

AMENDMENT NO. _____ Calendar No. _____

Purpose: In the nature of a substitute.

IN THE SENATE OF THE UNITED STATES—114th Cong., 2d Sess.

S. 2012

To provide for the modernization of the energy policy of the United States, and for other purposes.

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended to be proposed by _____

Viz:

1 Strike all after the enacting clause and insert the following:
2

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

4 (a) **SHORT TITLE.**—This Act may be cited as the
5 “Energy Policy Modernization Act of 2015”.

6 (b) **TABLE OF CONTENTS.**—The table of contents for
7 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.

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- 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. Repeal 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.

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- 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. Repeal 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.

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- 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.

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- 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.

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- 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.

1 **SEC. 2. DEFINITIONS.**

2 In this Act:

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

5 (2) SECRETARY.—The term “Secretary” means
6 the Secretary of Energy.

7 **TITLE I—EFFICIENCY**

8 **Subtitle A—Buildings**

9 **SEC. 1001. GREATER ENERGY EFFICIENCY IN BUILDING** 10 **CODES.**

11 (a) DEFINITIONS.—Section 303 of the Energy Con-
12 servation and Production Act (42 U.S.C. 6832) is amend-
13 ed—

14 (1) by striking paragraph (14) and inserting
15 the following:

1 “(14) MODEL BUILDING ENERGY CODE.—The
2 term ‘model building energy code’ means a voluntary
3 building energy code and standards developed and
4 updated through a consensus process among inter-
5 ested persons, such as the IECC or the code used
6 by—

7 “(A) the Council of American Building Of-
8 ficials, or its legal successor, International Code
9 Council, Inc.;

10 “(B) the American Society of Heating, Re-
11 frigerating, and Air-Conditioning Engineers; or

12 “(C) other appropriate organizations.”;
13 and

14 (2) by adding at the end the following:

15 “(17) IECC.—The term ‘IECC’ means the
16 International Energy Conservation Code.

17 “(18) INDIAN TRIBE.—The term ‘Indian tribe’
18 has the meaning given the term in section 4 of the
19 Native American Housing Assistance and Self-De-
20 termination Act of 1996 (25 U.S.C. 4103).”.

21 (b) STATE BUILDING ENERGY EFFICIENCY
22 CODES.—Section 304 of the Energy Conservation and
23 Production Act (42 U.S.C. 6833) is amended to read as
24 follows:

1 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-**
2 **CIENCY CODES.**

3 “(a) IN GENERAL.—The Secretary shall—

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

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

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

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

15 “(A) IN GENERAL.—Not later than 2 years
16 after the date on which a model building energy
17 code is updated, each State or Indian tribe shall
18 certify whether or not the State or Indian tribe,
19 respectively, has reviewed and updated the en-
20 ergy provisions of the building code of the State
21 or Indian tribe, respectively.

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

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

3 “(ii) the targets established under sec-
4 tion 307(b)(2).

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

15 “(2) VALIDATION BY SECRETARY.—Not later
16 than 90 days after a State or Indian tribe certifi-
17 cation under paragraph (1), the Secretary shall—

18 “(A) determine whether the code provi-
19 sions of the State or Indian tribe, respectively,
20 meet the criteria specified in paragraph (1);
21 and

22 “(B) if the determination is positive, vali-
23 date the certification.

24 “(c) IMPROVEMENTS IN COMPLIANCE WITH BUILD-
25 ING ENERGY CODES.—

1 “(1) REQUIREMENT.—

2 “(A) IN GENERAL.—Not later than 3 years
3 after the date of a certification under sub-
4 section (b), each State and Indian tribe shall
5 certify whether or not the State and Indian
6 tribe, respectively, has—

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

12 “(ii) made significant progress under
13 paragraph (4) toward achieving compliance
14 with the applicable certified State and In-
15 dian tribe building energy code or with the
16 associated model building energy code.

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

23 “(2) MEASUREMENT OF COMPLIANCE.—A cer-
24 tification under paragraph (1) shall include docu-
25 mentation of the rate of compliance based on—

1 “(A) independent inspections of a random
2 sample of the buildings covered by the code in
3 the preceding year; or

4 “(B) an alternative method that yields an
5 accurate measure of compliance.

6 “(3) ACHIEVEMENT OF COMPLIANCE.—A State
7 or Indian tribe shall be considered to achieve full
8 compliance under paragraph (1) if—

9 “(A) at least 90 percent of building space
10 covered by the code in the preceding year sub-
11 stantially meets all the requirements of the ap-
12 plicable code specified in paragraph (1), or
13 achieves equivalent or greater energy savings
14 level; or

15 “(B) the estimated excess energy use of
16 buildings that did not meet the applicable code
17 specified in paragraph (1) in the preceding
18 year, compared to a baseline of comparable
19 buildings that meet this code, is not more than
20 5 percent of the estimated energy use of all
21 buildings covered by this code during the pre-
22 ceding year.

23 “(4) SIGNIFICANT PROGRESS TOWARD
24 ACHIEVEMENT OF COMPLIANCE.—A State or Indian
25 tribe shall be considered to have made significant

1 progress toward achieving compliance for purposes
2 of paragraph (1) if the State or Indian tribe—

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

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

11 “(5) VALIDATION BY SECRETARY.—Not later
12 than 90 days after a State or Indian tribe certifi-
13 cation under paragraph (1), the Secretary shall—

14 “(A) determine whether the State or In-
15 dian tribe has demonstrated meeting the cri-
16 teria of this subsection, including accurate
17 measurement of compliance; and

18 “(B) if the determination is positive, vali-
19 date the certification.

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

22 “(1) REPORTING.—A State or Indian tribe that
23 has not made a certification required under sub-
24 section (b) or (c) by the applicable deadline shall
25 submit to the Secretary a report on—

1 “(A) the status of the State or Indian tribe
2 with respect to meeting the requirements and
3 submitting the certification; and

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

6 “(2) FEDERAL SUPPORT.—For any State or In-
7 dian tribe for which the Secretary has not validated
8 a certification by a deadline under subsection (b) or
9 (c), the lack of the certification may be a consider-
10 ation for Federal support authorized under this sec-
11 tion for code adoption and compliance activities.

12 “(3) LOCAL GOVERNMENT.—In any State or
13 Indian tribe for which the Secretary has not vali-
14 dated a certification under subsection (b) or (c), a
15 local government may be eligible for Federal support
16 by meeting the certification requirements of sub-
17 sections (b) and (c).

18 “(4) ANNUAL REPORTS BY SECRETARY.—

19 “(A) IN GENERAL.—The Secretary shall
20 annually submit to Congress, and publish in the
21 Federal Register, a report on—

22 “(i) the status of model building en-
23 ergy codes;

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

1 “(iii) the implementation of this sec-
2 tion; and

3 “(iv) improvements in energy savings
4 over time as a result of the targets estab-
5 lished under section 307(b)(2).

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

10 “(i) upfront financial and construction
11 costs, cost benefits and returns (using in-
12 vestment analysis), and lifetime energy use
13 for buildings;

14 “(ii) resulting energy costs to individ-
15 uals and businesses; and

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

18 “(e) TECHNICAL ASSISTANCE TO STATES AND IN-
19 DIAN TRIBES.—The Secretary shall provide technical as-
20 sistance to States and Indian tribes to implement the goals
21 and requirements of this section, including procedures and
22 technical analysis for States and Indian tribes—

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

1 “(2) to demonstrate that the code provisions of
2 the States and Indian tribes achieve equivalent or
3 greater energy savings than the model building en-
4 ergy codes and targets;

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

7 “(4) to otherwise promote the design and con-
8 struction of energy efficient buildings.

9 “(f) AVAILABILITY OF INCENTIVE FUNDING.—

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

12 “(A) to implement the requirements of this
13 section;

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

20 “(C) to promote building energy efficiency
21 through the use of the codes.

22 “(2) ADDITIONAL FUNDING.—Additional fund-
23 ing shall be provided under this subsection for im-
24 plementation of a plan to achieve and document full

1 compliance with residential and commercial building
2 energy codes under subsection (c)—

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

6 “(B) in a State or Indian tribe that is not
7 eligible under subparagraph (A), to a local gov-
8 ernment that is eligible under this section.

9 “(3) TRAINING.—Of the amounts made avail-
10 able under this subsection, the State or Indian tribe
11 may use amounts required, but not to exceed
12 \$750,000 for a State, to train State and local build-
13 ing code officials to implement and enforce codes de-
14 scribed in paragraph (2).

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

18 “(g) STRETCH CODES AND ADVANCED STAND-
19 ARDS.—

20 “(1) IN GENERAL.—The Secretary shall provide
21 technical and financial support for the development
22 of stretch codes and advanced standards for residen-
23 tial and commercial buildings for use as—

1 “(A) an option for adoption as a building
2 energy code by State, local, or tribal govern-
3 ments; and

4 “(B) guidelines for energy-efficient build-
5 ing design.

6 “(2) TARGETS.—The stretch codes and ad-
7 vanced standards shall be designed—

8 “(A) to achieve substantial energy savings
9 compared to the model building energy codes;
10 and

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

14 “(h) STUDIES.—The Secretary, in consultation with
15 building science experts from the National Laboratories
16 and institutions of higher education, designers and build-
17 ers of energy-efficient residential and commercial build-
18 ings, code officials, and other stakeholders, shall under-
19 take a study of the feasibility, impact, economics, and
20 merit of—

21 “(1) code improvements that would require that
22 buildings be designed, sited, and constructed in a
23 manner that makes the buildings more adaptable in
24 the future to become zero-net-energy after initial

1 construction, as advances are achieved in energy-sav-
2 ing technologies;

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

6 “(3) legislative options for increasing energy
7 savings from building energy codes, including addi-
8 tional incentives for effective State and local action,
9 and verification of compliance with and enforcement
10 of a code other than by a State or local government.

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

15 “(j) AUTHORIZATION OF APPROPRIATIONS.—There
16 is authorized to be appropriated to carry out this section
17 and section 307 \$200,000,000, to remain available until
18 expended.”.

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

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

4 **“SEC. 307. SUPPORT FOR MODEL BUILDING ENERGY**
5 **CODES.**

6 “(a) IN GENERAL.—The Secretary shall support the
7 updating of model building energy codes.

8 “(b) TARGETS.—

9 “(1) IN GENERAL.—The Secretary shall sup-
10 port the updating of the model building energy codes
11 to enable the achievement of aggregate energy sav-
12 ings targets established under paragraph (2).

13 “(2) TARGETS.—

14 “(A) IN GENERAL.—The Secretary shall
15 work with States, local governments, and In-
16 dian tribes, nationally recognized code and
17 standards developers, and other interested par-
18 ties to support the updating of model building
19 energy codes by establishing one or more aggre-
20 gate energy savings targets to achieve the pur-
21 poses of this section.

22 “(B) SEPARATE TARGETS.—The Secretary
23 may establish separate targets for commercial
24 and residential buildings.

1 “(C) BASELINES.—The baseline for updat-
2 ing model building energy codes shall be the
3 2009 IECC for residential buildings and
4 ASHRAE Standard 90.1–2010 for commercial
5 buildings.

6 “(D) SPECIFIC YEARS.—

7 “(i) IN GENERAL.—Targets for spe-
8 cific years shall be established and revised
9 by the Secretary through rulemaking and
10 coordinated with nationally recognized code
11 and standards developers at a level that—

12 “(I) is at the maximum level of
13 energy efficiency that is techno-
14 logically feasible and life-cycle cost ef-
15 fective, while accounting for the eco-
16 nomic considerations under paragraph
17 (4);

18 “(II) is higher than the preceding
19 target; and

20 “(III) promotes the achievement
21 of commercial and residential high-
22 performance buildings through high-
23 performance energy efficiency (within
24 the meaning of section 401 of the En-

1 ergy Independence and Security Act
2 of 2007 (42 U.S.C. 17061)).

3 “(ii) INITIAL TARGETS.—Not later
4 than 1 year after the date of enactment of
5 this clause, the Secretary shall establish
6 initial targets under this subparagraph.

7 “(iii) DIFFERENT TARGET YEARS.—
8 Subject to clause (i), prior to the applica-
9 ble year, the Secretary may set a later tar-
10 get year for any of the model building en-
11 ergy codes described in subparagraph (A)
12 if the Secretary determines that a target
13 cannot be met.

14 “(iv) SMALL BUSINESS.—When estab-
15 lishing targets under this paragraph
16 through rulemaking, the Secretary shall
17 ensure compliance with the Small Business
18 Regulatory Enforcement Fairness Act of
19 1996 (5 U.S.C. 601 note; Public Law 104–
20 121).

21 “(3) APPLIANCE STANDARDS AND OTHER FAC-
22 TORS AFFECTING BUILDING ENERGY USE.—In es-
23 tablishing building code targets under paragraph
24 (2), the Secretary shall develop and adjust the tar-

1 gets in recognition of potential savings and costs re-
2 lating to—

3 “(A) efficiency gains made in appliances,
4 lighting, windows, insulation, and building enve-
5 lope sealing;

6 “(B) advancement of distributed genera-
7 tion and on-site renewable power generation
8 technologies;

9 “(C) equipment improvements for heating,
10 cooling, and ventilation systems;

11 “(D) building management systems and
12 SmartGrid technologies to reduce energy use;
13 and

14 “(E) other technologies, practices, and
15 building systems that the Secretary considers
16 appropriate regarding building plug load and
17 other energy uses.

18 “(4) ECONOMIC CONSIDERATIONS.—In estab-
19 lishing and revising building code targets under
20 paragraph (2), the Secretary shall consider the eco-
21 nomic feasibility of achieving the proposed targets
22 established under this section and the potential costs
23 and savings for consumers and building owners, in-
24 cluding a return on investment analysis.

1 “(c) TECHNICAL ASSISTANCE TO MODEL BUILDING
2 ENERGY CODE-SETTING AND STANDARD DEVELOPMENT
3 ORGANIZATIONS.—

4 “(1) IN GENERAL.—The Secretary shall, on a
5 timely basis, provide technical assistance to model
6 building energy code-setting and standard develop-
7 ment organizations consistent with the goals of this
8 section.

9 “(2) ASSISTANCE.—The assistance shall in-
10 clude, as requested by the organizations, technical
11 assistance in—

12 “(A) evaluating code or standards pro-
13 posals or revisions;

14 “(B) building energy analysis and design
15 tools;

16 “(C) building demonstrations;

17 “(D) developing definitions of energy use
18 intensity and building types for use in model
19 building energy codes to evaluate the efficiency
20 impacts of the model building energy codes;

21 “(E) performance-based standards;

22 “(F) evaluating economic considerations
23 under subsection (b)(4); and

1 “(G) developing model building energy
2 codes by Indian tribes in accordance with tribal
3 law.

4 “(3) AMENDMENT PROPOSALS.—The Secretary
5 may submit timely model building energy code
6 amendment proposals to the model building energy
7 code-setting and standard development organiza-
8 tions, with supporting evidence, sufficient to enable
9 the model building energy codes to meet the targets
10 established under subsection (b)(2).

11 “(4) ANALYSIS METHODOLOGY.—The Secretary
12 shall make publicly available the entire calculation
13 methodology (including input assumptions and data)
14 used by the Secretary to estimate the energy savings
15 of code or standard proposals and revisions.

16 “(d) DETERMINATION.—

17 “(1) REVISION OF MODEL BUILDING ENERGY
18 CODES.—If the provisions of the IECC or ASHRAE
19 Standard 90.1 regarding building energy use are re-
20 vised, the Secretary shall make a preliminary deter-
21 mination not later than 90 days after the date of the
22 revision, and a final determination not later than 15
23 months after the date of the revision, on whether or
24 not the revision will—

1 “(A) improve energy efficiency in buildings
2 compared to the existing model building energy
3 code; and

4 “(B) meet the applicable targets under
5 subsection (b)(2).

6 “(2) CODES OR STANDARDS NOT MEETING TAR-
7 GETS.—

8 “(A) IN GENERAL.—If the Secretary
9 makes a preliminary determination under para-
10 graph (1)(B) that a code or standard does not
11 meet the targets established under subsection
12 (b)(2), the Secretary may at the same time pro-
13 vide the model building energy code or standard
14 developer with proposed changes that would re-
15 sult in a model building energy code that meets
16 the targets and with supporting evidence, tak-
17 ing into consideration—

18 “(i) whether the modified code is tech-
19 nically feasible and life-cycle cost effective;

20 “(ii) available appliances, technologies,
21 materials, and construction practices; and

22 “(iii) the economic considerations
23 under subsection (b)(4).

24 “(B) INCORPORATION OF CHANGES.—

1 “(i) IN GENERAL.—On receipt of the
2 proposed changes, the model building en-
3 ergy code or standard developer shall have
4 an additional 270 days to accept or reject
5 the proposed changes of the Secretary to
6 the model building energy code or standard
7 for the Secretary to make a final deter-
8 mination.

9 “(ii) FINAL DETERMINATION.—A
10 final determination under paragraph (1)
11 shall be on the modified model building en-
12 ergy code or standard.

13 “(e) ADMINISTRATION.—In carrying out this section,
14 the Secretary shall—

15 “(1) publish notice of targets and supporting
16 analysis and determinations under this section in the
17 Federal Register to provide an explanation of and
18 the basis for such actions, including any supporting
19 modeling, data, assumptions, protocols, and cost-
20 benefit analysis, including return on investment; and

21 “(2) provide an opportunity for public comment
22 on targets and supporting analysis and determina-
23 tions under this section.

24 “(f) VOLUNTARY CODES AND STANDARDS.—Not-
25 withstanding any other provision of this section, any

1 model building code or standard established under section
2 304 shall not be binding on a State, local government, or
3 Indian tribe as a matter of Federal law.”.

4 **SEC. 1002. BUDGET-NEUTRAL DEMONSTRATION PROGRAM**
5 **FOR ENERGY AND WATER CONSERVATION IM-**
6 **PROVEMENTS AT MULTIFAMILY RESIDEN-**
7 **TIAL UNITS.**

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

20 (1) the project-based rental assistance program
21 under section 8 of the United States Housing Act of
22 1937 (42 U.S.C. 1437f), other than assistance pro-
23 vided under section 8(o) of that Act;

1 (2) the supportive housing for the elderly pro-
2 gram under section 202 of the Housing Act of 1959
3 (12 U.S.C. 1701q); or

4 (3) the supportive housing for persons with dis-
5 abilities program under section 811(d)(2) of the
6 Cranston-Gonzalez National Affordable Housing Act
7 (42 U.S.C. 8013(d)(2)).

8 (b) REQUIREMENTS.—

9 (1) PAYMENTS CONTINGENT ON SAVINGS.—

10 (A) IN GENERAL.—The Secretary shall
11 provide to an entity a payment under an agree-
12 ment under this section only during applicable
13 years for which an energy or water cost savings
14 is achieved with respect to the applicable multi-
15 family portfolio of properties, as determined by
16 the Secretary, in accordance with subparagraph
17 (B).

18 (B) PAYMENT METHODOLOGY.—

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

22 (I) that will serve as a payment
23 threshold for the term of the agree-
24 ment; and

1 (II) pursuant to which the De-
2 partment of Housing and Urban De-
3 velopment shall share a percentage of
4 the savings at a level determined by
5 the Secretary that is sufficient to
6 cover the administrative costs of car-
7 rying out this section.

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

11 (I) be contingent on documented
12 utility savings; and

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

18 (C) THIRD PARTY VERIFICATION.—Savings
19 payments made by the Secretary under this sec-
20 tion shall be based on a measurement and
21 verification protocol that includes at least—

22 (i) establishment of a weather-normal-
23 ized and occupancy-normalized utility con-
24 sumption baseline established preretrofit;

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

4 (iii) annual third party validation of
5 the tenant utility allowances in effect dur-
6 ing the applicable year and vacancy rates
7 for each unit type; and

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

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

12 (3) ENTITY ELIGIBILITY.—The Secretary
13 shall—

14 (A) establish a competitive process for en-
15 tering into agreements under this section; and

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

19 (i) financing and operating properties
20 receiving assistance under a program de-
21 scribed in subsection (a);

22 (ii) oversight of energy and water con-
23 servation programs, including oversight of
24 contractors; and

1 (iii) raising capital for energy and
2 water conservation improvements from
3 charitable organizations or private inves-
4 tors.

5 (4) GEOGRAPHICAL DIVERSITY.—Each agree-
6 ment entered into under this section shall provide
7 for the inclusion of properties with the greatest fea-
8 sible regional and State variance.

9 (c) PLAN AND REPORTS.—

10 (1) PLAN.—Not later than 90 days after the
11 date of enactment of this Act, the Secretary shall
12 submit to the Committees on Appropriations of the
13 House of Representatives and the Senate, the Com-
14 mittee on Energy and Natural Resources of the Sen-
15 ate, and the Committee on Energy and Commerce of
16 the House of Representatives a detailed plan for the
17 implementation of this section.

18 (2) REPORTS.—Not later than 1 year after the
19 date of enactment of this Act, and annually there-
20 after, the Secretary shall—

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

23 (B) submit to Congress a report describing
24 each evaluation conducted under subparagraph

25 (A).

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

6 **SEC. 1003. COORDINATION OF ENERGY RETROFITTING AS-**
7 **SISTANCE FOR SCHOOLS.**

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

10 (1) an elementary school or secondary school
11 (as defined in section 9101 of the Elementary and
12 Secondary Education Act of 1965 (20 U.S.C.
13 7801));

14 (2) an institution of higher education (as de-
15 fined in section 102(a) of the Higher Education Act
16 of 1965 (20 U.S.C. 1002(a));

17 (3) a school of the defense dependents’ edu-
18 cation system under the Defense Dependents’ Edu-
19 cation Act of 1978 (20 U.S.C. 921 et seq.) or estab-
20 lished under section 2164 of title 10, United States
21 Code;

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

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

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

7 (b) DESIGNATION OF LEAD AGENCY.—The Sec-
8 retary, acting through the Office of Energy Efficiency and
9 Renewable Energy, shall act as the lead Federal agency
10 for coordinating and disseminating information on exist-
11 ing Federal programs and assistance that may be used
12 to help initiate, develop, and finance energy efficiency, re-
13 newable energy, and energy retrofitting projects for
14 schools.

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

17 (1) in consultation and coordination with the
18 appropriate Federal agencies, carry out a review of
19 existing programs and financing mechanisms (in-
20 cluding revolving loan funds and loan guarantees)
21 available in or from the Department of Agriculture,
22 the Department of Energy, the Department of Edu-
23 cation, the Department of the Treasury, the Internal
24 Revenue Service, the Environmental Protection
25 Agency, and other appropriate Federal agencies with

1 jurisdiction over energy financing and facilitation
2 that are currently used or may be used to help ini-
3 tiate, develop, and finance energy efficiency, renew-
4 able energy, and energy retrofitting projects for
5 schools;

6 (2) establish a Federal cross-departmental col-
7 laborative coordination, education, and outreach ef-
8 fort to streamline communication and promote avail-
9 able Federal opportunities and assistance described
10 in paragraph (1) for energy efficiency, renewable en-
11 ergy, and energy retrofitting projects that enables
12 States, local educational agencies, and schools—

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

15 (B) to form partnerships with Governors,
16 State energy programs, local educational, finan-
17 cial, and energy officials, State and local gov-
18 ernment officials, nonprofit organizations, and
19 other appropriate entities to support the initi-
20 ation of the projects;

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

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

3 (B) to install systems that individually
4 generate energy from renewable energy re-
5 sources;

6 (C) to establish partnerships to leverage
7 economies of scale and additional financing
8 mechanisms available to larger clean energy ini-
9 tiatives; or

10 (D) to promote—

11 (i) the maintenance of health, environ-
12 mental quality, and safety in schools, in-
13 cluding the ambient air quality, through
14 energy efficiency, renewable energy, and
15 energy retrofit projects; and

16 (ii) the achievement of expected en-
17 ergy savings and renewable energy produc-
18 tion through proper operations and main-
19 tenance practices;

20 (4) develop and maintain a single online re-
21 source website with contact information for relevant
22 technical assistance and support staff in the Office
23 of Energy Efficiency and Renewable Energy for
24 States, local educational agencies, and schools to ef-
25 fectively access and use Federal opportunities and

1 assistance described in paragraph (1) to develop en-
2 ergy efficiency, renewable energy, and energy retro-
3 fitting projects; and

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

6 (A) have successfully implemented energy
7 efficiency, renewable energy, and energy retro-
8 fitting projects; and

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

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

16 **SEC. 1004. ENERGY EFFICIENCY RETROFIT PILOT PRO-**
17 **GRAM.**

18 (a) DEFINITIONS.—In this section:

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

22 (2) ENERGY-EFFICIENCY IMPROVEMENT.—

23 (A) IN GENERAL.—The term “energy-effi-
24 ciency improvement” means an installed meas-
25 ure (including a product, equipment, system,

1 service, or practice) that results in a reduction
2 in use by a nonprofit organization for energy or
3 fuel supplied from outside the nonprofit build-
4 ing.

5 (B) INCLUSIONS.—The term “energy-effi-
6 ciency improvement” includes an installed
7 measure described in subparagraph (A) involv-
8 ing—

9 (i) repairing, replacing, or installing—

10 (I) a roof or lighting system, or
11 component of a roof or lighting sys-
12 tem;

13 (II) a window;

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

16 (IV) a heating, ventilation, or air
17 conditioning system or component of
18 the system (including insulation and
19 wiring and plumbing improvements
20 needed to serve a more efficient sys-
21 tem);

22 (ii) a renewable energy generation or
23 heating system, including a solar, photo-
24 voltaic, wind, geothermal, or biomass (in-

1 cluding wood pellet) system or component
2 of the system; and

3 (iii) any other measure taken to mod-
4 ernize, renovate, or repair a nonprofit
5 building to make the nonprofit building
6 more energy efficient.

7 (3) NONPROFIT BUILDING.—

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

11 (B) INCLUSIONS.—The term “nonprofit
12 building” includes a building described in sub-
13 paragraph (A) that is—

- 14 (i) a hospital;
15 (ii) a youth center;
16 (iii) a school;
17 (iv) a social-welfare program facility;
18 (v) a faith-based organization; and
19 (vi) any other nonresidential and non-
20 commercial structure.

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

1 (c) GRANTS.—

2 (1) IN GENERAL.—The Secretary may award
3 grants under the program established under sub-
4 section (b).

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

10 (3) CRITERIA FOR GRANT.—In determining
11 whether to award a grant under this section, the
12 Secretary shall apply performance-based criteria,
13 which shall give priority to applications based on—

14 (A) the energy savings achieved;

15 (B) the cost-effectiveness of the energy-ef-
16 ficiency improvement;

17 (C) an effective plan for evaluation, meas-
18 urement, and verification of energy savings;

19 (D) the financial need of the applicant;
20 and

21 (E) the percentage of the matching con-
22 tribution by the applicant.

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

1 (A) an amount equal to 50 percent of the
2 energy-efficiency improvement; and

3 (B) \$200,000.

4 (5) COST SHARING.—

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

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

11 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
12 authorized to be appropriated to carry out this section
13 \$10,000,000 for each of fiscal years 2016 through 2020,
14 to remain available until expended.

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

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

19 “(f) UTILITY ENERGY SERVICE CONTRACTS.—

20 “(1) IN GENERAL.—Each Federal agency may
21 use, to the maximum extent practicable, measures
22 provided by law to meet energy efficiency and con-
23 servation mandates and laws, including through util-
24 ity energy service contracts.

1 “(2) CONTRACT PERIOD.—The term of a utility
2 energy service contract entered into by a Federal
3 agency may have a contract period that extends be-
4 yond 10 years, but not to exceed 25 years.

5 “(3) REQUIREMENTS.—The conditions of a util-
6 ity energy service contract entered into by a Federal
7 agency shall include requirements for measurement,
8 verification, and performance assurances or guaran-
9 tees of the savings.”.

10 **SEC. 1006. USE OF ENERGY AND WATER EFFICIENCY MEAS-**
11 **URES IN FEDERAL BUILDINGS.**

12 (a) ENERGY MANAGEMENT REQUIREMENTS.—Sec-
13 tion 543(f)(4) of the National Energy Conservation Policy
14 Act (42 U.S.C. 8253(f)(4)) is amended—

15 (1) by redesignating subparagraphs (A) and
16 (B) as clauses (i) and (ii), respectively, and indent-
17 ing appropriately;

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

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

21 (3) by adding at the end the following:

22 “(B) MEASURES NOT IMPLEMENTED.—
23 Each energy manager, as part of the certifi-
24 cation system under paragraph (7) and using
25 guidelines developed by the Secretary, shall pro-

1 vide an explanation regarding any life-cycle
2 cost-effective measures described in subpara-
3 graph (A)(i) that have not been implemented.”.

4 (b) REPORTS.—Section 548(b) of the National En-
5 ergy Conservation Policy Act (42 U.S.C. 8258(b)) is
6 amended—

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

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

11 (3) by adding at the end the following:

12 “(5)(A) the status of the energy savings per-
13 formance contracts and utility energy service con-
14 tracts of each agency;

15 “(B) the investment value of the contracts;

16 “(C) the guaranteed energy savings for the pre-
17 vious year as compared to the actual energy savings
18 for the previous year;

19 “(D) the plan for entering into the contracts in
20 the coming year; and

21 “(E) information explaining why any previously
22 submitted plans for the contracts were not imple-
23 mented.”.

24 (c) DEFINITION OF ENERGY CONSERVATION MEAS-
25 URES.—Section 551(4) of the National Energy Conserva-

1 tion Policy Act (42 U.S.C. 8259(4)) is amended by strik-
2 ing “or retrofit activities” and inserting “retrofit activi-
3 ties, or energy consuming devices and required support
4 structures”.

5 (d) AUTHORITY TO ENTER INTO CONTRACTS.—Sec-
6 tion 801(a)(2)(F) of the National Energy Conservation
7 Policy Act (42 U.S.C. 8287(a)(2)(F)) is amended—

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

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

11 (3) by adding at the end the following:

12 “(iii) limit the recognition of oper-
13 ation and maintenance savings associated
14 with systems modernized or replaced with
15 the implementation of energy conservation
16 measures, water conservation measures, or
17 any combination of energy conservation
18 measures and water conservation meas-
19 ures.”.

20 (e) MISCELLANEOUS AUTHORITY.—Section
21 801(a)(2) of the National Energy Conservation Policy Act
22 (42 U.S.C. 8287(a)(2)) is amended by adding at the end
23 the following:

24 “(H) MISCELLANEOUS AUTHORITY.—Not-
25 withstanding any other provision of law, a Fed-

1 eral agency may sell or transfer energy savings
2 and apply the proceeds of the sale or transfer
3 to fund a contract under this title.”.

4 (f) PAYMENT OF COSTS.—Section 802 of the Na-
5 tional Energy Conservation Policy Act (42 U.S.C. 8287a)
6 is amended by striking “(and related operation and main-
7 tenance expenses)” and inserting “, including related op-
8 erations and maintenance expenses”.

9 (g) DEFINITION OF FEDERAL BUILDING.—Section
10 551(6) of the National Energy Conservation Policy Act
11 (42 U.S.C. 8259(6)) is amended by striking the semicolon
12 at the end and inserting “the term does not include a dam,
13 reservoir, or hydropower facility owned or operated by a
14 Federal agency;”.

15 (h) DEFINITION OF ENERGY SAVINGS.—Section
16 804(2) of the National Energy Conservation Policy Act
17 (42 U.S.C. 8287c(2)) is amended—

18 (1) in subparagraph (A), by striking “federally
19 owned building or buildings or other federally owned
20 facilities” and inserting “Federal building (as de-
21 fined in section 551)” each place it appears;

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

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

1 (4) by adding at the end the following:

2 “(E) the use, sale, or transfer of energy in-
3 centives, rebates, or credits (including renew-
4 able energy credits) from Federal, State, or
5 local governments or utilities; and

6 “(F) any revenue generated from a reduc-
7 tion in energy or water use, more efficient
8 waste recycling, or additional energy generated
9 from more efficient equipment.”.

10 **SEC. 1007. BUILDING TRAINING AND ASSESSMENT CEN-**
11 **TERS.**

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

18 (1) to identify opportunities for optimizing en-
19 ergy efficiency and environmental performance in
20 buildings;

21 (2) to promote the application of emerging con-
22 cepts and technologies in commercial and institu-
23 tional buildings;

24 (3) to train engineers, architects, building sci-
25 entists, building energy permitting and enforcement

1 officials, and building technicians in energy-efficient
2 design and operation;

3 (4) to assist institutions of higher education
4 and Tribal Colleges or Universities in training build-
5 ing technicians;

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

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

16 (b) COORDINATION AND NONDUPLICATION.—

17 (1) IN GENERAL.—The Secretary shall coordi-
18 nate the program with the industrial research and
19 assessment centers program and with other Federal
20 programs to avoid duplication of effort.

21 (2) COLLOCATION.—To the maximum extent
22 practicable, building, training, and assessment cen-
23 ters established under this section shall be collocated
24 with Industrial Assessment Centers.

1 (c) AUTHORIZATION OF APPROPRIATIONS.—There is
2 authorized to be appropriated to carry out this section
3 \$10,000,000, to remain available until expended.

4 **SEC. 1008. CAREER SKILLS TRAINING.**

5 (a) IN GENERAL.—The Secretary shall pay grants to
6 eligible entities described in subsection (b) to pay the Fed-
7 eral share of associated career skills training programs
8 under which students concurrently receive classroom in-
9 struction and on-the-job training for the purpose of ob-
10 taining an industry-related certification to install energy
11 efficient buildings technologies, including technologies de-
12 scribed in section 307(b)(3) of the Energy Conservation
13 and Production Act (42 U.S.C. 6836(b)(3)).

14 (b) ELIGIBILITY.—To be eligible to obtain a grant
15 under subsection (a), an entity shall be a nonprofit part-
16 nership described in section 171(e)(2)(B)(ii) of the Work-
17 force Investment Act of 1998 (29 U.S.C.
18 2916(e)(2)(B)(ii)).

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

22 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
23 authorized to be appropriated to carry out this section
24 \$10,000,000, to remain available until expended.

1 **SEC. 1009. ENERGY-EFFICIENT AND ENERGY-SAVING IN-**
2 **FORMATION TECHNOLOGIES.**

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

6 “(h) FEDERAL IMPLEMENTATION STRATEGY FOR
7 ENERGY-EFFICIENT AND ENERGY-SAVING INFORMATION
8 TECHNOLOGIES.—

9 “(1) DEFINITIONS.—In this subsection:

10 “(A) DIRECTOR.—The term ‘Director’
11 means the Director of the Office of Manage-
12 ment and Budget.

13 “(B) INFORMATION TECHNOLOGY.—The
14 term ‘information technology’ has the meaning
15 given the term in section 11101 of title 40,
16 United States Code.

17 “(2) DEVELOPMENT OF IMPLEMENTATION
18 STRATEGY.—Not later than 1 year after the date of
19 enactment of this subsection, each Federal agency
20 shall collaborate with the Director to develop an im-
21 plementation strategy (including best-practices and
22 measurement and verification techniques) for the
23 maintenance, purchase, and use by the Federal
24 agency of energy-efficient and energy-saving infor-
25 mation technologies.

1 “(3) ADMINISTRATION.—In developing an im-
2 plementation strategy, each Federal agency shall
3 consider—

4 “(A) advanced metering infrastructure;

5 “(B) energy efficient data center strategies
6 and methods of increasing asset and infrastruc-
7 ture utilization;

8 “(C) advanced power management tools;

9 “(D) building information modeling, in-
10 cluding building energy management; and

11 “(E) secure telework and travel substi-
12 tution tools.

13 “(4) PERFORMANCE GOALS.—

14 “(A) IN GENERAL.—Not later than Sep-
15 tember 30, 2015, the Director, in consultation
16 with the Secretary, shall establish performance
17 goals for evaluating the efforts of Federal agen-
18 cies in improving the maintenance, purchase,
19 and use of energy-efficient and energy-saving
20 information technology systems.

