections 962 and 963 of the Energy Policy Act of 2005 (42 U.S.C. 16292, 16293) are repealed.

(B) Subtitle A of title IV of the Energy Policy Act of 2005 (42 U.S.C. 15961 et seq.) is repealed.

(2) SAVINGS CLAUSE.—Notwithstanding the amendments made by paragraph (1), the Secretary shall continue to manage any program activities that are outstanding as of

the date of enactment of this Act under the terms and conditions of sections 962 and 963 of the Energy Policy Act of 2005 (42 U.S.C. 16292, 16293) or subtitle A of title IV of the Energy Policy Act of 2005 (42 U.S.C. 15961 et seq.) (as in effect on the day before the date of enactment of this Act), as applicable.

(3) CONFORMING AMENDMENTS.—

(A) Section 703(a)(3) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17251(a)(3)) is amended—

(i) in the matter preceding subparagraph (A), by striking the first and second sentences; and

(ii) in subparagraph (B), by striking “including” in the matter preceding clause (i) and all that follows through the period at the end and inserting “, including such geologic sequestration projects as are approved by the Secretary”.

(B) Section 704 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17252) is amended in the first sentence by striking “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”.

(b) ESTABLISHMENT OF COAL TECHNOLOGY PROGRAM.—

(1) IN GENERAL.—The Energy Policy Act of 2005 (as amended by subsection (a)) is amended by inserting after section 961 (42 U.S.C. 16291) the following:

**“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.”

(2) COST SHARING FOR LARGE-SCALE PILOT PROJECTS.—Activities under subsection (b)(2)(B) shall be subject to the cost-sharing requirements of section 988(b) of the Energy Policy Act of 2005 (42 U.S.C. 16352(b)).

#### Subtitle F—Nuclear

#### SEC. 3501. REPORT ON FUSION AND FISSION REACTOR PROTOTYPES.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary, in consultation with the National Laboratories, relevant Federal agencies, and other stakeholders, shall submit to the Committees on Energy and Natural Resources and Environment and Public Works of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report assessing the capability of the Department to host privately funded fusion and fission reactor prototypes up to 20 megawatts thermal output and related demonstration facilities at sites owned by the Department.

(b) CONTENT.—The report submitted under subsection (a) shall describe the results of an assessment of—

(1) the safety review, oversight capabilities, and potential liability of the Department;

(2) potential sites capable of hosting research, development, and demonstration of prototype reactors and related facilities for the purpose of reducing technical risk;

(3) the existing physical and technical capabilities of the Department and the National Laboratories relevant to research, development, and oversight;

(4) the efficacy of the available contractual mechanisms of the Department, including—

(A) cooperative research and development agreements;

(B) work for others agreements; and

(C) agreements for commercializing technology;

(5) potential cost structures relating to physical security, decommissioning, liability, and other long-term project costs;

(6) the feasibility of the Department providing technical assistance to developers of privately funded fusion and advanced fission reactors in connection with obtaining a license from the Nuclear Regulatory Commission for demonstration reactors or commercial reactors of varying size and readiness levels up to 2 gigawatts of thermal output; and

(7) other challenges or considerations identified by the Secretary, including issues relating to potential cases of demonstration reactors up to 2 gigawatts of thermal output.

#### SEC. 3502. NEXT GENERATION NUCLEAR PLANT PROJECT.

Section 642(b) of the Energy Policy Act of 2005 (42 U.S.C. 16022(b)) is amended—

(1) by striking paragraph (3); and

(2) by redesignating paragraphs (4) and (5) as paragraphs (3) and (4), respectively.

#### Subtitle G—Workforce Development

#### SEC. 3601. 21ST CENTURY ENERGY WORKFORCE ADVISORY BOARD.

(a) ESTABLISHMENT.—The Secretary shall establish the 21st Century Energy Workforce Advisory Board (referred to in this section as the “Board”), to develop a strategy for the support and development of a skilled energy workforce that—

(1) meets the current and future industry and labor needs of the energy sector;

(2) provides opportunities for students to become qualified for placement in traditional energy sector and clean energy sector jobs;

(3) aligns apprenticeship programs and workforce development programs to provide industry recognized certifications and credentials;

(4) encourages leaders in the education system of the United States to equip students with the skills, mentorships, training, and technical expertise necessary to fill the employment opportunities vital to managing and operating the energy- and manufacturing-related industries of the United States;

(5) appropriately supports other Federal agencies;

(6) strengthens and more fully engages workforce training programs of the Department and the National Laboratories in carrying out the Minorities in Energy Initiative of the Department and other Department workforce priorities;

(7) supports the design and replication of existing model energy curricula, particularly in new and emerging technologies, that leads to industry-wide credentials;

(8) develops plans to support and retrain displaced and unemployed energy sector workers; and

(9) makes a Department priority to provide education and job training to underrepresented groups, including ethnic minorities, Indian tribes (as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b)), women, veterans, and socioeconomically disadvantaged individuals.

(b) MEMBERSHIP.—

(1) IN GENERAL.—The Board shall be composed of 9 members, with the initial members of the Board to be appointed by the Secretary not later than 1 year after the date of enactment of this Act.

(2) NOMINATIONS.—Not later than 1 year after the date of enactment of this Act, the President’s Council of Advisors on Science and Technology shall nominate for appointment to the Board under paragraph (1) not less than 18 individuals who meet the qualifications described in paragraph (3).

(3) QUALIFICATIONS.—Each individual nominated for appointment to the Board under paragraph (1) shall—

(A) be eminent in the field of economics or workforce development;

(B) have expertise in relevant traditional energy industries and clean energy industries;

(C) have expertise in secondary and post-secondary education;

(D) have expertise in energy workforce development or apprentice programs of States and units of local government;

(E) have expertise in relevant organized labor organizations; or

(F) have expertise in bringing underrepresented groups, including ethnic minorities, women, veterans, and socioeconomically disadvantaged individuals, into the workforce.

(4) REPRESENTATION.—The membership of the Board shall be representative of the broad range of the energy industry, labor organizations, workforce development, education, minority participation, and econom-

ics disciplines related to activities carried out under this section.

(5) LIMITATION.—No individual shall be nominated for appointment to the Board who is an employee of an entity applying for a grant under section 3602.

(c) ADVISORY BOARD REVIEW AND RECOMMENDATIONS.—

(1) DETERMINATION BY BOARD.—In developing the strategy required under subsection (a), the Board shall—

(A) determine whether there are opportunities to more effectively and efficiently use the capabilities of the Department in the development of a skilled energy workforce;

(B) identify ways in which the Department could work with other relevant Federal agencies, States, units of local government, educational institutions, labor, and industry in the development of a skilled energy workforce;

(C) identify ways in which the Department and National Laboratories can—

(i) increase outreach to minority-serving institutions; and

(ii) make resources available to increase the number of skilled minorities and women trained to go into the energy- and manufacturing-related sectors;

(D) identify ways in which the Department and National Laboratories can—

(i) increase outreach to displaced and unemployed energy sector workers; and

(ii) make resources available to provide training to displaced and unemployed energy sector workers to reenter the energy workforce; and

(E) identify the energy sectors in greatest need of workforce training and develop guidelines for the skills necessary to develop a workforce trained to work in those energy sectors.

(2) REQUIRED ANALYSIS.—In developing the strategy required under subsection (a), the Board shall analyze the effectiveness of—

(A) existing Department directed support; and

(B) developing energy workforce training programs.

(3) REPORT.—Not later than 1 year after the date on which the Board is established under this section, and each year thereafter, the Board shall submit to the Secretary and Congress, and make public, a report containing the findings of the Board and model energy curricula with respect to the strategy required to be developed under subsection (a).

(d) REPORT BY SECRETARY.—Not later than 18 months after the date on which the Board is established under this section, the Secretary shall submit to the Committees on Appropriations of Senate and the House of Representatives, 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—

(1) describes whether the Secretary approves or disapproves the recommendations of the Board under subsection (c)(3); and

(2) provides an implementation plan for recommendations approved by the Board under paragraph (1).

(e) CLEARINGHOUSE.—Based on the recommendations of the Board, the Secretary shall establish a clearinghouse—

(1) to maintain and update information and resources on training and workforce development programs for energy- and manufacturing-related jobs; and

(2) to act as a resource, and provide guidance, for secondary schools, institutions of higher education (including community colleges and minority-serving institutions), workforce development organizations, labor management organizations, and industry organizations that would like to develop and



implement energy- and manufacturing-related training programs.

(f) SUNSET.—The Board established under this section shall remain in effect until September 30, 2020.

**SEC. 3602. ENERGY WORKFORCE PILOT GRANT PROGRAM.**

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary, in consultation with the Secretary of Labor and the Secretary of Education, shall establish a pilot program to award grants on a competitive basis to eligible entities for job training programs that lead to an industry-recognized credential.

(b) ELIGIBILITY.—To be eligible to receive a grant under this section, an entity shall be a public or nonprofit organization or a consortium of public or nonprofit organizations that—

(1) includes an advisory board of proportional participation, as determined by the Secretary, of relevant organizations, including—

(A) relevant energy industry organizations, including public and private employers;

(B) labor organizations;

(C) postsecondary education organizations; and

(D) workforce development boards;

(2) demonstrates experience in implementing and operating job training and education programs;

(3) demonstrates the ability to recruit and support individuals who plan to work in the energy industry in the successful completion of relevant job training and education programs; and

(4) provides students who complete the job training and education program with an industry-recognized credential.