21 “(B) BEST PRACTICES.—The Chief Infor-
22 mation Officers Council established under sec-
23 tion 3603 of title 44, United States Code, shall
24 supplement the performance goals established
25 under this paragraph with recommendations on

1 best practices for the attainment of the per-
2 formance goals, to include a requirement for
3 agencies to consider the use of—

4 “(i) energy savings performance con-
5 tracting; and

6 “(ii) utility energy services con-
7 tracting.

8 “(5) REPORTS.—

9 “(A) AGENCY REPORTS.—Each Federal
10 agency subject to the requirements of this sub-
11 section shall include in the report of the agency
12 under section 527 of the Energy Independence
13 and Security Act of 2007 (42 U.S.C. 17143) a
14 description of the efforts and results of the
15 agency under this subsection.

16 “(B) OMB GOVERNMENT EFFICIENCY RE-
17 PORTS AND SCORECARDS.—Effective beginning
18 not later than October 1, 2015, the Director
19 shall include in the annual report and scorecard
20 of the Director required under section 528 of
21 the Energy Independence and Security Act of
22 2007 (42 U.S.C. 17144) a description of the ef-
23 forts and results of Federal agencies under this
24 subsection.

1 “(C) USE OF EXISTING REPORTING STRUC-
2 TURES.—The Director may require Federal
3 agencies to submit any information required to
4 be submitted under this subsection though re-
5 porting structures in use as of the date of en-
6 actment of the Energy Policy Modernization
7 Act of 2015.”.

8 **SEC. 1010. AVAILABILITY OF FUNDS FOR DESIGN UPDATES.**

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

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

13 (2) by inserting after subsection (c) the fol-
14 lowing:

15 “(d) AVAILABILITY OF FUNDS FOR DESIGN UP-
16 DATES.—

17 “(1) IN GENERAL.—Subject to paragraph (2),
18 for any project for which congressional approval is
19 received under subsection (a) and for which the de-
20 sign has been substantially completed but construc-
21 tion has not begun, the Administrator of General
22 Services may use appropriated funds to update the
23 project design to meet applicable Federal building
24 energy efficiency standards established under section
25 305 of the Energy Conservation and Production Act

1 (42 U.S.C. 6834) and other requirements estab-
2 lished under section 3312.

3 “(2) LIMITATION.—The use of funds under
4 paragraph (1) shall not exceed 125 percent of the
5 estimated energy or other cost savings associated
6 with the updates as determined by a life cycle cost
7 analysis under section 544 of the National Energy
8 Conservation Policy Act (42 U.S.C. 8254).”.

9 **SEC. 1011. ENERGY EFFICIENT DATA CENTERS.**

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

12 (1) in subsection (b)—

13 (A) in paragraph (2)(D)(iv), by striking
14 “the organization” and inserting “an organiza-
15 tion”; and

16 (B) by striking paragraph (3); and

17 (2) by striking subsections (e) through (g) and
18 inserting the following:

19 “(c) STAKEHOLDER INVOLVEMENT.—

20 “(1) IN GENERAL.—The Secretary and the Ad-
21 ministrator shall carry out subsection (b) in con-
22 sultation with the information technology industry
23 and other key stakeholders, with the goal of pro-
24 ducing results that accurately reflect the best knowl-
25 edge in the most pertinent domains.

1 “(2) CONSIDERATIONS.—In carrying out con-
2 sultation described in paragraph (1), the Secretary
3 and the Administrator shall pay particular attention
4 to organizations that—

5 “(A) have members with expertise in en-
6 ergy efficiency and in the development, oper-
7 ation, and functionality of data centers, infor-
8 mation technology equipment, and software, in-
9 cluding representatives of hardware manufac-
10 turers, data center operators, and facility man-
11 agers;

12 “(B) obtain and address input from the
13 National Laboratories (as that term is defined
14 in section 2 of the Energy Policy Act of 2005
15 (42 U.S.C. 15801)) or any institution of higher
16 education, research institution, industry asso-
17 ciation, company, or public interest group with
18 applicable expertise;

19 “(C) follow—

20 “(i) commonly accepted procedures
21 for the development of specifications; and

22 “(ii) accredited standards development
23 processes; or

1 “(D) have a mission to promote energy ef-
2 ficiency for data centers and information tech-
3 nology.

4 “(d) MEASUREMENTS AND SPECIFICATIONS.—The
5 Secretary and the Administrator shall consider and assess
6 the adequacy of the specifications, measurements, and
7 benchmarks described in subsection (b) for use by the
8 Federal Energy Management Program, the Energy Star
9 Program, and other efficiency programs of the Depart-
10 ment of Energy or the Environmental Protection Agency.

11 “(e) STUDY.—The Secretary, in consultation with the
12 Administrator, not later than 18 months after the date
13 of enactment of the Energy Policy Modernization Act of
14 2015, shall make available to the public an update to the
15 report submitted to Congress pursuant to section 1 of the
16 Act of December 20, 2006 (Public Law 109–431; 120
17 Stat. 2920), entitled ‘Report to Congress on Server and
18 Data Center Energy Efficiency’ and dated August 2,
19 2007, that provides—

20 “(1) a comparison and gap analysis of the esti-
21 mates and projections contained in the original re-
22 port with new data regarding the period from 2007
23 through 2014;

1 “(2) an analysis considering the impact of in-
2 formation technologies, including virtualization and
3 cloud computing, in the public and private sectors;

4 “(3) an evaluation of the impact of the com-
5 bination of cloud platforms, mobile devices, social
6 media, and big data on data center energy usage;

7 “(4) an evaluation of water usage in data cen-
8 ters and recommendations for reductions in such
9 water usage; and

10 “(5) updated projections and recommendations
11 for best practices through fiscal year 2020.

12 “(f) DATA CENTER ENERGY PRACTITIONER PRO-
13 GRAM.—

14 “(1) IN GENERAL.—The Secretary, in consulta-
15 tion with key stakeholders and the Director of the
16 Office of Management and Budget, shall maintain a
17 data center energy practitioner program that pro-
18 vides for the certification of energy practitioners
19 qualified to evaluate the energy usage and efficiency
20 opportunities in Federal data centers.

21 “(2) EVALUATIONS.—Each Federal agency
22 shall consider having the data centers of the agency
23 evaluated once every 4 years by energy practitioners
24 certified pursuant to the program, whenever prac-

1 ticable using certified practitioners employed by the
2 agency.

3 “(g) OPEN DATA INITIATIVE.—

4 “(1) IN GENERAL.—The Secretary, in consulta-
5 tion with key stakeholders and the Director of the
6 Office of Management and Budget, shall establish
7 an open data initiative for Federal data center en-
8 ergy usage data, with the purpose of making the
9 data available and accessible in a manner that en-
10 courages further data center innovation, optimiza-
11 tion, and consolidation.

12 “(2) CONSIDERATION.—In establishing the ini-
13 tiative under paragraph (1), the Secretary shall con-
14 sider using the online Data Center Maturity Model.

15 “(h) INTERNATIONAL SPECIFICATIONS AND
16 METRICS.—The Secretary, in consultation with key stake-
17 holders, shall actively participate in efforts to harmonize
18 global specifications and metrics for data center energy
19 and water efficiency.

20 “(i) DATA CENTER UTILIZATION METRIC.—The Sec-
21 retary, in collaboration with key stakeholders, shall facili-
22 tate in the development of an efficiency metric that meas-
23 ures the energy efficiency of a data center (including
24 equipment and facilities).

1 “(j) PROTECTION OF PROPRIETARY INFORMATION.—
2 The Secretary and the Administrator shall not disclose
3 any proprietary information or trade secrets provided by
4 any individual or company for the purposes of carrying
5 out this section or the programs and initiatives established
6 under this section.”.

7 **SEC. 1012. WEATHERIZATION ASSISTANCE PROGRAM.**

8 (a) REAUTHORIZATION OF WEATHERIZATION AS-
9 SISTANCE PROGRAM.—Section 422 of the Energy Con-
10 servation and Production Act (42 U.S.C. 6872) is amend-
11 ed by striking “appropriated—” and all that follows
12 through the period at the end and inserting “appropriated
13 \$350,000,000 for each of fiscal years 2016 through
14 2020.”.

15 (b) GRANTS FOR NEW, SELF-SUSTAINING LOW-IN-
16 COME, SINGLE-FAMILY AND MULTIFAMILY HOUSING EN-
17 ERGY RETROFIT MODEL PROGRAMS TO ELIGIBLE
18 MULTISTATE HOUSING AND ENERGY NONPROFIT ORGA-
19 NIZATIONS.—The Energy Conservation and Production
20 Act is amended by inserting after section 414B (42 U.S.C.
21 6864b) the following:

1 **“SEC. 414C. GRANTS FOR NEW, SELF-SUSTAINING LOW-IN-**
2 **COME, SINGLE-FAMILY AND MULTIFAMILY**
3 **HOUSING ENERGY RETROFIT MODEL PRO-**
4 **GRAMS TO ELIGIBLE MULTISTATE HOUSING**
5 **AND ENERGY NONPROFIT ORGANIZATIONS.**

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

7 “(1) to expand the number of low-income, sin-
8 gle-family and multifamily homes that receive energy
9 efficiency retrofits;

10 “(2) to promote innovation and new models of
11 retrofitting low-income homes through new Federal
12 partnerships with covered organizations that lever-
13 age substantial donations, donated materials, volun-
14 teer labor, homeowner labor equity, and other pri-
15 vate sector resources;

16 “(3) to assist the covered organizations in dem-
17 onstrating, evaluating, improving, and replicating
18 widely the model low-income energy retrofit pro-
19 grams of the covered organizations; and

20 “(4) to ensure that the covered organizations
21 make the energy retrofit programs of the covered or-
22 ganizations self-sustaining by the time grant funds
23 have been expended.

24 “(b) DEFINITIONS.—In this section:

25 “(1) COVERED ORGANIZATION.—The term ‘cov-
26 ered organization’ means an organization that—

1 “(A) is described in section 501(c)(3) of
2 the Internal Revenue Code of 1986 and exempt
3 from taxation under 501(a) of that Code; and

4 “(B) has an established record of con-
5 structing, renovating, repairing, or making en-
6 ergy efficient a total of not less than 250
7 owner-occupied, single-family or multifamily
8 homes per year for low-income households, ei-
9 ther directly or through affiliates, chapters, or
10 other direct partners (using the most recent
11 year for which data are available).

12 “(2) LOW-INCOME.—The term ‘low-income’
13 means an income level that is not more than 200
14 percent of the poverty level (as determined in ac-
15 cordance with criteria established by the Director of
16 the Office of Management and Budget) applicable to
17 a family of the size involved, except that the Sec-
18 retary may establish a higher or lower level if the
19 Secretary determines that a higher or lower level is
20 necessary to carry out this section.

21 “(3) WEATHERIZATION ASSISTANCE PROGRAM
22 FOR LOW-INCOME PERSONS.—The term ‘Weatheriza-
23 tion Assistance Program for Low-Income Persons’
24 means the program established under this part (in-

1 including part 440 of title 10, Code of Federal Regu-
2 lations, or successor regulations).

3 “(c) COMPETITIVE GRANT PROGRAM.—The Sec-
4 retary shall make grants to covered organizations through
5 a national competitive process for use in accordance with
6 this section.

7 “(d) AWARD FACTORS.—In making grants under this
8 section, the Secretary shall consider—

9 “(1) the number of low-income homes the appli-
10 cant—

11 “(A) has built, renovated, repaired, or
12 made more energy efficient as of the date of the
13 application; and

14 “(B) can reasonably be projected to build,
15 renovate, repair, or make energy efficient dur-
16 ing the 10-year period beginning on the date of
17 the application;

18 “(2) the qualifications, experience, and past
19 performance of the applicant, including experience
20 successfully managing and administering Federal
21 funds;

22 “(3) the number and diversity of States and cli-
23 mates in which the applicant works as of the date
24 of the application;

1 “(4) the amount of non-Federal funds, donated
2 or discounted materials, discounted or volunteer
3 skilled labor, volunteer unskilled labor, homeowner
4 labor equity, and other resources the applicant will
5 provide;

6 “(5) the extent to which the applicant could
7 successfully replicate the energy retrofit program of
8 the applicant and sustain the program after the
9 grant funds have been expended;

10 “(6) regional diversity;

11 “(7) urban, suburban, and rural localities; and

12 “(8) such other factors as the Secretary deter-
13 mines to be appropriate.

14 “(e) APPLICATIONS.—

15 “(1) IN GENERAL.—Not later than 180 days
16 after the date of enactment of this section, the Sec-
17 retary shall request proposals from covered organiza-
18 tions.

19 “(2) ADMINISTRATION.—To be eligible to re-
20 ceive a grant under this section, an applicant shall
21 submit to the Secretary an application at such time,
22 in such manner, and containing such information as
23 the Secretary may require.

1 “(3) AWARDS.—Not later than 90 days after
2 the date of issuance of a request for proposals, the
3 Secretary shall award grants under this section.

4 “(f) ELIGIBLE USES OF GRANT FUNDS.—A grant
5 under this section may be used for—

6 “(1) energy efficiency audits, cost-effective ret-
7 rofit, and related activities in different climatic re-
8 gions of the United States;

9 “(2) energy efficiency materials and supplies;

10 “(3) organizational capacity—

11 “(A) to significantly increase the number
12 of energy retrofits;

13 “(B) to replicate an energy retrofit pro-
14 gram in other States; and

15 “(C) to ensure that the program is self-
16 sustaining after the Federal grant funds are ex-
17 pended;

18 “(4) energy efficiency, audit and retrofit train-
19 ing, and ongoing technical assistance;

20 “(5) information to homeowners on proper
21 maintenance and energy savings behaviors;

22 “(6) quality control and improvement;

23 “(7) data collection, measurement, and
24 verification;

1 “(8) program monitoring, oversight, evaluation,
2 and reporting;

3 “(9) management and administration (up to a
4 maximum of 10 percent of the total grant);

5 “(10) labor and training activities; and

6 “(11) such other activities as the Secretary de-
7 termines to be appropriate.

8 “(g) MAXIMUM AMOUNT.—

9 “(1) IN GENERAL.—The amount of a grant
10 provided under this section shall not exceed—

11 “(A) if the amount made available to carry
12 out this section for a fiscal year is
13 \$225,000,000 or more, \$5,000,000; and

14 “(B) if the amount made available to carry
15 out this section for a fiscal year is less than
16 \$225,000,000, \$1,500,000.

17 “(2) TECHNICAL AND TRAINING ASSISTANCE.—

18 The total amount of a grant provided under this sec-
19 tion shall be reduced by the cost of any technical
20 and training assistance provided by the Secretary
21 that relates to the grant.

22 “(h) GUIDELINES.—

23 “(1) IN GENERAL.—Not later than 90 days
24 after the date of enactment of this section, the Sec-

1 retary shall issue guidelines to implement the grant
2 program established under this section.

3 “(2) ADMINISTRATION.—The guidelines—

4 “(A) shall not apply to the Weatherization
5 Assistance Program for Low-Income Persons,
6 in whole or major part; but

7 “(B) may rely on applicable provisions of
8 law governing the Weatherization Assistance
9 Program for Low-Income Persons to estab-
10 lish—

11 “(i) standards for allowable expendi-
12 tures;

13 “(ii) a minimum savings-to-investment
14 ratio;

15 “(iii) standards—

16 “(I) to carry out training pro-
17 grams;

18 “(II) to conduct energy audits
19 and program activities;

20 “(III) to provide technical assist-
21 ance;

22 “(IV) to monitor program activi-
23 ties; and

24 “(V) to verify energy and cost
25 savings;

1 “(iv) liability insurance requirements;

2 and

3 “(v) recordkeeping requirements,

4 which shall include reporting to the Office

5 of Weatherization and Intergovernmental

6 Programs of the Department of Energy

7 applicable data on each home retrofitted.

8 “(i) REVIEW AND EVALUATION.—The Secretary shall

9 review and evaluate the performance of any covered orga-

10 nization that receives a grant under this section (which

11 may include an audit), as determined by the Secretary.

12 “(j) COMPLIANCE WITH STATE AND LOCAL LAW.—

13 Nothing in this section or any program carried out using

14 a grant provided under this section supersedes or other-

15 wise affects any State or local law, to the extent that the

16 State or local law contains a requirement that is more

17 stringent than the applicable requirement of this section.

18 “(k) ANNUAL REPORTS.—The Secretary shall submit

19 to Congress annual reports that provide—

20 “(1) findings;

21 “(2) a description of energy and cost savings

22 achieved and actions taken under this section; and

23 “(3) any recommendations for further action.

24 “(l) FUNDING.—Of the amount of funds that are

25 made available to carry out the Weatherization Assistance

1 Program for each of fiscal years 2016 through 2020 under
2 section 422, the Secretary shall use to carry out this sec-
3 tion for each of fiscal years 2016 through 2020 not less
4 than—

5 “(1) 2 percent of the amount if the amount is
6 less than \$225,000,000;

7 “(2) 5 percent of the amount if the amount is
8 \$225,000,000 or more but less than \$260,000,000;
9 and

10 “(3) 10 percent of the amount if the amount is
11 \$260,000,000 or more.”.

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

15 “(f) STANDARDS PROGRAM.—

16 “(1) CONTRACTOR QUALIFICATION.—Effective
17 beginning January 1, 2016, to be eligible to carry
18 out weatherization using funds made available under
19 this part, a contractor shall be selected through a
20 competitive bidding process and be—

21 “(A) accredited by the Building Perform-
22 ance Institute;

23 “(B) an Energy Smart Home Performance
24 Team accredited under the Residential Energy
25 Services Network; or

1 “(C) accredited by an equivalent accredita-
2 tion or program accreditation-based State cer-
3 tification program approved by the Secretary.

4 “(2) GRANTS FOR ENERGY RETROFIT MODEL
5 PROGRAMS.—

6 “(A) IN GENERAL.—To be eligible to re-
7 ceive a grant under section 414C, a covered or-
8 ganization (as defined in section 414C(b)) shall
9 use a crew chief who—

10 “(i) is certified or accredited in ac-
11 cordance with paragraph (1); and

12 “(ii) supervises the work performed
13 with grant funds.

14 “(B) VOLUNTEER LABOR.—A volunteer
15 who performs work for a covered organization
16 that receives a grant under section 414C shall
17 not be required to be certified under this sub-
18 section if the volunteer is not directly installing
19 or repairing mechanical equipment or other
20 items that require skilled labor.

21 “(C) TRAINING.—The Secretary shall use
22 training and technical assistance funds available
23 to the Secretary to assist covered organizations
24 under section 414C in providing training to ob-

1 tain certification required under this subsection,
2 including provisional or temporary certification.

3 “(3) MINIMUM EFFICIENCY STANDARDS.—Ef-
4 fective beginning October 1, 2016, the Secretary
5 shall ensure that—

6 “(A) each retrofit for which weatherization
7 assistance is provided under this part meets
8 minimum efficiency and quality of work stand-
9 ards established by the Secretary after weather-
10 ization of a dwelling unit;

11 “(B) at least 10 percent of the dwelling
12 units are randomly inspected by a third party
13 accredited under this subsection to ensure com-
14 pliance with the minimum efficiency and quality
15 of work standards established under subpara-
16 graph (A); and

17 “(C) the standards established under this
18 subsection meet or exceed the industry stand-
19 ards for home performance work that are in ef-
20 fect on the date of enactment of this subsection,
21 as determined by the Secretary.”.

22 **SEC. 1013. REAUTHORIZATION OF STATE ENERGY PRO-**
23 **GRAM.**

24 Section 365(f) of the Energy Policy and Conservation
25 Act (42 U.S.C. 6325(f)) is amended by striking

1 “\$125,000,000 for each of fiscal years 2007 through
2 2012” and inserting “\$90,000,000 for each of fiscal years
3 2016 through 2020, of which not greater than 5 percent
4 may be used to provide competitively awarded financial as-
5 sistance”.

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

7 (a) DEFINITIONS.—In this section:

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

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

14 (A) is flexible and automated;

15 (B) has extensive operational monitoring
16 and communication connectivity, allowing re-
17 mote monitoring and analysis of all building
18 functions;

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

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

1 (E) is cybersecure.

2 (3) SMART BUILDING ACCELERATOR.—The
3 term “smart building accelerator” means an initia-
4 tive that is designed to demonstrate specific innova-
5 tive policies and approaches—

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

8 (B) that, on successful demonstration,
9 would accelerate investment in energy effi-
10 ciency.

11 (b) FEDERAL SMART BUILDING PROGRAM.—

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

16 (A) to implement smart building tech-
17 nology; and

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

20 (2) SELECTION.—

21 (A) IN GENERAL.—The Secretary shall co-
22 ordinate the selection of not fewer than 1 build-
23 ing from among each of several key Federal
24 agencies, as described in paragraph (4), to com-
25 pose an appropriately diverse set of smart

1 buildings based on size, type, and geographic lo-
2 cation.

3 (B) INCLUSION OF COMMERCIALY OPER-
4 ATED BUILDINGS.—In making selections under
5 subparagraph (A), the Secretary may include
6 buildings that are owned by the Federal Gov-
7 ernment but are commercially operated.

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

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

17 (A) the Department of the Army;

18 (B) the Department of the Navy;

19 (C) the Department of the Air Force;

20 (D) the Department;

21 (E) the Department of the Interior;

22 (F) the Department of Veterans Affairs;

23 and

24 (G) the General Services Administration.

1 (5) REQUIREMENT.—In implementing the pro-
2 gram, the Secretary shall leverage existing financing
3 mechanisms including energy savings performance
4 contracts, utility energy service contracts, and an-
5 nual appropriations.

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

12 (A) which advanced building tech-
13 nologies—

14 (i) are most cost-effective; and

15 (ii) show the most promise for—

16 (I) increasing building energy
17 savings;

18 (II) increasing service perform-
19 ance to building occupants;

20 (III) reducing environmental im-
21 pacts; and

22 (IV) establishing cybersecurity;

23 and

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

1 (7) AWARDS.—The Secretary may expand
2 awards made under the Federal Energy Manage-
3 ment Program and the Better Building Challenge to
4 recognize specific agency achievements in accel-
5 erating the adoption of smart building technologies.

6 (c) SURVEY OF PRIVATE SECTOR SMART BUILD-
7 INGS.—

8 (1) SURVEY.—The Secretary shall conduct a
9 survey of privately owned smart buildings through-
10 out the United States, including commercial build-
11 ings, laboratory facilities, hospitals, multifamily resi-
12 dential buildings, and buildings owned by nonprofit
13 organizations and institutions of higher education.

14 (2) SELECTION.—From among the smart build-
15 ings surveyed under paragraph (1), the Secretary
16 shall select not fewer than 1 building each from an
17 appropriate range of building sizes, types, and geo-
18 graphic locations.

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

1 (A) which advanced building technologies
2 and systems—

3 (i) are most cost-effective; and

4 (ii) show the most promise for—

5 (I) increasing building energy
6 savings;

7 (II) increasing service perform-
8 ance to building occupants;

9 (III) reducing environmental im-
10 pacts; and

11 (IV) establishing cybersecurity;
12 and

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

15 (d) LEVERAGING EXISTING PROGRAMS.—

16 (1) BETTER BUILDING CHALLENGE.—As part
17 of the Better Building Challenge of the Department,
18 the Secretary, in consultation with major private
19 sector property owners, shall develop smart building
20 accelerators to demonstrate innovative policies and
21 approaches that will accelerate the transition to
22 smart buildings in the public, institutional, and com-
23 mercial buildings sectors.

24 (2) RESEARCH AND DEVELOPMENT.—

1 (A) IN GENERAL.—The Secretary shall
2 conduct research and development to address
3 key barriers to the integration of advanced
4 building technologies and to accelerate the tran-
5 sition to smart buildings.

6 (B) INCLUSION.—The research and devel-
7 opment conducted under subparagraph (A)
8 shall include research and development on—

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

12 (ii) improving physical components,
13 such as sensors and controls, to be adapt-
14 ive, anticipatory, and networked;

15 (iii) reducing the cost of key compo-
16 nents to accelerate the adoption of smart
17 building technologies;

18 (iv) data management, including the
19 capture and analysis of data and the inter-
20 operability of the energy systems;

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

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

5 (vii) integration and application of
6 combined heat and power systems and en-
7 ergy storage for resiliency;

8 (viii) characterization of buildings and
9 components;

10 (ix) consumer and utility protections;

11 (x) continuous management, including
12 the challenges of managing multiple energy
13 systems and optimizing systems for dis-
14 parate stakeholders; and

15 (xi) other areas of research and devel-
16 opment, as determined appropriate by the
17 Secretary.

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

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

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

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

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

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

12 **SEC. 1016. FEDERAL BUILDING ENERGY EFFICIENCY PER-**
13 **FORMANCE STANDARDS.**

14 (a) DEFINITIONS.—Section 303 of the Energy Con-
15 servation and Production Act (42 U.S.C. 6832) (as
16 amended by section 1001(a)) is amended—

17 (1) in paragraph (6), by striking “to be con-
18 structed” and inserting “constructed or altered”;

19 and

20 (2) by adding at the end the following:

21 “(19) MAJOR RENOVATION.—The term ‘major
22 renovation’ means a modification of building energy
23 systems sufficiently extensive that the whole building
24 can meet energy standards for new buildings, based

1 on criteria to be established by the Secretary
2 through notice and comment rulemaking.”.

3 (b) FEDERAL BUILDING EFFICIENCY STANDARDS.—

4 Section 305(a)(3) of the Energy Conservation and Pro-
5 duction Act (42 U.S.C. 6834(a)(3)) (as amended by sec-
6 tion 1015) is amended—

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

10 “(3) REVISED FEDERAL BUILDING ENERGY EF-
11 FICIENCY PERFORMANCE STANDARDS.—

12 “(A) REVISED FEDERAL BUILDING EN-
13 ERGY EFFICIENCY PERFORMANCE STAND-
14 ARDS.—

15 “(i) IN GENERAL.—Not later than 1
16 year after the date of enactment of the En-
17 ergy Policy Modernization Act of 2015, the
18 Secretary shall establish, by rule, revised
19 Federal building energy efficiency perform-
20 ance standards that require that—

21 “(I) new Federal buildings and
22 alterations and additions to existing
23 Federal buildings—

24 “(aa) meet or exceed the
25 most recent revision of the Inter-

1 national Energy Conservation
2 Code (in the case of residential
3 buildings) or ASHRAE Standard
4 90.1 (in the case of commercial
5 buildings) as of the date of en-
6 actment of the Energy Policy
7 Modernization Act of 2015; and

8 “(bb) meet or exceed the en-
9 ergy provisions of State and local
10 building codes applicable to the
11 building, if the codes are more
12 stringent than the International
13 Energy Conservation Code or
14 ASHRAE Standard 90.1, as ap-
15 plicable;

16 “(II) unless demonstrated not to
17 be life-cycle cost effective for new
18 Federal buildings and Federal build-
19 ings with major renovations—

20 “(aa) the buildings be de-
21 signed to achieve energy con-
22 sumption levels that are at least
23 30 percent below the levels estab-
24 lished in the version of the
25 ASHRAE Standard or the Inter-

1 national Energy Conservation
2 Code, as appropriate, that is ap-
3 plied under subelause (I)(aa), in-
4 cluding updates under subpara-
5 graph (B); and

6 “(bb) sustainable design
7 principles are applied to the loca-
8 tion, siting, design, and construc-
9 tion of all new Federal buildings
10 and replacement Federal build-
11 ings;

12 “(III) if water is used to achieve
13 energy efficiency, water conservation
14 technologies shall be applied to the ex-
15 tent that the technologies are life-
16 cycle cost effective; and

17 “(IV) if life-cycle cost effective,
18 as compared to other reasonably avail-
19 able technologies, not less than 30
20 percent of the hot water demand for
21 each new Federal building or Federal
22 building undergoing a major renova-
23 tion be met through the installation
24 and use of solar hot water heaters.

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

5 “(B) UPDATES.—Not later than 1 year
6 after the date of approval of each subsequent
7 revision of the ASHRAE Standard or the Inter-
8 national Energy Conservation Code, as appro-
9 priate, the Secretary shall determine whether
10 the revised standards established under sub-
11 paragraph (A) should be updated to reflect the
12 revisions, based on the energy savings and life-
13 cycle cost-effectiveness of the revisions.”; and

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

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

18 **SEC. 1017. CODIFICATION OF EXECUTIVE ORDER.**

19 Beginning in fiscal year 2016 and each fiscal year
20 thereafter through fiscal year 2025, the head of each Fed-
21 eral agency shall, unless otherwise specified and where
22 life-cycle cost-effective, promote building energy conserva-
23 tion, efficiency, and management by reducing, in Federal
24 buildings of the agency, building energy intensity, as
25 measured in British thermal units per gross square foot,

1 by 2.5 percent each fiscal year, relative to the baseline
2 of the building energy use of the applicable Federal build-
3 ings in fiscal year 2015 and after taking into account the
4 progress of the Federal agency in preceding fiscal years.

5 **SEC. 1018. CERTIFICATION FOR GREEN BUILDINGS.**

6 Section 305 of the Energy Conservation and Produc-
7 tion Act (42 U.S.C. 6834) (as amended by sections 1015
8 and 1016(b)) is amended—

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

11 “(D) CERTIFICATION FOR GREEN BUILD-
12 INGS.—

13 “(i) SUSTAINABLE DESIGN PRIN-
14 CIPLES.—Sustainable design principles
15 shall be applied to the siting, design, and
16 construction of buildings covered by this
17 subparagraph.

18 “(ii) SELECTION OF CERTIFICATION
19 SYSTEMS.—The Secretary, after reviewing
20 the findings of the Federal Director under
21 section 436(h) of the Energy Independence
22 and Security Act of 2007 (42 U.S.C.
23 17092(h)), in consultation with the Admin-
24 istrator of General Services, and in con-
25 sultation with the Secretary of Defense re-

1 relating to those facilities under the custody
2 and control of the Department of Defense,
3 shall determine those certification systems
4 for green commercial and residential build-
5 ings that the Secretary determines to be
6 the most likely to encourage a comprehen-
7 sive and environmentally sound approach
8 to certification of green buildings.

9 “(iii) BASIS FOR SELECTION.—The
10 determination of the certification systems
11 under clause (ii) shall be based on ongoing
12 review of the findings of the Federal Direc-
13 tor under section 436(h) of the Energy
14 Independence and Security Act of 2007
15 (42 U.S.C. 17092(h)) and the criteria de-
16 scribed in clause (v).

17 “(iv) ADMINISTRATION.—In deter-
18 mining certification systems under this
19 subparagraph, the Secretary shall—

20 “(I) make a separate determina-
21 tion for all or part of each system;

22 “(II) confirm that the criteria
23 used to support the selection of build-
24 ing products, materials, brands, and
25 technologies—

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

5 “(bb) do not prohibit, dis-
6 favor, or discriminate against se-
7 lection based on technically inad-
8 equate information to inform
9 human or environmental risk;
10 and

11 “(cc) are expressed to prefer
12 performance measures whenever
13 performance measures may rea-
14 sonably be used in lieu of pre-
15 scriptive measures; and

16 “(III) use environmental and
17 health criteria that are based on risk
18 assessment methodology that is gen-
19 erally accepted by the applicable sci-
20 entific disciplines.

21 “(v) CONSIDERATIONS.—In deter-
22 mining the green building certification sys-
23 tems under this subparagraph, the Sec-
24 retary shall take into consideration—

1 “(I) the ability and availability of
2 assessors and auditors to independ-
3 ently verify the criteria and measure-
4 ment of metrics at the scale necessary
5 to implement this subparagraph;

6 “(II) the ability of the applicable
7 certification organization to collect
8 and reflect public comment;

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

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

16 “(aa) efficient and sustain-
17 able use of water, energy, and
18 other natural resources;

19 “(bb) the use of renewable
20 energy sources;

21 “(cc) improved indoor envi-
22 ronmental quality through en-
23 hanced indoor air quality, ther-
24 mal comfort, acoustics, day light-
25 ing, pollutant source control, and

1 use of low-emission materials and
2 building system controls; and

3 “(dd) such other criteria as
4 the Secretary determines to be
5 appropriate; and

6 “(V) national recognition within
7 the building industry.

8 “(vi) REVIEW.—The Secretary, in
9 consultation with the Administrator of
10 General Services and the Secretary of De-
11 fense, shall conduct an ongoing review to
12 evaluate and compare private sector green
13 building certification systems, taking into
14 account—

15 “(I) the criteria described in
16 clause (v); and

17 “(II) the identification made by
18 the Federal Director under section
19 436(h) of the Energy Independence
20 and Security Act of 2007 (42 U.S.C.
21 17092(h)).

22 “(vii) EXCLUSIONS.—

23 “(I) IN GENERAL.—Subject to
24 subclause (II), if a certification sys-
25 tem fails to meet the review require-

1 ments of clause (v), the Secretary
2 shall—

3 “(aa) identify the portions
4 of the system, whether pre-
5 requisites, credits, points, or oth-
6 erwise, that meet the review cri-
7 teria of clause (v);

8 “(bb) determine the portions
9 of the system that are suitable
10 for use; and

11 “(cc) exclude all other por-
12 tions of the system from identi-
13 fication and use.

14 “(II) ENTIRE SYSTEMS.—The
15 Secretary shall exclude an entire sys-
16 tem from use if an exclusion under
17 subclause (I)—

18 “(aa) impedes the integrated
19 use of the system;

20 “(bb) creates disparate re-
21 view criteria or unequal point ac-
22 cess for competing materials; or

23 “(cc) increases agency costs
24 of the use.

1 “(viii) INTERNAL CERTIFICATION
2 PROCESSES.—The Secretary may by rule
3 allow Federal agencies to develop internal
4 certification processes, using certified pro-
5 fessionals, in lieu of certification by certifi-
6 cation entities identified under clause (ii).

7 “(ix) PRIVATIZED MILITARY HOUS-
8 ING.—With respect to privatized military
9 housing, the Secretary of Defense, after
10 consultation with the Secretary may,
11 through rulemaking, develop alternative
12 certification systems and levels than the
13 systems and levels identified under clause
14 (ii) that achieve an equivalent result in
15 terms of energy savings, sustainable de-
16 sign, and green building performance.

17 “(x) WATER CONSERVATION TECH-
18 NOLOGIES.—In addition to any use of
19 water conservation technologies otherwise
20 required by this section, water conservation
21 technologies shall be applied to the extent
22 that the technologies are life-cycle cost-ef-
23 fective.

24 “(xi) EFFECTIVE DATE.—

1 “(I) DETERMINATIONS MADE
2 AFTER DECEMBER 31, 2015.—This
3 subparagraph shall apply to any de-
4 termination made by a Federal agency
5 after December 31, 2015.

6 “(II) DETERMINATIONS MADE ON
7 OR BEFORE DECEMBER 31, 2015.—
8 This subparagraph (as in effect on the
9 day before the date of enactment of
10 the Energy Policy Modernization Act
11 of 2015) shall apply to any use of a
12 certification system for green commer-
13 cial and residential buildings by a
14 Federal agency on or before December
15 31, 2015.”; and

16 (2) by striking subsections (c) and (d) and in-
17 serting the following:

18 “(c) PERIODIC REVIEW.—The Secretary shall—

19 “(1) once every 5 years, review the Federal
20 building energy standards established under this sec-
21 tion; and

22 “(2) on completion of a review under paragraph
23 (1), if the Secretary determines that significant en-
24 ergy savings would result, upgrade the standards to
25 include all new energy efficiency and renewable en-

1 energy measures that are technologically feasible and
2 economically justified.”.

3 **SEC. 1019. HIGH PERFORMANCE GREEN FEDERAL BUILD-**
4 **INGS.**

5 Section 436(h) of the Energy Independence and Se-
6 curity Act of 2007 (42 U.S.C. 17092(h)) is amended—

7 (1) in the subsection heading, by striking “SYS-
8 TEM” and inserting “SYSTEMS”;

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

11 “(1) IN GENERAL.—Based on an ongoing re-
12 view, the Federal Director shall identify and shall
13 provide to the Secretary pursuant to section
14 305(a)(3)(D) of the Energy Conservation and Pro-
15 duction Act (42 U.S.C. 6834(a)(3)(D)), a list of
16 those certification systems that the Director identi-
17 fies as the most likely to encourage a comprehensive
18 and environmentally sound approach to certification
19 of green buildings.”; and

20 (3) in paragraph (2)—

21 (A) in the matter preceding subparagraph
22 (A), by striking “system” and inserting “sys-
23 tems”;

24 (B) by striking subparagraph (A) and in-
25 serting the following:

1 “(A) an ongoing review provided to the
2 Secretary pursuant to section 305(a)(3)(D) of
3 the Energy Conservation and Production Act
4 (42 U.S.C. 6834(a)(3)(D)), which shall—

5 “(i) be carried out by the Federal Di-
6 rector to compare and evaluate standards;
7 and

8 “(ii) allow any developer or adminis-
9 trator of a rating system or certification
10 system to be included in the review;”;

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

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

16 (E) by adding at the end the following:

17 “(G) a finding that, for all credits address-
18 ing grown, harvested, or mined materials, the
19 system does not discriminate against the use of
20 domestic products that have obtained certifi-
21 cations of responsible sourcing; and

22 “(H) a finding that the system incor-
23 porates life-cycle assessment as a credit path-
24 way.”.

1 **SEC. 1020. EVALUATION OF POTENTIALLY DUPLICATIVE**
2 **GREEN BUILDING PROGRAMS WITHIN DE-**
3 **PARTMENT OF ENERGY.**

4 (a) DEFINITIONS.—In this section:

5 (1) ADMINISTRATIVE EXPENSES.—

6 (A) IN GENERAL.—The term “administra-
7 tive expenses” has the meaning given the term
8 by the Director of the Office of Management
9 and Budget under section 504(b)(2) of the En-
10 ergy and Water Development and Related
11 Agencies Appropriations Act, 2010 (31 U.S.C.
12 1105 note; Public Law 111–85).

13 (B) INCLUSIONS.—The term “administra-
14 tive expenses” includes, with respect to an
15 agency—

16 (i) costs incurred by—

17 (I) the agency; or

18 (II) any grantee, subgrantee, or
19 other recipient of funds from a grant
20 program or other program adminis-
21 tered by the agency; and

22 (ii) expenses relating to personnel sal-
23 aries and benefits, property management,
24 travel, program management, promotion,
25 reviews and audits, case management, and
26 communication regarding, promotion of,

1 and outreach for programs and program
2 activities administered by the agency.

3 (2) APPLICABLE PROGRAM.—The term “appli-
4 cable program” means any program that is—

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

11 (B) administered by the Secretary.

12 (3) SERVICE.—

13 (A) IN GENERAL.—Subject to subpara-
14 graph (B), the term “service” has the meaning
15 given the term by the Director of the Office of
16 Management and Budget.

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

22 (i) the provision of technical assist-
23 ance;

24 (ii) assistance for housing or tuition;

25 or

1 (iii) financial support (including
2 grants, loans, tax credits, and tax deduc-
3 tions).

4 (b) REPORT.—

5 (1) IN GENERAL.—Not later than January 1,
6 2016, the Secretary shall submit to Congress and
7 make available on the public Internet website of the
8 Department a report that describes the applicable
9 programs.

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

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

15 (B) determine the approximate annual ex-
16 penditures for services for each applicable pro-
17 gram;

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

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

22 (ii) beneficiaries who received services
23 or information under the applicable pro-
24 gram (if applicable and if data is readily
25 available);

1 (D) estimate—

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

5 (ii) the number of full-time equiva-
6 lents (the salary of whom is paid in part
7 or full by the Federal Government through
8 a grant or contract, a subaward of a grant
9 or contract, a cooperative agreement, or
10 another form of financial award or assist-
11 ance) who assist in administering the ap-
12 plicable program;

13 (E) briefly describe the type of services
14 each applicable program provides, such as infor-
15 mation, grants, technical assistance, loans, tax
16 credits, or tax deductions;

17 (F) identify the type of recipient who is in-
18 tended to benefit from the services or informa-
19 tion provided under the applicable program,
20 such as individual property owners or renters,
21 local governments, businesses, nonprofit organi-
22 zations, or State governments; and

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

1 (c) RECOMMENDATIONS.—Not later than January 1,
2 2016, the Secretary shall submit to Congress a report that
3 includes—

4 (1) a recommendation of whether any applicable
5 program should be eliminated or consolidated, in-
6 cluding any legislative changes that would be nec-
7 essary to eliminate or consolidate applicable pro-
8 grams; and

9 (2) methods to improve the applicable programs
10 by establishing program goals or increasing collabo-
11 ration to reduce any potential overlap or duplication,
12 taking into account—

13 (A) the 2011 report of the Government Ac-
14 countability Office entitled “Federal Initiatives
15 for the NonFederal Sector Could Benefit from
16 More Interagency Collaboration”; and

17 (B) the report of the Government Account-
18 ability Office entitled “2012 Annual Report:
19 Opportunities to Reduce Duplication, Overlap
20 and Fragmentation, Achieve Savings, and En-
21 hance Revenue”.

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

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

1 (2) which applicable programs are carried out
2 solely under the discretionary authority of the Sec-
3 retary.

4 **SEC. 1021. STUDY AND REPORT ON ENERGY SAVINGS BENE-**
5 **FITS OF OPERATIONAL EFFICIENCY PRO-**
6 **GRAMS AND SERVICES.**

7 (a) DEFINITION OF OPERATIONAL EFFICIENCY PRO-
8 GRAMS AND SERVICES.—In this section, the term “oper-
9 ational efficiency programs and services” means programs
10 and services that use information and communications
11 technologies (including computer hardware, energy effi-
12 ciency software, and power management tools) to operate
13 buildings and equipment in the optimum manner at the
14 optimum times.

15 (b) STUDY AND REPORT.—Not later than 1 year
16 after the date of enactment of this Act, the Secretary shall
17 conduct a study and issue a report that quantifies the po-
18 tential energy savings of operational efficiency programs
19 and services for commercial, institutional, industrial, and
20 governmental entities, including Federal agencies.

21 (c) MEASUREMENT AND VERIFICATION OF ENERGY
22 SAVINGS.—The report required under this section shall in-
23 clude potential methodologies or protocols for utilities,
24 utility regulators, and Federal agencies to evaluate, meas-

1 ure, and verify energy savings from operational efficiency
2 programs and services.

3 **Subtitle B—Appliances**

4 **SEC. 1101. EXTENDED PRODUCT SYSTEM REBATE PRO-** 5 **GRAM.**

6 (a) DEFINITIONS.—In this section:

7 (1) ELECTRIC MOTOR.—The term “electric
8 motor” has the meaning given the term in section
9 431.12 of title 10, Code of Federal Regulations (as
10 in effect on the date of enactment of this Act).

11 (2) ELECTRONIC CONTROL.—The term “elec-
12 tronic control” means—

13 (A) a power converter; or

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

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

20 (A) offers variable speed or multispeed op-
21 eration;

22 (B) offers partial load control that reduces
23 input energy requirements (as measured in kilo-
24 watt-hours) as compared to identified base lev-
25 els set by the Secretary; and

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

2 (ii) uses an extended product system tech-

3 nology, as determined by the Secretary.

4 (4) QUALIFIED EXTENDED PRODUCT SYS-

5 TEM.—

6 (A) IN GENERAL.—The term “qualified ex-

7 tended product system” means an extended

8 product system that—

9 (i) includes an electric motor and an

10 electronic control; and

11 (ii) reduces the input energy (as

12 measured in kilowatt-hours) required to

13 operate the extended product system by

14 not less than 5 percent, as compared to

15 identified base levels set by the Secretary.

16 (B) INCLUSIONS.—The term “qualified ex-

17 tended product system” includes commercial or

18 industrial machinery or equipment that—

19 (i)(I) did not previously make use of

20 the extended product system prior to the

21 redesign described in subclause (II); and

22 (II) incorporates an extended product

23 system that has greater than 1 horsepower

24 into redesigned machinery or equipment;

25 and

1 (ii) was previously used prior to, and
2 was placed back into service during, cal-
3 endar year 2016 or 2017.

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

9 (c) QUALIFIED ENTITIES.—

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

12 (A) in the case of a qualified extended
13 product system described in subsection
14 (a)(4)(A), the purchaser of the qualified ex-
15 tended product that is installed; and

16 (B) in the case of a qualified extended
17 product system described in subsection
18 (a)(4)(B), the manufacturer of the commercial
19 or industrial machinery or equipment that in-
20 corporated the extended product system into
21 that machinery or equipment.

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

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

4 (B) a certification that includes dem-
5 onstrated evidence—

6 (i) that the entity is a qualified entity;

7 and

8 (ii)(I) in the case of a qualified entity
9 described in paragraph (1)(A)—

10 (aa) that the qualified entity in-
11 stalled the qualified extended product
12 system during the 2 fiscal years fol-
13 lowing the date of enactment of this
14 Act;

15 (bb) that the qualified extended
16 product system meets the require-
17 ments of subsection (a)(4)(A); and

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

1 (II) in the case of a qualified entity
2 described in paragraph (1)(B), dem-
3 onstrated evidence—

4 (aa) that the qualified extended
5 product system meets the require-
6 ments of subsection (a)(4)(B); and

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

13 (d) AUTHORIZED AMOUNT OF REBATE.—

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

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

19 (i) the electric motor to which the
20 qualified extended product system is at-
21 tached; and

22 (ii) the electronic control; and

23 (B) \$25.

24 (2) MAXIMUM AGGREGATE AMOUNT.—A quali-
25 fied entity shall not be entitled to aggregate rebates

1 under this section in excess of \$25,000 per calendar
2 year.

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

8 **SEC. 1102. ENERGY EFFICIENT TRANSFORMER REBATE**
9 **PROGRAM.**

10 (a) DEFINITIONS.—In this section:

11 (1) QUALIFIED ENERGY EFFICIENT TRANS-
12 FORMER.—The term “qualified energy efficient
13 transformer” means a transformer that meets or ex-
14 ceeds the applicable energy conservation standards
15 described in the tables in subsection (b)(2) and
16 paragraphs (1) and (2) of subsection (c) of section
17 431.196 of title 10, Code of Federal Regulations (as
18 in effect on the date of enactment of this Act).

19 (2) QUALIFIED ENERGY INEFFICIENT TRANS-
20 FORMER.—The term “qualified energy inefficient
21 transformer” means a transformer with an equal
22 number of phases and capacity to a transformer de-
23 scribed in any of the tables in subsection (b)(2) and
24 paragraphs (1) and (2) of subsection (c) of section
25 431.196 of title 10, Code of Federal Regulations (as

1 in effect on the date of enactment of this Act)
2 that—

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

6 (B)(i) was manufactured between January
7 1, 1985, and December 31, 2006, for a trans-
8 former with an equal number of phases and ca-
9 pacity as a transformer described in the table
10 in subsection (b)(2) of section 431.196 of title
11 10, Code of Federal Regulations (as in effect on
12 the date of enactment of this Act); or

13 (ii) was manufactured between January 1,
14 1990, and December 31, 2009, for a trans-
15 former with an equal number of phases and ca-
16 pacity as a transformer described in the table
17 in paragraph (1) or (2) of subsection (c) of that
18 section (as in effect on the date of enactment
19 of this Act).

20 (3) QUALIFIED ENTITY.—The term “qualified
21 entity” means an owner of industrial or manufac-
22 turing facilities, commercial buildings, or multifamily
23 residential buildings, a utility, or an energy service
24 company that fulfills the requirements of subsection
25 (d).

1 (b) ESTABLISHMENT.—Not later than 90 days after
2 the date of enactment of this Act, the Secretary shall es-
3 tablish a program to provide rebates to qualified entities
4 for expenditures made by the qualified entity for the re-
5 placement of a qualified energy inefficient transformer
6 with a qualified energy efficient transformer.

7 (c) REQUIREMENTS.—To be eligible to receive a re-
8 bate under this section, an entity shall submit to the Sec-
9 retary an application in such form, at such time, and con-
10 taining such information as the Secretary may require, in-
11 cluding demonstrated evidence—

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

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

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

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

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

23 (B) for transformers described in sub-
24 section (a)(2)(B)(i), as selected from a table of

1 default values as determined by the Secretary
2 in consultation with applicable industry; and

3 (5) that the qualified energy inefficient trans-
4 former has been permanently decommissioned and
5 scrapped.

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

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

14 (A) the qualified energy inefficient trans-
15 former; and

16 (B) the qualified energy efficient trans-
17 former; or

18 (2) for a transformer described in subsection
19 (a)(2)(B)(i), the amount determined using a table of
20 default rebate values by rated transformer output,
21 as measured in kilovolt-amperes, as determined by
22 the Secretary in consultation with applicable indus-
23 try.

24 (e) AUTHORIZATION OF APPROPRIATIONS.—There is
25 authorized to be appropriated to carry out this section

1 \$5,000,000 for each of fiscal years 2016 and 2017, to re-
2 main available until expended.

3 (f) TERMINATION OF EFFECTIVENESS.—The author-
4 ity provided by this section terminates on December 31,
5 2017.

6 **SEC. 1103. STANDARDS FOR CERTAIN FURNACES.**

7 Section 325(f)(4) of the Energy Policy and Conserva-
8 tion Act (42 U.S.C. 6295(f)(4)) is amended by adding at
9 the end the following:

10 “(E) RESTRICTION ON FINAL RULE FOR
11 RESIDENTIAL NON-WEATHERIZED GAS FUR-
12 NACES AND MOBILE HOME FURNACES.—

13 “(i) IN GENERAL.—Notwithstanding
14 any other provision of this Act, the Sec-
15 retary shall not prescribe a final rule
16 amending the efficiency standards for resi-
17 dential non-weatherized gas furnaces or
18 mobile home furnaces until each of the fol-
19 lowing has occurred:

20 “(I) The Secretary convenes a
21 representative advisory group of inter-
22 ested stakeholders, including the man-
23 ufacturers, distributors, and contrac-
24 tors of residential non-weatherized gas
25 furnaces and mobile home furnaces,

1 home builders, building owners, en-
2 ergy efficiency advocates, natural gas
3 utilities, electric utilities, and con-
4 sumer groups.

5 “(II) Not later than 1 year after
6 the date of enactment of this subpara-
7 graph, the advisory group described in
8 subclause (I) completes an analysis of
9 a nationwide requirement of a con-
10 densing furnace efficiency standard
11 including—

12 “(aa) a complete analysis of
13 current market trends regarding
14 the transition of sales from non-
15 condensing furnaces to con-
16 densing furnaces;

17 “(bb) the projected net loss
18 in the industry of the present
19 value of original equipment man-
20 ufactured after adoption of the
21 standard;

22 “(cc) the projected consumer
23 payback period and life cycle cost
24 savings after adoption of the
25 standard;

1 “(dd) a determination of
2 whether the standard is economi-
3 cally justified, based solely on the
4 definition of energy under section
5 321; and

6 “(ee) other common eco-
7 nomic principles.

8 “(III) The advisory group de-
9 scribed in subclause (I) reviews the
10 analysis and determines whether a na-
11 tionwide requirement of a condensing
12 furnace efficiency standard is tech-
13 nically feasible and economically justi-
14 fied.

15 “(IV) The final determination of
16 the advisory group under subclause
17 (III) is published in the Federal Reg-
18 ister.

19 “(ii) AMENDED STANDARDS.—If the
20 advisory group determines under clause
21 (i)(III) that a nationwide requirement of a
22 condensing furnace efficiency standard is
23 not technically feasible and economically
24 justified, the Secretary shall, not later than
25 180 days after the date on which the final

1 determination of the advisory group is pub-
2 lished in the Federal Register under clause
3 (i)(IV), establish amended standards
4 through the negotiated rulemaking proce-
5 dure provided for under subchapter III of
6 chapter 5 of title 5, United States Code
7 (commonly known as the ‘Negotiated Rule-
8 making Act of 1990’).”

9 **SEC. 1104. THIRD-PARTY CERTIFICATION UNDER ENERGY**
10 **STAR PROGRAM.**

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

14 “(e) **THIRD-PARTY CERTIFICATION.**—

15 “(1) **IN GENERAL.**—Subject to paragraph (2),
16 not later than 180 days after the date of enactment
17 of this subsection, the Administrator shall revise the
18 certification requirements for the labeling of con-
19 sumer, home, and office electronic products for pro-
20 gram partners that have complied with all require-
21 ments of the Energy Star program for a period of
22 at least 18 months.

23 “(2) **ADMINISTRATION.**—In the case of a pro-
24 gram partner described in paragraph (1), the new
25 requirements under paragraph (1)—

1 “(A) shall not require third-party certifi-
2 cation for a product to be listed; but

3 “(B) may require that test data and other
4 product information be submitted to facilitate
5 product listing and performance verification for
6 a sample of products.

7 “(3) THIRD PARTIES.—Nothing in this sub-
8 section prevents the Administrator from using third
9 parties in the course of the administration of the
10 Energy Star program.

11 “(4) TERMINATION.—

12 “(A) IN GENERAL.—Subject to subpara-
13 graph (B), an exemption from third-party cer-
14 tification provided to a program partner under
15 paragraph (1) shall terminate if the program
16 partner is found to have violated program re-
17 quirements with respect to at least 2 separate
18 models during a 2-year period.

19 “(B) RESUMPTION.—A termination for a
20 program partner under subparagraph (A) shall
21 cease if the program partner complies with all
22 Energy Star program requirements for a period
23 of at least 3 years.”.

1 **SEC. 1105. ENERGY CONSERVATION STANDARDS FOR COM-**
2 **MERCIAL REFRIGERATION EQUIPMENT.**

3 (a) DEADLINE.—The requirements of the final rule
4 entitled “Energy Conservation Program: Energy Con-
5 servation Standards for Commercial Refrigeration Equip-
6 ment” (79 Fed. Reg. 17725 (March 28, 2014)), shall take
7 effect on January 1, 2020, for equipment covered by the
8 final rule that—

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

13 (2) is within 1 of the following product cat-
14 egories:

15 (A) VCT.SC.M vertical cooler with trans-
16 parent door self contained medium temperature;
17 or

18 (B) HCT.SC.M horizontal cooler with
19 transparent door self contained medium tem-
20 perature; and

21 (3) uses not more than 115 percent of the en-
22 ergy use allowed by applicable standards under En-
23 ergy Star 3.0.

24 (b) FUTURE RULEMAKINGS.—Nothing in this section
25 changes the criteria to be considered during future
26 rulemakings undertaken by the Department under title III

1 of the Energy Policy and Conservation Act (42 U.S.C.
2 6291 et seq.).

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

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

11 Section 326(b) of the Energy Policy and Conserva-
12 tion Act (42 U.S.C. 6296(b)) is amended by adding at
13 the end the following:

14 “(6) VOLUNTARY VERIFICATION PROGRAMS FOR
15 AIR CONDITIONING, FURNACE, BOILER, HEAT PUMP,
16 AND WATER HEATER PRODUCTS.—

17 “(A) RELIANCE ON VOLUNTARY PRO-
18 GRAMS.—For the purpose of periodic testing to
19 verify compliance with energy conservation
20 standards and Energy Star specifications estab-
21 lished under sections 324A, 325, and 342 for
22 covered products described in paragraphs (3),
23 (4), (5), (9), and (11) of section 322(a) and
24 covered equipment described in subparagraphs
25 (B), (C), (D), (F), (I), (J), and (K) of section

1 340(1), the Secretary and the Administrator of
2 the Environmental Protection Agency shall rely
3 on testing conducted by voluntary verification
4 programs that are recognized by the Secretary
5 in accordance with subparagraph (B).

6 “(B) RECOGNITION OF VOLUNTARY
7 VERIFICATION PROGRAMS.—

8 “(i) IN GENERAL.—Not later than
9 180 days after the date of enactment of
10 this paragraph, the Secretary shall initiate
11 a negotiated rulemaking in accordance
12 with subchapter III of chapter 5 of title 5,
13 United States Code (commonly known as
14 the ‘Negotiated Rulemaking Act of 1990’)
15 to develop criteria that have consensus
16 support for achieving recognition by the
17 Secretary as an approved voluntary
18 verification program.

19 “(ii) MINIMUM REQUIREMENTS.—The
20 criteria developed under clause (i) shall, at
21 a minimum, ensure that the voluntary
22 verification program—

23 “(I) is nationally recognized;

1 “(II) is operated by a third party
2 and not directly operated by a pro-
3 gram participant;

4 “(III) satisfies any applicable ele-
5 ments of—

6 “(aa) International Organi-
7 zation for Standardization stand-
8 ard numbered 17025; and

9 “(bb) any other relevant
10 International Organization for
11 Standardization standards identi-
12 fied and agreed to through the
13 negotiated rulemaking under
14 clause (i);

15 “(IV) at least annually tests
16 independently obtained products fol-
17 lowing the test procedures established
18 under this title to verify the certified
19 rating of a representative sample of
20 products and equipment within the
21 scope of the program;

22 “(V) maintains a publicly avail-
23 able list of all ratings of products sub-
24 ject to verification;

1 “(VI) requires the changing of
2 the performance rating or removal of
3 the product or equipment from the
4 program if testing determines that the
5 performance rating does not meet the
6 levels the manufacturer has certified
7 to the Secretary;

8 “(VII) requires new program
9 participants to substantiate ratings
10 through test data generated in accord-
11 ance with DOE regulations;

12 “(VIII) allows for challenge test-
13 ing of products and equipment within
14 the scope of the program;

15 “(IX) requires program partici-
16 pants to disclose the performance rat-
17 ing of all covered products and equip-
18 ment within the scope of the program
19 for the covered product or equipment;

20 “(X) provides to the Secretary—

21 “(aa) an annual report of all
22 test results, the contents of which
23 shall be determined through the
24 negotiated rulemaking process
25 under clause (i); and

1 “(bb) test reports, on the re-
2 quest of the Secretary or the Ad-
3 ministrator of the Environmental
4 Protection Agency, that note any
5 instructions specified by the man-
6 ufacturer or the representative of
7 the manufacturer for the purpose
8 of conducting the verification
9 testing, to be exempted from dis-
10 closure to the extent provided
11 under section 552(b)(4) of title
12 5, United States Code (commonly
13 known as the ‘Freedom of Infor-
14 mation Act’); and

15 “(XI) satisfies any additional re-
16 quirements or standards that the Sec-
17 retary and Administrator of the Envi-
18 ronmental Protection Agency shall es-
19 tablish consistent with this subpara-
20 graph.

21 “(iii) FINDING REQUIRED FOR CES-
22 SATION OF RECOGNITION.—The Secretary
23 may only cease recognition of a voluntary
24 verification program as an approved pro-
25 gram described in subparagraph (A) on a

1 finding that the program is not meeting its
2 obligations for compliance through pro-
3 gram review criteria established under this
4 subparagraph.

5 “(iv) REVISIONS.—

6 “(I) IN GENERAL.—Major revi-
7 sions to voluntary verification pro-
8 gram criteria established under this
9 subparagraph shall only be made pur-
10 suant to a subsequent negotiated rule-
11 making in accordance with subchapter
12 III of chapter 5 of title 5, United
13 States Code (commonly known as the
14 ‘Negotiated Rulemaking Act of
15 1990’).

16 “(II) NONMAJOR REVISIONS.—

17 “(aa) IN GENERAL.—The
18 Secretary may make all other
19 nonmajor criteria revisions by
20 initiating a direct final rule in ac-
21 cordance with section
22 553(b)(3)(B) of title 5, United
23 States Code, on a determination
24 published in the Federal Register
25 that revisions to the criteria are

1 necessary and that substantive
2 opposition to the proposed revi-
3 sions is not expected.

4 “(bb) CONDITIONS FOR EF-
5 FECTIVENESS.—If the Secretary
6 does not receive adversarial com-
7 ments with respect to the deter-
8 mination published under item
9 (aa) during the 30-day-period fol-
10 lowing publication of that deter-
11 mination in the Federal Register,
12 the direct final rule shall have
13 the force and effect of law.

14 “(cc) WITHDRAWAL OF
15 FINAL RULE.—Receipt of any ad-
16 versarial comment with respect to
17 the determination published
18 under item (aa) shall require the
19 Secretary to withdraw the direct
20 final rule and publish—

21 “(AA) a notice of pro-
22 posed rulemaking pursuant
23 to section 553 of title 5,
24 United States Code; or

1 “(BB) a notice of pro-
2 posed rulemaking pursuant
3 to section 553 of title 5,
4 United States Code, that in-
5 cludes a determination that
6 revisions to the criteria are
7 necessary.

8 “(C) ADMINISTRATION.—

9 “(i) IN GENERAL.—The Secretary and
10 the Administrator of the Environmental
11 Protection Agency shall not require—

12 “(I) manufacturers to participate
13 in a voluntary verification program
14 described in subparagraph (A); or

15 “(II) participating manufacturers
16 to provide information that has al-
17 ready been provided to the Secretary
18 or the Administrator.

19 “(ii) LIST OF COVERED PRODUCTS.—

20 The Secretary or the Administrator of the
21 Environmental Protection Agency may
22 maintain a publicly available list of covered
23 products and equipment that distinguishes
24 between products that are, and are not
25 covered products and equipment verified

1 through a voluntary verification program
2 described in subparagraph (A);

3 “(iii) PERIODIC VERIFICATION TEST-
4 ING.—

5 “(I) IN GENERAL.—The Sec-
6 retary—

7 “(aa) shall not subject prod-
8 ucts or equipment that have been
9 verification tested under a vol-
10 untary verification program de-
11 scribed in subparagraph (A) to
12 periodic verification testing that
13 verifies the accuracy of the cer-
14 tified performance rating of the
15 products or equipment; but

16 “(bb) may test products or
17 equipment described in subclause
18 (I) if the testing is necessary—

19 “(AA) to assess the
20 overall performance of a vol-
21 untary verification program;

22 “(BB) to address spe-
23 cific performance issues;

1 “(CC) for use in updat-
2 ing test procedures and
3 standards; or

4 “(DD) for other pur-
5 poses consistent with this
6 title.

7 “(II) ADDITIONAL TESTING.—
8 The Secretary may subject products
9 or equipment described in subclause
10 (I) to periodic verification testing out-
11 side the restrictions of subclause
12 (I)(bb), if agreed to during the rule-
13 making described in subparagraph
14 (B)

15 “(D) EFFECT ON OTHER AUTHORITY.—
16 Nothing in this paragraph limits the authority
17 of the Secretary or the Administrator of the
18 Environmental Protection Agency to enforce
19 compliance with any law.”.

20 **Subtitle C—Manufacturing**

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

22 (a) PURPOSES.—The purposes of this section are—
23 (1) to reform and reorient the industrial effi-
24 ciency programs of the Department;

1 (2) to establish a clear and consistent authority
2 for industrial efficiency programs of the Depart-
3 ment;

4 (3) to accelerate the deployment of technologies
5 and practices that will increase industrial energy ef-
6 ficiency and improve productivity;

7 (4) to accelerate the development and dem-
8 onstration of technologies that will assist the deploy-
9 ment goals of the industrial efficiency programs of
10 the Department and increase manufacturing effi-
11 ciency;

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

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

18 (b) FUTURE OF INDUSTRY PROGRAM.—

19 (1) IN GENERAL.—Section 452 of the Energy
20 Independence and Security Act of 2007 (42 U.S.C.
21 17111) is amended by striking the section heading
22 and inserting the following: “**FUTURE OF INDUS-**
23 **TRY PROGRAM**”.

24 (2) DEFINITION OF ENERGY SERVICE PRO-
25 VIDER.—Section 452(a) of the Energy Independence

1 and Security Act of 2007 (42 U.S.C. 17111(a)) is
2 amended—

3 (A) by redesignating paragraphs (3)
4 through (5) as paragraphs (4) through (6), re-
5 spectively; and

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

8 “(3) ENERGY SERVICE PROVIDER.—The term
9 ‘energy service provider’ means any business pro-
10 viding technology or services to improve the energy
11 efficiency, water efficiency, power factor, or load
12 management of a manufacturing site or other indus-
13 trial process in an energy-intensive industry, or any
14 utility operating under a utility energy service
15 project.”.

16 (3) INDUSTRIAL RESEARCH AND ASSESSMENT
17 CENTERS.—Section 452(e) of the Energy Independ-
18 ence and Security Act of 2007 (42 U.S.C. 17111(e))
19 is amended—

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

23 (B) by striking “The Secretary” and in-
24 serting the following:

25 “(1) IN GENERAL.—The Secretary”;

1 (C) in subparagraph (A) (as redesignated
2 by subparagraph (A)), by inserting before the
3 semicolon at the end the following: “, including
4 assessments of sustainable manufacturing goals
5 and the implementation of information tech-
6 nology advancements for supply chain analysis,
7 logistics, system monitoring, industrial and
8 manufacturing processes, and other purposes”;
9 and

10 (D) by adding at the end the following:

11 “(2) COORDINATION.—To increase the value
12 and capabilities of the industrial research and as-
13 sessment centers, the centers shall—

14 “(A) coordinate with Manufacturing Ex-
15 tension Partnership Centers of the National In-
16 stitute of Standards and Technology;

17 “(B) coordinate with the Building Tech-
18 nologies Program of the Department of Energy
19 to provide building assessment services to man-
20 ufacturers;

21 “(C) increase partnerships with the Na-
22 tional Laboratories of the Department of En-
23 ergy to leverage the expertise and technologies
24 of the National Laboratories for national indus-
25 trial and manufacturing needs;

1 “(D) increase partnerships with energy
2 service providers and technology providers to le-
3 verage private sector expertise and accelerate
4 deployment of new and existing technologies
5 and processes for energy efficiency, power fac-
6 tor, and load management;

7 “(E) identify opportunities for reducing
8 greenhouse gas emissions; and

9 “(F) promote sustainable manufacturing
10 practices for small- and medium-sized manufac-
11 turers.

12 “(3) OUTREACH.—The Secretary shall provide
13 funding for—

14 “(A) outreach activities by the industrial
15 research and assessment centers to inform
16 small- and medium-sized manufacturers of the
17 information, technologies, and services avail-
18 able; and

19 “(B) coordination activities by each indus-
20 trial research and assessment center to leverage
21 efforts with—

22 “(i) Federal and State efforts;

23 “(ii) the efforts of utilities and energy
24 service providers;

1 “(iii) the efforts of regional energy ef-
2 ficiency organizations; and

3 “(iv) the efforts of other industrial re-
4 search and assessment centers.

5 “(4) WORKFORCE TRAINING.—

6 “(A) IN GENERAL.—The Secretary shall
7 pay the Federal share of associated internship
8 programs under which students work with or
9 for industries, manufacturers, and energy serv-
10 ice providers to implement the recommendations
11 of industrial research and assessment centers.

12 “(B) FEDERAL SHARE.—The Federal
13 share of the cost of carrying out internship pro-
14 grams described in subparagraph (A) shall be
15 50 percent.

16 “(5) SMALL BUSINESS LOANS.—The Adminis-
17 trator of the Small Business Administration shall, to
18 the maximum extent practicable, expedite consider-
19 ation of applications from eligible small business
20 concerns for loans under the Small Business Act (15
21 U.S.C. 631 et seq.) to implement recommendations
22 of industrial research and assessment centers estab-
23 lished under paragraph (1).

24 “(6) ADVANCED MANUFACTURING STEERING
25 COMMITTEE.—The Secretary shall establish an advi-

1 sory steering committee to provide recommendations
2 to the Secretary on planning and implementation of
3 the Advanced Manufacturing Office of the Depart-
4 ment of Energy.”.

5 (c) SUSTAINABLE MANUFACTURING INITIATIVE.—

6 (1) IN GENERAL.—Part E of title III of the
7 Energy Policy and Conservation Act (42 U.S.C.
8 6341) is amended by adding at the end the fol-
9 lowing:

10 **“SEC. 376. SUSTAINABLE MANUFACTURING INITIATIVE.**

11 “(a) IN GENERAL.—As part of the Office of Energy
12 Efficiency and Renewable Energy, the Secretary, on the
13 request of a manufacturer, shall conduct on-site technical
14 assessments to identify opportunities for—

15 “(1) maximizing the energy efficiency of indus-
16 trial processes and cross-cutting systems;

17 “(2) preventing pollution and minimizing waste;

18 “(3) improving efficient use of water in manu-
19 facturing processes;

20 “(4) conserving natural resources; and

21 “(5) achieving such other goals as the Secretary
22 determines to be appropriate.

23 “(b) COORDINATION.—The Secretary shall carry out
24 the initiative in coordination with the private sector and
25 appropriate agencies, including the National Institute of

1 Standards and Technology, to accelerate adoption of new
2 and existing technologies and processes that improve en-
3 ergy efficiency.

4 “(c) RESEARCH AND DEVELOPMENT PROGRAM FOR
5 SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECH-
6 NOLOGIES AND PROCESSES.—As part of the industrial ef-
7 ficiency programs of the Department of Energy, the Sec-
8 retary shall carry out a joint industry-government partner-
9 ship program to research, develop, and demonstrate new
10 sustainable manufacturing and industrial technologies and
11 processes that maximize the energy efficiency of industrial
12 plants, reduce pollution, and conserve natural resources.”.

13 (2) TABLE OF CONTENTS.—The table of con-
14 tents of the Energy Policy and Conservation Act (42
15 U.S.C. prec. 6201) is amended by adding at the end
16 of the items relating to part E of title III the fol-
17 lowing:

“Sec. 376. Sustainable manufacturing initiative.”.

18 (d) CONFORMING AMENDMENTS.—

19 (1) Section 106 of the Energy Policy Act of
20 2005 (42 U.S.C. 15811) is repealed.

21 (2) Sections 131, 132, 133, 2103, and 2107 of
22 the Energy Policy Act of 1992 (42 U.S.C. 6348,
23 6349, 6350, 13453, 13456) are repealed.

24 (3) Section 2101(a) of the Energy Policy Act of
25 1992 (42 U.S.C. 13451(a)) is amended in the third

1 sentence by striking “sections 2102, 2103, 2104,
2 2105, 2106, 2107, and 2108” and inserting “sec-
3 tions 2102, 2104, 2105, 2106, and 2108 of this Act
4 and section 376 of the Energy Policy and Conserva-
5 tion Act.”.

6 **SEC. 1202. LEVERAGING EXISTING FEDERAL AGENCY PRO-**
7 **GRAMS TO ASSIST SMALL AND MEDIUM MAN-**
8 **UFACTURERS.**

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

10 (1) ENERGY MANAGEMENT SYSTEM.—The term
11 “energy management system” means a business
12 management process based on standards of the
13 American National Standards Institute that enables
14 an organization to follow a systematic approach in
15 achieving continual improvement of energy perform-
16 ance, including energy efficiency, security, use, and
17 consumption.

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

21 (A) receives funding from the Department;

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

1 (C) identifies opportunities for potential
2 savings for small- and medium-size manufac-
3 turer plant sites from energy efficiency improve-
4 ments, waste minimization, pollution preven-
5 tion, and productivity improvement.

6 (3) NATIONAL LABORATORY.—The term “Na-
7 tional Laboratory” has the meaning given the term
8 in section 2 of the Energy Policy Act of 2005 (42
9 U.S.C. 15801).

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

13 (A) classified in the North American In-
14 dustry Classification System as any of sectors
15 31 through 33;

16 (B) with gross annual sales of less than
17 \$100,000,000;

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

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

22 (5) SMART MANUFACTURING.—The term
23 “smart manufacturing” means a set of advanced
24 sensing, instrumentation, monitoring, controls, and
25 process optimization technologies and practices that

1 merge information and communication technologies
2 with the manufacturing environment for the real-
3 time management of energy, productivity, and costs
4 across factories and companies.