(c) APPLICATIONS.—Eligible entities desiring a grant under this section shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(d) PRIORITY.—In selecting eligible entities to receive grants under this section, the Secretary shall prioritize applicants that—

(1) house the job training and education programs in—

(A) a community college or institution of higher education that includes basic science and math education in the curriculum of the community college, institution of higher education; or

(B) an apprenticeship program registered with the Department of Labor or a State;

(2) work with the Secretary of Defense or veterans organizations to transition members of the Armed Forces and veterans to careers in the energy sector;

(3) work with Indian tribes (as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b));

(4) apply as a State or regional consortia to leverage best practices already available in the State or region in which the community college or institution of higher education is located;

(5) have a State-supported entity included in the consortium applying for the grant;

(6) include an apprenticeship program registered with the Department of Labor or a State as part of the job training and education program;

(7) provide support services and career coaching;

(8) provide introductory energy workforce development training;

(9) work with minority-serving institutions to provide job training to increase the number of skilled minorities and women in the energy sector; or

(10) provide job training for displaced and unemployed workers in the energy sector.

(e) ADDITIONAL CONSIDERATION.—In making grants under this section, the Secretary shall consider regional diversity.

(f) LIMITATION ON APPLICATIONS.—An eligible entity may not submit, either individually or as part of a joint application, more than 1 application for a grant under this section during any 1 fiscal year.

(g) LIMITATIONS ON AMOUNT OF GRANT.—The amount of an individual grant for any 1 year shall not exceed \$1,000,000.

(h) COST SHARING.—

(1) FEDERAL SHARE.—The Federal share of the cost of a job training and education program carried out using a grant under this section shall be not greater than 65 percent.

(2) NON-FEDERAL SHARE.—

(A) IN GENERAL.—The non-Federal share of the cost of a job training and education program carried out using a grant under this section shall consist of not less than 50 percent cash.

(B) LIMITATION.—Not greater than 50 percent of the non-Federal contribution of the total cost of a job training and education program carried out using a grant under this section shall be in the form of in-kind contributions of goods or services fairly valued.

(i) REDUCTION OF DUPLICATION.—Prior to submitting an application for a grant under this section, each applicant shall consult with the appropriate agencies of the Federal Government and coordinate the proposed activities of the applicant with existing State and local programs.

(j) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance and capacity building to national and State energy partnerships, including the entities described in subsection (b)(1), to leverage the existing job training and education programs of the Department.

(k) REPORT.—The Secretary shall submit to Congress and make publicly available on the website of the Department an annual report on the program established under this section, including a description of—

(1) the entities receiving grants;

(2) the activities carried out using the grants;

(3) best practices used to leverage the investment of the Federal Government;

(4) the rate of employment for participants after completing a job training and education program carried out using a grant; and

(5) an assessment of the results achieved by the program.

(l) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$20,000,000 for each of fiscal years 2017 through 2020.

**Subtitle H—Recycling**

**SEC. 3701. RECYCLED CARBON FIBER.**

(a) STUDY.—

(1) IN GENERAL.—The Secretary shall conduct a study on—

(A) the technology of recycled carbon fiber and production waste carbon fiber; and

(B) the potential lifecycle energy savings and economic impact of recycled carbon fiber.

(2) FACTORS FOR CONSIDERATION.—In conducting the study under paragraph (1), the Secretary shall consider—

(A) the quantity of recycled carbon fiber or production waste carbon fiber that would make the use of recycled carbon fiber or production waste carbon fiber economically viable;

(B) any existing or potential barriers to recycling carbon fiber or using recycled carbon fiber;

(C) any financial incentives that may be necessary for the development of recycled carbon fiber or production waste carbon fiber;

(D) the potential lifecycle savings in energy from producing recycled carbon fiber, as compared to producing new carbon fiber;

(E) the best and highest use for recycled carbon fiber;

(F) the potential reduction in carbon dioxide emissions from producing recycled carbon fiber, as compared to producing new carbon fiber;

(G) any economic benefits gained from using recycled carbon fiber or production waste carbon fiber;

(H) workforce training and skills needed to address labor demands in the development of recycled carbon fiber or production waste carbon fiber; and

(I) how the Department can leverage existing efforts in the industry on the use of production waste carbon fiber.

(3) REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the results of the study conducted under paragraph (1).

(b) RECYCLED CARBON FIBER DEMONSTRATION PROJECT.—On completion of the study required under subsection (a)(1), the Secretary shall consult with the aviation and automotive industries and existing programs of the Advanced Manufacturing Office of the Department to develop a carbon fiber recycling demonstration project.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$10,000,000, to remain available until expended.

**SEC. 3702. ENERGY GENERATION AND REGULATORY RELIEF STUDY REGARDING RECOVERY AND CONVERSION OF NONRECYCLED MIXED PLASTICS.**

(a) DEFINITIONS.—In this section:

(1) ENGINEERED FUEL.—The term “engineered fuel” means a solid fuel that is manufactured from nonrecycled constituents of municipal solid waste or other secondary materials.

(2) GASIFICATION.—The term “gasification” means a process through which nonrecycled waste is heated and converted to synthesis gas in an oxygen-deficient atmosphere, which can be converted into fuels such as ethanol or other chemical feedstocks.

(3) PYROLYSIS.—The term “pyrolysis” means a process through which nonrecycled plastics are heated in the absence of oxygen until melted and thermally decomposed, and are then cooled, condensed, and converted into synthetic crude oil or refined into synthetic fuels and feedstocks such as diesel or naphtha.

(b) STUDY.—With respect to nonrecycled mixed plastics that are part of municipal solid waste or other secondary materials in the United States (and are often deposited in landfills), the Secretary shall conduct a study to determine the manner in which the United States can make progress toward a cost-effective system (including with respect to environmental issues) through which pyrolysis, gasification, and other innovative technologies such as engineered fuels are used to convert such plastics, alone or in combination with other municipal solid waste or secondary materials, into materials that can be used to generate electric energy or fuels or as chemical feedstocks.

(c) COMPLETION OF STUDY.—Not later than 2 years after the date of enactment of this Act, the Secretary shall complete the study described in subsection (b) and submit to the appropriate committees of Congress reports providing findings and recommendations developed through the study.

(d) FUNDING.—The Secretary may use unobligated funds of the Department to carry out this section.



**SEC. 3703. ELIGIBLE PROJECTS.**

Section 1703(b)(1) of the Energy Policy Act of 2005 (42 U.S.C. 16513(b)(1)) is amended by inserting “(excluding the burning of commonly recycled paper that has been segregated from solid waste to generate electricity)” after “systems”.

**TITLE IV—ACCOUNTABILITY****Subtitle A—Loan Programs****SEC. 4001. TERMS AND CONDITIONS FOR INCENTIVES FOR INNOVATIVE TECHNOLOGIES.**

(a) **BORROWER PAYMENT OF SUBSIDY COST.**—

(1) **IN GENERAL.**—Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) is amended by adding at the end the following:

“(1) **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).”.

(2) **CONFORMING AMENDMENT.**—Section 1702(b) of the Energy Policy Act of 2005 (42 U.S.C. 16512(b)) is amended—

(A) by striking “(1) **IN GENERAL.**—No guarantee” and inserting the following: “Subject to subsection (1), no guarantee”;

(B) by redesignating subparagraphs (A), (B), and (C) as paragraphs (1), (2), and (3), respectively, and indenting appropriately; and

(C) in paragraph (3) (as so redesignated)—

(i) by striking “subparagraph (A)” and inserting “paragraph (1)”; and

(ii) by striking “subparagraph (B)” and inserting “paragraph (2)”.

(3) **EFFECTIVE DATE.**—The amendments made by paragraphs (1) and (2) shall take effect on October 1, 2019.

(b) **PROHIBITION ON SUBORDINATION OF DEBT.**—Section 1702(d)(3) of the Energy Policy Act of 2005 (42 U.S.C. 16512(d)(3)) is amended by striking “is not subordinate” and inserting “(including any reorganization, restructuring, or termination of the obligation) shall not at any time be subordinate”.

(c) **LOAN PROGRAM TRANSPARENCY.**—Section 1703 of the Energy Policy Act of 2005 (42 U.S.C. 16513) is amended by adding at the end the following:

“(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.”.

(d) **TEMPORARY PROGRAM FOR RAPID DEPLOYMENT OF RENEWABLE ENERGY AND ELECTRIC POWER TRANSMISSION PROJECTS.**—

(1) **REPEAL.**—Section 1705 of the Energy Policy Act of 2005 (42 U.S.C. 16516) is repealed.

(2) **RESCISSON.**—There is rescinded the unobligated balance of amounts made available to carry out the loan guarantee program established under section 1705 of the Energy Policy Act of 2005 (42 U.S.C. 16516) (before the amendment made by paragraph (1)).

(3) **MANAGEMENT.**—The Secretary shall ensure rigorous continued management and oversight of all outstanding loans guaranteed under the program described in subsection (b) until those loans have been repaid in full.

**SEC. 4002. STATE LOAN ELIGIBILITY.**

(a) **DEFINITIONS.**—Section 1701 of the Energy Policy Act of 2005 (42 U.S.C. 16511) is amended by adding at the end the following:

“(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.”.

(b) **TERMS AND CONDITIONS.**—Section 1702 of the Energy Policy Act of 2005 (42 U.S.C. 16512) (as amended by section 4001(a)(1)) is amended—

(1) in subsection (a), by inserting “or to a State energy financing institution” after “for projects”; and

(2) by adding at the end the following:

“(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.

“(3) **PROHIBITION ON USE OF APPROPRIATED FUNDS.**—Amounts appropriated to the Department of Energy before the date of enactment of this subsection shall not be available to be used for the cost of loan guarantees made to State energy financing institutions under this subsection.”.

**SEC. 4003. GAO STUDY ON FOSSIL LOAN GUARANTEE INCENTIVE PROGRAM.**

(a) **IN GENERAL.**—Not later than 180 days after the date of enactment of this Act, the Comptroller General of the United States shall carry out, and submit to Congress a report describing the results of, a study on the effectiveness of the advanced fossil loan guarantee incentive program and other incentive programs for advanced fossil energy of the Department.

(b) **CONTENTS.**—In carrying out the study under subsection (a), the Comptroller General of the United States shall—

(1) solicit industry and stakeholder input;

(2) evaluate the effectiveness of the advanced fossil loan guarantee incentive program, alone or in combination with other incentives, in advancing carbon capture and storage technology;

(3) review each Federal incentive provided by the Department and other Federal agen-

cies for carbon capture and storage demonstration projects to determine the adequacy and effectiveness of the combined Federal incentives in advancing carbon capture and storage and advanced fossil energy technologies;

(4) assess whether combinations of the incentive programs in existence as of the date of enactment of this Act could be effective to advance carbon capture and storage and advanced fossil energy technologies; and

(5) evaluate the impact and costs of implementing the recommendations described in the January 2015 National Coal Council report entitled “Fossil Forward: Revitalizing CCS, Bringing Scale and Speed to CCS Deployment” on the effectiveness of the advanced fossil loan guarantee program.

**SEC. 4004. PROGRAM ELIGIBILITY FOR VESSELS.**

Subtitle B of title I of the Energy Independence and Security Act of 2007 (42 U.S.C. 17011 et seq.) is amended by adding at the end the following:

**“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 2016.

“(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.”.

**SEC. 4005. ADDITIONAL REFORMS.**

(a) **ISSUANCE OF RULE.**—Not later than 180 days after the date of enactment of this Act and after consultation with, and taking into account comments from, the vessel industry, the Secretary shall issue a rule that specifies which energy efficiency improvement standards shall apply to applicants for loans under section 137 of the Energy Independence and Security Act of 2007 (as added by section 4004) for the manufacturing, retrofitting, or repowering vessels that have been issued certificates of documentation as United States flagged vessels under chapter 121 of title 46, United States Code.

(b) **FEES.**—Section 136 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17013) is amended by striking subsection (f) and inserting the following:

“(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.”

**SEC. 4006. DEPARTMENT OF ENERGY INDIAN ENERGY EDUCATION PLANNING AND MANAGEMENT ASSISTANCE PROGRAM.**

Section 2602(b)(6) of the Energy Policy Act of 1992 (25 U.S.C. 3502(b)(6)) is amended by striking “2016” and inserting “2026”.

**Subtitle B—Energy-Water Nexus**

**SEC. 4101. NEXUS OF ENERGY AND WATER FOR SUSTAINABILITY.**

(a) DEFINITIONS.—In this section:

(1) ENERGY-WATER NEXUS.—The term “energy-water nexus” means the links between—

(A) the water needed to produce fuels, electricity, and other forms of energy; and

(B) the energy needed to transport, reclaim, and treat water and wastewater.

(2) INTERAGENCY COORDINATION COMMITTEE.—The term “Interagency Coordination Committee” means the Committee on the Nexus of Energy and Water for Sustainability (or the “NEWS Committee”) established under subsection (b)(1).

(3) NEXUS OF ENERGY AND WATER SUSTAINABILITY OFFICE; NEWS OFFICE.—The term “Nexus of Energy and Water Sustainability Office” or the “NEWS Office” means an office located at the Department and managed in cooperation with the Department of the Interior pursuant to an agreement between the 2 agencies to carry out leadership and administrative functions for the Interagency Coordination Committee.

(4) RD&D ACTIVITIES.—The term “RD&D activities” means research, development, and demonstration activities.

(b) INTERAGENCY COORDINATION COMMITTEE.—

(1) ESTABLISHMENT.—Not later than 180 days after the date of enactment of this Act, the Secretary and the Secretary of the Interior shall establish the joint NEWS Office and Interagency Coordination Committee on the Nexus of Energy and Water for Sustainability (or the “NEWS Committee”) to carry out the duties described in paragraph (3).

(2) ADMINISTRATION.—

(A) CHAIRS.—The Secretary and the Secretary of the Interior shall jointly manage the NEWS Office and serve as co-chairs of the Interagency Coordination Committee.

(B) MEMBERSHIP; STAFFING.—Membership and staffing shall be determined by the co-chairs.

(3) DUTIES.—The Interagency Coordination Committee shall—

(A) serve as a forum for developing common Federal goals and plans on energy-water nexus RD&D activities in coordination with the National Science and Technology Council;

(B) not later than 1 year after the date of enactment of this Act, and biannually thereafter, issue a strategic plan on energy-water nexus RD&D activities priorities and objectives;

(C) convene and promote coordination of the activities of Federal departments and agencies on energy-water nexus RD&D activities, including the activities of—

- (i) the Department;
- (ii) the Department of the Interior;
- (iii) the Corps of Engineers;
- (iv) the Department of Agriculture;

(v) the Department of Defense;

(vi) the Department of State;

(vii) the Environmental Protection Agency;

(viii) the Council on Environmental Quality;

(ix) the National Institute of Standards and Technology;

(x) the National Oceanic and Atmospheric Administration;

(xi) the National Science Foundation;

(xii) the Office of Management and Budget;

(xiii) the Office of Science and Technology Policy;

(xiv) the National Aeronautics and Space Administration; and

(xv) such other Federal departments and agencies as the Interagency Coordination Committee considers appropriate;

(D)(i) coordinate and develop capabilities and methodologies for data collection, management, and dissemination of information related to energy-water nexus RD&D activities from and to other Federal departments and agencies; and

(ii) promote information exchange between Federal departments and agencies—

(I) to identify and document Federal and non-Federal programs and funding opportunities that support basic and applied research, development, and demonstration proposals to advance energy-water nexus related science and technologies;

(II) to leverage existing programs by encouraging joint solicitations, block grants, and matching programs with non-Federal entities; and

(III) to identify opportunities for domestic and international public-private partnerships, innovative financing mechanisms, information and data exchange;

(E) promote the integration of energy-water nexus considerations into existing Federal water, energy, and other natural resource, infrastructure, and science programs at the national and regional levels and with programs administered in partnership with non-Federal entities; and

(F) not later than 1 year after the date of enactment of this Act, issue a report on the potential benefits and feasibility of establishing within the National Laboratories (as that term is defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801)).

(4) NO REGULATION.—Nothing in this subsection grants to the Interagency Coordination Committee the authority to promulgate regulations or set standards.

(5) REVIEW; REPORT.—At the end of the 5-year period beginning on the date on which the Interagency Coordination Committee and NEWS Office are established, the NEWS Office shall—

(A) review the activities, relevance, and effectiveness of the Interagency Coordination Committee; and

(B) submit to the Committee on Energy and Natural Resources of the Senate and the Committees on Science, Space, and Technology, Energy and Commerce, and Natural Resources of the House of Representatives a report that—

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

(ii) includes a recommendation on whether the Interagency Coordination Committee should continue.

(c) CROSSCUT BUDGET.—Not later than 30 days after the President submits the budget of the United States Government under section 1105 of title 31, United States Code, the co-chairs of the Interagency Coordination Committee (acting through the NEWS Office) shall submit to the Committee on Energy and Natural Resources of the Senate and the Committees on Science, Space, and Technology, Energy and Commerce, and Nat-

ural Resources of the House of Representatives, an interagency budget crosscut report that displays at the program-, project-, and activity-level for each of the Federal agencies that carry out or support (including through grants, contracts, interagency and intraagency transfers, and multiyear and no-year funds) basic and applied RD&D activities to advance the energy-water nexus related science and technologies—

(1) the budget proposed in the budget request of the President for the upcoming fiscal year;

(2) expenditures and obligations for the prior fiscal year; and

(3) estimated expenditures and obligations for the current fiscal year.

**SEC. 4102. SMART ENERGY AND WATER EFFICIENCY PILOT PROGRAM.**

Subtitle A of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16191 et seq.) is amended by adding at the end the following:

**“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.”

#### Subtitle C—Innovation

#### SEC. 4201. AMERICA COMPETES PROGRAMS.

(a) BASIC RESEARCH.—Section 971(b) of the Energy Policy Act of 2005 (42 U.S.C. 16311(b)) is amended—

(1) in paragraph (6), by striking “and” at the end;

(2) in paragraph (7), by striking the period at the end and inserting a semicolon; and

(3) by adding at the end the following:

“(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.”