5 (b) EXPANSION OF TECHNICAL ASSISTANCE PRO-
6 GRAMS.—The Secretary shall expand the scope of tech-
7 nologies covered by the Industrial Assessment Centers of
8 the Department—

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

11 (2) to equip the directors of the Industrial As-
12 sessment Centers with the training and tools nec-
13 essary to provide technical assistance in smart man-
14 ufacturing technologies and practices, including en-
15 ergy management systems, to manufacturers.

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

18 **SEC. 1203. LEVERAGING SMART MANUFACTURING INFRA-**
19 **STRUCTURE AT NATIONAL LABORATORIES.**

20 (a) STUDY.—

21 (1) IN GENERAL.—Not later than 180 days
22 after the date of enactment of this Act, the Sec-
23 retary shall conduct a study on ways in which the
24 Department can increase access to existing high-per-
25 formance computing resources in the National Lab-

1 oratories, particularly for small and medium manu-
2 facturers.

3 (2) INCLUSIONS.—In identifying ways to in-
4 crease access to National Laboratories under para-
5 graph (1), the Secretary shall—

6 (A) focus on increasing access to the com-
7 puting facilities of the National Laboratories;
8 and

9 (B) ensure that—

10 (i) the information from the manufac-
11 turer is protected; and

12 (ii) the security of the National Lab-
13 oratory facility is maintained.

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

18 (b) ACTIONS FOR INCREASED ACCESS.—The Sec-
19 retary shall facilitate access to the National Laboratories
20 studied under subsection (a) for small and medium manu-
21 facturers so that small and medium manufacturers can
22 fully use the high-performance computing resources of the
23 National Laboratories to enhance the manufacturing com-
24 petitiveness of the United States.

1 **Subtitle D—Vehicles**

2 **SEC. 1301. SHORT TITLE.**

3 This subtitle may be cited as the “Vehicle Innovation
4 Act of 2015”.

5 **SEC. 1302. OBJECTIVES.**

6 The objectives of this subtitle are—

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

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

12 (A) improve the fuel efficiency and emis-
13 sions of all vehicles produced in the United
14 States; and

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

17 (3) to support domestic research, development,
18 engineering, demonstration, and commercial applica-
19 tion and manufacturing of advanced vehicles, en-
20 gines, and components;

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

24 (5) to develop cost-effective advanced tech-
25 nologies for wide-scale utilization throughout the

1 passenger, commercial, government, and transit ve-
2 hicle sectors;

3 (6) to allow for greater consumer choice of vehi-
4 cle technologies and fuels;

5 (7) shorten technology development and inte-
6 gration cycles in the vehicle industry;

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

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

12 **SEC. 1303. COORDINATION AND NONDUPLICATION.**

13 The Secretary shall ensure, to the maximum extent
14 practicable, that the activities authorized by this subtitle
15 do not duplicate those of other programs within the De-
16 partment or other relevant research agencies.

17 **SEC. 1304. AUTHORIZATION OF APPROPRIATIONS.**

18 There are authorized to be appropriated to the Sec-
19 retary for research, development, engineering, demonstra-
20 tion, and commercial application of vehicles and related
21 technologies in the United States, including activities au-
22 thorized under this subtitle—

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

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

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

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

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

3 **SEC. 1305. REPORTING.**

4 (a) TECHNOLOGIES DEVELOPED.—Not later than 18
5 months after the date of enactment of this Act and annu-
6 ally thereafter through 2020, the Secretary shall submit
7 to Congress a report regarding the technologies developed
8 as a result of the activities authorized by this subtitle, with
9 a particular emphasis on whether the technologies were
10 successfully adopted for commercial applications, and if
11 so, whether products relying on those technologies are
12 manufactured in the United States.

13 (b) ADDITIONAL MATTERS.—At the end of each fis-
14 cal year through 2020, the Secretary shall submit to the
15 relevant Congressional committees of jurisdiction an an-
16 nual report describing activities undertaken in the pre-
17 vious year under this Act, active industry participants, the
18 status of public private partnerships, progress of the pro-
19 gram in meeting goals and timelines, and a strategic plan
20 for funding of activities across agencies.

21 **PART I—VEHICLE RESEARCH AND**

22 **DEVELOPMENT**

23 **SEC. 1306. PROGRAM.**

24 (a) ACTIVITIES.—The Secretary shall conduct a pro-
25 gram of basic and applied research, development, engi-

1 neering, demonstration, and commercial application activi-
2 ties on materials, technologies, and processes with the po-
3 tential to substantially reduce or eliminate petroleum use
4 and the emissions of the Nation's passenger and commer-
5 cial vehicles, including activities in the areas of—

6 (1) electrification of vehicle systems;

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

9 (3) power electronics;

10 (4) vehicle, component, and subsystem manu-
11 facturing technologies and processes;

12 (5) engine efficiency and combustion optimiza-
13 tion;

14 (6) waste heat recovery;

15 (7) transmission and drivetrains;

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

21 (9) natural gas vehicle technologies;

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

- 1 (11) vehicle weight reduction, including
- 2 lightweighting materials and the development of
- 3 manufacturing processes to fabricate, assemble, and
- 4 use dissimilar materials;
- 5 (12) friction and wear reduction;
- 6 (13) engine and component durability;
- 7 (14) innovative propulsion systems;
- 8 (15) advanced boosting systems;
- 9 (16) hydraulic hybrid technologies;
- 10 (17) engine compatibility with and optimization
- 11 for a variety of transportation fuels including nat-
- 12 ural gas and other liquid and gaseous fuels;
- 13 (18) predictive engineering, modeling, and sim-
- 14 ulation of vehicle and transportation systems;
- 15 (19) refueling and charging infrastructure for
- 16 alternative fueled and electric or plug-in electric hy-
- 17 brid vehicles, including the unique challenges facing
- 18 rural areas;
- 19 (20) gaseous fuels storage systems and system
- 20 integration and optimization;
- 21 (21) sensing, communications, and actuation
- 22 technologies for vehicle, electrical grid, and infra-
- 23 structure;
- 24 (22) efficient use, substitution, and recycling of
- 25 potentially critical materials in vehicles, including

1 rare earth elements and precious metals, at risk of
2 supply disruption;

3 (23) aftertreatment technologies;

4 (24) thermal management of battery systems;

5 (25) retrofitting advanced vehicle technologies
6 to existing vehicles;

7 (26) development of common standards, speci-
8 fications, and architectures for both transportation
9 and stationary battery applications;

10 (27) advanced internal combustion engines;

11 (28) mild hybrid;

12 (29) engine down speeding;

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

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

17 (b) TRANSFORMATIONAL TECHNOLOGY.—The Sec-
18 retary shall ensure that the Department continues to sup-
19 port research, development, engineering, demonstration,
20 and commercial application activities and maintains com-
21 petency in mid- to long-term transformational vehicle tech-
22 nologies with potential to achieve reductions in emissions,
23 including activities in the areas of—

24 (1) hydrogen vehicle technologies, including fuel
25 cells, hydrogen storage, infrastructure, and activities

1 in hydrogen technology validation and safety codes
2 and standards;

3 (2) multiple battery chemistries and novel en-
4 ergy storage devices, including nonchemical batteries
5 and electromechanical storage technologies such as
6 hydraulics, flywheels, and compressed air storage;

7 (3) communication and connectivity among ve-
8 hicles, infrastructure, and the electrical grid; and

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

11 (c) INDUSTRY PARTICIPATION.—To the maximum
12 extent practicable, activities under this Act shall be carried
13 out in partnership or collaboration with automotive manu-
14 facturers, heavy commercial, vocational, and transit vehi-
15 cle manufacturers, qualified plug-in electric vehicle manu-
16 facturers, compressed natural gas vehicle manufacturers,
17 vehicle and engine equipment and component manufactur-
18 ers, manufacturing equipment manufacturers, advanced
19 vehicle service providers, fuel producers and energy sup-
20 pliers, electric utilities, universities, national laboratories,
21 and independent research laboratories. In carrying out
22 this Act the Secretary shall—

23 (1) determine whether a wide range of compa-
24 nies that manufacture or assemble vehicles or com-
25 ponents in the United States are represented in on-

1 going public private partnership activities, including
2 firms that have not traditionally participated in fed-
3 erally sponsored research and development activities,
4 and where possible, partner with such firms that
5 conduct significant and relevant research and devel-
6 opment activities in the United States;

7 (2) leverage the capabilities and resources of,
8 and formalize partnerships with, industry-led stake-
9 holder organizations, nonprofit organizations, indus-
10 try consortia, and trade associations with expertise
11 in the research and development of, and education
12 and outreach activities in, advanced automotive and
13 commercial vehicle technologies;

14 (3) develop more effective processes for trans-
15 ferring research findings and technologies to indus-
16 try;

17 (4) support public-private partnerships, dedi-
18 cated to overcoming barriers in commercial applica-
19 tion of transformational vehicle technologies, that
20 utilize such industry-led technology development fa-
21 cilities of entities with demonstrated expertise in
22 successfully designing and engineering pre-commer-
23 cial generations of such transformational technology;
24 and

1 (5) promote efforts to ensure that technology
2 research, development, engineering, and commercial
3 application activities funded under this Act are car-
4 ried out in the United States.

5 (d) INTERAGENCY AND INTRAAGENCY COORDINA-
6 TION.—To the maximum extent practicable, the Secretary
7 shall coordinate research, development, demonstration,
8 and commercial application activities among—

9 (1) relevant programs within the Department,
10 including—

11 (A) the Office of Energy Efficiency and
12 Renewable Energy;

13 (B) the Office of Science;

14 (C) the Office of Electricity Delivery and
15 Energy Reliability;

16 (D) the Office of Fossil Energy;

17 (E) the Advanced Research Projects Agen-
18 cy—Energy; and

19 (F) other offices as determined by the Sec-
20 retary; and

21 (2) relevant technology research and develop-
22 ment programs within other Federal agencies, as de-
23 termined by the Secretary.

24 (e) FEDERAL DEMONSTRATION OF TECH-
25 NOLOGIES.—The Secretary shall make information avail-

1 able to procurement programs of Federal agencies regard-
2 ing the potential to demonstrate technologies resulting
3 from activities funded through programs under this Act.

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

9 (g) CRITERIA.—When awarding grants under this
10 program, the Secretary shall give priority to those tech-
11 nologies (either individually or as part of a system) that—

12 (1) provide the greatest aggregate fuel savings
13 based on the reasonable projected sales volumes of
14 the technology; and

15 (2) provide the greatest increase in United
16 States employment.

17 **SEC. 1307. MANUFACTURING.**

18 The Secretary shall carry out a research, develop-
19 ment, engineering, demonstration, and commercial appli-
20 cation program of advanced vehicle manufacturing tech-
21 nologies and practices, including innovative processes—

22 (1) to increase the production rate and decrease
23 the cost of advanced battery and fuel cell manufac-
24 turing;

1 (2) to vary the capability of individual manufac-
2 turing facilities to accommodate different battery
3 chemistries and configurations;

4 (3) to reduce waste streams, emissions, and en-
5 ergy intensity of vehicle, engine, advanced battery
6 and component manufacturing processes;

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

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

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

17 (7) to design and manufacture purpose-built hy-
18 drogen fuel cell vehicles and components;

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

21 (9) to produce permanent magnets for advanced
22 vehicles.

1 **PART II—MEDIUM- AND HEAVY-DUTY**
2 **COMMERCIAL AND TRANSIT VEHICLES**
3 **SEC. 1308. PROGRAM.**

4 The Secretary, in partnership with relevant research
5 and development programs in other Federal agencies, and
6 a range of appropriate industry stakeholders, shall carry
7 out a program of cooperative research, development, dem-
8 onstration, and commercial application activities on ad-
9 vanced technologies for medium- to heavy-duty commer-
10 cial, vocational, recreational, and transit vehicles, includ-
11 ing activities in the areas of—

12 (1) engine efficiency and combustion research;

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

15 (3) development and integration of engine tech-
16 nologies designed for natural gas operation of a vari-
17 ety of vehicle platforms;

18 (4) waste heat recovery and conversion;

19 (5) improved aerodynamics and tire rolling re-
20 sistance;

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

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

26 (8) drivetrain optimization;

- 1 (9) friction and wear reduction;
- 2 (10) engine idle and parasitic energy loss reduc-
- 3 tion;
- 4 (11) electrification of accessory loads;
- 5 (12) onboard sensing and communications tech-
- 6 nologies;
- 7 (13) advanced lightweighting materials and ve-
- 8 hicle designs;
- 9 (14) increasing load capacity per vehicle;
- 10 (15) thermal management of battery systems;
- 11 (16) recharging infrastructure;
- 12 (17) compressed natural gas infrastructure;
- 13 (18) advanced internal combustion engines;
- 14 (19) complete vehicle and power pack modeling,
- 15 simulation, and testing;
- 16 (20) hydrogen vehicle technologies, including
- 17 fuel cells and internal combustion engines, and hy-
- 18 drogen infrastructure, including hydrogen energy
- 19 storage to enable renewables and provide hydrogen
- 20 for fuel and power;
- 21 (21) retrofitting advanced technologies onto ex-
- 22 isting truck fleets;
- 23 (22) advanced boosting systems;
- 24 (23) engine down speeding; and

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

3 **SEC. 1309. CLASS 8 TRUCK AND TRAILER SYSTEMS DEM-**
4 **ONSTRATION.**

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

10 (b) APPLICANT TEAMS.—Applicant teams may be
11 comprised of truck and trailer manufacturers, engine and
12 component manufacturers, fleet customers, university re-
13 searchers, and other applicants as appropriate for the de-
14 velopment and demonstration of integrated Class 8 truck
15 and trailer systems.

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

17 The Secretary, in coordination with the partners of
18 the interagency research program described in section
19 1308—

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

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

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

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

10 The Secretary shall undertake a pilot program of re-
11 search, development, demonstration, and commercial ap-
12 plications of technologies to improve total machine or sys-
13 tem efficiency for nonroad mobile equipment including ag-
14 ricultural, construction, air, and sea port equipment, and
15 shall seek opportunities to transfer relevant research find-
16 ings and technologies between the nonroad and on-high-
17 way equipment and vehicle sectors.

18 **PART III—ADMINISTRATION**

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

20 (a) **IN GENERAL.**—Sections 706, 711, 712, and 933
21 of the Energy Policy Act of 2005 (42 U.S.C. 16051,
22 16061, 16062, 16233) are repealed.

23 (b) **ENERGY EFFICIENCY.**—Section 911 of the En-
24 ergy Policy Act of 2005 (42 U.S.C. 16191) is amended—

25 (1) in subsection (a)—

1 (A) in paragraph (1)(A), by striking “vehi-
2 cles, buildings,” and inserting “buildings”; and
3 (B) in paragraph (2)—
4 (i) by striking subparagraph (A); and
5 (ii) by redesignating subparagraphs
6 (B) through (E) as subparagraphs (A)
7 through (D), respectively; and
8 (2) in subsection (c)—
9 (A) by striking paragraph (3);
10 (B) by redesignating paragraph (4) as
11 paragraph (3); and
12 (C) in paragraph (3) (as so redesignated),
13 by striking “(a)(2)(D)” and inserting
14 “(a)(2)(C)”.

15 **Subtitle E—Short Title**

16 **SEC. 1401. SHORT TITLE.**

17 This title may be cited as the “Portman-Shaheen En-
18 ergy Efficiency Improvement Act of 2016”.

19 **TITLE II—INFRASTRUCTURE**

20 **Subtitle A—Cybersecurity**

21 **SEC. 2001. CYBERSECURITY THREATS.**

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

24 **“SEC. 224. CYBERSECURITY THREATS.**

25 “(a) DEFINITIONS.—In this section:

1 “(1) BULK-POWER SYSTEM.—The term ‘bulk-
2 power system’ has the meaning given the term in
3 section 215.

4 “(2) CRITICAL ELECTRIC INFRASTRUCTURE.—
5 The term ‘critical electric infrastructure’ means a
6 system or asset of the bulk-power system, whether
7 physical or virtual, the incapacity or destruction of
8 which would negatively affect national security, eco-
9 nomic security, public health or safety, or any com-
10 bination of those matters.

11 “(3) CRITICAL ELECTRIC INFRASTRUCTURE IN-
12 FORMATION.—

13 “(A) IN GENERAL.—The term ‘critical
14 electric infrastructure information’ means infor-
15 mation related to critical electric infrastructure,
16 or proposed critical electric infrastructure, gen-
17 erated by or provided to the Commission or
18 other Federal agency, other than classified na-
19 tional security information, that is designated
20 as critical electric infrastructure information by
21 the Commission under subsection (d)(2).

22 “(B) INCLUSIONS.—The term ‘critical elec-
23 tric infrastructure information’ includes infor-
24 mation that qualifies as critical energy infra-

1 structure information under regulations promul-
2 gated by the Commission.

3 “(4) CYBERSECURITY THREAT.—The term ‘cy-
4 bersecurity threat’ means the imminent danger of an
5 act that severely disrupts, attempts to severely dis-
6 rupt, or poses a significant risk of severely dis-
7 rupting the operation of programmable electronic de-
8 vices or communications networks (including hard-
9 ware, software, and data) essential to the reliable
10 operation of the bulk-power system.

11 “(5) ELECTRIC RELIABILITY ORGANIZATION.—
12 The term ‘Electric Reliability Organization’ has the
13 meaning given the term in section 215.

14 “(6) REGIONAL ENTITY.—The term ‘regional
15 entity’ has the meaning given the term in section
16 215.

17 “(7) SECRETARY.—The term ‘Secretary’ means
18 the Secretary of Energy.

19 “(b) EMERGENCY AUTHORITY OF SECRETARY.—

20 “(1) IN GENERAL.—If the President notifies
21 the Secretary that the President has made a deter-
22 mination that immediate action is necessary to pro-
23 tect the bulk-power system from a cybersecurity
24 threat, the Secretary may require, by order and with
25 or without notice, any entity that is registered with

1 the Electric Reliability Organization as an owner,
2 operator, or user of the bulk-power system to take
3 such actions as the Secretary determines will best
4 avert or mitigate the cybersecurity threat.

5 “(2) WRITTEN EXPLANATION.—As soon as
6 practicable after notifying the Secretary under para-
7 graph (1), the President shall—

8 “(A) provide to the Secretary, in writing,
9 a record of the determination and an expla-
10 nation of the reasons for the determination; and

11 “(B) promptly notify, in writing, congres-
12 sional committees of relevant jurisdiction, in-
13 cluding the Committee on Energy and Com-
14 merce of the House of Representatives and the
15 Committee on Energy and Natural Resources of
16 the Senate, of the contents of, and justification
17 for, the directive or determination.

18 “(3) COORDINATION WITH CANADA AND MEX-
19 ICO.—In exercising the authority pursuant to this
20 subsection, the Secretary is encouraged to consult
21 and coordinate with the appropriate officials in Can-
22 ada and Mexico responsible for the protection of cy-
23 bersecurity of the interconnected North American
24 electricity grid.

1 “(4) CONSULTATION.—Before exercising au-
2 thority pursuant to this subsection, to the maximum
3 extent practicable, taking into consideration the na-
4 ture of an identified cybersecurity threat and the ur-
5 gency of need for action, the Secretary shall consult
6 regarding implementation of actions that will effec-
7 tively address the cybersecurity threat with—

8 “(A) any entities potentially subject to the
9 cybersecurity threat that own, control, or oper-
10 ate bulk-power system facilities;

11 “(B) the Electric Reliability Organization;

12 “(C) the Electricity Sub-sector Coordi-
13 nating Council (as established by the Electric
14 Reliability Organization); and

15 “(D) officials of other Federal departments
16 and agencies, as appropriate.

17 “(5) COST RECOVERY.—

18 “(A) IN GENERAL.—The Commission shall
19 adopt regulations that permit entities subject to
20 an order under paragraph (1) to seek recovery
21 of prudently incurred costs required to imple-
22 ment actions ordered by the Secretary under
23 this subsection.

1 “(B) REQUIREMENTS.—Any rate or charge
2 approved under regulations adopted pursuant to
3 this paragraph—

4 “(i) shall be just and reasonable; and
5 “(ii) shall not be unduly discrimina-
6 tory or preferential.

7 “(c) DURATION OF EMERGENCY ORDERS.—An order
8 issued by the Secretary pursuant to subsection (b) shall
9 remain in effect for not longer than the 30-day period be-
10 ginning on the effective date of the order, unless, during
11 that 30 day-period, the Secretary—

12 “(1) provides to interested persons an oppor-
13 tunity to submit written data, recommendations, and
14 arguments; and

15 “(2) affirms, amends, or repeals the order, sub-
16 ject to the condition that an amended order shall not
17 exceed a total duration of 90 days.

18 “(d) PROTECTION AND SHARING OF CRITICAL ELEC-
19 TRIC INFRASTRUCTURE.—

20 “(1) PROTECTION OF CRITICAL ELECTRIC IN-
21 FRASTRUCTURE.—Critical electric infrastructure in-
22 formation—

23 “(A) shall be exempt from disclosure under
24 section 552(b)(3) of title 5, United States Code;
25 and

1 “(B) shall not be made available by any
2 State, political subdivision, or tribal authority
3 pursuant to any State, political subdivision, or
4 tribal law requiring disclosure of information or
5 records.

6 “(2) DESIGNATION AND SHARING OF CRITICAL
7 ELECTRIC INFRASTRUCTURE INFORMATION.—Not
8 later than 1 year after the date of enactment of this
9 section, the Commission, in consultation with the
10 Secretary of Energy, shall promulgate such regula-
11 tions and issue such orders as necessary—

12 “(A) to designate critical electric infra-
13 structure information;

14 “(B) to prohibit the unauthorized disclo-
15 sure of critical electric infrastructure informa-
16 tion; and

17 “(C) to ensure there are appropriate sanc-
18 tions in place for Commissioners, officers, em-
19 ployees, or agents of the Commission who
20 knowingly and willfully disclose critical electric
21 infrastructure information in a manner that is
22 not authorized under this section;

23 “(3) CONSIDERATIONS.—In promulgating regu-
24 lations and issuing orders under paragraph (2), the

1 Commission shall take into consideration the role of
2 State commissions in—

3 “(A) reviewing the prudence and cost of
4 investments;

5 “(B) determining the rates and terms of
6 conditions for electric services; and

7 “(C) ensuring the safety and reliability of
8 the bulk-power system and distribution facilities
9 within the respective jurisdictions of the State
10 commissions.

11 “(4) NO REQUIRED SHARING OF INFORMA-
12 TION.—Nothing in this section requires a person or
13 entity in possession of critical electric infrastructure
14 information to share the information with Federal,
15 State, political subdivision, or tribal authorities, or
16 any other person or entity.

17 “(5) DISCLOSURE OF NONCRITICAL ELECTRIC
18 INFRASTRUCTURE INFORMATION.—In carrying out
19 this section, the Commission shall segregate critical
20 electric infrastructure information within documents
21 and electronic communications, wherever feasible, to
22 facilitate disclosure of information that is not des-
23 ignated as critical electric infrastructure informa-
24 tion.”.

1 **SEC. 2002. ENHANCED GRID SECURITY.**

2 (a) DEFINITIONS.—In this section:

3 (1) ELECTRIC UTILITY.—The term “electric
4 utility” has the meaning given the term in section
5 3 of the Federal Power Act (16 U.S.C. 796).

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

9 (3) NATIONAL LABORATORY.—The term “Na-
10 tional Laboratory” has the meaning given the term
11 in section 2 of the Energy Policy Act of 2005 (42
12 U.S.C. 15801).

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

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

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

23 (2) DUTIES.—As the designated Sector-Specific
24 Agency for cybersecurity, the duties of the Depart-
25 ment shall include—

- 1 (A) coordinating with the Department of
2 Homeland Security and other relevant Federal
3 departments and agencies;
- 4 (B) collaborating with—
- 5 (i) critical infrastructure owners and
6 operators; and
- 7 (ii) as appropriate—
- 8 (I) independent regulatory agen-
9 cies; and
- 10 (II) State, local, tribal and terri-
11 torial entities;
- 12 (C) serving as a day-to-day Federal inter-
13 face for the dynamic prioritization and coordi-
14 nation of sector-specific activities;
- 15 (D) carrying out incident management re-
16 sponsibilities consistent with applicable law (in-
17 cluding regulations) and other appropriate poli-
18 cies or directives;
- 19 (E) providing, supporting, or facilitating
20 technical assistance and consultations for the
21 energy sector to identify vulnerabilities and help
22 mitigate incidents, as appropriate; and
- 23 (F) supporting the reporting requirements
24 of the Department of Homeland Security under
25 applicable law by providing, on an annual basis,

1 sector-specific critical infrastructure informa-
2 tion.

3 (c) CYBERSECURITY FOR THE ENERGY SECTOR RE-
4 SEARCH, DEVELOPMENT, AND DEMONSTRATION PRO-
5 GRAM.—

6 (1) IN GENERAL.—The Secretary, in consulta-
7 tion with appropriate Federal agencies, the energy
8 sector, the States, and other stakeholders, shall
9 carry out a program—

10 (A) to develop advanced cybersecurity ap-
11 plications and technologies for the energy sec-
12 tor—

13 (i) to identify and mitigate
14 vulnerabilities, including—

15 (I) dependencies on other critical
16 infrastructure; and

17 (II) impacts from weather and
18 fuel supply; and

19 (ii) to advance the security of field de-
20 vices and third-party control systems, in-
21 cluding—

22 (I) systems for generation, trans-
23 mission, distribution, end use, and
24 market functions;

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

5 (III) forensic analysis of infected
6 systems; and

7 (IV) secure communications;

8 (B) to leverage electric grid architecture as
9 a means to assess risks to the energy sector, in-
10 cluding by implementing an all-hazards ap-
11 proach to communications infrastructure, con-
12 trol systems architecture, and power systems
13 architecture;

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

17 (D) to develop workforce development cur-
18 ricula for energy sector-related cybersecurity.

19 (2) AUTHORIZATION OF APPROPRIATIONS.—

20 There is authorized to be appropriated to carry out
21 this subsection \$65,000,000 for each of fiscal years
22 2017 through 2025.

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

1 (B) to expand cooperation of the Depart-
2 ment with the intelligence communities for en-
3 ergy sector-related threat collection and anal-
4 ysis;

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

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

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

13 (2) AUTHORIZATION OF APPROPRIATIONS.—
14 There is authorized to be appropriated to carry out
15 this subsection \$10,000,000 for each of fiscal years
16 2017 through 2025.

17 (f) MODELING AND ASSESSING ENERGY INFRA-
18 STRUCTURE RISK.—

19 (1) IN GENERAL.—The Secretary shall develop
20 an advanced energy security program to secure en-
21 ergy networks, including electric, natural gas, and
22 oil exploration, transmission, and delivery.

23 (2) SECURITY AND RESILIENCY OBJECTIVE.—
24 The objective of the program developed under para-
25 graph (1) is to increase the functional preservation

1 of the electric grid operations or natural gas and oil
2 operations in the face of natural and human-made
3 threats and hazards, including electric magnetic
4 pulse and geomagnetic disturbances.

5 (3) ELIGIBLE ACTIVITIES.—In carrying out the
6 program developed under paragraph (1), the Sec-
7 retary may—

8 (A) develop capabilities to identify
9 vulnerabilities and critical components that pose
10 major risks to grid security if destroyed or im-
11 paired;

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

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

17 (D) conduct exercises and assessments to
18 identify and mitigate vulnerabilities to the elec-
19 tric grid, including providing mitigation rec-
20 ommendations;

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

23 (F) conduct research mitigation and recov-
24 ery solutions for critical components of the elec-
25 tric grid; and

1 (G) provide technical assistance to States
2 and other entities for standards and risk anal-
3 ysis.

4 (4) AUTHORIZATION OF APPROPRIATIONS.—

5 There is authorized to be appropriated to carry out
6 this subsection \$10,000,000 for each of fiscal years
7 2017 through 2025.

8 (g) LEVERAGING EXISTING PROGRAMS.—The pro-
9 grams established under this section shall be carried out
10 consistent with—

11 (1) the report of the Department entitled
12 “Roadmap to Achieve Energy Delivery Systems Cy-
13 bersecurity” and dated 2011;

14 (2) existing programs of the Department; and

15 (3) any associated strategic framework that
16 links together academic and National Laboratory re-
17 searchers, electric utilities, manufacturers, and any
18 other relevant private industry organizations, includ-
19 ing the Electricity Sub-sector Coordinating Council.

20 (h) STUDY.—

21 (1) IN GENERAL.—Not later than 180 days
22 after the date of enactment of this Act, the Sec-
23 retary, in consultation with the Federal Energy Reg-
24 ulatory Commission and the North American Elec-
25 tric Reliability Corporation, shall conduct a study to

1 explore alternative management structures and fund-
2 ing mechanisms to expand industry membership and
3 participation in ES–ISAC.

4 (2) REPORT.—The Secretary shall submit to
5 the appropriate committees of Congress a report de-
6 scribing the results of the study conducted under
7 paragraph (1).

8 **Subtitle B—Strategic Petroleum** 9 **Reserve**

10 **SEC. 2101. STRATEGIC PETROLEUM RESERVE MODERNIZA-** 11 **TION.**

12 (a) REAFFIRMATION OF POLICY.—Congress reaff-
13 firms the continuing strategic importance and need for the
14 Strategic Petroleum Reserve as found and declared in sec-
15 tion 151 of the Energy Policy and Conservation Act (42
16 U.S.C. 6231).

17 (b) SPR PETROLEUM ACCOUNT.—Section 167(b) of
18 the Energy Policy and Conservation Act (42 U.S.C.
19 6247(b)) is amended to read as follows:

20 “(b) OBLIGATION OF FUNDS FOR THE ACQUISITION,
21 TRANSPORTATION, AND INJECTION OF PETROLEUM
22 PRODUCTS INTO SPR AND FOR OTHER PURPOSES.—

23 “(1) PURPOSES.—Amounts in the Account may
24 be obligated by the Secretary of Energy for—

1 “(A) the acquisition, transportation, and
2 injection of petroleum products into the Re-
3 serve;

4 “(B) test sales of petroleum products from
5 the Reserve;

6 “(C) the drawdown, sale, and delivery of
7 petroleum products from the Reserve;

8 “(D) the construction, maintenance, re-
9 pair, and replacement of storage facilities and
10 related facilities; and

11 “(E) carrying out non-Reserve projects
12 needed to enhance the energy security of the
13 United States by increasing the resilience, reli-
14 ability, safety, and security of energy supply,
15 transmission, storage, or distribution infrastruc-
16 ture.

17 “(2) AMOUNTS.—Amounts in the Account may
18 be obligated by the Secretary of Energy for purposes
19 of paragraph (1), in the case of any fiscal year—

20 “(A) subject to section 660 of the Depart-
21 ment of Energy Organization Act (42 U.S.C.
22 7270), in such aggregate amounts as may be
23 appropriated in advance in appropriations Acts;
24 and

1 “(B) notwithstanding section 660 of the
2 Department of Energy Organization Act (42
3 U.S.C. 7270), in an aggregate amount equal to
4 the aggregate amount of the receipts to the
5 United States from the sale of petroleum prod-
6 ucts in any drawdown and a distribution of the
7 Reserve under section 161, including—

8 “(i) a drawdown and distribution car-
9 ried out under subsection (g) of that sec-
10 tion; or

11 “(ii) from the sale of petroleum prod-
12 ucts under section 160(f).

13 “(3) AVAILABILITY OF FUNDS.—Funds avail-
14 able to the Secretary of Energy for obligation under
15 this subsection may remain available without fiscal
16 year limitation.”.

17 (c) DEFINITION OF RELATED FACILITY.—Section
18 152(8) of the Energy Policy and Conservation Act (42
19 U.S.C. 6232(8)) is amended by inserting “terminals,”
20 after “reservoirs,”.

21 **Subtitle C—Trade**

22 **SEC. 2201. ACTION ON APPLICATIONS TO EXPORT LIQUE-** 23 **FIED NATURAL GAS.**

24 (a) DECISION DEADLINE.—For proposals that must
25 also obtain authorization from the Federal Energy Regu-

1 latory Commission or the Maritime Administration to site,
2 construct, expand, or operate liquefied natural gas export
3 facilities, the Secretary shall issue a final decision on any
4 application for the authorization to export natural gas
5 under section 3(a) of the Natural Gas Act (15 U.S.C.
6 717b(a)) not later than 45 days after the later of—

7 (1) the conclusion of the review to site, con-
8 struct, expand, or operate the liquefied natural gas
9 export facilities required by the National Environ-
10 mental Policy Act of 1969 (42 U.S.C. 4321 et seq.);
11 or

12 (2) the date of enactment of this Act.

13 (b) CONCLUSION OF REVIEW.—For purposes of sub-
14 section (a), review required by the National Environ-
15 mental Policy Act of 1969 (42 U.S.C. 4321 et seq.) shall
16 be considered concluded when the lead agency—

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

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

23 (3) determines that an application is eligible for
24 a categorical exclusion pursuant to National Envi-

1 ronmental Policy Act of 1969 (42 U.S.C. 4321 et
2 seq.) implementing regulations.

3 (c) JUDICIAL REVIEW.—

4 (1) IN GENERAL.—Except for review in the Su-
5 preme Court, the United States Court of Appeals for
6 the District of Columbia Circuit or the circuit in
7 which the liquefied natural gas export facility will be
8 located pursuant to an application described in sub-
9 section (a) shall have original and exclusive jurisdic-
10 tion over any civil action for the review of—

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

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

15 (2) ORDER.—If the Court in a civil action de-
16 scribed in paragraph (1) finds that the Secretary
17 has failed to issue a final decision on the application
18 as required under subsection (a), the Court shall
19 order the Secretary to issue the final decision not
20 later than 30 days after the order of the Court.

21 (3) EXPEDITED CONSIDERATION.—The Court
22 shall—

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

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

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

7 (A) upon motion by an applicant, the mat-
8 ter shall be transferred to the United States
9 Court of Appeals for the District of Columbia
10 Circuit or the circuit in which a liquefied nat-
11 ural gas export facility will be located pursuant
12 to an application described in section 3(a) of
13 the Natural Gas Act (15 U.S.C. 717b(a)); and

14 (B) the provisions of this section shall
15 apply.

16 **SEC. 2202. PUBLIC DISCLOSURE OF LIQUEFIED NATURAL**
17 **GAS EXPORT DESTINATIONS.**

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

20 “(g) PUBLIC DISCLOSURE OF LNG EXPORT DES-
21 TINATIONS.—

22 “(1) IN GENERAL.—In the case of any author-
23 ization to export liquefied natural gas, the Secretary
24 of Energy shall require the applicant to report to the
25 Secretary of Energy the names of the 1 or more

1 countries of destination to which the exported lique-
2 fied natural gas is delivered.

3 “(2) TIMING.—The applicant shall file the re-
4 port required under paragraph (1) not later than—

5 “(A) in the case of the first export, the
6 last day of the month following the month of
7 the first export; and

8 “(B) in the case of subsequent exports, the
9 date that is 30 days after the last day of the
10 applicable month concerning the activity of the
11 previous month.

12 “(3) DISCLOSURE.—The Secretary of Energy
13 shall publish the information reported under this
14 subsection on the website of the Department of En-
15 ergy and otherwise make the information available
16 to the public.”.

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

18 (a) IN GENERAL.—The Administrator of the Energy
19 Information Administration (referred to in this section as
20 the “Administrator”) shall collaborate with the appro-
21 priate officials in Canada and Mexico, as determined by
22 the Administrator, to improve—

23 (1) the quality and transparency of energy data
24 in North America through reconciliation of data on

1 energy trade flows among the United States, Can-
2 ada, and Mexico;

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

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

8 (b) PERIODIC UPDATES.—The Administrator shall
9 periodically submit to the Committee on Energy and Nat-
10 ural Resources of the Senate and the Committee on En-
11 ergy and Commerce of the House of Representatives an
12 update on—

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

15 (2) whether forward-looking projections for re-
16 gional energy flows are improving in accuracy as a
17 result of the energy data sharing under that sub-
18 section.