(b) ADVANCED RESEARCH PROJECTS AGENCY-ENERGY.—Section 5012 of the America COMPETES Act (42 U.S.C. 16538) is amended—

(1) in subsection (a)(3), by striking “subsection (n)(1)” and inserting “subsection (o)(1)”;

(2) in subsection (i), by striking paragraph (1) and inserting the following:

“(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.”;

(3) by redesignating subsection (n) as subsection (o);

(4) by inserting after subsection (m) the following:

“(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.”; and

(5) in subsection (o) (as redesignated by paragraph (3))—

(A) in paragraph (2)—

(i) in the matter preceding subparagraph (A), by striking “paragraphs (4) and (5)” and inserting “paragraph (4)”;

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

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

(iv) by adding at the end the following:

“(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.”; and

(B) in paragraph (4)(B), by striking “(c)(2)(D)” and inserting “(c)(2)(C)”.

#### SEC. 4202. INCLUSION OF EARLY STAGE TECHNOLOGY DEMONSTRATION IN AUTHORIZED TECHNOLOGY TRANSFER ACTIVITIES.

Section 1001 of the Energy Policy Act of 2005 (42 U.S.C. 16391) is amended—

(1) by redesignating subsection (g) as subsection (h); and

(2) by inserting after subsection (f) the following:

“(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.”.

#### SEC. 4203. SUPPORTING ACCESS OF SMALL BUSINESS CONCERNS TO NATIONAL LABORATORIES.

(a) DEFINITIONS.—In this section:

(1) NATIONAL LABORATORY.—The term “National Laboratory” has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

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

(b) ACTIONS FOR INCREASED ACCESS AT NATIONAL LABORATORIES FOR SMALL BUSINESS CONCERNS.—To promote the technology transfer of innovative energy technologies and enhance the competitiveness of the United States, the Secretary shall take such actions as are appropriate to facilitate access to the National Laboratories for small business concerns.

(c) INFORMATION ON THE DOE WEBSITE RELATING TO NATIONAL LABORATORY PROGRAMS AVAILABLE TO SMALL BUSINESS CONCERNS.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Secretary, in coordination with the Directors of the National Laboratories, shall—

(A) publish in a consolidated manner on the website of the Department information relating to National Laboratory programs that are available to small business concerns;

(B) provide for the information published under subparagraph (A) to be kept up-to-date; and

(C) include in the information published under subparagraph (A), information on each available program under which small business concerns are eligible to enter into agreements to work with the National Laboratories.

(2) COMPONENTS.—The information published on the Department website under paragraph (1) shall include—

(A) a brief description of each agreement available to small business concerns to work with National Laboratories;

(B) a step-by-step guide for completing agreements to work with National Laboratories;

(C) best practices for working with National Laboratories;

(D) individual National Laboratory websites that provide information specific to technology transfer and working with small business concerns;

(E) links to funding opportunity announcements, nonfinancial resources, and other programs available to small business concerns; and

(F) any other information that the Secretary determines to be appropriate.

(3) ACCESSIBILITY.—The information published on the Department website under paragraph (1) shall be—

(A) readily accessible and easily found on the Internet by the public and members and committees of Congress; and

(B) presented in a searchable, machine-readable format.

(4) GUIDANCE.—The Secretary shall issue Departmental guidance to ensure that the

information published on the Department website under paragraph (1) is provided in a manner that presents a coherent picture of all National Laboratory programs that are relevant to small business concerns.

**SEC. 4204. MICROLAB TECHNOLOGY COMMERCIALIZATION.**

(a) DEFINITIONS.—In this section:

(1) MICROLAB.—The term “microlab” means a small laboratory established by the Secretary under subsection (b).

(2) NATIONAL LABORATORY.—The term “national laboratory” means—

(A) a National Laboratory, as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801); and

(B) a national security laboratory, as defined in section 3281 of the National Nuclear Security Administration Act (50 U.S.C. 2471).

(b) ESTABLISHMENT OF MICROLAB PROGRAM.—

(1) IN GENERAL.—The Secretary, in collaboration with the directors of national laboratories, may establish a microlab program under which the Secretary establishes microlabs that are located in close proximity to national laboratories and that are accessible to the public for the purposes of—

(A) enhancing collaboration with regional research groups, such as institutions of higher education and industry groups;

(B) accelerating technology transfer from national laboratories to the marketplace; and

(C) promoting regional workforce development through science, technology, engineering, and mathematics (“STEM”) instruction and training.

(2) CRITERIA.—In determining the placement of microlabs under paragraph (1), the Secretary shall consider—

(A) the commitment of a national laboratory to establishing a microlab;

(B) the existence of a joint research institute or a new facility that—

(i) is not on the main site of a national laboratory;

(ii) is in close proximity to a national laboratory; and

(iii) has the capability to house a microlab;

(C) whether employees of a national laboratory and persons from academia, industry, and government are available to be assigned to the microlab; and

(D) cost-sharing or in-kind contributions from State and local governments and private industry.

(3) TIMING.—If the Secretary, in collaboration with the directors of national laboratories, elects to establish a microlab program under this subsection, the Secretary, in collaboration with the directors of national laboratories, shall—

(A) not later than 60 days after the date of enactment of this Act, begin the process of determining the placement of microlabs under paragraph (1); and

(B) not later than 180 days after the date of enactment of this Act, implement the microlab program under this subsection.

(c) REPORTS.—

(1) INITIAL REPORT.—Not later than 60 days after the date of implementation of the microlab program under subsection (b), the Secretary shall submit to the Committee on Armed Services of the Senate, the Committee on Armed Services of the House of Representatives, the Committee on Energy and Natural Resources of the Senate, and the Committee on Science, Space, and Technology of the House of Representatives a report that provides an update on the implementation of the microlab program under subsection (b).

(2) PROGRESS REPORT.—Not later than 1 year after the date of implementation of the microlab program under subsection (b), the Secretary shall submit to the Committee on

Armed Services of the Senate, the Committee on Armed Services of the House of Representatives, the Committee on Energy and Natural Resources of the Senate, and the Committee on Science, Space, and Technology of the House of Representatives a report on the microlab program under subsection (b), including findings and recommendations of the Secretary.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this Act \$50,000,000 for fiscal year 2016.

**Subtitle D—Grid Reliability**

**SEC. 4301. BULK-POWER SYSTEM RELIABILITY IMPACT STATEMENT.**

(a) RELIABILITY REPORTS.—Section 215(g) of the Federal Power Act (16 U.S.C. 824o(g)) is amended—

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

“(1) IN GENERAL.—The ERO”; and

(2) by adding at the end the following:

“(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.”.

(b) RELIABILITY IMPACT STATEMENT.—Section 215 of the Federal Power Act (16 U.S.C. 824o) is amended by adding at the end the following:

“(1) 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).”.

**SEC. 4302. REPORT BY TRANSMISSION ORGANIZATIONS ON DIVERSITY OF SUPPLY.**

(a) DEFINITIONS.—In this section:

(1) ELECTRIC GENERATING CAPACITY RESOURCE.—

(A) IN GENERAL.—The term “electric generating capacity resource” means an electric generating resource, as measured by the maximum load-carrying ability of the resource, exclusive of station use and planned, unplanned, or other outage or derating subject to dispatch by the transmission organization to meet the resource adequacy needs of the systems operated by the transmission organization.

(B) EFFECT.—The term “electric generating capacity resource” does not address non-electric generating resources that are qualified as capacity resources in the tariffs of various transmission organizations as of the date of enactment of this Act.

(2) TRANSMISSION ORGANIZATION.—The term “transmission organization” has the meaning given the term in section 3 of the Federal Power Act (16 U.S.C. 796).

(b) REPORT.—

(1) NOTICE.—Not later than 14 days after the date of enactment of this Act, the Commission (as the term is defined in section 3 of the Federal Power Act (16 U.S.C. 796)) shall submit to each transmission organization that has a tariff on file with the Commission that includes provisions addressing the procurement of electric generating capacity resources, a notice that the transmission organization is required to file with the Commission a report in accordance with paragraph (2).

(2) REPORT.—Not later than 180 days after the date on which a transmission organization receives a notice under paragraph (1), the transmission organization shall submit to the Commission a report that, to the maximum extent practicable—

(A)(i) identifies electric generating capacity resources that are available to the transmission organization as of the date of the report; and

(ii) describes the primary energy sources and operational characteristics of electric capacity resources available, in the aggregate, to the transmission organization;

(B) evaluates, using generally accepted metrics, the current operational performance, in the aggregate, of electric capacity resources;

(C) identifies, for the aggregate of electric generating capacity resources available to the transmission organization—

(i) over the short- and long-term periods in the planning cycle of the transmission organization, reasonable projections concerning the operational and economic risk profile of electric generating capacity resources;

(ii) the projected future needs of the transmission organization for electric generating capacity resources; and

(iii) the availability of transmission facilities and transmission support services necessary to provide for the transmission organization reasonable assurances of essential reliability services, including adequate voltage support; and

(D) assesses whether and to what extent the market rules of the transmission organization—

(i) yield capacity auction clearing prices that promote necessary and prudent investment;

(ii) yield energy market clearing prices that reflect the marginal cost of supply, taking into account transmission constraints and other factors needed to ensure reliable grid operation;

(iii) produce meaningful price signals that clearly indicate where new supply and investment are needed;

(iv) reduce uncertainty or instability resulting from changes to market rules, processes, or protocols;

(v) promote transparency and communication by the market operator to market participants;

(vi) support a diverse generation portfolio and the availability of transmission facilities and transmission support services on a short- and long-term basis necessary to provide reasonable assurances of a continuous supply of electricity for customers of the transmission organization at the proper voltage and frequency; and

(vii) provide an enhanced opportunity for self-supply of electric generating capacity resources by electric cooperatives, Federal power marketing agencies, and State utilities with a service obligation (as those terms are defined in section 217(a)) of the Federal Power Act (16 U.S.C. 824q(a)) in a manner that is consistent with traditional utility business models and does not unduly affect wholesale market prices.

#### Subtitle E—Management

#### SEC. 4401. FEDERAL LAND MANAGEMENT.

(a) DEFINITIONS.—In this section:

(1) CADASTRE.—The term “cadastre” means an inventory of buildings and other real property (including associated infrastructure such as roads and utility transmission lines and pipelines) located on land administered by the Secretary, which is developed through collecting, storing, retrieving, or disseminating graphical or digital data and any information related to the data, including surveys, maps, charts, images, and services.

(2) SECRETARY.—The term “Secretary” means the Secretary of the Interior.

(b) CADASTRE OF FEDERAL REAL PROPERTY.—

(1) IN GENERAL.—The Secretary is authorized—

(A) to develop and maintain a current and accurate multipurpose cadastre to support Federal land management activities for the Department of the Interior;

(B) to incorporate any related inventories of Federal real property, including any inventories prepared under applicable land or resource management plans; and

(C) to enter into discussions with other Federal agencies to make the cadastre available for use by the agency to support agency management activities.

(2) COST-SHARING AGREEMENTS.—

(A) IN GENERAL.—The Secretary may enter into cost-sharing agreements with other Federal agencies, and with States, Indian

tribes, and local governments, to include any non-Federal land in a State in the cadastre.

(B) COST SHARE.—The Federal share of any cost agreement described in subparagraph (A) shall not exceed 50 percent of the total cost to a State, Indian tribe, or local government for the development of the cadastre of non-Federal land.

(3) CONSOLIDATION AND REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Natural Resources of the House of Representatives a report on the real property inventories or any components of any cadastre or related inventories that—

(A) exist as of the date of enactment of this Act;

(B) are authorized by law or conducted by the Secretary; and

(C) are of sufficient accuracy to be included in the cadastre authorized under paragraph (1).

(4) COORDINATION.—In carrying out this subsection, the Secretary shall—

(A) participate (in accordance with section 216 of the E-Government Act of 2002 (44 U.S.C. 3501 note; Public Law 107-347)) in the establishment of such standards and common protocols as are necessary to ensure the interoperability of geospatial information pertaining to the cadastre for all users of the information;

(B) coordinate with, seek assistance and cooperation of, and provide liaison to the Federal Geographic Data Committee pursuant to Office of Management and Budget Circular A-16 and Executive Order 12906 (43 U.S.C. 1457 note; relating to coordinating geographic data acquisition and access; the National Spatial Data Infrastructure) for the implementation of and compliance with such standards as may be applicable to the cadastre;

(C) make the cadastre interoperable with the Federal Real Property Profile established pursuant to Executive Order 13327 (40 U.S.C. 121 note; relating to Federal real property asset management);

(D) integrate with and leverage, to the maximum extent practicable, cadastre activities of units of State and local government; and

(E) use contracts with the private sector, if practicable, to provide such products and services as are necessary to develop the cadastre.

(c) TRANSPARENCY AND PUBLIC ACCESS.—The Secretary shall—

(1) make the cadastre required under this section publically available on the Internet in a graphically geoenabled and searchable format; and

(2) in consultation with the Secretary of Defense and the Secretary of Homeland Security, prevent the disclosure of the identity of any buildings or facilities, or information related to the buildings or facilities, if the disclosure would impair or jeopardize the national security or homeland defense of the United States.

(d) EFFECT.—Nothing in this section—

(1) creates any substantive or procedural right or benefit;

(2) authorizes any new surveying or mapping of Federal real property, except that a Federal agency may conduct a new survey to update the accuracy of the inventory data of the agency before storage on a cadaster; or

(3) authorizes—

(A) the evaluation of any real property owned by the United States for disposal; or

(B) new appraisals or assessments of the value of—

(i) real property; or

(ii) cultural or archaeological resources on any parcel of Federal land or other real property.

#### SEC. 4402. QUADRENNIAL ENERGY REVIEW.

(a) IN GENERAL.—Section 801 of the Department of Energy Organization Act (42 U.S.C. 7321) is amended to read as follows:

#### “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.”.

(b) TABLE OF CONTENTS AMENDMENT.—The item relating to section 801 in the table of contents of such Act is amended to read as follows:

“Sec. 801. Quadrennial Energy Review.”.

(c) ADMINISTRATION.—Nothing in this section or an amendment made by this section supersedes, modifies, amends, or repeals any provision of Federal law not expressly superseded, modified, amended, or repealed by this section.

**SEC. 4403. STATE OVERSIGHT OF OIL AND GAS PROGRAMS.**

On request of the Governor of a State, the Secretary of the Interior shall establish a program under which the Director of the Bureau of Land Management shall enter into a memorandum of understanding with the State to consider the costs and benefits of consistent rules and processes for the measurement of oil and gas production activities, inspection of meters or other measurement methodologies, and other operational activities, as determined by the Secretary of the Interior.

**SEC. 4404. UNDER SECRETARY FOR SCIENCE AND ENERGY.**

(a) IN GENERAL.—Section 202(b) of the Department of Energy Organization Act (42 U.S.C. 7132(b)) is amended—

(1) in paragraph (1), by striking “for Science” and inserting “for Science and Energy (referred to in this subsection as the ‘Under Secretary’)”;

(2) in paragraph (3), in the matter preceding subparagraph (A), by striking “for Science”; and

(3) in paragraph (4)—

(A) in the matter preceding subparagraph (A), by striking “for Science”;

(B) in subparagraph (F), by striking “and” at the end;

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

(D) by inserting after subparagraph (G) the following:

“(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.”.

(b) CONFORMING AMENDMENT.—Section 641(h)(2) of the United States Energy Storage Competitiveness Act of 2007 (42 U.S.C. 17231(h)(2)) is amended by striking “Under Secretary for Science” and inserting “Under Secretary for Science and Energy”.

**Subtitle F—Markets**

**SEC. 4501. ENHANCED INFORMATION ON CRITICAL ENERGY SUPPLIES.**

(a) IN GENERAL.—Section 205 of the Department of Energy Organization Act (42 U.S.C. 7135) is amended by adding at the end the following:

“(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 2016 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.”.

(b) CONFORMING AMENDMENT.—Section 645 of the Department of Energy Organization Act (42 U.S.C. 7255) is amended by inserting “(15 U.S.C. 3301 et seq.) and the Natural Gas Act (15 U.S.C. 717 et seq.)” after “Natural Gas Policy Act of 1978”.

**SEC. 4502. WORKING GROUP ON ENERGY MARKETS.**

(a) ESTABLISHMENT.—There is established a Working Group on Energy Markets (referred to in this section as the “Working Group”).



(b) COMPOSITION.—The Working Group shall be composed of—

- (1) the Secretary;
- (2) the Secretary of the Treasury;
- (3) the Chairman of the Federal Energy Regulatory Commission;
- (4) the Chairman of Federal Trade Commission;
- (5) the Chairman of the Securities and Exchange Commission;
- (6) the Chairman of the Commodity Futures Trading Commission; and
- (7) the Administrator of the Energy Information Administration.

(c) CHAIRPERSON.—The Secretary shall serve as the Chairperson of the Working Group.

(d) COMPENSATION.—A member of the Working Group shall serve without additional compensation for the work of the member of the Working Group.

(e) PURPOSE AND FUNCTION.—The Working Group shall—

(1) investigate the effect of increased financial investment in energy commodities on energy prices and the energy security of the United States;

(2) recommend to the President and Congress laws (including regulations) that may be needed to prevent excessive speculation in energy commodity markets in order to prevent or minimize the adverse impact of excessive speculation on energy prices on consumers and the economy of the United States; and

(3) review energy security implications of developments in international energy markets.

(f) ADMINISTRATION.—The Secretary shall provide the Working Group with such administrative and support services as may be necessary for the performance of the functions of the Working Group.

(g) COOPERATION OF OTHER AGENCIES.—The heads of Executive departments, agencies, and independent instrumentalities shall, to the extent permitted by law, provide the Working Group with such information as the Working Group requires to carry out this section.

(h) CONSULTATION.—The Working Group shall consult, as appropriate, with representatives of the various exchanges, clearinghouses, self-regulatory bodies, other major market participants, consumers, and the general public.

#### SEC. 4503. STUDY OF REGULATORY FRAMEWORK FOR ENERGY MARKETS.

(a) STUDY.—The Working Group shall conduct a study—

(1) to identify the factors that affect the pricing of crude oil and refined petroleum products, including an examination of the effects of market speculation on prices; and

(2) to review and assess—

(A) existing statutory authorities relating to the oversight and regulation of markets critical to the energy security of the United States; and

(B) the need for additional statutory authority for the Federal Government to effectively oversee and regulate markets critical to the energy security of the United States.

(b) ELEMENTS OF STUDY.—The study shall include—

(1) an examination of price formation of crude oil and refined petroleum products;

(2) an examination of relevant international regulatory regimes; and

(3) an examination of the degree to which changes in energy market transparency, liquidity, and structure have influenced or driven abuse, manipulation, excessive speculation, or inefficient price formation.