19 **Subtitle D—Electricity and Energy** 20 **Storage**

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

22 (a) IN GENERAL.—The Secretary shall conduct a
23 program of research, development, and demonstration of
24 electric grid energy storage that addresses the principal

1 challenges identified in the 2013 Department of Energy
2 Strategic Plan for Grid Energy Storage.

3 (b) AREAS OF FOCUS.—The program under this sec-
4 tion shall focus on—

5 (1) materials and electrochemical systems re-
6 search;

7 (2) power conversion technologies research;

8 (3) developing—

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

13 (B) validation and testing techniques;

14 (4) other fundamental and applied research
15 critical to widespread deployment of electricity stor-
16 age;

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

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

1 (7) cost-benefit analyses that inform capital ex-
2 penditure planning for regulators and owners and
3 operators of components of the electric grid;

4 (8) electricity storage device safety and reli-
5 ability, including potential failure modes, mitigation
6 measures, and operational guidelines;

7 (9) standards for storage device performance,
8 control interface, grid interconnection, and inter-
9 operability; and

10 (10) maintaining a public database of energy
11 storage projects, policies, codes, standards, and reg-
12 ulations.

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

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

22 (e) NO EFFECT ON OTHER PROVISIONS OF LAW.—
23 Nothing in this subtitle or an amendment made by this
24 subtitle authorizes regulatory actions that would duplicate
25 or conflict with regulatory requirements, mandatory

1 standards, or related processes under section 215 of the
2 Federal Power Act (16 U.S.C. 824o).

3 **SEC. 2302. ELECTRIC SYSTEM GRID ARCHITECTURE, SCE-**
4 **NARIO DEVELOPMENT, AND MODELING.**

5 (a) GRID ARCHITECTURE AND SCENARIO DEVELOP-
6 MENT.—

7 (1) IN GENERAL.—Subject to paragraph (2),
8 the Secretary shall establish and facilitate a collabo-
9 rative process to develop model grid architecture and
10 a set of future scenarios for the electric system to
11 examine the impacts of different combinations of re-
12 sources (including different quantities of distributed
13 energy resources and large-scale, central generation)
14 on the electric grid.

15 (2) MARKET STRUCTURE.—The grid architec-
16 ture and scenarios developed under paragraph (1)
17 shall account for differences in market structure, in-
18 cluding an examination of the potential for stranded
19 costs in each type of market structure.

20 (3) FINDINGS.—Based on the findings of grid
21 architecture developed under paragraph (1), the Sec-
22 retary shall—

23 (A) determine whether any additional
24 standards are necessary to ensure the interoper-

1 ability of grid systems and associated commu-
2 nications networks; and

3 (B) if the Secretary makes a determination
4 that additional standards are necessary under
5 subparagraph (A), make recommendations for
6 additional standards, including, as may be ap-
7 propriate, to the Electric Reliability Organiza-
8 tion under section 215 of the Federal Power
9 Act (16 U.S.C. 824o).

10 (b) MODELING.—Subject to subsection (c), the Sec-
11 retary shall—

12 (1) conduct modeling based on the scenarios de-
13 veloped under subsection (a); and

14 (2) analyze and evaluate the technical and fi-
15 nancial impacts of the models to assist States, utili-
16 ties, and other stakeholders in—

17 (A) enhancing strategic planning efforts;

18 (B) avoiding stranded costs; and

19 (C) maximizing the cost-effectiveness of fu-
20 ture grid-related investments.

21 (c) INPUT.—The Secretary shall develop the sce-
22 narios and conduct the modeling and analysis under sub-
23 sections (a) and (b) with participation or input, as appro-
24 priate, from—

25 (1) the National Laboratories;

- 1 (2) States;
- 2 (3) State regulatory authorities;
- 3 (4) transmission organizations;
- 4 (5) representatives of the electric industry;
- 5 (6) academic institutions;
- 6 (7) independent research institutes; and
- 7 (8) other entities.

8 **SEC. 2303. TECHNOLOGY DEMONSTRATION ON THE DIS-**
9 **TRIBUTION SYSTEM.**

10 (a) IN GENERAL.—The Secretary shall establish a
11 grant program to carry out eligible projects related to the
12 modernization of the electric grid, including the applica-
13 tion of technologies to improve observability, advanced
14 controls, and prediction of system performance on the dis-
15 tribution system.

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

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

22 (2) demonstrate—

23 (A) secure integration and management of
24 2 or more energy resources, including distrib-
25 uted energy generation, combined heat and

1 power, micro-grids, energy storage, electric ve-
2 hicles, energy efficiency, demand response, and
3 intelligent loads; and

4 (B) secure integration and interoperability
5 of communications and information tech-
6 nologies.

7 (c) PARTICIPATION.—Projects conducted under sub-
8 section (b) shall include the participation of a partnership
9 consisting of 2 or more entities that—

10 (1) may include

11 (A) any institution of higher education;

12 (B) a National Laboratory;

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

15 (D) a representative of an Indian tribe; or

16 (E) a Federal power marketing adminis-
17 tration; and

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

19 (A) an investor-owned electric utility;

20 (B) a publicly owned utility;

21 (C) a technology provider;

22 (D) a rural electric cooperative;

23 (E) a regional transmission organization;

24 or

25 (F) an independent system operator

1 (d) CYBERSECURITY PLAN.—Each demonstration
2 project conducted under subsection (a) shall include the
3 development of a cybersecurity plan approved by the Sec-
4 retary.

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

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

14 (a) DEFINITIONS.—In this section:

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

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

20 (B) may use grid-scale energy storage.

21 (2) ISOLATED COMMUNITY.—The term “iso-
22 lated community” means a community that is pow-
23 ered by a stand-alone electric generation and dis-
24 tribution system without the economic and reliability
25 benefits of connection to a regional electric grid.

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

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

7 (b) PROGRAM.—

8 (1) ESTABLISHMENT.—The Secretary shall es-
9 tablish a program to promote the development of—

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

12 (B) micro-grid systems to increase the re-
13 silience of critical infrastructure.

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

17 (A) Phase I, which shall consist of the de-
18 velopment of a feasibility assessment for—

19 (i) hybrid micro-grid systems in iso-
20 lated communities; and

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

23 (B) Phase II, which shall consist of the de-
24 velopment of an implementation strategy, in ac-
25 cordance with paragraph (3), to promote the

1 development of hybrid micro-grid systems for
2 isolated communities, particularly for those
3 communities exposed to extreme weather condi-
4 tions and high energy costs, including elec-
5 tricity, space heating and cooling, and transpor-
6 tation.

7 (C) Phase III, which shall be carried out
8 in parallel with Phase II and consist of the de-
9 velopment of an implementation strategy to
10 promote the development of micro-grid systems
11 that increase the resilience of critical infrastruc-
12 ture.

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

19 (E) Phase V, which shall establish a bene-
20 fits analysis plan to help inform regulators, pol-
21 icymakers, and industry stakeholders about the
22 affordability, environmental and resilience bene-
23 fits associated with Phases II, III and IV.

1 (3) REQUIREMENTS FOR STRATEGY.—In devel-
2 oping the strategy under paragraph (2)(B), the Sec-
3 retary shall consider—

4 (A) establishing future targets for the eco-
5 nomic displacement of conventional generation
6 using hybrid micro-grid systems, including dis-
7 placement of conventional generation used for
8 electric power generation, heating and cooling,
9 and transportation;

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

13 (C) opportunities for improving the effi-
14 ciency of existing hybrid micro-grid systems;

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

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

21 (F) leveraging existing capacity within
22 local or regional research organizations, such as
23 organizations based at institutions of higher
24 education, to support development of hybrid
25 micro-grid systems, including by testing novel

1 components and systems prior to field deploy-
2 ment;

3 (G) the need for basic infrastructure to de-
4 velop, deploy, and sustain a hybrid micro-grid
5 system;

6 (H) input of traditional knowledge from
7 local leaders of isolated communities in the de-
8 velopment of a hybrid micro-grid system;

9 (I) the impact of hybrid micro-grid systems
10 on defense, homeland security, economic devel-
11 opment, and environmental interests;

12 (J) opportunities to leverage existing inter-
13 agency coordination efforts and recommenda-
14 tions for new interagency coordination efforts to
15 minimize unnecessary overhead, mobilization,
16 and other project costs; and

17 (K) any other criteria the Secretary deter-
18 mines appropriate.

19 (c) COLLABORATION.—The program established
20 under subsection (b)(1) shall be carried out in collabora-
21 tion with relevant stakeholders, including, as appro-
22 priate—

23 (1) States;

24 (2) Indian tribes;

25 (3) regional entities and regulators;

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

4 (d) REPORT.—Not later than 180 days after the date
5 of enactment of this Act, and annually thereafter, the Sec-
6 retary shall submit to the Committee on Energy and Nat-
7 ural Resources of the Senate and the Committee on En-
8 ergy and Commerce of the House of Representatives a re-
9 port on the efforts to implement the program established
10 under subsection (b)(1) and the status of the strategy de-
11 veloped under subsection (b)(2)(B).

12 **SEC. 2305. VOLUNTARY MODEL PATHWAYS.**

13 (a) ESTABLISHMENT OF VOLUNTARY MODEL PATH-
14 WAYS.—

15 (1) ESTABLISHMENT.—Not later than 90 days
16 after the date of enactment of this Act, the Sec-
17 retary shall initiate the development of voluntary
18 model pathways for modernizing the electric grid
19 through a collaborative, public-private effort that—

20 (A) produces illustrative policy pathways
21 that can be adapted for State and regional ap-
22 plications by regulators and policymakers;

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

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

3 (D) acknowledges and provides for dif-
4 ferent priorities, electric systems, and rate
5 structures across States and regions.

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

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

11 (B) Data visualization.

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

14 (D) Enhanced certainty for private invest-
15 ment in the electric system.

16 (E) Increased innovation.

17 (F) Greater consumer empowerment.

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

20 (H) Improved—

21 (i) integration of distributed energy
22 resources;

23 (ii) interoperability of the electric sys-
24 tem; and

1 (iii) predictive modeling and capacity
2 forecasting.

3 (3) STEERING COMMITTEE.—Not later than 90
4 days after the date of enactment of this Act, the
5 Secretary shall establish a steering committee to fa-
6 cilitate the development of the pathways under para-
7 graph (1), to be composed of members appointed by
8 the Secretary, consisting of persons with appropriate
9 expertise representing a diverse range of interests in
10 the public, private, and academic sectors, including
11 representatives of—

12 (A) the Smart Grid Task Force; and

13 (B) the Smart Grid Advisory Committee.

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

18 **SEC. 2306. PERFORMANCE METRICS FOR ELECTRICITY IN-**

19 **FRASTRUCTURE PROVIDERS.**

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

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

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

4 (b) CONSIDERATIONS FOR DEVELOPMENT OF
5 METRICS.—In developing metrics for evaluating and
6 quantifying the electric grid under subsection (a), the Sec-
7 retary shall consider—

8 (1) standard methodologies for calculating im-
9 provements or deteriorations in the performance
10 metrics, such as reliability, grid efficiency, power
11 quality, consumer satisfaction, sustainability, and fi-
12 nancial incentives;

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

17 (3) appropriate ownership and operating roles
18 for electric utilities that would enable improved per-
19 formance through the adoption of emerging, com-
20 mercially available or advanced grid technologies or
21 solutions, including—

22 (A) multicustomer micro-grids;

23 (B) distributed energy resources;

24 (C) energy storage;

25 (D) electric vehicles;

1 (E) electric vehicle charging infrastructure;

2 (F) integrated information and commu-

3 nications systems;

4 (G) transactive energy systems; and

5 (H) advanced demand management sys-

6 tems; and

7 (4) with respect to States, the role of the grid

8 operator in enabling a robust future electric system

9 to ensure that—

10 (A) electric utilities remain financially via-

11 ble;

12 (B) electric utilities make the needed in-

13 vestments that ensure a reliable, secure, and re-

14 siliant grid; and

15 (C) costs incurred to transform to an inte-

16 grated grid are allocated and recovered respon-

17 sibly, efficiently, and equitably.

18 **SEC. 2307. STATE AND REGIONAL ELECTRICITY DISTRIBU-**

19 **TION PLANNING.**

20 (a) IN GENERAL.—Upon the request of a State or

21 regional organization, the Secretary shall partner with

22 States and regional organizations to facilitate the develop-

23 ment of State and regional electricity distribution plans

24 by—

1 (1) conducting a resource assessment and anal-
2 ysis of future demand and distribution requirements;
3 and

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

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

8 (1) the evaluation of the physical and cyberse-
9 curity needs of an advanced distribution manage-
10 ment system and the integration of distributed en-
11 ergy resources; and

12 (2) advanced use of grid architecture to analyze
13 risks in an all-hazards approach that includes com-
14 munications infrastructure, control systems architec-
15 ture, and power systems architecture.

16 (c) **TECHNICAL ASSISTANCE.**—For the purpose of de-
17 veloping State and regional electricity distribution plans,
18 the Secretary shall provide technical assistance to—

19 (1) States;

20 (2) regional reliability entities; and

21 (3) other distribution asset owners and opera-
22 tors.

1 **SEC. 2308. AUTHORIZATION OF APPROPRIATIONS.**

2 There is authorized to be appropriated to the Sec-
3 retary to carry out sections 2302 through 2307
4 \$200,000,000 for each of fiscal years 2017 through 2026.

5 **SEC. 2309. ELECTRIC TRANSMISSION INFRASTRUCTURE**
6 **PERMITTING.**

7 (a) INTERAGENCY RAPID RESPONSE TEAM FOR
8 TRANSMISSION.—

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

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

18 (A) to improve the timeliness and effi-
19 ciency of electric transmission infrastructure
20 permitting; and

21 (B) to facilitate the performance of main-
22 tenance and upgrades to electric transmission
23 lines on Federal land and non-Federal land.

24 (3) MEMBERSHIP.—The Team shall be com-
25 prised of representatives of—

- 1 (A) the Federal Energy Regulatory Com-
2 mission;
- 3 (B) the Department;
- 4 (C) the Department of the Interior;
- 5 (D) the Department of Defense;
- 6 (E) the Department of Agriculture;
- 7 (F) the Council on Environmental Quality;
- 8 (G) the Department of Commerce;
- 9 (H) the Advisory Council on Historic Pres-
10 ervation; and
- 11 (I) the Environmental Protection Agency.

12 (4) DUTIES.—The Team shall—

13 (A) facilitate coordination and unified envi-
14 ronmental documentation among electric trans-
15 mission infrastructure project applicants, Fed-
16 eral agencies, States, and Indian tribes involved
17 in the siting and permitting process;

18 (B) establish clear timelines for the review
19 and coordination of electric transmission infra-
20 structure projects by the applicable agencies;

21 (C) ensure that each electric transmission
22 infrastructure project is posted on the Federal
23 permitting transmission tracking system known
24 as “e-Trans”, including information on the sta-

1 tus and anticipated completion date of each
2 project; and

3 (D) regularly notify all participating mem-
4 bers of the Team involved in any specific permit
5 of—

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

8 (ii) any approval or required comment
9 that has exceeded statutory or agency
10 timelines for completion, including an iden-
11 tification of any Federal agency, depart-
12 ment, or field office that has not met the
13 applicable timeline.

14 (5) ANNUAL REPORTS.—Annually, the Team
15 shall submit to the Committee on Energy and Nat-
16 ural Resources of the Senate and the Committee on
17 Energy and Commerce of the House of Representa-
18 tives a report that describes the average completion
19 time for specific categories of regionally and nation-
20 ally significant transmission projects, based on infor-
21 mation obtained from the applicable Federal agen-
22 cies.

23 (6) USE OF DATA BY OMB.—Using data pro-
24 vided by the Team, the Director of the Office of
25 Management and Budget shall prioritize inclusion of

1 individual electric transmission infrastructure
2 projects on the website operated by the Office of
3 Management and Budget in accordance with section
4 1122 of title 31, United States Code.

5 (b) TRANSMISSION OMBUDSPERSON.—

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

12 (A) resolving interagency or intra-agency
13 issues or delays with respect to electric trans-
14 mission infrastructure permits; and

15 (B) receiving and resolving complaints
16 from parties with outstanding or in-process ap-
17 plications relating to electric transmission infra-
18 structure.

19 (2) DUTIES.—The Ombudsperson shall—

20 (A) establish a process for—

21 (i) facilitating the permitting process
22 for performance of maintenance and up-
23 grades to electric transmission lines on
24 Federal land and non-Federal land, with a
25 special emphasis on facilitating access for

1 immediate maintenance, repair, and vege-
2 tation management needs;

3 (ii) resolving complaints filed with the
4 Ombudsperson with respect to in-process
5 electric transmission infrastructure per-
6 mits; and

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

10 (B) hear, compile, and share any com-
11 plaints filed with Ombudsperson relating to in-
12 process electric transmission infrastructure per-
13 mits.

14 (c) AGREEMENTS.—

15 (1) IN GENERAL.—The Secretary of the Inte-
16 rior, with respect to public lands (as defined in sec-
17 tion 103(e) of the Federal Land Policy and Manage-
18 ment Act (43 U.S.C. 1702(e)), and the Secretary of
19 Agriculture, with respect to National Forest System
20 land, shall provide for continuity of the existing use
21 and occupancy for the transmission of electric en-
22 ergy by any Federal department or agency granted
23 across public lands or National Forest System land.

24 (2) AGREEMENTS.—The Secretary of the Inte-
25 rior or the Secretary of Agriculture, as applicable,

1 within 30 days after receiving a request from the
2 Federal department or agency administering the
3 electric energy transmission facilities, shall, in con-
4 sultation with that department or agency, initiate
5 agreements regarding the use and occupancy or
6 right-of-way (including vegetation management
7 agreements, where applicable).

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

11 (a) DEFINITIONS.—In this section:

12 (1) DISTRIBUTED ENERGY RESOURCE.—The
13 term “distributed energy resource” means an elec-
14 tricity supply resource that, as permitted by State
15 law—

16 (A)(i) is interconnected to the electric sys-
17 tem operated by a transmission organization at
18 or below 69kV; and

19 (ii) is subject to dispatch by the trans-
20 mission organization; and

21 (B)(i) generates electricity using any pri-
22 mary energy source, including solar energy and
23 other renewable resources; or

24 (ii) stores energy and is capable of sup-
25 plying electricity to the electric system operated

1 by the transmission organization from the stor-
2 age reservoir.

3 (2) ELECTRIC GENERATING CAPACITY RE-
4 SOURCE.—The term “electric generating capacity re-
5 source” means an electric generating resource, as
6 measured by the maximum load-carrying ability of
7 the resource, exclusive of station use and planned,
8 unplanned, or other outage or derating, that is sub-
9 ject to dispatch by a transmission organization to
10 meet the resource adequacy needs of the systems op-
11 erated by the transmission organization.

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

15 (A) serves an electric load at or below
16 69kV from a distributed energy resource or
17 electric generating capacity resource; and

18 (B) is subject to dispatch by a trans-
19 mission organization.

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

24 (b) REPORT.—

1 (1) NOTICE.—Not later than 14 days after the
2 date of enactment of this section, the Commission
3 shall submit to each transmission organization no-
4 tice that the transmission organization is required to
5 file with the Commission a report in accordance with
6 paragraph (2).

7 (2) REPORT.—Not later than 180 days after
8 the date on which a transmission organization re-
9 ceives a notice under paragraph (1), the trans-
10 mission organization shall submit to the Commission
11 a report that—

12 (A)(i) identifies distributed energy re-
13 sources and micro-grid systems that are subject
14 to dispatch by the transmission organization as
15 of the date of the report; and

16 (ii) describes the fuel sources and oper-
17 ational characteristics of such distributed en-
18 ergy resources and micro-grid systems, includ-
19 ing, to the extent practicable, a discussion of
20 the benefits and costs associated with the dis-
21 tributed energy resources and micro-grid sys-
22 tems identified under clause (i);

23 (B) evaluates, with due regard for oper-
24 ational and economic benefits and costs, the po-
25 tential for distributed energy resources and

1 micro-grid systems to be deployed to the trans-
2 mission organization over the short- and long-
3 term periods in the planning cycle of the trans-
4 mission organization; and

5 (C) identifies—

6 (i) over the short- and long-term peri-
7 ods in the planning cycle of the trans-
8 mission organization, barriers to the de-
9 ployment to the transmission organization
10 of distributed energy resources and micro-
11 grid systems; and

12 (ii) potential changes to the oper-
13 ational requirements for, or charges associ-
14 ated with, the interconnection of distrib-
15 uted energy resources and micro-grid sys-
16 tems to the transmission organization that
17 would reduce the barriers identified under
18 clause (i).

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

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

23 **“SEC. 1841. NET ENERGY METERING STUDY.**

24 “(a) IN GENERAL.—Not later than 180 days after
25 the date of enactment of this Act, the Secretary shall—

1 “(1) issue guidance on criteria required to be
2 included in studies of net metering conducted by the
3 Department; and

4 “(2) undertake a study of net energy metering.

5 “(b) REQUIREMENTS AND CONTENTS.—The model
6 guidance issued under subsection (a) shall clarify without
7 prejudice to other study criteria that any study of net en-
8 ergy metering, including the study conducted by the De-
9 partment under subsection (a) shall—

10 “(1) be publicly available; and

11 “(2) assess benefits and costs of net energy me-
12 tering, including—

13 “(A) load data, including hourly profiles;

14 “(B) distributed generation production
15 data;

16 “(C) best available technology, including
17 inverter capability; and

18 “(D) benefits and costs of distributed en-
19 ergy deployment, including—

20 “(i) environmental benefits;

21 “(ii) changes in electric system reli-
22 ability;

23 “(iii) changes in peak power require-
24 ments;

1 “(iv) provision of ancillary services,
2 including reactive power;
3 “(v) changes in power quality;
4 “(vi) changes in land-use effects;
5 “(vii) changes in right-of-way acquisi-
6 tion costs;
7 “(viii) changes in vulnerability to ter-
8 rorism; and
9 “(ix) changes in infrastructure resil-
10 ience.”.

11 **Subtitle E—Computing**

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

13 (a) RENAMING OF ACT.—

14 (1) IN GENERAL.—Section 1 of the Department
15 of Energy High-End Computing Revitalization Act
16 of 2004 (15 U.S.C. 5501 note; Public Law 108–
17 423) is amended by striking “Department of Energy
18 High-End Computing Revitalization Act of 2004”
19 and inserting “Exascale Computing Act of 2015”.

20 (2) CONFORMING AMENDMENT.—Section
21 976(a)(1) of the Energy Policy Act of 2005 (42
22 U.S.C. 16316(1)) is amended by striking “Depart-
23 ment of Energy High-End Computing Revitalization
24 Act of 2004” and inserting “Exascale Computing
25 Act of 2015”.

1 (b) DEFINITIONS.—Section 2 of the Exascale Com-
2 puting Act of 2015 (15 U.S.C. 5541) is amended—

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

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

7 “(1) DEPARTMENT.—The term ‘Department’
8 means the Department of Energy.

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

14 (3) in paragraph (6) (as redesignated by para-
15 graph (1)), by striking “, acting through the Direc-
16 tor of the Office of Science of the Department of
17 Energy”.

18 (c) DEPARTMENT OF ENERGY HIGH-END COM-
19 PUTING RESEARCH AND DEVELOPMENT PROGRAM.—Sec-
20 tion 3 of the Exascale Computing Act of 2015 (15 U.S.C.
21 5542) is amended—

22 (1) in subsection (a)(1), by striking “program”
23 and inserting “coordinated program across the De-
24 partment”;

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

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

6 “(d) EXASCALE COMPUTING PROGRAM.—

7 “(1) IN GENERAL.—The Secretary shall con-
8 duct a research program (referred to in this sub-
9 section as the ‘Program’) to develop 2 or more
10 exascale computing machine architectures to pro-
11 mote the missions of the Department.

12 “(2) IMPLEMENTATION.—

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

15 “(i) establish 2 or more National Lab-
16 oratory partnerships with industry part-
17 ners and institutions of higher education
18 for the research and development of 2 or
19 more exascale computing architectures
20 across all applicable organizations of the
21 Department; and

22 “(ii) provide, as appropriate, on a
23 competitive, merit-reviewed basis, access
24 for researchers in industries in the United
25 States, institutions of higher education,

1 National Laboratories, and other Federal
2 agencies to the exascale computing systems
3 developed pursuant to clause (i).

4 “(B) SELECTION OF PARTNERS.—The Sec-
5 retary shall select members for the partnerships
6 with the computing facilities of the Department
7 under subparagraph (A) through a competitive,
8 peer-review process.

9 “(3) CODESIGN AND APPLICATION DEVELOP-
10 MENT.—

11 “(A) IN GENERAL.—The Secretary shall
12 carry out the Program through an integration
13 of applications, computer science, applied math-
14 ematics, and computer hardware architecture
15 using the partnerships established pursuant to
16 paragraph (2) to ensure that, to the maximum
17 extent practicable, 2 or more exascale com-
18 puting machine architectures are capable of
19 solving Department target applications and
20 broader scientific problems.

21 “(B) REPORT.—The Secretary shall sub-
22 mit to Congress a report on how the integration
23 under subparagraph (A) is furthering applica-
24 tion science data and computational workloads
25 across application interests, including national

1 security, material science, physical science, cy-
2 bersecurity, biological science, the Materials Ge-
3 nome and BRAIN Initiatives of the President,
4 advanced manufacturing, and the national elec-
5 tric grid.

6 “(4) PROJECT REVIEW.—

7 “(A) IN GENERAL.—The exascale architec-
8 tures developed pursuant to partnerships estab-
9 lished pursuant to paragraph (2) shall be re-
10 viewed through a project review process.

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

15 “(i) the results of the review con-
16 ducted under subparagraph (A); and

17 “(ii) the coordination and manage-
18 ment of the Program to ensure an inte-
19 grated research program across the De-
20 partment.

21 “(5) ANNUAL REPORTS.—At the time of the
22 budget submission of the Department for each fiscal
23 year, the Secretary, in consultation with the mem-
24 bers of the partnerships established pursuant to
25 paragraph (2), shall submit to Congress a report

1 that describes funding for the Program as a whole
2 by functional element of the Department and critical
3 milestones.”.

4 (d) AUTHORIZATION OF APPROPRIATIONS.—Section
5 4 of the Exascale Computing Act of 2015 (15 U.S.C.
6 5543) is amended—

7 (1) by striking “this Act” and inserting “sec-
8 tion 3(d)”; and

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

11 “(1) \$272,000,000 for fiscal year 2016;

12 “(2) \$340,000,000 for fiscal year 2017; and

13 “(3) \$360,000,000 for fiscal year 2018.”.

14 **TITLE III—SUPPLY**
15 **Subtitle A—Renewables**

16 **PART I—HYDROELECTRIC**

17 **SEC. 3001. HYDROPOWER REGULATORY IMPROVEMENTS.**

18 (a) SENSE OF CONGRESS ON THE USE OF HYDRO-
19 POWER RENEWABLE RESOURCES.—It is the sense of Con-
20 gress that—

21 (1) hydropower is a renewable resource for pur-
22 poses of all Federal programs and is an essential
23 source of energy in the United States; and

24 (2) the United States should increase substan-
25 tially the capacity and generation of clean, renewable

1 hydropower resources that would improve environ-
2 mental quality in the United States.

3 (b) **MODIFYING THE DEFINITION OF RENEWABLE**
4 **ENERGY TO INCLUDE HYDROPOWER.**—Section 203 of the
5 Energy Policy Act of 2005 (42 U.S.C. 15852) is amend-
6 ed—

7 (1) in subsection (a), by striking “the following
8 amounts” and all that follows through paragraph (3)
9 and inserting “not less than 15 percent in fiscal year
10 2016 and each fiscal year thereafter shall be renew-
11 able energy.” ; and

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

14 “(2) **RENEWABLE ENERGY.**—The term ‘renew-
15 able energy’ means energy produced from solar,
16 wind, biomass, landfill gas, ocean (including tidal,
17 wave, current, and thermal), geothermal, municipal
18 solid waste, or hydropower.”.

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

23 (d) **PRELIMINARY PERMITS.**—Section 5 of the Fed-
24 eral Power Act (16 U.S.C. 798) is amended—

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

3 (2) in subsection (b)—

4 (A) by striking “Commission may extend
5 the period of a preliminary permit once for not
6 more than 2 additional years beyond the 3
7 years” and inserting the following: “Commis-
8 sion may—

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

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

14 (C) by adding at the end the following:

15 “(2) after the end of an extension period grant-
16 ed under paragraph (1), issue an additional permit
17 to the permittee if the Commission determines that
18 there are extraordinary circumstances that warrant
19 the issuance of the additional permit.”.

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

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

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

5 “(e) LICENSE TERM ON RELICENSING.—

6 “(1) IN GENERAL.—Except”; and

7 (2) by adding at the end the following:

8 “(2) CONSIDERATION.—In determining the
9 term of a license under paragraph (1), the Commis-
10 sion shall consider project-related investments by the
11 licensee over the term of the existing license (includ-
12 ing any terms under annual licenses) that resulted
13 in new development, construction, capacity, effi-
14 ciency improvements, or environmental measures,
15 but which did not result in the extension of the term
16 of the license by the Commission.”.

17 (g) OPERATION OF NAVIGATION FACILITIES.—Sec-
18 tion 18 of the Federal Power Act (16 U.S.C. 811) is
19 amended by striking the second, third, and fourth sen-
20 tences.

21 (h) ALTERNATIVE CONDITIONS AND PRESCRIP-
22 TIONS.—Section 33 of the Federal Power Act (16 U.S.C.
23 823d) is amended—

24 (1) in subsection (a)—

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

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

6 (C) by striking paragraph (4); and

7 (D) by striking paragraph (5);

8 (2) in subsection (b)—

9 (A) by striking paragraph (4); and

10 (B) by striking paragraph (5); and

11 (3) by adding at the end the following:

12 “(c) FURTHER CONDITIONS.—This section applies to
13 any further conditions or prescriptions proposed or im-
14 posed pursuant to section 4(e), 6, or 18.”.

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

19 **“SEC. 34. LICENSING PROCESS IMPROVEMENTS.**

20 “(a) LICENSE STUDIES.—

21 “(1) IN GENERAL.—To facilitate the timely and
22 efficient completion of the license proceedings under
23 this part, the Commission shall—

24 “(A) conduct an investigation of best prac-
25 tices in performing licensing studies, including

1 methodologies and the design of studies to as-
2 sess the full range of environmental impacts of
3 a project;

4 “(B) compile a comprehensive collection of
5 studies and data accessible to the public that
6 could be used to inform license proceedings
7 under this paragraph; and

8 “(C) encourage license applicants and co-
9 operating agencies to develop and use, for the
10 purpose of fostering timely and efficient consid-
11 eration of license applications, a limited number
12 of open-source methodologies and tools applica-
13 ble across a wide array of projects, including
14 water balance models and streamflow analyses.

15 “(2) USE OF EXISTING STUDIES.—To the max-
16 imum extent practicable, the Commission shall use
17 existing studies and data in individual licensing pro-
18 ceedings under this part in accordance with para-
19 graph (1).

20 “(3) NONDUPLICATION REQUIREMENT.—To the
21 maximum extent practicable, the Commission shall
22 ensure that studies and data required for any Fed-
23 eral authorization (as defined in section 35(a)) ap-
24 plicable to a particular project or facility are not du-

1 plicated in other licensing proceedings under this
2 part.

3 “(4) BIOLOGICAL OPINIONS.—To the maximum
4 extent practicable, the Secretary of Commerce shall
5 ensure that relevant offices within the National Ma-
6 rine Fisheries Service prepare any biological opinion
7 under section 7 of the Endangered Species Act of
8 1973 (16 U.S.C. 1536) that forms the basis for a
9 prescription under section 18 on a concurrent rather
10 than sequential basis.

11 “(5) WATER QUALITY CERTIFICATION DEAD-
12 LINE.—

13 “(A) IN GENERAL.—For purposes of
14 issuing a license under this part, the deadline
15 for a certifying agency to act under section
16 401(a) of the Federal Water Pollution Control
17 Act (33 U.S.C. 1341(a)) shall take effect only
18 on the submission of a request for certification
19 determined to be complete by the certifying
20 agency.

21 “(B) NOTICE OF COMPLETE REQUEST.—
22 The certifying agency shall inform the Commis-
23 sion when a request for certification is deter-
24 mined to be complete.

1 **“SEC. 35. LICENSING PROCESS COORDINATION.**

2 “(a) DEFINITION OF FEDERAL AUTHORIZATION.—In
3 this section, the term ‘Federal authorization’ means any
4 authorization required under Federal law (including any
5 license, permit, special use authorization, certification,
6 opinion, consultation, determination, or other approval)
7 with respect to—

8 “(1) a project licensed under section 4 or 15;

9 or

10 “(2) a facility exempted under—

11 “(A) section 30; or

12 “(B) section 405(d) of the Public Utility
13 Regulatory Policies Act of 1978 (16 U.S.C.
14 2705(d)).

15 “(b) DESIGNATION AS LEAD AGENCY.—

16 “(1) IN GENERAL.—The Commission shall act
17 as the lead agency for the purposes of coordinating
18 all applicable Federal authorizations.

19 “(2) OTHER AGENCIES.—Each Federal and
20 State agency considering an aspect of an application
21 for Federal authorization shall cooperate with the
22 Commission.

23 “(c) SCHEDULE.—

24 “(1) TIMING FOR ISSUANCE.—It is the sense of
25 Congress that all Federal authorizations required for
26 a project or facility, including a license or exemption

1 order of the Commission, should be issued by the
2 date that is 3 years after the date on which an ap-
3 plication is considered to be complete by the Com-
4 mission.

5 “(2) COMMISSION SCHEDULE.—

6 “(A) IN GENERAL.—The Commission shall
7 establish a schedule for the issuance of all Fed-
8 eral authorizations.

9 “(B) REQUIREMENTS.—In establishing the
10 schedule under subparagraph (A), the Commis-
11 sion shall—

12 “(i) consult and cooperate with the
13 Federal and State agencies responsible for
14 a Federal authorization;

15 “(ii) ensure the expeditious comple-
16 tion of all proceedings relating to a Fed-
17 eral authorization; and

18 “(iii) comply with applicable schedules
19 established by Federal law with respect to
20 a Federal authorization.

21 “(3) RESOLUTION OF INTERAGENCY DIS-
22 PUTES.—If the Federal agency fails to adhere to the
23 schedule established by the Commission under para-
24 graph (2), or if the final condition of the Secretary
25 under section 4(e) or prescription under section 18

1 has been unreasonably delayed in derogation of the
2 schedule established under paragraph (2), or if a
3 proposed alternative condition or prescription has
4 been unreasonably denied, or if a final condition or
5 prescription would be inconsistent with the purposes
6 of this part or other applicable law, the Commission
7 may refer the matter to the Chairman of the Council
8 on Environmental Quality—

9 “(A) to ensure timely participation;

10 “(B) to ensure a timely decision;

11 “(C) to mediate the dispute; or

12 “(D) to refer the matter to the President.

13 “(d) CONSOLIDATED RECORD.—

14 “(1) IN GENERAL.—The Commission shall
15 maintain official consolidated records of all license
16 proceedings under this part.

17 “(2) SUBMISSION OF RECOMMENDATIONS.—

18 Any Federal or State agency that is providing rec-
19 ommendations with respect to a license proceeding
20 under this part shall submit to the Commission for
21 inclusion in the consolidated record relating to the li-
22 cense proceeding maintained under paragraph (1)—

23 “(A) the recommendations;

24 “(B) the rationale for the recommenda-
25 tions; and

1 “(C) any supporting materials relating to
2 the recommendations.