(c) REPORT AND RECOMMENDATIONS.—The Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce

of the House of Representatives quarterly progress reports during the conduct of the study under this section, and a final report not later than 1 year after the date of enactment of this Act, that—

(1) describes the results of the study; and

(2) provides options and the recommendations of the Working Group for appropriate Federal coordination of oversight and regulatory actions to ensure transparency of crude oil and refined petroleum product pricing and the elimination of excessive speculation, including recommendations on data collection and analysis to be carried out by the Financial Market Analysis Office established by section 205(p) of the Department of Energy Organization Act (42 U.S.C. 7135(p)).

#### Subtitle G—Affordability

#### SEC. 4601. E-PRIZE COMPETITION PILOT PROGRAM.

Section 1008 of the Energy Policy Act of 2005 (42 U.S.C. 16396) is amended by adding at the end the following:

“(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.”.

#### Subtitle H—Code Maintenance

#### SEC. 4701. REPEAL OF OFF-HIGHWAY MOTOR VEHICLES STUDY.

(a) REPEAL.—Part I of title III of the Energy Policy and Conservation Act (42 U.S.C. 6373) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy and Con-

servation Act (Public Law 94-163; 89 Stat. 871) is amended—

(1) by striking the item relating to part I of title III; and

(2) by striking the item relating to section 385.

#### SEC. 4702. REPEAL OF METHANOL STUDY.

Section 400EE of the Energy Policy and Conservation Act (42 U.S.C. 6374d) is amended—

(1) by striking subsection (a); and

(2) by redesignating subsections (b) and (c) as subsections (a) and (b), respectively.

#### SEC. 4703. REPEAL OF AUTHORIZATION OF APPROPRIATIONS PROVISION.

(a) REPEAL.—Section 208 of the Energy Conservation and Production Act (42 U.S.C. 6808) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Conservation and Production Act (Public Law 94-385; 90 Stat. 1126) is amended by striking the item relating to section 208.

#### SEC. 4704. REPEAL OF RESIDENTIAL ENERGY EFFICIENCY STANDARDS STUDY.

(a) REPEAL.—Section 253 of the National Energy Conservation Policy Act (42 U.S.C. 8232) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the National Energy Conservation Policy Act (Public Law 95-619; 92 Stat. 3206) is amended by striking the item relating to section 253.

#### SEC. 4705. REPEAL OF WEATHERIZATION STUDY.

(a) REPEAL.—Section 254 of the National Energy Conservation Policy Act (42 U.S.C. 8233) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the National Energy Conservation Policy Act (Public Law 95-619; 92 Stat. 3206) is amended by striking the item relating to section 254.

#### SEC. 4706. REPEAL OF REPORT TO CONGRESS.

(a) REPEAL.—Section 273 of the National Energy Conservation Policy Act (42 U.S.C. 8236b) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the National Energy Conservation Policy Act (Public Law 95-619; 92 Stat. 3206) is amended by striking the item relating to section 273.

#### SEC. 4707. REPEAL OF REPORT BY GENERAL SERVICES ADMINISTRATION.

(a) REPEAL.—Section 154 of the Energy Policy Act of 1992 (42 U.S.C. 8262a) is repealed.

(b) CONFORMING AMENDMENTS.—

(1) The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 154.

(2) Section 159 of the Energy Policy Act of 1992 (42 U.S.C. 8262e) is amended by striking subsection (c).

#### SEC. 4708. REPEAL OF INTERGOVERNMENTAL ENERGY MANAGEMENT PLANNING AND COORDINATION WORKSHOPS.

(a) REPEAL.—Section 156 of the Energy Policy Act of 1992 (42 U.S.C. 8262b) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 156.

#### SEC. 4709. REPEAL OF INSPECTOR GENERAL AUDIT SURVEY AND PRESIDENT'S COUNCIL ON INTEGRITY AND EFFICIENCY REPORT TO CONGRESS.

(a) REPEAL.—Section 160 of the Energy Policy Act of 1992 (42 U.S.C. 8262f) is amended by striking the section designation and heading and all that follows through “(c) INSPECTOR GENERAL REVIEW.—Each Inspector General” and inserting the following:

“SEC. 160. INSPECTOR GENERAL REVIEW.

“Each Inspector General”.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992

(Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 160 and inserting the following:

“Sec. 160. Inspector General review. ”.

**SEC. 4710. REPEAL OF PROCUREMENT AND IDENTIFICATION OF ENERGY EFFICIENT PRODUCTS PROGRAM.**

(a) REPEAL.—Section 161 of the Energy Policy Act of 1992 (42 U.S.C. 8262g) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 161.

**SEC. 4711. REPEAL OF NATIONAL ACTION PLAN FOR DEMAND RESPONSE.**

(a) REPEAL.—Part 5 of title V of the National Energy Conservation Policy Act (42 U.S.C. 8279 et seq.) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the National Energy Conservation Policy Act (Public Law 95-619; 92 Stat. 3206; 121 Stat. 1665) is amended—

(1) by striking the item relating to part 5 of title V; and

(2) by striking the item relating to section 571.

**SEC. 4712. REPEAL OF NATIONAL COAL POLICY STUDY.**

(a) REPEAL.—Section 741 of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8451) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Powerplant and Industrial Fuel Use Act of 1978 (Public Law 95-620; 92 Stat. 3289) is amended by striking the item relating to section 741.

**SEC. 4713. REPEAL OF STUDY ON COMPLIANCE PROBLEM OF SMALL ELECTRIC UTILITY SYSTEMS.**

(a) REPEAL.—Section 744 of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8454) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Powerplant and Industrial Fuel Use Act of 1978 (Public Law 95-620; 92 Stat. 3289) is amended by striking the item relating to section 744.

**SEC. 4714. REPEAL OF STUDY OF SOCIO-ECONOMIC IMPACTS OF INCREASED COAL PRODUCTION AND OTHER ENERGY DEVELOPMENT.**

(a) REPEAL.—Section 746 of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8456) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Powerplant and Industrial Fuel Use Act of 1978 (Public Law 95-620; 92 Stat. 3289) is amended by striking the item relating to section 746.

**SEC. 4715. REPEAL OF STUDY OF THE USE OF PETROLEUM AND NATURAL GAS IN COMBUSTORS.**

(a) REPEAL.—Section 747 of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8457) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Powerplant and Industrial Fuel Use Act of 1978 (Public Law 95-620; 92 Stat. 3289) is amended by striking the item relating to section 747.

**SEC. 4716. REPEAL OF SUBMISSION OF REPORTS.**

(a) REPEAL.—Section 807 of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8483) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Powerplant and Industrial Fuel Use Act of 1978 (Public Law 95-620; 92 Stat. 3289) is amended by striking the item relating to section 807.

**SEC. 4717. REPEAL OF ELECTRIC UTILITY CONSERVATION PLAN.**

(a) REPEAL.—Section 808 of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8484) is repealed.

(b) CONFORMING AMENDMENTS.—

(1) TABLE OF CONTENTS.—The table of contents for the Powerplant and Industrial Fuel Use Act of 1978 (Public Law 95-620; 92 Stat. 3289) is amended by striking the item relating to section 808.

(2) REPORT ON IMPLEMENTATION.—Section 712 of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8422) is amended—

(A) by striking “(a) GENERALLY.—”; and

(B) by striking subsection (b).

**SEC. 4718. EMERGENCY ENERGY CONSERVATION REPEALS.**

(a) REPEALS.—

(1) Section 201 of the Emergency Energy Conservation Act of 1979 (42 U.S.C. 8501) is amended—

(A) in the section heading, by striking “FINDINGS AND”; and

(B) by striking subsection (a).

(2) Section 221 of the Emergency Energy Conservation Act of 1979 (42 U.S.C. 8521) is repealed.

(3) Section 222 of the Emergency Energy Conservation Act of 1979 (42 U.S.C. 8522) is repealed.

(4) 241 of the Emergency Energy Conservation Act of 1979 (42 U.S.C. 8531) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Emergency Energy Conservation Act of 1979 (Public Law 96-102; 93 Stat. 749) is amended—

(1) by striking the item relating to section 201 and inserting the following:

“Sec. 201. Purposes. ”; and

(2) by striking the items relating to sections 221, 222, and 241.

**SEC. 4719. ENERGY SECURITY ACT REPEALS.**

(a) BIOMASS ENERGY DEVELOPMENT PLANS.—Subtitle A of title II of the Energy Security Act (42 U.S.C. 8811 et seq.) is repealed.

(b) MUNICIPAL WASTE BIOMASS ENERGY.—Subtitle B of title II of the Energy Security Act (42 U.S.C. 8831 et seq.) is repealed.

(c) USE OF GASOLIN IN FEDERAL MOTOR VEHICLES.—Section 271 of the Energy Security Act (42 U.S.C. 8871) is repealed.

(d) CONFORMING AMENDMENTS.—

(1) The table of contents for the Energy Security Act (Public Law 96-294; 94 Stat. 611) is amended—

(A) by striking the items relating to subtitle A and B of title II;

(B) by striking the item relating to section 204 and inserting the following:

“Sec. 204. Funding. .... ”; and

(C) by striking the item relating to section 271.