3 “(3) WRITTEN STATEMENT.—In a case in
4 which a Federal agency is making a determination
5 with respect to a covered measure (as defined in sec-
6 tion 36(a)), the head of the Federal agency shall in-
7 clude in the consolidated record a written statement
8 demonstrating that the Federal agency gave equal
9 consideration to the effects of the covered measure
10 on—

11 “(A) energy supply, distribution, cost, and
12 use;

13 “(B) flood control;

14 “(C) navigation;

15 “(D) water supply; and

16 “(E) air quality and the preservation of
17 other aspects of environmental quality.

18 **“SEC. 36. TRIAL-TYPE HEARINGS.**

19 “(a) DEFINITION OF COVERED MEASURE.—In this
20 section, the term ‘covered measure’ means—

21 “(1) a condition prescribed under section 4(e),
22 including an alternative condition proposed under
23 section 33(a);

1 “(2) fishways prescribed under section 18, in-
2 cluding an alternative prescription proposed under
3 section 33(b); or

4 “(3) any further condition pursuant to section
5 4(e), 6, or 18.

6 “(b) AUTHORIZATION OF TRIAL-TYPE HEARING.—

7 The license applicant (including an applicant for a license
8 under section 15) and any party to the proceeding shall
9 be entitled to a determination on the record, after oppor-
10 tunity for a trial-type hearing of not more than 120 days,
11 on any disputed issues of material fact with respect to an
12 applicable covered measure.

13 “(c) DEADLINE FOR REQUEST.—A request for a
14 trial-type hearing under this section shall be submitted not
15 later than 60 days after the date on which, as applicable—

16 “(1) the Secretary submits the condition under
17 section 4(e) or prescription under section 18; or

18 “(2)(A) the Commission publishes notice of the
19 intention to use the reserved authority of the Com-
20 mission to order a further condition under section 6;
21 or

22 “(B) the Secretary exercises reserved authority
23 under the license to prescribe, submit, or revise any
24 condition to a license under the first proviso of sec-

1 tion 4(e) or fishway prescribed under section 18, as
2 appropriate.

3 “(d) NO REQUIREMENT TO EXHAUST.—By electing
4 not to request a trial-type hearing under subsection (d),
5 a license applicant and any other party to a license pro-
6 ceeding shall not be considered to have waived the right
7 of the applicant or other party to raise any issue of fact
8 or law in a non-trial-type proceeding, but no issue may
9 be raised for the first time on rehearing or judicial review
10 of the license decision of the Commission.

11 “(e) ADMINISTRATIVE LAW JUDGE.—All disputed
12 issues of material fact raised by a party in a request for
13 a trial-type hearing submitted under subsection (d) shall
14 be determined in a single trial-type hearing to be con-
15 ducted by an Administrative Law Judge within the Office
16 of Administrative Law Judges and Dispute Resolution of
17 the Commission, in accordance with the Commission rules
18 of practice and procedure under part 385 of title 18, Code
19 of Federal Regulations (or successor regulations), and
20 within the timeframe established by the Commission for
21 each license proceeding (including a proceeding for a li-
22 cense under section 15) under section 35(c).

23 “(f) STAY.—The Administrative Law Judge may im-
24 pose a stay of a trial-type hearing under this section for
25 a period of not more than 120 days to facilitate settlement

1 negotiations relating to resolving the disputed issues of
2 material fact with respect to the covered measure.

3 “(g) DECISION OF THE ADMINISTRATIVE LAW
4 JUDGE.—

5 “(1) CONTENTS.—The decision of the Adminis-
6 trative Law Judge shall contain—

7 “(A) findings of fact on all disputed issues
8 of material fact;

9 “(B) conclusions of law necessary to make
10 the findings of fact, including rulings on mate-
11 riality and the admissibility of evidence; and

12 “(C) reasons for the findings and conclu-
13 sions.

14 “(2) LIMITATION.—The decision of the Admin-
15 istrative Law Judge shall not contain conclusions as
16 to whether—

17 “(A) any condition or prescription should
18 be adopted, modified, or rejected; or

19 “(B) any alternative condition or prescrip-
20 tion should be adopted, modified, or rejected.

21 “(3) FINALITY.—A decision of an Administra-
22 tive Law Judge under this section with respect to a
23 disputed issue of material fact shall not be subject
24 to further administrative review.

1 “(4) SERVICE.—The Administrative Law Judge
2 shall serve the decision on each party to the hearing
3 and forward the complete record of the hearing to
4 the Commission and the Secretary that proposed the
5 original condition or prescription.

6 “(h) SECRETARIAL DETERMINATION.—

7 “(1) IN GENERAL.—Not later than 60 days
8 after the date on which the Administrative Law
9 Judge issues the decision under subsection (g) and
10 in accordance with the schedule established by the
11 Commission under section 35(c), the Secretary pro-
12 posing a condition under section 4(e) or a prescrip-
13 tion under section 18 shall file with the Commission
14 a final determination to adopt, modify, or withdraw
15 any condition or prescription that was the subject of
16 a hearing under this section, based on the decision
17 of the Administrative Law Judge.

18 “(2) RECORD OF DETERMINATION.—The final
19 determination of the Secretary filed with the Com-
20 mission shall identify the reasons for the decision
21 and any considerations taken into account that were
22 not part of, or inconsistent with, the findings of the
23 Administrative Law Judge and shall be included in
24 the consolidated record in section 35(d).

1 “(i) LICENSING DECISION OF THE COMMISSION.—
2 Notwithstanding sections 4(e) and 18, if the Commission
3 finds that the final condition or prescription of the Sec-
4 retary is inconsistent with the purposes of this part or
5 other applicable law, the Commission may refer the matter
6 to the Chairman of the Council on Environmental Quality
7 under section 35(c).

8 “(j) JUDICIAL REVIEW.—The decision of the Admin-
9 istrative Law Judge and the record of determination of
10 the Secretary shall be included in the record of the appli-
11 cable licensing proceeding and subject to judicial review
12 of the final licensing decision of the Commission under
13 section 313(b).

14 **“SEC. 37. PUMPED STORAGE PROJECTS.**

15 “‘In carrying out section 6(a) of the Hydropower Reg-
16 ulatory Efficiency Act of 2013 (16 U.S.C. 797 note; Pub-
17 lic Law 113–23), the Commission shall consider a closed
18 loop pumped storage project to include a project—

19 “(1) in which the upper and lower reservoirs do
20 not impound or directly withdraw water from a navi-
21 gable stream; or

22 “(2) that is not continuously connected to a
23 naturally flowing water feature.

24 **“SEC. 38. ANNUAL REPORTS.**

25 “(a) COMMISSION ANNUAL REPORT.—

1 “(1) IN GENERAL.—The Commission shall sub-
2 mit to the Committee on Energy and Natural Re-
3 sources of the Senate and the Committee on Energy
4 and Commerce of the House of Representatives an
5 annual report that—

6 “(A) describes and quantifies, for each li-
7 censed, exempted, or proposed project under
8 this part or section 405(d) of the Public Utility
9 Regulatory Policies Act of 1978 (16 U.S.C.
10 2705(d)) (referred to in this subsection as the
11 ‘covered project’), the quantity of energy and
12 capacity authorized for new development and
13 reauthorized for continued operation during the
14 reporting year, including an assessment of the
15 economic, climactic, air quality, and other envi-
16 ronmental benefits achieved by the new and re-
17 authorized energy and capacity;

18 “(B) describes and quantifies the loss of
19 energy, capacity, or ancillary services as a re-
20 sult of any licensing action under this part or
21 other requirement under Federal law during the
22 reporting year;

23 “(C) identifies any application to license,
24 relicense, or expand a covered project pending
25 as of the date of the annual report, including

1 a quantification of the new energy and capacity
2 with the potential to be gained or lost by action
3 relating to the covered project; and

4 “(D) lists all proposed covered projects
5 that, as of the date of the annual report, are
6 subject to a preliminary permit issued under
7 section 4(f), including a description of the
8 quantity of new energy and capacity that would
9 be achieved through the development of each
10 proposed covered project.

11 “(2) AVAILABILITY.—The Commission shall es-
12 tablish and maintain a publicly available website or
13 comparable resource that tracks all information re-
14 quired for the annual report under paragraph (1).

15 “(b) RESOURCE AGENCY ANNUAL REPORT.—

16 “(1) IN GENERAL.—Any Federal or State re-
17 source agency that is participating in any Commis-
18 sion proceeding under this part or that has respon-
19 sibilities for any Federal authorization shall submit
20 to the Committee on Energy and Natural Resources
21 of the Senate and the Committee on Energy and
22 Commerce of the House of Representatives a report
23 that—

24 “(A) describes each term, condition, or
25 other requirement prepared by the resource

1 agency during the reporting year with respect
2 to a Commission proceeding under this part, in-
3 cluding—

4 “(i) an assessment of whether imple-
5 mentation of the term, condition, or other
6 requirement would result in the loss of en-
7 ergy, capacity, or ancillary services at the
8 project, including a quantification of the
9 losses;

10 “(ii) an analysis of economic, air qual-
11 ity, climactic and other environmental ef-
12 fects associated with implementation of the
13 term, condition, or other requirement;

14 “(iii) a demonstration, based on evi-
15 dence in the record of the Commission,
16 that the resource agency prepared the
17 term, condition, or other requirement in a
18 manner that meets the policy established
19 by this part while discharging the respon-
20 sibilities of the resource agency under this
21 part or any other applicable requirement
22 under Federal law; and

23 “(iv) a statement of whether the head
24 of the applicable Federal agency has ren-
25 dered final approval of the term, condition,

1 or other requirement, or whether the term,
2 condition, or other requirement remains a
3 preliminary recommendation of staff of the
4 resource agency; and

5 “(B) identifies all pending, scheduled, and
6 anticipated proceedings under this part that, as
7 of the date of the annual report, the resource
8 agency expects to participate in, or has any ap-
9 proval or participatory responsibilities for under
10 Federal law, including—

11 “(i) an accounting of whether the re-
12 source agency met all deadlines or other
13 milestones established by the resource
14 agency or the Commission during the re-
15 porting year; and

16 “(ii) the specific plans of the resource
17 agency for allocating sufficient resources
18 for each project during the upcoming year.

19 “(2) AVAILABILITY.—Any resource agency pre-
20 paring an annual report to Congress under para-
21 graph (1) shall establish and maintain a publicly
22 available website or comparable resource that tracks
23 all information required for the annual report.”.

24 (j) PILOT PROGRAM.—

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

9 (2) DESIGNATION.—Not later than 2 years
10 after the date of enactment of this Act, if the condi-
11 tions under paragraph (3) are met, the Commission,
12 in consultation with the heads of cooperating agen-
13 cies, shall designate 1 or more regions to be studied
14 under this subsection.

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

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

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

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

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

5 (i) are licensed under this part; and

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

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

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

19 **SEC. 3002. HYDROELECTRIC PRODUCTION INCENTIVES**
20 **AND EFFICIENCY IMPROVEMENTS.**

21 (a) HYDROELECTRIC PRODUCTION INCENTIVES.—
22 Section 242 of the Energy Policy Act of 2005 (42 U.S.C.
23 15881) is amended—

24 (1) in subsection (c), by striking “10” and in-
25 serting “20”;

1 (2) in subsection (f), by striking “20” and in-
2 serting “30”; and

3 (3) in subsection (g), by striking “each of the
4 fiscal years 2006 through 2015” and inserting “each
5 of fiscal years 2016 through 2025”.

6 (b) HYDROELECTRIC EFFICIENCY IMPROVEMENT.—
7 Section 243(c) of the Energy Policy Act of 2005 (42
8 U.S.C. 15882(c)) is amended by striking “each of the fis-
9 cal years 2006 through 2015” and inserting “each of fis-
10 cal years 2016 through 2025”.

11 **SEC. 3003. EXTENSION OF TIME FOR A FEDERAL ENERGY**
12 **REGULATORY COMMISSION PROJECT IN-**
13 **VOLVING CLARK CANYON DAM.**

14 Notwithstanding the time period described in section
15 13 of the Federal Power Act (16 U.S.C. 806) that would
16 otherwise apply to the Federal Energy Regulatory Com-
17 mission project numbered 12429, the Federal Energy
18 Regulatory Commission (referred to in this section as the
19 “Commission”) shall, at the request of the licensee for the
20 project, and after reasonable notice and in accordance
21 with the procedures of the Commission under that section,
22 reinstate the license and extend the time period during
23 which the licensee is required to commence construction
24 of project works for the 3-year period beginning on the
25 date of enactment of this Act.

1 **SEC. 3004. EXTENSION OF TIME FOR A FEDERAL ENERGY**
2 **REGULATORY COMMISSION PROJECT IN-**
3 **VOLVING GIBSON DAM.**

4 (a) **IN GENERAL.**—Notwithstanding the require-
5 ments of section 13 of the Federal Power Act (16 U.S.C.
6 806) that would otherwise apply to the Federal Energy
7 Regulatory Commission project numbered 12478–003, the
8 Federal Energy Regulatory Commission (referred to in
9 this section as the “Commission”) may, at the request of
10 the licensee for the project, and after reasonable notice
11 and in accordance with the procedures of the Commission
12 under that section, extend the time period during which
13 the licensee is required to commence construction of the
14 project for a 6-year period that begins on the date de-
15 scribed in subsection (b).

16 (b) **DATE DESCRIBED.**—The date described in this
17 subsection is the date of the expiration of the extension
18 of the period required for commencement of construction
19 for the project described in subsection (a) that was issued
20 by the Commission prior to the date of enactment of this
21 Act under section 13 of the Federal Power Act (16 U.S.C.
22 806).

1 **PART II—GEOTHERMAL**

2 **Subpart A—Geothermal Energy**

3 **SEC. 3005. NATIONAL GOALS FOR PRODUCTION AND SITE**
4 **IDENTIFICATION.**

5 It is the sense of Congress that, not later than 10
6 years after the date of enactment of this Act—

7 (1) the Secretary of the Interior shall seek to
8 approve a significant increase in new geothermal en-
9 ergy capacity on public land across a geographically
10 diverse set of States using the full range of available
11 technologies; and

12 (2) the Director of the Geological Survey and
13 the Secretary should identify sites capable of pro-
14 ducing a total of 50,000 megawatts of geothermal
15 power, using the full range of available technologies.

16 **SEC. 3006. PRIORITY AREAS FOR DEVELOPMENT ON FED-**
17 **ERAL LAND.**

18 The Director of the Bureau of Land Management,
19 in consultation with other appropriate Federal agencies,
20 shall—

21 (1) identify high priority areas for new geo-
22 thermal development; and

23 (2) take any actions the Director determines
24 necessary to facilitate that development, consistent
25 with applicable laws.

1 **SEC. 3007. FACILITATION OF COPRODUCTION OF GEO-**
2 **THERMAL ENERGY ON OIL AND GAS LEASES.**

3 Section 4(b) of the Geothermal Steam Act of 1970
4 (30 U.S.C. 1003(b)) is amended by adding at the end the
5 following:

6 “(4) LAND SUBJECT TO OIL AND GAS LEASE.—
7 Land under an oil and gas lease issued pursuant to
8 the Mineral Leasing Act (30 U.S.C. 181 et seq.) or
9 the Mineral Leasing Act for Acquired Lands (30
10 U.S.C. 351 et seq.) that is subject to an approved
11 application for permit to drill and from which oil
12 and gas production is occurring may be available for
13 noncompetitive leasing under this section to the
14 holder of the oil and gas lease—

15 “(A) on a determination that—

16 “(i) geothermal energy will be pro-
17 duced from a well producing or capable of
18 producing oil and gas; and

19 “(ii) national energy security will be
20 improved by the issuance of such a lease;
21 and

22 “(B) to provide for the coproduction of
23 geothermal energy with oil and gas.”.

1 **SEC. 3008. NONCOMPETITIVE LEASING OF ADJOINING**
2 **AREAS FOR DEVELOPMENT OF GEOTHERMAL**
3 **RESOURCES.**

4 Section 4(b) of the Geothermal Steam Act of 1970
5 (30 U.S.C. 1003(b)) (as amended by section 3007) is
6 amended by adding at the end the following:

7 “(5) ADJOINING LAND.—

8 “(A) DEFINITIONS.—In this paragraph:

9 “(i) FAIR MARKET VALUE PER
10 ACRE.—The term ‘fair market value per
11 acre’ means a dollar amount per acre
12 that—

13 “(I) except as provided in this
14 clause, shall be equal to the market
15 value per acre (taking into account
16 the determination under subparagraph
17 (B)(iii) regarding a valid discovery on
18 the adjoining land), as determined by
19 the Secretary under regulations issued
20 under this paragraph;

21 “(II) shall be determined by the
22 Secretary with respect to a lease
23 under this paragraph, by not later
24 than the end of the 180-day period
25 beginning on the date the Secretary

1 receives an application for the lease;

2 and

3 “(III) shall be not less than the

4 greater of—

5 “(aa) 4 times the median

6 amount paid per acre for all land

7 leased under this Act during the

8 preceding year; or

9 “(bb) \$50.

10 “(ii) INDUSTRY STANDARDS.—The

11 term ‘industry standards’ means the stand-

12 ards by which a qualified geothermal pro-

13 fessional assesses whether downhole or

14 flowing temperature measurements with

15 indications of permeability are sufficient to

16 produce energy from geothermal resources,

17 as determined through flow or injection

18 testing or measurement of lost circulation

19 while drilling.

20 “(iii) QUALIFIED FEDERAL LAND.—

21 The term ‘qualified Federal land’ means

22 land that is otherwise available for leasing

23 under this Act.

24 “(iv) QUALIFIED GEOTHERMAL PRO-

25 FESSIONAL.—The term ‘qualified geo-

1 thermal professional’ means an individual
2 who is an engineer or geoscientist in good
3 professional standing with at least 5 years
4 of experience in geothermal exploration,
5 development, or project assessment.

6 “(v) QUALIFIED LESSEE.—The term
7 ‘qualified lessee’ means a person that is el-
8 igible to hold a geothermal lease under this
9 Act (including applicable regulations).

10 “(vi) VALID DISCOVERY.—The term
11 ‘valid discovery’ means a discovery of a
12 geothermal resource by a new or existing
13 slim hole or production well, that exhibits
14 downhole or flowing temperature measure-
15 ments with indications of permeability that
16 are sufficient to meet industry standards.

17 “(B) AUTHORITY.—An area of qualified
18 Federal land that adjoins other land for which
19 a qualified lessee holds a legal right to develop
20 geothermal resources may be available for a
21 noncompetitive lease under this section to the
22 qualified lessee at the fair market value per
23 acre, if—

24 “(i) the area of qualified Federal
25 land—

1 “(I) consists of not less than 1
2 acre and not more than 640 acres;
3 and

4 “(II) is not already leased under
5 this Act or nominated to be leased
6 under subsection (a);

7 “(ii) the qualified lessee has not pre-
8 viously received a noncompetitive lease
9 under this paragraph in connection with
10 the valid discovery for which data has been
11 submitted under clause (iii)(I); and

12 “(iii) sufficient geological and other
13 technical data prepared by a qualified geo-
14 thermal professional has been submitted by
15 the qualified lessee to the applicable Fed-
16 eral land management agency that would
17 lead individuals who are experienced in the
18 subject matter to believe that—

19 “(I) there is a valid discovery of
20 geothermal resources on the land for
21 which the qualified lessee holds the
22 legal right to develop geothermal re-
23 sources; and

24 “(II) that thermal feature ex-
25 tends into the adjoining areas.

1 “(C) DETERMINATION OF FAIR MARKET
2 VALUE.—

3 “(i) IN GENERAL.—The Secretary
4 shall—

5 “(I) publish a notice of any re-
6 quest to lease land under this para-
7 graph;

8 “(II) determine fair market value
9 for purposes of this paragraph in ac-
10 cordance with procedures for making
11 those determinations that are estab-
12 lished by regulations issued by the
13 Secretary;

14 “(III) provide to a qualified les-
15 see and publish, with an opportunity
16 for public comment for a period of 30
17 days, any proposed determination
18 under this subparagraph of the fair
19 market value of an area that the
20 qualified lessee seeks to lease under
21 this paragraph; and

22 “(IV) provide to the qualified les-
23 see and any adversely affected party
24 the opportunity to appeal the final de-
25 termination of fair market value in an

1 administrative proceeding before the
2 applicable Federal land management
3 agency, in accordance with applicable
4 law (including regulations).

5 “(ii) LIMITATION ON NOMINATION.—
6 After publication of a notice of request to
7 lease land under this paragraph, the Sec-
8 retary may not accept under subsection (a)
9 any nomination of the land for leasing un-
10 less the request has been denied or with-
11 drawn.

12 “(iii) ANNUAL RENTAL.—For pur-
13 poses of section 5(a)(3), a lease awarded
14 under this paragraph shall be considered a
15 lease awarded in a competitive lease sale.

16 “(D) REGULATIONS.—Not later than 270
17 days after the date of enactment of the Energy
18 Policy Modernization Act of 2015, the Sec-
19 retary shall issue regulations to carry out this
20 paragraph.”.

21 **SEC. 3009. LARGE-SCALE GEOTHERMAL ENERGY.**

22 Title VI of the Energy Independence and Security
23 Act of 2007 is amended by inserting after section 616 (42
24 U.S.C. 17195) the following:

1 **“SEC. 616A. LARGE-SCALE GEOTHERMAL ENERGY.**

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

3 “(1) to improve the components, processes, and
4 systems used for geothermal heat pumps and the di-
5 rect use of geothermal energy; and

6 “(2) to increase the energy efficiency, lower the
7 cost, increase the use, and improve and demonstrate
8 the applicability of geothermal heat pumps to, and
9 the direct use of geothermal energy in, large build-
10 ings, commercial districts, residential communities,
11 and large municipal, agricultural, or industrial
12 projects.

13 “(b) DEFINITIONS.—In this section:

14 “(1) DIRECT USE OF GEOTHERMAL ENERGY.—
15 The term ‘direct use of geothermal energy’ means
16 systems that use water that is at a temperature be-
17 tween approximately 38 degrees Celsius and 149 de-
18 grees Celsius directly or through a heat exchanger to
19 provide—

20 “(A) heating to buildings; or

21 “(B) heat required for industrial processes,
22 agriculture, aquaculture, and other facilities.

23 “(2) GEOTHERMAL HEAT PUMP.—The term
24 ‘geothermal heat pump’ means a system that pro-
25 vides heating and cooling by exchanging heat from
26 shallow ground or surface water using—

1 “(A) a closed loop system, which transfers
2 heat by way of buried or immersed pipes that
3 contain a mix of water and working fluid; or

4 “(B) an open loop system, which circulates
5 ground or surface water directly into the build-
6 ing and returns the water to the same aquifer
7 or surface water source.

8 “(3) LARGE-SCALE APPLICATION.—The term
9 ‘large-scale application’ means an application for
10 space or process heating or cooling for large entities
11 with a name-plate capacity, expected resource, or
12 rating of 10 or more megawatts, such as a large
13 building, commercial district, residential community,
14 or a large municipal, agricultural, or industrial
15 project.

16 “(c) PROGRAM.—

17 “(1) IN GENERAL.—The Secretary shall estab-
18 lish a program of research, development, and dem-
19 onstration for geothermal heat pumps and the direct
20 use of geothermal energy.

21 “(2) AREAS.—The program may include re-
22 search, development, demonstration, and commercial
23 application of—

1 “(A) geothermal ground loop efficiency im-
2 provements through more efficient heat transfer
3 fluids;

4 “(B) geothermal ground loop efficiency im-
5 provements through more efficient thermal
6 grouts for wells and trenches;

7 “(C) geothermal ground loop installation
8 cost reduction through—

9 “(i) improved drilling methods;

10 “(ii) improvements in drilling equip-
11 ment;

12 “(iii) improvements in design method-
13 ology and energy analysis procedures; and

14 “(iv) improved methods for deter-
15 mination of ground thermal properties and
16 ground temperatures;

17 “(D) installing geothermal ground loops
18 near the foundation walls of new construction
19 to take advantage of existing structures;

20 “(E) using gray or black wastewater as a
21 method of heat exchange;

22 “(F) improving geothermal heat pump sys-
23 tem economics through integration of geo-
24 thermal systems with other building systems,
25 including providing hot and cold water and re-

1 jecting or circulating industrial process heat
2 through refrigeration heat rejection and waste
3 heat recovery;

4 “(G) advanced geothermal systems using
5 variable pumping rates to increase efficiency;

6 “(H) geothermal heat pump efficiency im-
7 provements;

8 “(I) use of hot water found in mines and
9 mine shafts and other surface waters as the
10 heat exchange medium;

11 “(J) heating of districts, neighborhoods,
12 communities, large commercial or public build-
13 ings (including office, retail, educational, gov-
14 ernment, and institutional buildings and multi-
15 family residential buildings and campuses), and
16 industrial and manufacturing facilities;

17 “(K) geothermal system integration with
18 solar thermal water heating or cool roofs and
19 solar-regenerated desiccants to balance loads
20 and use building hot water to store geothermal
21 energy;

22 “(L) use of hot water coproduced from oil
23 and gas recovery;

1 “(M) use of water sources at a tempera-
2 ture of less than 150 degrees Celsius for direct
3 use;

4 “(N) system integration of direct use with
5 geothermal electricity production; and

6 “(O) coproduction of heat and power, in-
7 cluding on-site use.

8 “(3) ENVIRONMENTAL IMPACTS.—In carrying
9 out the program, the Secretary shall identify and
10 mitigate potential environmental impacts in accord-
11 ance with section 614(e).

12 “(d) GRANTS.—

13 “(1) IN GENERAL.—The Secretary shall make
14 grants available to State and local governments, in-
15 stitutions of higher education, nonprofit entities,
16 utilities, and for-profit companies (including manu-
17 facturers of heat-pump and direct-use components
18 and systems) to promote the development of geo-
19 thermal heat pumps and the direct use of geo-
20 thermal energy.

21 “(2) PRIORITY.—In making grants under this
22 subsection, the Secretary shall give priority to pro-
23 posals that apply to large buildings (including office,
24 retail, educational, government, institutional, and
25 multifamily residential buildings and campuses and

1 industrial and manufacturing facilities), commercial
2 districts, and residential communities.

3 “(3) NATIONAL SOLICITATION.—Not later than
4 180 days after the date of enactment of this section,
5 the Secretary shall conduct a national solicitation for
6 applications for grants under this section.

7 “(e) REPORTS.—

8 “(1) IN GENERAL.—Not later than 2 years
9 after the date of enactment of this section and annu-
10 ally thereafter, the Secretary shall submit to the
11 Committee on Energy and Natural Resources of the
12 Senate and the Committee on Science, Space, and
13 Technology of the House of Representatives a report
14 on progress made and results obtained under this
15 section to develop geothermal heat pumps and direct
16 use of geothermal energy.

17 “(2) AREAS.—Each of the reports required
18 under this subsection shall include—

19 “(A) an analysis of progress made in each
20 of the areas described in subsection (c)(2); and

21 “(B)(i) a description of any relevant rec-
22 ommendations made during a review of the pro-
23 gram; and

24 “(ii) any plans to address the rec-
25 ommendations under clause (i).”.

1 **SEC. 3010. REPORT TO CONGRESS.**

2 Not later than 3 years after the date of enactment
3 of this Act and not less frequently than once every 5 years
4 thereafter, the Secretary of the Interior and the Secretary
5 shall submit to Congress a report describing the progress
6 made towards achieving the goals described in section
7 3005.

8 **SEC. 3011. AUTHORIZATION OF APPROPRIATIONS.**

9 There are authorized to be appropriated to carry out
10 this subpart—

- 11 (1) \$65,000,000 for fiscal year 2017; and
12 (2) \$75,000,000 for each of fiscal years 2018
13 through 2021.

14 **Subpart B—Geothermal Exploration**

15 **SEC. 3012. GEOTHERMAL EXPLORATION TEST PROJECTS.**

16 The Geothermal Steam Act of 1970 (30 U.S.C. 1001
17 et seq.) is amended by adding at the end the following:

18 **“SEC. 30. GEOTHERMAL EXPLORATION TEST PROJECTS.**

19 **“(a) DEFINITIONS.—**In this section:

20 **“(1) COVERED LAND.—**The term ‘covered land’
21 means land that is—

22 **“(A)** subject to geothermal leasing in ac-
23 cordance with section 3; and

24 **“(B)** not excluded from the development of
25 geothermal energy under—

1 “(i) a final land use plan established
2 under the Federal Land Policy and Man-
3 agement Act of 1976 (43 U.S.C. 1701 et
4 seq.);

5 “(ii) a final land and resource man-
6 agement plan established under the Na-
7 tional Forest Management Act of 1976 (16
8 U.S.C. 1600 et seq.); or

9 “(iii) any other applicable law.

10 “(2) SECRETARY CONCERNED.—The term ‘Sec-
11 retary concerned’ means—

12 “(A) the Secretary of Agriculture (acting
13 through the Chief of the Forest Service), with
14 respect to National Forest System land; and

15 “(B) the Secretary, with respect to land
16 managed by the Bureau of Land Management
17 (including land held for the benefit of an Indian
18 tribe).

19 “(b) NEPA REVIEW OF GEOTHERMAL EXPLORATION
20 TEST PROJECTS.—

21 “(1) IN GENERAL.—An eligible activity de-
22 scribed in paragraph (2) carried out on covered land
23 shall be considered an action categorically excluded
24 from the requirements for an environmental assess-
25 ment or an environmental impact statement under

1 the National Environmental Policy Act of 1969 (42
2 U.S.C. 4321 et seq.) or section 1508.4 of title 40,
3 Code of Federal Regulations (or a successor regula-
4 tion) if—

5 “(A) the action is for the purpose of geo-
6 thermal resource exploration operations; and

7 “(B) the action is conducted pursuant to
8 this Act.

9 “(2) ELIGIBLE ACTIVITY.—An eligible activity
10 referred to in paragraph (1) is—

11 “(A) a geophysical exploration activity that
12 does not require drilling, including a seismic
13 survey;

14 “(B) the drilling of a well to test or ex-
15 plore for geothermal resources on land leased
16 by the Secretary concerned for the development
17 and production of geothermal resources that—

18 “(i) is carried out by the holder of the
19 lease;

20 “(ii) causes—

21 “(I) fewer than 5 acres of soil or
22 vegetation disruption at the location
23 of each geothermal exploration well;
24 and

1 “(II) not more than an additional
2 5 acres of soil or vegetation disruption
3 during access or egress to the project
4 site;

5 “(iii) is completed in fewer than 90
6 days, including the removal of any surface
7 infrastructure from the project site; and

8 “(iv) requires the restoration of the
9 project site not later than 3 years after the
10 date of completion of the project to ap-
11 proximately the condition that existed at
12 the time the project began, unless—

13 “(I) the project site is subse-
14 quently used as part of energy devel-
15 opment on the lease; or

16 “(II) the project—

17 “(aa) yields geothermal re-
18 sources; and

19 “(bb) the use of the geo-
20 thermal resources will be carried
21 out under another geothermal
22 generation project in existence at
23 the time of the discovery of the
24 geothermal resources; or

1 “(C) the drilling of a well to test or explore
2 for geothermal resources on land leased by the
3 Secretary concerned for the development and
4 production of geothermal resources that—

5 “(i) causes an individual surface dis-
6 turbance of fewer than 5 acres if—

7 “(I) the total surface disturbance
8 on the leased land is not more than
9 150 acres; and

10 “(II) a site-specific analysis has
11 been prepared under the National En-
12 vironmental Policy Act of 1969 (42
13 U.S.C. 4321 et seq.);

14 “(ii) involves the drilling of a geo-
15 thermal well at a location or well pad site
16 at which drilling has occurred within 5
17 years before the date of spudding the well;
18 or

19 “(iii) involves the drilling of a geo-
20 thermal well in a developed field for
21 which—

22 “(I) an approved land use plan
23 or any environmental document pre-
24 pared under the National Environ-
25 mental Policy Act of 1969 (42 U.S.C.

1 4321 et seq.) analyzed the drilling as
2 a reasonably foreseeable activity; and

3 “(II) the land use plan or envi-
4 ronmental document was approved
5 within 10 years before the date of
6 spudding the well.

7 “(3) LIMITATION BASED ON EXTRAORDINARY
8 CIRCUMSTANCES.—The categorical exclusion estab-
9 lished under paragraph (1) shall be subject to ex-
10 traordinary circumstances in accordance with the
11 Departmental Manual, 516 DM 2.3A(3) and 516
12 DM 2, Appendix 2 (or successor provisions).

13 “(c) NOTICE OF INTENT; REVIEW AND DETERMINA-
14 TION.—

15 “(1) REQUIREMENT TO PROVIDE NOTICE.—Not
16 later than 30 days before the date on which drilling
17 begins, a leaseholder intending to carry out an eligi-
18 ble activity shall provide notice to the Secretary con-
19 cerned.

20 “(2) REVIEW OF PROJECT.—Not later than 10
21 days after receipt of a notice of intent provided
22 under paragraph (1), the Secretary concerned
23 shall—

1 “(A) review the project described in the
2 notice and determine whether the project is an
3 eligible activity; and

4 “(B)(i) if the project is an eligible activity,
5 notify the leaseholder that under subsection (b),
6 the project is considered a categorical exclusion
7 under the National Environmental Policy Act of
8 1969 (42 U.S.C. 4321 et seq.) and section
9 1508.4 of title 40, Code of Federal Regulations
10 (or a successor regulation); or

11 “(ii) if the project is not an eligible activ-
12 ity—

13 “(I) notify the leaseholder that section
14 102(2)(C) of the National Environmental
15 Policy Act of 1969 (42 U.S.C. 4332(2)(C))
16 applies to the project;

17 “(II) include in that notification clear
18 and detailed findings on any deficiencies in
19 the project that prevent the application of
20 subsection (b) to the project; and

21 “(III) provide an opportunity to the
22 leaseholder to remedy the deficiencies de-
23 scribed in the notification before the date
24 on which the leaseholder plans to begin the
25 project under paragraph (1).”.

1 **PART III—MARINE HYDROKINETIC**

2 **SEC. 3013. DEFINITION OF MARINE AND HYDROKINETIC RE-**
3 **NEWABLE ENERGY.**

4 Section 632 of the Energy Independence and Security
5 Act of 2007 (42 U.S.C. 17211) is amended in the matter
6 preceding paragraph (1) by striking “electrical”.

7 **SEC. 3014. MARINE AND HYDROKINETIC RENEWABLE EN-**
8 **ERGY RESEARCH AND DEVELOPMENT.**

9 Section 633 of the Energy Independence and Security
10 Act of 2007 (42 U.S.C. 17212) is amended to read as
11 follows:

12 **“SEC. 633. MARINE AND HYDROKINETIC RENEWABLE EN-**
13 **ERGY RESEARCH AND DEVELOPMENT.**

14 “The Secretary, in consultation with the Secretary of
15 the Interior, the Secretary of Commerce, and the Federal
16 Energy Regulatory Commission, shall carry out a program
17 of research, development, demonstration, and commercial
18 application to accelerate the introduction of marine and
19 hydrokinetic renewable energy production into the United
20 States energy supply, giving priority to fostering acceler-
21 ated research, development, and commercialization of
22 technology, including programs—

23 “(1) to assist technology development to im-
24 prove the components, processes, and systems used
25 for power generation from marine and hydrokinetic
26 renewable energy resources;

1 “(2) to establish critical testing infrastructure
2 necessary—

3 “(A) to cost effectively and efficiently test
4 and prove marine and hydrokinetic renewable
5 energy devices; and

6 “(B) to accelerate the technological readi-
7 ness and commercialization of those devices;

8 “(3) to support efforts to increase the efficiency
9 of energy conversion, lower the cost, increase the
10 use, improve the reliability, and demonstrate the ap-
11 plicability of marine and hydrokinetic renewable en-
12 ergy technologies by participating in demonstration
13 projects;

14 “(4) to investigate variability issues and the ef-
15 ficient and reliable integration of marine and
16 hydrokinetic renewable energy with the utility grid;

17 “(5) to identify and study critical short- and
18 long-term needs to create a sustainable marine and
19 hydrokinetic renewable energy supply chain based in
20 the United States;

21 “(6) to increase the reliability and survivability
22 of marine and hydrokinetic renewable energy tech-
23 nologies;

24 “(7) to verify the performance, reliability, main-
25 tainability, and cost of new marine and hydrokinetic

1 renewable energy device designs and system compo-
2 nents in an operating environment, and consider the
3 protection of critical infrastructure, such as ade-
4 quate separation between marine and hydrokinetic
5 devices and projects and submarine telecommuni-
6 cations cables, including consideration of established
7 industry standards;

8 “(8) to coordinate and avoid duplication of ac-
9 tivities across programs of the Department and
10 other applicable Federal agencies, including National
11 Laboratories and to coordinate public-private col-
12 laboration in all programs under this section;

13 “(9) to identify opportunities for joint research
14 and development programs and development of
15 economies of scale between—

16 “(A) marine and hydrokinetic renewable
17 energy technologies; and

18 “(B) other renewable energy and fossil en-
19 ergy programs, offshore oil and gas production
20 activities, and activities of the Department of
21 Defense; and

22 “(10) to support in-water technology develop-
23 ment with international partners using existing co-
24 operative procedures (including memoranda of un-
25 derstanding)—

1 “(A) to allow cooperative funding and
2 other support of value to be exchanged and le-
3 veraged; and

4 “(B) to encourage the participation of
5 international research centers and companies
6 within the United States and the participation
7 of United States research centers and compa-
8 nies in international projects.”.