(2) Section 203 of the Biomass Energy and Alcohol Fuels Act of 1980 (42 U.S.C. 8802) is amended—

(A) by striking paragraph (16); and

(B) by redesignating paragraphs (17) through (19) as paragraphs (16) through (18), respectively.

(3) Section 204 of the Energy Security Act (42 U.S.C. 8803) is amended—

(A) in the section heading, by striking “FOR SUBTITLES A AND B”; and

(B) in subsection (a)—

(i) in paragraph (1), by adding “and” after the semicolon at the end;

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

(iii) by striking paragraph (3).

**SEC. 4720. NUCLEAR SAFETY RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACT OF 1980 REPEALS.**

Sections 5 and 6 of the Nuclear Safety Research, Development, and Demonstration Act of 1980 (42 U.S.C. 9704, 9705) are repealed.

**SEC. 4721. ELIMINATION AND CONSOLIDATION OF CERTAIN AMERICA COMPETES PROGRAMS.**

(a) ELIMINATION OF PROGRAM AUTHORITIES.—

(1) NUCLEAR SCIENCE TALENT EXPANSION PROGRAM FOR INSTITUTIONS OF HIGHER EDUCATION.—Section 5004 of the America COMPETES Act (42 U.S.C. 16532) is repealed.

(2) HYDROCARBON SYSTEMS SCIENCE TALENT EXPANSION PROGRAM FOR INSTITUTIONS OF HIGHER EDUCATION.—

(A) IN GENERAL.—Section 5005(e) of the America COMPETES Act (42 U.S.C. 16533(e)) is repealed.

(B) CONFORMING AMENDMENTS.—Section 5005(f) of the America COMPETES Act (42 U.S.C. 16533(f)) is amended—

(i) by striking paragraph (2);

(ii) by striking the subsection designation and heading and all that follows through “There are” in paragraph (1) and inserting the following:

“(e) AUTHORIZATION OF APPROPRIATIONS.—There are”; and

(iii) by redesignating subparagraphs (A) through (F) as paragraphs (1) through (6), respectively, and indenting appropriately.

(3) DISCOVERY SCIENCE AND ENGINEERING INNOVATION INSTITUTES.—Section 5008 of the America COMPETES Act (42 U.S.C. 16535) is repealed.

(4) ELIMINATION OF DUPLICATIVE AUTHORITY FOR EDUCATION PROGRAMS.—Sections 3181 and 3185 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381f, 42 U.S.C. 7381n) are repealed.

(5) MENTORING PROGRAM.—Section 3195 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381r) is repealed.

(b) REPEAL OF AUTHORIZATIONS.—

(1) DEPARTMENT OF ENERGY EARLY CAREER AWARDS FOR SCIENCE, ENGINEERING, AND MATHEMATICS RESEARCHERS.—Section 5006 of the America COMPETES Act (42 U.S.C. 16534) is amended by striking subsection (h).

(2) DISTINGUISHED SCIENTIST PROGRAM.—Section 5011 of the America COMPETES Act (42 U.S.C. 16537) is amended by striking subsection (j).

(3) PROTECTING AMERICA’S COMPETITIVE EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.—Section 5009 of the America COMPETES Act (42 U.S.C. 16536) is amended by striking subsection (f).

(c) CONSOLIDATION OF DUPLICATIVE PROGRAM AUTHORITIES.—

(1) UNIVERSITY NUCLEAR SCIENCE AND ENGINEERING SUPPORT.—Section 954 of the Energy Policy Act of 2005 (42 U.S.C. 16274) is amended—

(A) in subsection (a), by inserting “nuclear chemistry,” after “nuclear engineering;”; and

(B) in subsection (b)—

(i) by redesignating paragraphs (3) through (5) as paragraphs (4) through (6), respectively; and

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

“(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;”.

(2) CONSOLIDATION OF DEPARTMENT OF ENERGY EARLY CAREER AWARDS FOR SCIENCE, ENGINEERING, AND MATHEMATICS RESEARCHERS PROGRAM AND DISTINGUISHED SCIENTIST PROGRAM.—

(A) FUNDING.—Section 971(c) of the Energy Policy Act of 2005 (42 U.S.C. 16311(c)) is amended by adding at the end the following:

“(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.”.

(B) DEPARTMENT OF ENERGY EARLY CAREER AWARDS FOR SCIENCE, ENGINEERING, AND MATHEMATICS RESEARCHERS.—Section 5006 of the America COMPETES Act (42 U.S.C. 16534) is amended—

(i) in subsection (b)(1)—  
(I) in the matter preceding subparagraph (A)—

(aa) by inserting “average” before “amount”; and

(bb) by inserting “for each year” before “shall”;

(II) in subparagraph (A), by striking “\$80,000” and inserting “\$190,000”; and

(III) in subparagraph (B), by striking “\$125,000” and inserting “\$490,000”;

(ii) in subsection (c)(1)(C)—

(I) in clause (i)—

(aa) by striking “assistant professor or equivalent title” and inserting “untenured assistant or associate professor”; and

(bb) by inserting “or” after the semicolon at the end;

(II) by striking clause (ii); and

(III) by redesignating clause (iii) as clause (ii);

(iii) in subsection (d), by striking “on a competitive, merit-reviewed basis” and inserting “through a competitive process using merit-based peer review.”;

(iv) in subsection (e)—

(I) by striking “(e)” and all that follows through “To be eligible” and inserting the following:

“(e) SELECTION PROCESS AND CRITERIA.—To be eligible”; and

(II) by striking paragraph (2); and

(v) in subsection (f)(1), by striking “non-profit, nondegree-granting research organizations” and inserting “National Laboratories”.

(3) SCIENCE EDUCATION PROGRAMS.—Section 3164 of the Department of Energy Science Education Enhancement Act (42 U.S.C. 7381a) is amended—

(A) in subsection (b)—

(i) by striking paragraphs (1) and (2) and inserting the following:

“(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.”; and

(ii) in paragraph (3)—

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

(II) by redesignating subparagraph (E) as subparagraph (F); and

(III) by inserting after subparagraph (D) the following:

“(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”;

(B) in subsection (d)—

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

“(1) IN GENERAL.—The Secretary”; and

(ii) by adding at the end the following:

“(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.”.

(4) PROTECTING AMERICA’S COMPETITIVE EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.—Section 5009 of the America COMPETES Act (42 U.S.C. 16536) is amended—

(A) in subsection (c)—

(i) in paragraph (1) by striking “, involving” and all that follows through “Secretary”; and

(ii) in paragraph (2), by striking subparagraph (B) and inserting the following:

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

(B) in subsection (d)(1)(B)(i), by inserting “full or partial” before “graduate tuition”; and

(C) in subsection (e), in the matter preceding paragraph (1), by striking “Director of Science, Engineering, and Mathematics Education” and inserting “Director of the Office of Science.”.

(d) CONFORMING AMENDMENTS.—The table of contents for the America COMPETES ACT (Public Law 110-69; 121 Stat. 573) is amended by striking the items relating to sections 5004 and 5008.

**SEC. 4722. REPEAL OF STATE UTILITY REGULATORY ASSISTANCE.**

(a) REPEAL.—Section 207 of the Energy Conservation and Production Act (42 U.S.C. 6807) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Conservation and Production Act (Public Law 94-385; 90 Stat. 1126) is amended by striking the item relating to section 207.

**SEC. 4723. REPEAL OF SURVEY OF ENERGY SAVING POTENTIAL.**

(a) REPEAL.—Section 550 of the National Energy Conservation Policy Act (42 U.S.C. 8258b) is repealed.

(b) CONFORMING AMENDMENTS.—

(1) The table of contents for the National Energy Conservation Policy Act (Public Law 95-619; 92 Stat. 3206; 106 Stat. 2851) is amended by striking the item relating to section 550.

(2) Section 543(d)(2) of the National Energy Conservation Policy Act (42 U.S.C. 8253(d)(2)) is amended by striking “, incorporating any relevant information obtained from the survey conducted pursuant to section 550”.

**SEC. 4724. REPEAL OF PHOTOVOLTAIC ENERGY PROGRAM.**

(a) REPEAL.—Part 4 of title V of the National Energy Conservation Policy Act (42 U.S.C. 8271 et seq.) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the National Energy Conservation Policy Act (Public Law 95-619; 92 Stat. 3206) is amended—

(1) by striking the item relating to part 4 of title V; and

(2) by striking the items relating to sections 561 through 569.

**SEC. 4725. REPEAL OF ENERGY AUDITOR TRAINING AND CERTIFICATION.**

(a) REPEAL.—Subtitle F of title V of the Energy Security Act (42 U.S.C. 8285 et seq.) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Security Act (Public Law 96-294; 94 Stat. 611) is amended by striking the items relating to subtitle F of title V.

**SEC. 4726. REPEAL OF AUTHORIZATION OF APPROPRIATIONS.**

(a) REPEAL.—Subtitle F of title VII of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8461) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Powerplant and Industrial Fuel Use Act of 1978 (Public Law 95-620; 92 Stat. 3289) is amended by striking the item relating to subtitle F of title VII.

**SEC. 4727. REPEAL OF RENEWABLE ENERGY AND ENERGY EFFICIENCY TECHNOLOGY COMPETITIVENESS ACT OF 1989.**

(a) REPEAL.—The Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989 (42 U.S.C. 12001 et seq.) is repealed.