9 **SEC. 3015. NATIONAL MARINE RENEWABLE ENERGY RE-**
10 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**
11 **TION CENTERS.**

12 Section 634 of the Energy Independence and Security
13 Act of 2007 (42 U.S.C. 17213) is amended by striking
14 subsection (b) and inserting the following:

15 “(b) PURPOSES.—A Center (in coordination with the
16 Department and National Laboratories) shall—

17 “(1) advance research, development, demonstra-
18 tion, and commercial application of marine and
19 hydrokinetic renewable energy technologies;

20 “(2) support in-water testing and demonstra-
21 tion of marine and hydrokinetic renewable energy
22 technologies, including facilities capable of testing—

23 “(A) marine and hydrokinetic renewable
24 energy systems of various technology readiness
25 levels and scales;

1 (A) by redesignating paragraphs (2) and
2 (3) as paragraphs (4) and (5), respectively;

3 (B) by inserting after paragraph (1) the
4 following:

5 “(2) BIO-POWER.—The term ‘bio-power’ means
6 the use of woody biomass to generate electricity.

7 “(3) BOARD.—The term ‘Board’ means the
8 Biomass Research and Development Board.”; and

9 (C) by adding at the end the following:

10 “(6) WOODY BIOMASS HEAT.—The term ‘woody
11 biomass heat’ means the use of woody biomass to
12 generate heat.”.

13 (2) BIOMASS RESEARCH AND DEVELOPMENT
14 BOARD.—Section 9008(c)(3)(A) of the Farm Secu-
15 rity and Rural Investment Act of 2002 (7 U.S.C.
16 8108(c)(3)(A)) is amended by striking “biofuels and
17 biobased products” and inserting “biofuels, biobased
18 products, bio-power, and woody biomass heat
19 projects”.

20 (3) WOODY BIOMASS HEAT AND BIO-POWER
21 GRANTS.—Section 9008 of the Farm Security and
22 Rural Investment Act of 2002 (7 U.S.C. 8108) is
23 amended—

1 (A) by redesignating subsections (f), (g),
2 and (h) as subsections (g), (h), and (i), respec-
3 tively; and

4 (B) by inserting after subsection (e) the
5 following:

6 “(f) WOODY BIOMASS HEAT AND BIO-POWER
7 GRANTS.—

8 “(1) ESTABLISHMENT.—The Secretary of Agri-
9 culture and the Secretary of Energy, in consultation
10 with the Board, shall establish a program under
11 which the Secretary of Agriculture and the Secretary
12 of Energy shall provide grants to relevant projects
13 to support innovation and market development in
14 woody biomass heat and bio-power.

15 “(2) APPLICATIONS.—To be eligible to receive a
16 grant under this subsection, the owner or operator
17 of a relevant project shall submit to the Secretary of
18 Agriculture and the Secretary of Energy an applica-
19 tion at such time, in such manner, and containing
20 such information as the Secretary of Agriculture and
21 the Secretary of Energy may require.

22 “(3) ALLOCATION.—Of the amounts appro-
23 priated to carry out this subsection, the Secretary of
24 Agriculture and the Secretary of Energy shall not
25 provide more than—

1 “(A) \$15,000,000 for projects that develop
2 innovative techniques for preprocessing biomass
3 for woody biomass heat and bio-power, with the
4 goals of lowering the costs of—

5 “(i) distributed preprocessing tech-
6 nologies, including technologies designed to
7 promote densification, torrefaction, and the
8 broader commoditization of bioenergy feed-
9 stocks; and

10 “(ii) transportation; and

11 “(B) \$15,000,000 for innovative woody
12 biomass heat and bio-power demonstration
13 projects, including—

14 “(i) district energy projects;

15 “(ii) innovation in transportation; and

16 “(iii) projects addressing the chal-
17 lenges of retrofitting existing coal-fired
18 electricity generation facilities to use bio-
19 mass.

20 “(4) REGIONAL DISTRIBUTION.—In selecting
21 projects to receive grants under this subsection, the
22 Secretary of Agriculture and the Secretary of En-
23 ergy shall ensure, to the maximum extent prac-
24 ticable, diverse geographical distribution among the
25 projects.

1 “(5) COST SHARE.—The Federal share of the
2 cost of a project carried out using a grant under this
3 subsection shall be 50 percent.

4 “(6) DUTIES OF RECIPIENTS.—As a condition
5 of receiving a grant under this subsection, the owner
6 or operator of a project shall—

7 “(A) participate in the applicable working
8 group under paragraph (7);

9 “(B) submit to the Secretary of Agri-
10 culture and the Secretary of Energy a report
11 that includes—

12 “(i) a description of the project and
13 any relevant findings; and

14 “(ii) such other information as the
15 Secretary of Agriculture and the Secretary
16 of Energy determine to be necessary to
17 complete the report of the Secretary under
18 paragraph (9); and

19 “(C) carry out such other activities as the
20 Secretary of Agriculture and the Secretary of
21 Energy determine to be necessary.

22 “(7) WORKING GROUPS.—The Secretary of Agri-
23 culture and the Secretary of Energy shall establish
24 2 working groups to share best practices and col-
25 laborate in project implementation, of which—

1 “(A) 1 shall be comprised of representa-
2 tives of projects that receive grants under para-
3 graph (3)(A); and

4 “(B) 1 shall be comprised of representa-
5 tives of projects that receive grants under para-
6 graph (3)(B).

7 “(8) INCLUSION OF OILSEED CROPS.—A grant
8 may be provided under this subsection to relevant
9 projects to support innovation and market develop-
10 ment in oilseed crops.

11 “(9) REPORTS.—Not later than 5 years after
12 the date of enactment of this Act, the Secretary of
13 Agriculture and the Secretary of Energy shall sub-
14 mit to Congress a report describing—

15 “(A) each project for which a grant has
16 been provided under this subsection;

17 “(B) any findings as a result of those
18 projects; and

19 “(C) the state of market and technology
20 development, including market barriers and op-
21 portunities.”.

22 (b) LOAN PROGRAMS; STRATEGIC ANALYSIS AND RE-
23 SEARCH.—

24 (1) LOW-INTEREST LOANS.—

1 (A) ESTABLISHMENT.—The Secretary of
2 Agriculture shall establish, within the Rural
3 Development Office, a low-interest loan pro-
4 gram to support construction of residential,
5 commercial or institutional, and industrial
6 woody biomass heat and bio-power systems.

7 (B) REQUIREMENTS.—The program under
8 this subsection shall be carried out in accord-
9 ance with such requirements as the Secretary of
10 Agriculture may establish, by regulation, in tak-
11 ing into consideration best practices.

12 (C) AUTHORIZATION OF APPROPRIA-
13 TIONS.—There is authorized to be appropriated
14 to the Secretary of Agriculture to carry out this
15 subsection \$50,000,000.

16 (2) ENERGY EFFICIENCY AND CONSERVATION
17 LOAN PROGRAM.—In addition to loans under para-
18 graph (1), woody biomass heat residential, commer-
19 cial or institutional, and industrial wood energy sys-
20 tems shall be eligible to receive loans under the en-
21 ergy efficiency and conservation loan program of the
22 Department of Agriculture under section 2 of the
23 Rural Electrification Act of 1936 (7 U.S.C. 902).

1 **Subtitle B—Oil and Gas**

2 **SEC. 3101. AMENDMENTS TO THE METHANE HYDRATE RE-**
3 **SEARCH AND DEVELOPMENT ACT OF 2000.**

4 (a) METHANE HYDRATE RESEARCH AND DEVELOP-
5 MENT PROGRAM.—

6 (1) IN GENERAL.—Section 4 of the Methane
7 Hydrate Research and Development Act of 2000 (30
8 U.S.C. 2003) is amended by striking subsection (b)
9 and inserting the following:

10 “(b) GRANTS, CONTRACTS, COOPERATIVE AGREE-
11 MENTS, INTERAGENCY FUNDS TRANSFER AGREEMENTS,
12 AND FIELD WORK PROPOSALS.—

13 “(1) ASSISTANCE AND COORDINATION.—In car-
14 rying out the program of methane hydrate research
15 and development authorized by this section, the Sec-
16 retary may award grants to, or enter into contracts
17 or cooperative agreements with, institutions—

18 “(A) to conduct basic and applied re-
19 search—

20 “(i) to identify, explore, assess, and
21 develop methane hydrate as a commercially
22 viable source of energy; and

23 “(ii) to identify the environmental,
24 health, and safety impacts of methane hy-
25 drate development;

1 “(B) to identify and characterize methane
2 hydrate resources using remote sensing and
3 seismic data, including the characterization of
4 hydrate concentrations in marine reservoirs in
5 the Gulf of Mexico or the Atlantic Ocean Basin
6 by the date that is 4 years after the date of en-
7 actment of the Energy Policy Modernization
8 Act of 2015;

9 “(C) to develop technologies required for
10 efficient and environmentally sound develop-
11 ment of methane hydrate resources;

12 “(D) to conduct basic and applied research
13 to assess and mitigate the environmental im-
14 pact of hydrate degassing (including natural
15 degassing and degassing associated with com-
16 mercial development);

17 “(E) to develop technologies to reduce the
18 risks of drilling through methane hydrates;

19 “(F) to conduct exploratory drilling, well
20 testing, and production testing operations on
21 permafrost and nonpermafrost gas hydrates in
22 support of the activities authorized by this
23 paragraph, including—

24 “(i) drilling of a test well and per-
25 forming a long-term hydrate production

1 test on land in the United States Arctic re-
2 gion by the date that is 4 years after the
3 date of enactment of the Energy Policy
4 Modernization Act of 2015;

5 “(ii) drilling of a test well and per-
6 forming a long-term hydrate production
7 test in a marine environment by the date
8 that is 10 years after the date of enact-
9 ment of the Energy Policy Modernization
10 Act of 2015; and

11 “(iii) drilling a full-scale production
12 test well at a location to be determined by
13 the Secretary; or

14 “(G) to expand education and training pro-
15 grams in methane hydrate resource research
16 and resource development through fellowships
17 or other means for graduate education and
18 training.

19 “(2) ENVIRONMENTAL MONITORING AND RE-
20 SEARCH.—The Secretary shall conduct a long-term
21 environmental monitoring and research program to
22 study the effects of production from methane hy-
23 drate reservoirs.

24 “(3) COMPETITIVE PEER REVIEW.—Funds
25 made available under paragraphs (1) and (2) shall

1 be made available based on a competitive process
2 using external scientific peer review of proposed re-
3 search.”.

4 (2) CONFORMING AMENDMENT.—Section 4(e)
5 of the Methane Hydrate Research and Development
6 Act of 2000 (30 U.S.C. 2003(e)) is amended in the
7 matter preceding paragraph (1) by striking “sub-
8 section (b)(1)” and inserting “paragraphs (1) and
9 (2) of subsection (b)”.

10 (b) AUTHORIZATION OF APPROPRIATIONS.—The
11 Methane Hydrate Research and Development Act of 2000
12 is amended by striking section 7 (30 U.S.C. 2006) and
13 inserting the following:

14 **“SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

15 “There is authorized to be appropriated to carry out
16 this Act \$35,000,000 for each of fiscal years 2017 through
17 2021.”.

18 **SEC. 3102. LIQUEFIED NATURAL GAS STUDY.**

19 (a) STUDY.—

20 (1) IN GENERAL.—Not later than 1 year after
21 the date of enactment of this Act, the Secretary, in
22 consultation with the National Association of Regu-
23 latory Utility Commissioners and the National Asso-
24 ciation of State Energy Officials, shall conduct a
25 study of the State, regional, and national implica-

1 tions of exporting liquefied natural gas with respect
2 to consumers and the economy.

3 (2) CONTENTS.—The study conducted under
4 paragraph (1) shall include an analysis of—

5 (A) the economic impact that exporting liq-
6 uefied natural gas will have in regions that cur-
7 rently import liquefied natural gas;

8 (B) job creation in the manufacturing sec-
9 tors; and

10 (C) such other issues as the Secretary con-
11 siders appropriate.

12 (b) REPORT TO CONGRESS.—Not later than 1 year
13 after the date of enactment of this Act, the Administrator
14 shall submit to Congress a report on the results of the
15 study conducted under subsection (a).

16 **SEC. 3103. FERC PROCESS COORDINATION WITH RESPECT**
17 **TO REGULATORY APPROVAL OF GAS**
18 **PROJECTS.**

19 (a) DEFINITIONS.—In this section:

20 (1) COMMISSION.—The term “Commission”
21 means the Federal Energy Regulatory Commission.

22 (2) FEDERAL AUTHORIZATION.—

23 (A) IN GENERAL.—The term “Federal au-
24 thorization” means any authorization required
25 under Federal law with respect to an applica-

1 tion for authorization or a certificate of public
2 convenience and necessity relating to gas trans-
3 portation subject to the jurisdiction of the Com-
4 mission.

5 (B) INCLUSIONS.—The term “Federal au-
6 thorization” includes any permits, special use
7 authorizations, certifications, opinions, or other
8 approvals as may be required under Federal law
9 with respect to an application for authorization
10 or a certificate of public convenience and neces-
11 sity relating to gas transportation subject to the
12 jurisdiction of the Commission.

13 (b) DESIGNATION AS LEAD AGENCY.—

14 (1) IN GENERAL.—The Commission shall act as
15 the lead agency for the purposes of—

16 (A) coordinating all applicable Federal au-
17 thorizations; and

18 (B) compliance with the National Environ-
19 mental Policy Act of 1969 (42 U.S.C. 4321 et
20 seq.).

21 (2) OTHER AGENCIES.—Each Federal and
22 State agency considering an aspect of an application
23 for Federal authorization shall cooperate with the
24 Commission.

25 (c) SCHEDULE.—

1 (1) TIMING FOR ISSUANCE.—It is the sense of
2 Congress that all Federal authorizations required for
3 a project or facility should be issued by not later
4 than the date that is 90 days after the date on
5 which an application is considered to be complete by
6 the Commission.

7 (2) COMMISSION SCHEDULE.—

8 (A) IN GENERAL.—The Commission shall
9 establish a schedule for the issuance of all Fed-
10 eral authorizations.

11 (B) REQUIREMENTS.—In establishing the
12 schedule under subparagraph (A), the Commis-
13 sion shall—

14 (i) consult and cooperate with the
15 Federal and State agencies responsible for
16 a Federal authorization;

17 (ii) ensure the expeditious completion
18 of all proceedings relating to a Federal au-
19 thorization; and

20 (iii) comply with applicable schedules
21 established under Federal law with respect
22 to a Federal authorization.

23 (3) RESOLUTION OF INTERAGENCY DIS-
24 PUTES.—If the Federal agency with responsibility
25 fails to adhere to the schedule established by the

1 Commission under paragraph (2), or if a Federal
2 authorization has been unreasonably denied, or if a
3 Federal authorization would be inconsistent with the
4 purposes of this section or other applicable law, the
5 Commission shall refer the matter to the Chairman
6 of the Council on Environmental Quality—

7 (A) to ensure timely participation;

8 (B) to ensure a timely decision;

9 (C) to mediate the dispute; or

10 (D) to refer the matter to the President.

11 (d) CONSOLIDATED RECORD.—The Commission shall
12 maintain official consolidated records of all license pro-
13 ceedings under this section.

14 (e) DEFERENCE TO COMMISSION.—In making a deci-
15 sion with respect to a Federal authorization, each agency
16 shall give deference, to the maximum extent authorized
17 by law, to the scope of environmental review that the Com-
18 mission determines to be appropriate.

19 (f) CONCURRENT REVIEWS.—Pursuant to the sched-
20 ule established under subsection (c)(2), each agency con-
21 sidering an aspect of an application for Federal authoriza-
22 tion shall—

23 (1) to the maximum extent authorized by law,
24 carry out the obligations of that agency under appli-
25 cable law concurrently and in conjunction with the

1 review required by the National Environmental Pol-
2 icy Act of 1969 (42 U.S.C. 4321 et seq.), unless
3 doing so would impair the ability of the agency to
4 conduct needed analysis or otherwise carry out those
5 obligations;

6 (2) formulate and implement administrative,
7 policy, and procedural mechanisms to enable the
8 agency to complete the required Federal authoriza-
9 tions in accordance with the schedule described in
10 subsection (c); and

11 (3) transmit to the Commission a statement—

12 (A) acknowledging notice of the schedule
13 described in subsection (c); and

14 (B) describing the plan formulated under
15 paragraph (2).

16 (g) FAILURE TO MEET DEADLINE.—If an agency
17 does not complete a proceeding for an approval that is
18 required for a Federal authorization in accordance with
19 the schedule described in subsection (c), the head of the
20 relevant Federal agency (including, in the case of a failure
21 by the State agency or unit of local government, the Fed-
22 eral agency overseeing the delegated authority) shall—

23 (1) notify Congress and the Commission of the
24 failure; and

1 (2) describe in that notification an implementa-
2 tion plan to ensure completion.

3 (h) ACCOUNTABILITY; TRANSPARENCY; EFFI-
4 CIENCY.—

5 (1) IN GENERAL.—For applications requiring
6 multiple Federal authorizations, the Commission, in
7 consultation with any agency considering an aspect
8 of the application, shall track and make available to
9 the public on the website of the Commission infor-
10 mation relating to the actions required to complete
11 permitting, reviews, and other requirements.

12 (2) INCLUSIONS.—Information tracked under
13 paragraph (1) shall include the following:

14 (A) The schedule described in subsection
15 (c).

16 (B) A list of all the actions required by
17 each applicable agency to complete permitting,
18 reviews, and other requirements necessary to
19 obtain a final decision on the Federal author-
20 ization.

21 (C) The expected completion date for each
22 action listed under subparagraph (B).

23 (D) A point of contact at the agency ac-
24 countable for each action listed under subpara-
25 graph (B).

1 (E) In the event that an action is still
2 pending as of the expected date of completion,
3 a brief explanation of the reason for the delay.

4 **SEC. 3104. PILOT PROGRAM.**

5 (a) ESTABLISHMENT.—The Secretary of the Interior,
6 acting through the Director of the Bureau of Land Man-
7 agement (referred to in this section as the “Director”),
8 shall establish a pilot program in 1 State with at least
9 2,000 oil and gas drilling spacing units (as defined under
10 State law), in which—

11 (1) 25 percent or less of the minerals are owned
12 or held in trust by the Federal Government; and

13 (2) there is no surface land owned or held in
14 trust by the Federal Government.

15 (b) ACTIVITIES.—In carrying out the pilot program,
16 the Director shall identify and implement ways to stream-
17 line the review and approval of Applications for Permits
18 to Drill for oil and gas drilling spacing units of the State
19 in order to achieve a processing time for those oil and gas
20 drilling spacing units similar to that of spacing units that
21 require an Application for Permit to Drill and are not part
22 of the pilot program in the same State.

23 (c) FUNDING.—Beginning in fiscal year 2016, and
24 for a period of 3 years thereafter, to carry out the pilot

1 program efficiently, the Director may fund up to 10 full-
2 time equivalents at appropriate field offices.

3 (d) REPORT.—Not later than 4 years after the date
4 of enactment of this Act, the Director shall submit to Con-
5 gress a report on the results of the pilot program.

6 (e) WAIVER.—The Secretary of the Interior may
7 waive the requirement for an Application for Permit to
8 Drill if the Director determines that the mineral interest
9 of the United States in the spacing units in land covered
10 by this section is adequately protected, if otherwise in ac-
11 cordance with applicable laws, regulations, and lease
12 terms.

13 **Subtitle C—Helium**

14 **SEC. 3201. RIGHTS TO HELIUM.**

15 (a) DEFINITION OF HELIUM-RELATED PROJECT.—
16 The term “helium-related project” means a project—

17 (1) to explore or produce crude helium; and

18 (2) to sell crude or refined helium.

19 (b) EXPEDITED COMPLETION.—Notwithstanding any
20 other provision of law, applicable environmental reviews
21 under the National Environmental Policy Act of 1969 (42
22 U.S.C. 4321 et seq.) for helium-related projects shall be
23 completed on an expeditious basis and the shortest exist-
24 ing applicable process under that Act shall be used for
25 such projects.

1 (c) REPEAL OF RESERVATION OF HELIUM
2 RIGHTS.—The first section of the Mineral Leasing Act
3 (30 U.S.C. 181) is amended by striking the flush text that
4 follows the last undesignated subsection.

5 (d) RIGHTS TO HELIUM UNDER LEASES UNDER
6 MINERAL LEASING ACT FOR ACQUIRED LANDS.—The
7 Mineral Leasing Act for Acquired Lands (30 U.S.C. 351
8 et seq.) is amended by adding at the end the following:
9 **“SEC. 12. RIGHTS TO HELIUM.**

10 “Any lease issued under this Act that authorizes ex-
11 ploration for, or development or production of, gas shall
12 be considered to grant to the lessee a right of first refusal
13 to engage in exploration for, and development and produc-
14 tion of, helium on land that is subject to the lease in ac-
15 cordance with regulations issued by the Secretary.”.

16 **Subtitle D—Critical Minerals**

17 **SEC. 3301. DEFINITIONS.**

18 In this subtitle:

19 (1) CRITICAL MINERAL.—

20 (A) IN GENERAL.—The term “critical min-
21 eral” means any mineral, element, substance, or
22 material designated as critical pursuant to sec-
23 tion 3303.

24 (B) EXCLUSIONS.—The term “critical
25 mineral” does not include—

1 (i) fuel minerals, including oil, natural
2 gas, or any other fossil fuels; or

3 (ii) water, ice, or snow.

4 (2) CRITICAL MINERAL MANUFACTURING.—The
5 term “critical mineral manufacturing” means—

6 (A) the production, processing, refining,
7 alloying, separation, concentration, magnetic
8 sintering, melting, or beneficiation of critical
9 minerals within the United States;

10 (B) the fabrication, assembly, or produc-
11 tion, within the United States, of equipment,
12 components, or other goods with energy tech-
13 nology-, defense-, agriculture-, consumer elec-
14 tronics-, or health care-related applications; or

15 (C) any other value-added, manufacturing-
16 related use of critical minerals undertaken with-
17 in the United States.

18 (3) INDIAN TRIBE.—The term “Indian tribe”
19 has the meaning given the term in section 4 of the
20 Indian Self-Determination and Education Assistance
21 Act (25 U.S.C. 450b).

22 (4) STATE.—The term “State” means—

23 (A) a State;

24 (B) the District of Columbia;

25 (C) the Commonwealth of Puerto Rico;

- 1 (D) Guam;
- 2 (E) American Samoa;
- 3 (F) the Commonwealth of the Northern
- 4 Mariana Islands; and
- 5 (G) the United States Virgin Islands.

6 **SEC. 3302. POLICY.**

7 (a) IN GENERAL.—Section 3 of the National Mate-

8 rials and Minerals Policy, Research and Development Act

9 of 1980 (30 U.S.C. 1602) is amended in the second sen-

10 tence—

11 (1) by striking paragraph (3) and inserting the

12 following:

13 “(3) establish an analytical and forecasting ca-

14 pability for identifying critical mineral demand, sup-

15 ply, and other factors to allow informed actions to

16 be taken to avoid supply shortages, mitigate price

17 volatility, and prepare for demand growth and other

18 market shifts;”;

19 (2) in paragraph (6), by striking “and” after

20 the semicolon at the end; and

21 (3) by striking paragraph (7) and inserting the

22 following:

23 “(7) encourage Federal agencies to facilitate

24 the availability, development, and environmentally

1 responsible production of domestic resources to meet
2 national material or critical mineral needs;

3 “(8) avoid duplication of effort, prevent unneces-
4 sary paperwork, and minimize delays in the ad-
5 ministration of applicable laws (including regula-
6 tions) and the issuance of permits and authoriza-
7 tions necessary to explore for, develop, and produce
8 critical minerals and to construct critical mineral
9 manufacturing facilities in accordance with applica-
10 ble environmental and land management laws;

11 “(9) strengthen educational and research capa-
12 bilities and workforce training;

13 “(10) bolster international cooperation through
14 technology transfer, information sharing, and other
15 means;

16 “(11) promote the efficient production, use, and
17 recycling of critical minerals;

18 “(12) develop alternatives to critical minerals;
19 and

20 “(13) establish contingencies for the production
21 of, or access to, critical minerals for which viable
22 sources do not exist within the United States.”.

23 (b) CONFORMING AMENDMENT.—Section 2(b) of the
24 National Materials and Minerals Policy, Research and De-
25 velopment Act of 1980 (30 U.S.C. 1601(b)) is amended

1 by striking “(b) As used in this Act, the term” and insert-
2 ing the following:

3 “(b) DEFINITIONS.—In this Act:

4 “(1) CRITICAL MINERAL.—The term ‘critical
5 mineral’ means any mineral or element designated
6 as a critical mineral pursuant to section 3303 of the
7 Energy Policy Modernization Act of 2015.

8 “(2) MATERIALS.—The term”.

9 **SEC. 3303. CRITICAL MINERAL DESIGNATIONS.**

10 (a) DRAFT METHODOLOGY.—Not later than 90 days
11 after the date of enactment of this Act, the Secretary of
12 the Interior (acting through the Director of the United
13 States Geological Survey) (referred to in this subtitle as
14 the “Secretary”), in consultation with relevant Federal
15 agencies and entities, shall publish in the Federal Register
16 for public comment a draft methodology for determining
17 which minerals qualify as critical minerals based on an
18 assessment of whether the minerals are—

19 (1) subject to potential supply restrictions (in-
20 cluding restrictions associated with foreign political
21 risk, abrupt demand growth, military conflict, violent
22 unrest, anti-competitive or protectionist behaviors,
23 and other risks throughout the supply chain); and

1 (2) important in use (including energy tech-
2 nology-, defense-, currency-, agriculture-, consumer
3 electronics-, and health care-related applications).

4 (b) AVAILABILITY OF DATA.—If available data is in-
5 sufficient to provide a quantitative basis for the method-
6 ology developed under this section, qualitative evidence
7 may be used to the extent necessary.

8 (c) FINAL METHODOLOGY.—After reviewing public
9 comments on the draft methodology under subsection (a)
10 and updating the draft methodology as appropriate, not
11 later than 270 days after the date of enactment of this
12 Act, the Secretary shall publish in the Federal Register
13 a description of the final methodology for determining
14 which minerals qualify as critical minerals.

15 (d) DESIGNATIONS.—

16 (1) IN GENERAL.—For purposes of carrying out
17 this subtitle, the Secretary shall maintain a list of
18 minerals and elements designated as critical, pursu-
19 ant to the methodology under subsection (c).

20 (2) INITIAL LIST.—Subject to paragraph (1),
21 not later than 1 year after the date of enactment of
22 this Act, the Secretary shall publish in the Federal
23 Register an initial list of minerals designated as crit-
24 ical pursuant to the final methodology under sub-

1 section (c) for the purpose of carrying out this sub-
2 title.

3 (3) INCLUSIONS.—Notwithstanding the criteria
4 under subsection (c), the Secretary may designate
5 and include on the list any mineral or element deter-
6 mined by another Federal agency to be strategic and
7 critical to the defense or national security of the
8 United States.

9 (e) SUBSEQUENT REVIEW.—

10 (1) IN GENERAL.—The Secretary shall review
11 the methodology and designations under subsections
12 (c) and (d) at least every 3 years, or more frequently
13 as the Secretary considers to be appropriate.

14 (2) REVISIONS.—Subject to subsection (d)(1),
15 the Secretary may—

16 (A) revise the methodology described in
17 this section;

18 (B) determine that minerals or elements
19 previously determined to be critical minerals are
20 no longer critical minerals; and

21 (C) designate additional minerals or ele-
22 ments as critical minerals.

23 (f) NOTICE.—On finalization of the methodology
24 under subsection (c), the list under subsection (d), or any
25 revision to the methodology or list under subsection (e),

1 the Secretary shall submit to Congress written notice of
2 the action.

3 **SEC. 3304. RESOURCE ASSESSMENT.**

4 (a) IN GENERAL.—Not later than 4 years after the
5 date of enactment of this Act, in consultation with applica-
6 ble State (including geological surveys), local, academic,
7 industry, and other entities, the Secretary shall complete
8 a comprehensive national assessment of each critical min-
9 eral that—

10 (1) identifies and quantifies known critical min-
11 eral resources, using all available public and private
12 information and datasets, including exploration his-
13 tories; and

14 (2) provides a quantitative and qualitative as-
15 sessment of undiscovered critical mineral resources
16 throughout the United States, including probability
17 estimates of tonnage and grade, using all available
18 public and private information and datasets, includ-
19 ing exploration histories.

20 (b) SUPPLEMENTARY INFORMATION.—In carrying
21 out this section, the Secretary may carry out surveys and
22 field work (including drilling, remote sensing, geophysical
23 surveys, geological mapping, and geochemical sampling
24 and analysis) to supplement existing information and

1 datasets available for determining the existence of critical
2 minerals in the United States.

3 (c) TECHNICAL ASSISTANCE.—At the request of the
4 Governor of a State or the head of an Indian tribe, the
5 Secretary may provide technical assistance to State gov-
6 ernments and Indian tribes conducting critical mineral re-
7 source assessments on non-Federal land.

8 (d) PRIORITIZATION.—

9 (1) IN GENERAL.—The Secretary may sequence
10 the completion of resource assessments for each crit-
11 ical mineral such that critical minerals considered to
12 be most critical under the methodology established
13 under section 3303 are completed first.

14 (2) REPORTING.—During the period beginning
15 not later than 1 year after the date of enactment of
16 this Act and ending on the date of completion of all
17 of the assessments required under this section, the
18 Secretary shall submit to Congress on an annual
19 basis an interim report that—

20 (A) identifies the sequence and schedule
21 for completion of the assessments if the Sec-
22 retary sequences the assessments; or

23 (B) describes the progress of the assess-
24 ments if the Secretary does not sequence the
25 assessments.

1 (e) UPDATES.—The Secretary may periodically up-
2 date the assessments conducted under this section based
3 on—

4 (1) the generation of new information or
5 datasets by the Federal Government; or

6 (2) the receipt of new information or datasets
7 from critical mineral producers, State geological sur-
8 veys, academic institutions, trade associations, or
9 other persons.

10 (f) ADDITIONAL SURVEYS.—The Secretary shall com-
11 plete a resource assessment for each additional mineral
12 or element subsequently designated as a critical mineral
13 under section 3303(e)(2) not later than 2 years after the
14 designation of the mineral or element.

15 (g) REPORT.—Not later than 2 years after the date
16 of enactment of this Act, the Secretary shall submit to
17 Congress a report describing the status of geological sur-
18 veying of Federal land for any mineral commodity—

19 (1) for which the United States was dependent
20 on a foreign country for more than 25 percent of the
21 United States supply, as depicted in the report
22 issued by the United States Geological Survey enti-
23 tled “Mineral Commodity Summaries 2015”; but

24 (2) that is not designated as a critical mineral
25 under section 3303.

1 **SEC. 3305. PERMITTING.**

2 (a) PERFORMANCE IMPROVEMENTS.—To improve
3 the quality and timeliness of decisions, the Secretary (act-
4 ing through the Director of the Bureau of Land Manage-
5 ment) and the Secretary of Agriculture (acting through
6 the Chief of the Forest Service) (referred to in this section
7 as the “Secretaries”) shall, to the maximum extent prac-
8 ticable, with respect to critical mineral production on Fed-
9 eral land, complete Federal permitting and review proc-
10 esses with maximum efficiency and effectiveness, while
11 supporting vital economic growth, by—

12 (1) establishing and adhering to timelines and
13 schedules for the consideration of, and final deci-
14 sions regarding, applications, operating plans, leases,
15 licenses, permits, and other use authorizations for
16 mineral-related activities on Federal land;

17 (2) establishing clear, quantifiable, and tem-
18 poral permitting performance goals and tracking
19 progress against those goals;

20 (3) engaging in early collaboration among agen-
21 cies, project sponsors, and affected stakeholders—

22 (A) to incorporate and address the inter-
23 ests of those parties; and

24 (B) to minimize delays;

25 (4) ensuring transparency and accountability by
26 using cost-effective information technology to collect

1 and disseminate information regarding individual
2 projects and agency performance;

3 (5) engaging in early and active consultation
4 with State, local, and Indian tribal governments to
5 avoid conflicts or duplication of effort, resolve con-
6 cerns, and allow for concurrent, rather than sequen-
7 tial, reviews;

8 (6) providing demonstrable improvements in the
9 performance of Federal permitting and review proc-
10 esses, including lower costs and more timely deci-
11 sions;

12 (7) expanding and institutionalizing permitting
13 and review process improvements that have proven
14 effective;

15 (8) developing mechanisms to better commu-
16 nicate priorities and resolve disputes among agencies
17 at the national, regional, State, and local levels; and

18 (9) developing other practices, such as
19 preapplication procedures.

20 (b) REVIEW AND REPORT.—Not later than 1 year
21 after the date of enactment of this Act, the Secretaries
22 shall submit to Congress a report that—

23 (1) identifies additional measures (including
24 regulatory and legislative proposals, as appropriate)
25 that would increase the timeliness of permitting ac-

1 activities for the exploration and development of do-
2 mestic critical minerals;

3 (2) identifies options (including cost recovery
4 paid by permit applicants) for ensuring adequate
5 staffing and training of Federal entities and per-
6 sonnel responsible for the consideration of applica-
7 tions, operating plans, leases, licenses, permits, and
8 other use authorizations for critical mineral-related
9 activities on Federal land;

10 (3) quantifies the amount of time typically re-
11 quired (including range derived from minimum and
12 maximum durations, mean, median, variance, and
13 other statistical measures or representations) to
14 complete each step (including those aspects outside
15 the control of the executive branch, such as judicial
16 review, applicant decisions, or State and local gov-
17 ernment involvement) associated with the develop-
18 ment and processing of applications, operating
19 plans, leases, licenses, permits, and other use au-
20 thorizations for critical mineral-related activities on
21 Federal land, which shall serve as a baseline for the
22 performance metric under subsection (c); and

23 (4) describes actions carried out pursuant to
24 subsection (a).

1 (c) PERFORMANCE METRIC.—Not later than 90 days
2 after the date of submission of the report under subsection
3 (b), the Secretaries, after providing public notice and an
4 opportunity to comment, shall develop and publish a per-
5 formance metric for evaluating the progress made by the
6 executive branch to expedite the permitting of activities
7 that will increase exploration for, and development of, do-
8 mestic critical minerals, while maintaining environmental
9 standards.