(b) CONFORMING AMENDMENTS.—

(1) Section 6(b)(3) of the Federal Non-nuclear Energy Research and Development Act of 1974 (42 U.S.C. 5905(b)(3)) is amended—

(A) in subparagraph (Q), by adding “and” after the semicolon;

(B) by striking subparagraph (R); and

(C) by redesignating subparagraph (S) as subparagraph (R).

(2) Section 1204 of the Energy Policy Act of 1992 (42 U.S.C. 13313) is amended—

(A) in subsection (b), in the matter preceding paragraph (1), in the first sentence, by striking “, in consultation with” and all that follows through “under section 6 of the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989,”; and

(B) in subsection (c), by striking “, in consultation with the Advisory Committee,”.

**SEC. 4728. REPEAL OF HYDROGEN RESEARCH, DEVELOPMENT, AND DEMONSTRATION PROGRAM.**

The Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12401 et seq.) is repealed.

**SEC. 4729. REPEAL OF STUDY ON ALTERNATIVE FUEL USE IN NONROAD VEHICLES AND ENGINES.**

(a) IN GENERAL.—Section 412 of the Energy Policy Act of 1992 (42 U.S.C. 13238) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 412.

**SEC. 4730. REPEAL OF LOW INTEREST LOAN PROGRAM FOR SMALL BUSINESS FLEET PURCHASES.**

(a) IN GENERAL.—Section 414 of the Energy Policy Act of 1992 (42 U.S.C. 13239) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 414.

**SEC. 4731. REPEAL OF TECHNICAL AND POLICY ANALYSIS FOR REPLACEMENT FUEL DEMAND AND SUPPLY INFORMATION.**

(a) IN GENERAL.—Section 506 of the Energy Policy Act of 1992 (42 U.S.C. 13256) is repealed.

(b) CONFORMING AMENDMENTS.—

(1) The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 506.

(2) Section 507(m) of the Energy Policy Act of 1992 (42 U.S.C. 13257(m)) is amended by striking “and section 506”.

**SEC. 4732. REPEAL OF 1992 REPORT ON CLIMATE CHANGE.**

(a) IN GENERAL.—Section 1601 of the Energy Policy Act of 1992 (42 U.S.C. 13381) is repealed.

**(b) CONFORMING AMENDMENTS.—**

(1) The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 1601.

(2) Section 1602(a) of the Energy Policy Act of 1992 (42 U.S.C. 13382(a)) is amended, in the matter preceding paragraph (1), in the third sentence, by striking “the report required under section 1601 and”.

**SEC. 4733. REPEAL OF DIRECTOR OF CLIMATE PROTECTOR ESTABLISHMENT.**

(a) IN GENERAL.—Section 1603 of the Energy Policy Act of 1992 (42 U.S.C. 13383) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 1603.

**SEC. 4734. REPEAL OF 1994 REPORT ON GLOBAL CLIMATE CHANGE EMISSIONS.**

(a) IN GENERAL.—Section 1604 of the Energy Policy Act of 1992 (42 U.S.C. 13384) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 1604.

**SEC. 4735. REPEAL OF TELECOMMUTING STUDY.**

(a) IN GENERAL.—Section 2028 of the Energy Policy Act of 1992 (42 U.S.C. 13438) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 2028.

**SEC. 4736. REPEAL OF ADVANCED BUILDINGS FOR 2005 PROGRAM.**

(a) IN GENERAL.—Section 2104 of the Energy Policy Act of 1992 (42 U.S.C. 13454) is repealed.

**(b) CONFORMING AMENDMENTS.—**

(1) The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 2104.

(2) Section 2101(a) of the Energy Policy Act of 1992 (42 U.S.C. 13451(a)) (as amended by section 1201(d)(3)) is amended, in the third sentence, by striking “2104.”.

**SEC. 4737. REPEAL OF ENERGY RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION ADVISORY BOARD.**

(a) IN GENERAL.—Section 2302 of the Energy Policy Act of 1992 (42 U.S.C. 13522) is repealed.

**(b) CONFORMING AMENDMENTS.—**

(1) The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 2302.

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

(A) in subsection (a), in the matter preceding paragraph (1), in the first sentence, by striking “, in consultation with the Advisory Board established under section 2302 of the Energy Policy Act of 1992,”;

(B) in subsection (b)—

(i) in paragraph (1), in the first sentence, by striking “, in consultation with the Advisory Board established under section 2302 of the Energy Policy Act of 1992,”; and

(ii) in paragraph (2), in the second sentence, by striking “, in consultation with the Advisory Board established under section 2302 of the Energy Policy Act of 1992,”; and

(C) in subsection (c), in the first sentence, by striking “, in consultation with the Advisory Board established under section 2302 of the Energy Policy Act of 1992,”.

(3) Section 2011(c) of the Energy Policy Act of 1992 (42 U.S.C. 13411(c)) is amended, in the second sentence, by striking “, and with the Advisory Board established under section 2302”.

(4) Section 2304 of the Energy Policy Act of 1992 (42 U.S.C. 13523), is amended—

(A) in subsection (a), by striking “, in consultation with the Advisory Board established under section 2302,”; and

(B) in subsection (c), in the matter preceding paragraph (1), in the first sentence, by striking “, with the advice of the Advisory Board established under section 2302 of this Act,”.

**SEC. 4738. REPEAL OF STUDY ON USE OF ENERGY FUTURES FOR FUEL PURCHASE.**

(a) IN GENERAL.—Section 3014 of the Energy Policy Act of 1992 (42 U.S.C. 13552) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 3014.

**SEC. 4739. REPEAL OF ENERGY SUBSIDY STUDY.**

(a) IN GENERAL.—Section 3015 of the Energy Policy Act of 1992 (42 U.S.C. 13553) is repealed.

(b) CONFORMING AMENDMENT.—The table of contents for the Energy Policy Act of 1992 (Public Law 102-486; 106 Stat. 2776) is amended by striking the item relating to section 3015.

**TITLE V—CONSERVATION REAUTHORIZATION****SEC. 5001. NATIONAL PARK SERVICE MAINTENANCE AND REVITALIZATION CONSERVATION FUND.**

(a) IN GENERAL.—Chapter 1049 of title 54, United States Code, is amended by adding at the end the following:

**“§ 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.”.

(b) CLERICAL AMENDMENT.—The table of sections for chapter 1049 of title 54, United

States Code, is amended by inserting after the item relating to section 104907 the following:

“§104908. National Park Service Maintenance and Revitalization Conservation Fund.”.

**SEC. 5002. LAND AND WATER CONSERVATION FUND.**

(a) REAUTHORIZATION.—Section 200302 of title 54, United States Code, is amended—

(1) in subsection (b), in the matter preceding paragraph (1), by striking “During the period ending September 30, 2018, there” and inserting “There”; and

(2) in subsection (c)(1), by striking “through September 30, 2018”.

(b) ALLOCATION OF FUNDS.—Section 200304 of title 54, United States Code, is amended—

(1) by striking “There” and inserting “(a) In General.—There”; and

(2) by striking the second sentence and inserting the following:

“(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.”.

(c) CONSERVATION EASEMENTS.—Section 200306 of title 54, United States Code, is amended by adding at the end the following:

“(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.—Section 200306 of title 54, United States Code (as amended by subsection (c)), is amended by adding at the end the following:

“(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.”.

**SEC. 5003. HISTORIC PRESERVATION FUND.**

Section 303102 of title 54, United States Code, is amended by striking “of fiscal years 2012 to 2015” and inserting “fiscal year”.

**ORDERS FOR WEDNESDAY,  
JANUARY 27, 2016**

Ms. MURKOWSKI. Madam President, with that little update on the weather—and again, a recognition of the hardy souls who kind of like winter—I ask unanimous consent that when the Senate completes its business today, it

adjourn until 11 a.m., Wednesday, January 27; that following the prayer and pledge, the morning hour be deemed expired, the Journal of proceedings be approved to date, and the time for the two leaders be reserved for their use later in the day; further, that following leader remarks, the Senate begin consideration of S. 2012; finally, that the Senate recess from 12:30 p.m. until 2:15 p.m. to allow for the weekly conference meetings.

## PROGRAM

Before we conclude, I do want to let Members know that we are very serious about moving quickly and aggressively on the Energy Policy Modernization Act when we take it up tomorrow. Given that we have a very shortened

workweek and a lot to do, I am going to ask colleagues to engage with us. Senator CANTWELL and I have both been here all weekend working on this. I am not carrying this binder around because I want to keep my muscles in shape for the next shoveling. I am carrying it around because we have good stuff within this Energy Policy Modernization Act that we want to get moved through. It is going to require a great level of cooperation, but we are going to be ready to hit the ground running and try to move quickly through this very, very important legislation.

The ACTING PRESIDENT pro tempore. Is there objection to the Senator's request?

Hearing none, it is so ordered.

In my personal capacity as the Senator from Maine, I wish to commend the Senator from Alaska for her diligence and for being here today.

Ms. MURKOWSKI. The accolades go both ways, Madam President.

ADJOURNMENT UNTIL 11 A.M.  
TOMORROW

Ms. MURKOWSKI. Madam President, if there is no further business to come before the Senate, I ask unanimous consent that it stand adjourned under the previous order.

There being no objection, the Senate, at 10:10 a.m., adjourned until Wednesday, January 27, 2016, at 11 a.m.