10 (d) ANNUAL REPORTS.—Beginning with the first
11 budget submission by the President under section 1105
12 of title 31, United States Code, after publication of the
13 performance metric required under subsection (c), and an-
14 nually thereafter, the Secretaries shall submit to Congress
15 a report that—

16 (1) summarizes the implementation of rec-
17 ommendations, measures, and options identified in
18 paragraphs (1) and (2) of subsection (b);

19 (2) using the performance metric under sub-
20 section (c), describes progress made by the executive
21 branch, as compared to the baseline established pur-
22 suant to subsection (b)(3), on expediting the permit-
23 ting of activities that will increase exploration for,
24 and development of, domestic critical minerals; and

1 (3) compares the United States to other coun-
2 tries in terms of permitting efficiency and any other
3 criteria relevant to the globally competitive critical
4 minerals industry.

5 (e) INDIVIDUAL PROJECTS.—Using data from the
6 Secretaries generated under subsection (d), the Director
7 of the Office of Management and Budget shall prioritize
8 inclusion of individual critical mineral projects on the
9 website operated by the Office of Management and Budget
10 in accordance with section 1122 of title 31, United States
11 Code.

12 (f) REPORT OF SMALL BUSINESS ADMINISTRA-
13 TION.—Not later than 1 year and 300 days after the date
14 of enactment of this Act, the Administrator of the Small
15 Business Administration shall submit to the applicable
16 committees of Congress a report that assesses the per-
17 formance of Federal agencies with respect to—

18 (1) complying with chapter 6 of title 5, United
19 States Code (commonly known as the “Regulatory
20 Flexibility Act”), in promulgating regulations appli-
21 cable to the critical minerals industry; and

22 (2) performing an analysis of regulations appli-
23 cable to the critical minerals industry that may be
24 outmoded, inefficient, duplicative, or excessively bur-
25 densome.

1 **SEC. 3306. FEDERAL REGISTER PROCESS.**

2 (a) DEPARTMENTAL REVIEW.—Absent any extraor-
3 dinary circumstance, and except as otherwise required by
4 law, the Secretary and the Secretary of Agriculture shall
5 ensure that each Federal Register notice described in sub-
6 section (b) shall be—

7 (1) subject to any required reviews within the
8 Department of the Interior or the Department of
9 Agriculture; and

10 (2) published in final form in the Federal Reg-
11 ister not later than 45 days after the date of initial
12 preparation of the notice.

13 (b) PREPARATION.—The preparation of Federal Reg-
14 ister notices required by law associated with the issuance
15 of a critical mineral exploration or mine permit shall be
16 delegated to the organizational level within the agency re-
17 sponsible for issuing the critical mineral exploration or
18 mine permit.

19 (c) TRANSMISSION.—All Federal Register notices re-
20 garding official document availability, announcements of
21 meetings, or notices of intent to undertake an action shall
22 be originated in, and transmitted to the Federal Register
23 from, the office in which, as applicable—

24 (1) the documents or meetings are held; or

25 (2) the activity is initiated.

1 **SEC. 3307. RECYCLING, EFFICIENCY, AND ALTERNATIVES.**

2 (a) ESTABLISHMENT.—The Secretary of Energy (re-
3 ferred to in this section as the “Secretary”) shall conduct
4 a program of research and development—

5 (1) to promote the efficient production, use,
6 and recycling of critical minerals throughout the
7 supply chain; and

8 (2) to develop alternatives to critical minerals
9 that do not occur in significant abundance in the
10 United States.

11 (b) COOPERATION.—In carrying out the program, the
12 Secretary shall cooperate with appropriate—

13 (1) Federal agencies and National Laboratories;

14 (2) critical mineral producers;

15 (3) critical mineral processors;

16 (4) critical mineral manufacturers;

17 (5) trade associations;

18 (6) academic institutions;

19 (7) small businesses; and

20 (8) other relevant entities or individuals.

21 (c) ACTIVITIES.—Under the program, the Secretary
22 shall carry out activities that include the identification and
23 development of—

24 (1) advanced critical mineral extraction, pro-
25 duction, separation, alloying, or processing tech-
26 nologies that decrease the energy consumption, envi-

1 ronmental impact, and costs of those activities, in-
2 cluding—

3 (A) efficient water and wastewater man-
4 agement strategies;

5 (B) technologies and management strate-
6 gies to control the environmental impacts of
7 radionuclides in ore tailings; and

8 (C) technologies for separation and proc-
9 essing;

10 (2) technologies or process improvements that
11 minimize the use, or lead to more efficient use, of
12 critical minerals across the full supply chain;

13 (3) technologies, process improvements, or de-
14 sign optimizations that facilitate the recycling of
15 critical minerals, and options for improving the rates
16 of collection of products and scrap containing critical
17 minerals from post-consumer, industrial, or other
18 waste streams;

19 (4) commercial markets, advanced storage
20 methods, energy applications, and other beneficial
21 uses of critical minerals processing byproducts;

22 (5) alternative minerals, metals, and materials,
23 particularly those available in abundance within the
24 United States and not subject to potential supply re-

1 restrictions, that lessen the need for critical minerals;
2 and

3 (6) alternative energy technologies or alter-
4 native designs of existing energy technologies, par-
5 ticularly those that use minerals that—

6 (A) occur in abundance in the United
7 States; and

8 (B) are not subject to potential supply re-
9 strictions.

10 (d) REPORTS.—Not later than 2 years after the date
11 of enactment of this Act, and annually thereafter, the Sec-
12 retary shall submit to Congress a report summarizing the
13 activities, findings, and progress of the program.

14 **SEC. 3308. ANALYSIS AND FORECASTING.**

15 (a) CAPABILITIES.—In order to evaluate existing crit-
16 ical mineral policies and inform future actions that may
17 be taken to avoid supply shortages, mitigate price vola-
18 tility, and prepare for demand growth and other market
19 shifts, the Secretary, in consultation with the Energy In-
20 formation Administration, academic institutions, and oth-
21 ers in order to maximize the application of existing com-
22 petencies related to developing and maintaining computer-
23 models and similar analytical tools, shall conduct and pub-
24 lish the results of an annual report that includes—

1 (1) as part of the annually published Mineral
2 Commodity Summaries from the United States Geo-
3 logical Survey, a comprehensive review of critical
4 mineral production, consumption, and recycling pat-
5 terns, including—

6 (A) the quantity of each critical mineral
7 domestically produced during the preceding
8 year;

9 (B) the quantity of each critical mineral
10 domestically consumed during the preceding
11 year;

12 (C) market price data or other price data
13 for each critical mineral;

14 (D) an assessment of—

15 (i) critical mineral requirements to
16 meet the national security, energy, eco-
17 nomic, industrial, technological, and other
18 needs of the United States during the pre-
19 ceding year;

20 (ii) the reliance of the United States
21 on foreign sources to meet those needs
22 during the preceding year; and

23 (iii) the implications of any supply
24 shortages, restrictions, or disruptions dur-
25 ing the preceding year;

1 (E) the quantity of each critical mineral
2 domestically recycled during the preceding year;

3 (F) the market penetration during the pre-
4 ceding year of alternatives to each critical min-
5 eral;

6 (G) a discussion of international trends as-
7 sociated with the discovery, production, con-
8 sumption, use, costs of production, prices, and
9 recycling of each critical mineral as well as the
10 development of alternatives to critical minerals;
11 and

12 (H) such other data, analyses, and evalua-
13 tions as the Secretary finds are necessary to
14 achieve the purposes of this section; and

15 (2) a comprehensive forecast, entitled the “An-
16 nual Critical Minerals Outlook”, of projected critical
17 mineral production, consumption, and recycling pat-
18 terns, including—

19 (A) the quantity of each critical mineral
20 projected to be domestically produced over the
21 subsequent 1-year, 5-year, and 10-year periods;

22 (B) the quantity of each critical mineral
23 projected to be domestically consumed over the
24 subsequent 1-year, 5-year, and 10-year periods;

25 (C) an assessment of—

1 (i) critical mineral requirements to
2 meet projected national security, energy,
3 economic, industrial, technological, and
4 other needs of the United States;

5 (ii) the projected reliance of the
6 United States on foreign sources to meet
7 those needs; and

8 (iii) the projected implications of po-
9 tential supply shortages, restrictions, or
10 disruptions;

11 (D) the quantity of each critical mineral
12 projected to be domestically recycled over the
13 subsequent 1-year, 5-year, and 10-year periods;

14 (E) the market penetration of alternatives
15 to each critical mineral projected to take place
16 over the subsequent 1-year, 5-year, and 10-year
17 periods;

18 (F) a discussion of reasonably foreseeable
19 international trends associated with the dis-
20 covery, production, consumption, use, costs of
21 production, and recycling of each critical min-
22 eral as well as the development of alternatives
23 to critical minerals; and

24 (G) such other projections relating to each
25 critical mineral as the Secretary determines to

1 be necessary to achieve the purposes of this sec-
2 tion.

3 (b) PROPRIETARY INFORMATION.—In preparing a re-
4 port described in subsection (a), the Secretary shall en-
5 sure, consistent with section 5(f) of the National Materials
6 and Minerals Policy, Research and Development Act of
7 1980 (30 U.S.C. 1604(f)), that—

8 (1) no person uses the information and data
9 collected for the report for a purpose other than the
10 development of or reporting of aggregate data in a
11 manner such that the identity of the person or firm
12 who supplied the information is not discernible and
13 is not material to the intended uses of the informa-
14 tion;

15 (2) no person discloses any information or data
16 collected for the report unless the information or
17 data has been transformed into a statistical or ag-
18 gregate form that does not allow the identification of
19 the person or firm who supplied particular informa-
20 tion; and

21 (3) procedures are established to require the
22 withholding of any information or data collected for
23 the report if the Secretary determines that with-
24 holding is necessary to protect proprietary informa-

1 tion, including any trade secrets or other confiden-
2 tial information.

3 **SEC. 3309. EDUCATION AND WORKFORCE.**

4 (a) WORKFORCE ASSESSMENT.—Not later than 1
5 year and 300 days after the date of enactment of this Act,
6 the Secretary of Labor (in consultation with the Secretary,
7 the Director of the National Science Foundation, institu-
8 tions of higher education with substantial expertise in
9 mining, institutions of higher education with significant
10 expertise in minerals research, including fundamental re-
11 search into alternatives, and employers in the critical min-
12 erals sector) shall submit to Congress an assessment of
13 the domestic availability of technically trained personnel
14 necessary for critical mineral exploration, development, as-
15 sessment, production, manufacturing, recycling, analysis,
16 forecasting, education, and research, including an analysis
17 of—

18 (1) skills that are in the shortest supply as of
19 the date of the assessment;

20 (2) skills that are projected to be in short sup-
21 ply in the future;

22 (3) the demographics of the critical minerals in-
23 dustry and how the demographics will evolve under
24 the influence of factors such as an aging workforce;

1 (4) the effectiveness of training and education
2 programs in addressing skills shortages;

3 (5) opportunities to hire locally for new and ex-
4 isting critical mineral activities;

5 (6) the sufficiency of personnel within relevant
6 areas of the Federal Government for achieving the
7 policies described in section 3 of the National Mate-
8 rials and Minerals Policy, Research and Develop-
9 ment Act of 1980 (30 U.S.C. 1602); and

10 (7) the potential need for new training pro-
11 grams to have a measurable effect on the supply of
12 trained workers in the critical minerals industry.

13 (b) CURRICULUM STUDY.—

14 (1) IN GENERAL.—The Secretary and the Sec-
15 retary of Labor shall jointly enter into an arrange-
16 ment with the National Academy of Sciences and the
17 National Academy of Engineering under which the
18 Academies shall coordinate with the National
19 Science Foundation on conducting a study—

20 (A) to design an interdisciplinary program
21 on critical minerals that will support the critical
22 mineral supply chain and improve the ability of
23 the United States to increase domestic, critical
24 mineral exploration, development, production,

1 manufacturing, research, including fundamental
2 research into alternatives, and recycling;

3 (B) to address undergraduate and grad-
4 uate education, especially to assist in the devel-
5 opment of graduate level programs of research
6 and instruction that lead to advanced degrees
7 with an emphasis on the critical mineral supply
8 chain or other positions that will increase do-
9 mestic, critical mineral exploration, develop-
10 ment, production, manufacturing, research, in-
11 cluding fundamental research into alternatives,
12 and recycling;

13 (C) to develop guidelines for proposals
14 from institutions of higher education with sub-
15 stantial capabilities in the required disciplines
16 for activities to improve the critical mineral
17 supply chain and advance the capacity of the
18 United States to increase domestic, critical min-
19 eral exploration, research, development, produc-
20 tion, manufacturing, and recycling; and

21 (D) to outline criteria for evaluating per-
22 formance and recommendations for the amount
23 of funding that will be necessary to establish
24 and carry out the program described in sub-
25 section (c).

1 (2) REPORT.—Not later than 2 years after the
2 date of enactment of this Act, the Secretary shall
3 submit to Congress a description of the results of
4 the study required under paragraph (1).

5 (c) PROGRAM.—

6 (1) ESTABLISHMENT.—The Secretary and the
7 Secretary of Labor shall jointly conduct a competi-
8 tive grant program under which institutions of high-
9 er education may apply for and receive 4-year grants
10 for—

11 (A) startup costs for newly designated fac-
12 ulty positions in integrated critical mineral edu-
13 cation, research, innovation, training, and work-
14 force development programs consistent with
15 subsection (b);

16 (B) internships, scholarships, and fellow-
17 ships for students enrolled in programs related
18 to critical minerals;

19 (C) equipment necessary for integrated
20 critical mineral innovation, training, and work-
21 force development programs; and

22 (D) research of critical minerals and their
23 applications, particularly concerning the manu-
24 facture of critical components vital to national
25 security.

1 (2) RENEWAL.—A grant under this subsection
2 shall be renewable for up to 2 additional 3-year
3 terms based on performance criteria outlined under
4 subsection (b)(1)(D).

5 **SEC. 3310. NATIONAL GEOLOGICAL AND GEOPHYSICAL**
6 **DATA PRESERVATION PROGRAM.**

7 Section 351(k) of the Energy Policy Act of 2005 (42
8 U.S.C. 15908(k)) is amended by striking “\$30,000,000
9 for each of fiscal years 2006 through 2010” and inserting
10 “\$5,000,000 for each of fiscal years 2017 through 2026,
11 to remain available until expended”.

12 **SEC. 3311. ADMINISTRATION.**

13 (a) IN GENERAL.—The National Critical Materials
14 Act of 1984 (30 U.S.C. 1801 et seq.) is repealed.

15 (b) CONFORMING AMENDMENT.—Section 3(d) of the
16 National Superconductivity and Competitiveness Act of
17 1988 (15 U.S.C. 5202(d)) is amended in the first sentence
18 by striking “, with the assistance of the National Critical
19 Materials Council as specified in the National Critical Ma-
20 terials Act of 1984 (30 U.S.C. 1801 et seq.),”.

21 (c) SAVINGS CLAUSES.—

22 (1) IN GENERAL.—Nothing in this subtitle or
23 an amendment made by this subtitle modifies any
24 requirement or authority provided by—

1 (A) the matter under the heading “**GEO-**
2 **LOGICAL SURVEY**” of the first section of the
3 Act of March 3, 1879 (43 U.S.C. 31(a)); or

4 (B) the first section of Public Law 87–626
5 (43 U.S.C. 31(b)).

6 (2) POTASH.—Nothing in this subtitle affects
7 any aspect of Secretarial Order 3324, issued by the
8 Secretary of the Interior on December 3, 2012, with
9 respect to potash and oil and gas operators.

10 **SEC. 3312. AUTHORIZATION OF APPROPRIATIONS.**

11 There is authorized to be appropriated to carry out
12 this subtitle \$50,000,000 for each of fiscal years 2017
13 through 2026.

14 **Subtitle E—Coal**

15 **SEC. 3401. FOSSIL ENERGY.**

16 Section 961(a) of the Energy Policy Act of 2005 (42
17 U.S.C. 16291(a)) is amended by adding at the end the
18 following:

19 “(8) Improving the conversion, use, and storage
20 of carbon dioxide produced from fossil fuels.”.

21 **SEC. 3402. ESTABLISHMENT OF COAL TECHNOLOGY PRO-**
22 **GRAM.**

23 (a) REPEALS.—

24 (1) IN GENERAL.—

1 (A) Sections 962 and 963 of the Energy
2 Policy Act of 2005 (42 U.S.C. 16292, 16293)
3 are repealed.

4 (B) Subtitle A of title IV of the Energy
5 Policy Act of 2005 (42 U.S.C. 15961 et seq.)
6 is repealed.

7 (2) SAVINGS CLAUSE.—Notwithstanding the
8 amendments made by paragraph (1), the Secretary
9 shall continue to manage any program activities that
10 are outstanding as of the date of enactment of this
11 Act under the terms and conditions of sections 962
12 and 963 of the Energy Policy Act of 2005 (42
13 U.S.C. 16292, 16293) or subtitle A of title IV of the
14 Energy Policy Act of 2005 (42 U.S.C. 15961 et
15 seq.) (as in effect on the day before the date of en-
16 actment of this Act), as applicable.

17 (3) CONFORMING AMENDMENTS.—

18 (A) Section 703(a)(3) of the Energy Inde-
19 pendence and Security Act of 2007 (42 U.S.C.
20 17251(a)(3)) is amended—

21 (i) in the matter preceding subpara-
22 graph (A), by striking the first and second
23 sentences; and

24 (ii) in subparagraph (B), by striking
25 “including” in the matter preceding clause

1 (i) and all that follows through the period
2 at the end and inserting “, including such
3 geologic sequestration projects as are ap-
4 proved by the Secretary”.

5 (B) Section 704 of the Energy Independ-
6 ence and Security Act of 2007 (42 U.S.C.
7 17252) is amended in the first sentence by
8 striking “under section 963(c)(3) of the Energy
9 Policy Act of 2005 (42 U.S.C. 16293(c)(3)), as
10 added by section 702 of this subtitle, and”.

11 (b) ESTABLISHMENT OF COAL TECHNOLOGY PRO-
12 GRAM.—

13 (1) IN GENERAL.—The Energy Policy Act of
14 2005 (as amended by subsection (a)) is amended by
15 inserting after section 961 (42 U.S.C. 16291) the
16 following:

17 **“SEC. 962. COAL TECHNOLOGY PROGRAM.**

18 **“(a) DEFINITIONS.—**In this section:

19 **“(1) LARGE-SCALE PILOT PROJECT.—**The term
20 ‘large-scale pilot project’ means a pilot project
21 that—

22 **“(A)** represents the scale of technology de-
23 velopment beyond laboratory development and
24 bench scale testing, but not yet advanced to the

1 point of being tested under real operational con-
2 ditions at commercial scale;

3 “(B) represents the scale of technology
4 necessary to gain the operational data needed
5 to understand the technical and performance
6 risks of the technology before the application of
7 that technology at commercial scale or in com-
8 mercial-scale demonstration; and

9 “(C) is large enough—

10 “(i) to validate scaling factors; and

11 “(ii) to demonstrate the interaction
12 between major components so that control
13 philosophies for a new process can be de-
14 veloped and enable the technology to ad-
15 vance from large-scale pilot plant applica-
16 tion to commercial scale demonstration or
17 application.

18 “(2) PROGRAM.—The term ‘program’ means
19 the program established under subsection (b).

20 “(3) TRANSFORMATIONAL TECHNOLOGY.—

21 “(A) IN GENERAL.—The term ‘trans-
22 formational technology’ means a power genera-
23 tion technology that represents an entirely new
24 way to convert energy that will enable a step
25 change in performance, efficiency, and cost of

1 electricity as compared to the technology in ex-
2 istence on the date of enactment of this Act.

3 “(B) INCLUSIONS.—The term ‘trans-
4 formational technology’ includes a broad range
5 of technology improvements, including—

6 “(i) thermodynamic improvements in
7 energy conversion and heat transfer, in-
8 cluding—

9 “(I) oxygen combustion;

10 “(II) chemical looping; and

11 “(III) the replacement of steam
12 cycles with supercritical carbon diox-
13 ide cycles;

14 “(ii) improvements in turbine tech-
15 nology;

16 “(iii) improvements in carbon capture
17 systems technology; and

18 “(iv) any other technology the Sec-
19 retary recognizes as transformational tech-
20 nology.

21 “(b) COAL TECHNOLOGY PROGRAM.—

22 “(1) IN GENERAL.—The Secretary shall estab-
23 lish a coal technology program to ensure the contin-
24 ued use of the abundant, domestic coal resources of
25 the United States through the development of tech-

1 nologies that will significantly improve the efficiency,
2 effectiveness, costs, and environmental performance
3 of coal use.

4 “(2) REQUIREMENTS.—The program shall in-
5 clude—

6 “(A) a research and development program;

7 “(B) large-scale pilot projects; and

8 “(C) demonstration projects.

9 “(3) PROGRAM GOALS AND OBJECTIVES.—In
10 consultation with the interested entities described in
11 paragraph (4)(C), the Secretary shall develop goals
12 and objectives for the program to be applied to the
13 technologies developed within the program, taking
14 into consideration the following objectives:

15 “(A) Ensure reliable, low cost power from
16 new and existing coal plants.

17 “(B) Achieve high conversion efficiencies.

18 “(C) Address emissions of carbon dioxide
19 through high efficiency platforms and carbon
20 capture from new and existing coal plants.

21 “(D) Support small-scale and modular
22 technologies to enable incremental capacity ad-
23 ditions and load growth and large-scale genera-
24 tion technologies.

1 “(E) Support flexible baseload operations
2 for new and existing applications of coal gen-
3 eration.

4 “(F) Further reduce emissions of criteria
5 pollutants and reduce the use and manage the
6 discharge of water in power plant operations.

7 “(G) Accelerate the development of tech-
8 nologies that have transformational energy con-
9 version characteristics.

10 “(H) Validate geologic storage of large vol-
11 umes of anthropogenic sources of carbon diox-
12 ide and support the development of the infra-
13 structure needed to support a carbon dioxide
14 use and storage industry.

15 “(I) Examine methods of converting coal
16 to other valuable products and commodities in
17 addition to electricity.

18 “(4) CONSULTATIONS REQUIRED.—In carrying
19 out the program, the Secretary shall—

20 “(A) undertake international collabora-
21 tions, as recommended by the National Coal
22 Council;

23 “(B) use existing authorities to encourage
24 international cooperation; and

1 “(C) consult with interested entities, in-
2 cluding –
3 “(i) coal producers;
4 “(ii) industries that use coal;
5 “(iii) organizations that promote coal
6 and advanced coal technologies;
7 “(iv) environmental organizations;
8 “(v) organizations representing work-
9 ers; and
10 “(vi) organizations representing con-
11 sumers.

12 “(c) REPORT.—

13 “(1) IN GENERAL.—Not later than 18 months
14 after the date of enactment of this Act, the Sec-
15 retary shall submit to Congress a report describing
16 the performance standards adopted under subsection
17 (b)(3).

18 “(2) UPDATE.—Once every 2 years after the
19 initial report is submitted under paragraph (1), the
20 Secretary shall submit to Congress a report describ-
21 ing the progress made towards achieving the objec-
22 tives and performance standards adopted under sub-
23 section (b)(3).

24 “(d) FUNDING.—

1 “(1) AUTHORIZATION OF APPROPRIATIONS.—

2 There are authorized to be appropriated to the Sec-
3 retary to carry out this Act, to remain available until
4 expended—

5 “(A) \$610,000,000 for each of fiscal years
6 2017 through 2020; and

7 “(B) \$560,000,000 for fiscal year 2021.

8 “(2) ALLOCATIONS.—The amounts made avail-
9 able under paragraph (1) shall be allocated as fol-
10 lows:

11 “(A) For activities under the research and
12 development program component described in
13 subsection (b)(2)(A)—

14 “(i) \$275,000,000 for each of fiscal
15 years 2017 through 2020; and

16 “(ii) \$200,000,000 for fiscal year
17 2021.

18 “(B) For activities under the demonstra-
19 tion projects program component described in
20 subsection (b)(2)(C)—

21 “(i) \$50,000,000 for each of fiscal
22 years 2017 through 2020; and

23 “(ii) \$75,000,000 for fiscal year 2021.

24 “(C) For activities under the large-scale
25 pilot projects program component described in

1 subsection (b)(2)(B), \$285,000,000 for each of
2 fiscal years 2017 through 2021.”.

3 (2) COST SHARING FOR LARGE-SCALE PILOT
4 PROJECTS.—Activities under subsection (b)(2)(B)
5 shall be subject to the cost-sharing requirements of
6 section 988(b) of the Energy Policy Act of 2005 (42
7 U.S.C. 16352(b)).

8 **Subtitle F—Nuclear**

9 **SEC. 3501. REPORT ON FUSION AND FISSION REACTOR** 10 **PROTOTYPES.**

11 (a) IN GENERAL.—Not later than 180 days after the
12 date of enactment of this Act, the Secretary, in consulta-
13 tion with the National Laboratories, relevant Federal
14 agencies, and other stakeholders, shall submit to the Com-
15 mittees on Energy and Natural Resources and Environ-
16 ment and Public Works of the Senate and the Committee
17 on Science, Space, and Technology of the House of Rep-
18 resentatives a report assessing the capability of the De-
19 partment to host privately funded fusion and fission reac-
20 tor prototypes up to 20 megawatts thermal output and
21 related demonstration facilities at sites owned by the De-
22 partment.

23 (b) CONTENT.—The report submitted under sub-
24 section (a) shall describe the results of an assessment of—

1 (1) the safety review, oversight capabilities, and
2 potential liability of the Department;

3 (2) potential sites capable of hosting research,
4 development, and demonstration of prototype reac-
5 tors and related facilities for the purpose of reducing
6 technical risk;

7 (3) the existing physical and technical capabili-
8 ties of the Department and the National Labora-
9 tories relevant to research, development, and over-
10 sight;

11 (4) the efficacy of the available contractual
12 mechanisms of the Department, including—

13 (A) cooperative research and development
14 agreements;

15 (B) work for others agreements; and

16 (C) agreements for commercializing tech-
17 nology;

18 (5) potential cost structures relating to physical
19 security, decommissioning, liability, and other long-
20 term project costs;

21 (6) the feasibility of the Department providing
22 technical assistance to developers of privately funded
23 fusion and advanced fission reactors in connection
24 with obtaining a license from the Nuclear Regu-
25 latory Commission for demonstration reactors or

1 commercial reactors of varying size and readiness
2 levels up to 2 gigawatts of thermal output; and
3 (7) other challenges or considerations identified
4 by the Secretary, including issues relating to poten-
5 tial cases of demonstration reactors up to 2
6 gigawatts of thermal output.

7 **SEC. 3502. NEXT GENERATION NUCLEAR PLANT PROJECT.**

8 Section 642(b) of the Energy Policy Act of 2005 (42
9 U.S.C. 16022(b)) is amended—

10 (1) by striking paragraph (3); and

11 (2) by redesignating paragraphs (4) and (5) as
12 paragraphs (3) and (4), respectively.

13 **Subtitle G—Workforce**
14 **Development**

15 **SEC. 3601. 21ST CENTURY ENERGY WORKFORCE ADVISORY**
16 **BOARD.**

17 (a) ESTABLISHMENT.—The Secretary shall establish
18 the 21st Century Energy Workforce Advisory Board (re-
19 ferred to in this section as the “Board”), to develop a
20 strategy for the support and development of a skilled en-
21 ergy workforce that—

22 (1) meets the current and future industry and
23 labor needs of the energy sector;

1 (2) provides opportunities for students to be-
2 come qualified for placement in traditional energy
3 sector and clean energy sector jobs;

4 (3) aligns apprenticeship programs and work-
5 force development programs to provide industry rec-
6 ognized certifications and credentials;

7 (4) encourages leaders in the education system
8 of the United States to equip students with the
9 skills, mentorships, training, and technical expertise
10 necessary to fill the employment opportunities vital
11 to managing and operating the energy- and manu-
12 facturing-related industries of the United States;

13 (5) appropriately supports other Federal agen-
14 cies;

15 (6) strengthens and more fully engages work-
16 force training programs of the Department and the
17 National Laboratories in carrying out the Minorities
18 in Energy Initiative of the Department and other
19 Department workforce priorities;

20 (7) supports the design and replication of exist-
21 ing model energy curricula, particularly in new and
22 emerging technologies, that leads to industry-wide
23 credentials;

24 (8) develops plans to support and retrain dis-
25 placed and unemployed energy sector workers; and

1 (9) makes a Department priority to provide
2 education and job training to underrepresented
3 groups, including ethnic minorities, Indian tribes (as
4 defined in section 4 of the Indian Self-Determination
5 and Education Assistance Act (25 U.S.C. 450b)),
6 women, veterans, and socioeconomically disadvan-
7 taged individuals.

8 (b) MEMBERSHIP.—

9 (1) IN GENERAL.—The Board shall be com-
10 posed of 9 members, with the initial members of the
11 Board to be appointed by the Secretary not later
12 than 1 year after the date of enactment of this Act.

13 (2) NOMINATIONS.—Not later than 1 year after
14 the date of enactment of this Act, the President’s
15 Council of Advisors on Science and Technology shall
16 nominate for appointment to the Board under para-
17 graph (1) not less than 18 individuals who meet the
18 qualifications described in paragraph (3).

19 (3) QUALIFICATIONS.—Each individual nomi-
20 nated for appointment to the Board under para-
21 graph (1) shall—

22 (A) be eminent in the field of economics or
23 workforce development;

24 (B) have expertise in relevant traditional
25 energy industries and clean energy industries;

1 (C) have expertise in secondary and post-
2 secondary education;

3 (D) have expertise in energy workforce de-
4 velopment or apprentice programs of States and
5 units of local government;

6 (E) have expertise in relevant organized
7 labor organizations; or

8 (F) have expertise in bringing underrep-
9 resented groups, including ethnic minorities,
10 women, veterans, and socioeconomically dis-
11 advantaged individuals, into the workforce.

12 (4) REPRESENTATION.—The membership of the
13 Board shall be representative of the broad range of
14 the energy industry, labor organizations, workforce
15 development, education, minority participation, and
16 economics disciplines related to activities carried out
17 under this section.

18 (5) LIMITATION.—No individual shall be nomi-
19 nated for appointment to the Board who is an em-
20 ployee of an entity applying for a grant under sec-
21 tion 3602.

22 (c) ADVISORY BOARD REVIEW AND RECOMMENDA-
23 TIONS.—

1 (ii) make resources available to pro-
2 vide training to displaced and unemployed
3 energy sector workers to reenter the en-
4 ergy workforce; and

5 (E) identify the energy sectors in greatest
6 need of workforce training and develop guide-
7 lines for the skills necessary to develop a work-
8 force trained to work in those energy sectors.

9 (2) REQUIRED ANALYSIS.—In developing the
10 strategy required under subsection (a), the Board
11 shall analyze the effectiveness of—

12 (A) existing Department directed support;
13 and

14 (B) developing energy workforce training
15 programs.

16 (3) REPORT.—Not later than 1 year after the
17 date on which the Board is established under this
18 section, and each year thereafter, the Board shall
19 submit to the Secretary and Congress, and make
20 public, a report containing the findings of the Board
21 and model energy curricula with respect to the strat-
22 egy required to be developed under subsection (a).

23 (d) REPORT BY SECRETARY.—Not later than 18
24 months after the date on which the Board is established
25 under this section, the Secretary shall submit to the Com-

1 mittees on Appropriations of Senate and the House of
2 Representatives, the Committee on Energy and Natural
3 Resources of the Senate, and the Committee on Energy
4 and Commerce of the House of Representatives a report
5 that—

6 (1) describes whether the Secretary approves or
7 disapproves the recommendations of the Board
8 under subsection (c)(3); and

9 (2) provides an implementation plan for rec-
10 ommendations approved by the Board under para-
11 graph (1).

12 (e) CLEARINGHOUSE.—Based on the recommenda-
13 tions of the Board, the Secretary shall establish a clearing-
14 house—

15 (1) to maintain and update information and re-
16 sources on training and workforce development pro-
17 grams for energy- and manufacturing-related jobs;
18 and

19 (2) to act as a resource, and provide guidance,
20 for secondary schools, institutions of higher edu-
21 cation (including community colleges and minority-
22 serving institutions), workforce development organi-
23 zations, labor management organizations, and indus-
24 try organizations that would like to develop and im-

1 plement energy- and manufacturing-related training
2 programs.

3 (f) SUNSET.—The Board established under this sec-
4 tion shall remain in effect until September 30, 2020.

5 **SEC. 3602. ENERGY WORKFORCE PILOT GRANT PROGRAM.**

6 (a) IN GENERAL.—Not later than 1 year after the
7 date of enactment of this Act, the Secretary, in consulta-
8 tion with the Secretary of Labor and the Secretary of
9 Education, shall establish a pilot program to award grants
10 on a competitive basis to eligible entities for job training
11 programs that lead to an industry-recognized credential.

12 (b) ELIGIBILITY.—To be eligible to receive a grant
13 under this section, an entity shall be a public or nonprofit
14 organization or a consortium of public or nonprofit organi-
15 zations that—

16 (1) includes an advisory board of proportional
17 participation, as determined by the Secretary, of rel-
18 evant organizations, including—

19 (A) relevant energy industry organizations,
20 including public and private employers;

21 (B) labor organizations;

22 (C) postsecondary education organizations;

23 and

24 (D) workforce development boards;

1 (2) work with the Secretary of Defense or vet-
2 erans organizations to transition members of the
3 Armed Forces and veterans to careers in the energy
4 sector;

5 (3) work with Indian tribes (as defined in sec-
6 tion 4 of the Indian Self-Determination and Edu-
7 cation Assistance Act (25 U.S.C. 450b));

8 (4) apply as a State or regional consortia to le-
9 verage best practices already available in the State
10 or region in which the community college or institu-
11 tion of higher education is located;

12 (5) have a State-supported entity included in
13 the consortium applying for the grant;

14 (6) include an apprenticeship program reg-
15 istered with the Department of Labor or a State as
16 part of the job training and education program;

17 (7) provide support services and career coach-
18 ing;

19 (8) provide introductory energy workforce devel-
20 opment training;

21 (9) work with minority-serving institutions to
22 provide job training to increase the number of
23 skilled minorities and women in the energy sector; or

24 (10) provide job training for displaced and un-
25 employed workers in the energy sector.

1 (e) ADDITIONAL CONSIDERATION.—In making
2 grants under this section, the Secretary shall consider re-
3 gional diversity.

4 (f) LIMITATION ON APPLICATIONS.—An eligible enti-
5 ty may not submit, either individually or as part of a joint
6 application, more than 1 application for a grant under this
7 section during any 1 fiscal year.

8 (g) LIMITATIONS ON AMOUNT OF GRANT.—The
9 amount of an individual grant for any 1 year shall not
10 exceed \$1,000,000.

11 (h) COST SHARING.—

12 (1) FEDERAL SHARE.—The Federal share of
13 the cost of a job training and education program
14 carried out using a grant under this section shall be
15 not greater than 65 percent.

16 (2) NON-FEDERAL SHARE.—

17 (A) IN GENERAL.—The non-Federal share
18 of the cost of a job training and education pro-
19 gram carried out using a grant under this sec-
20 tion shall consist of not less than 50 percent
21 cash.

22 (B) LIMITATION.—Not greater than 50
23 percent of the non-Federal contribution of the
24 total cost of a job training and education pro-
25 gram carried out using a grant under this sec-

1 tion shall be in the form of in-kind contribu-
2 tions of goods or services fairly valued.

3 (i) REDUCTION OF DUPLICATION.—Prior to submit-
4 ting an application for a grant under this section, each
5 applicant shall consult with the appropriate agencies of
6 the Federal Government and coordinate the proposed ac-
7 tivities of the applicant with existing State and local pro-
8 grams.

9 (j) TECHNICAL ASSISTANCE.—The Secretary shall
10 provide technical assistance and capacity building to na-
11 tional and State energy partnerships, including the enti-
12 ties described in subsection (b)(1), to leverage the existing
13 job training and education programs of the Department.

14 (k) REPORT.—The Secretary shall submit to Con-
15 gress and make publicly available on the website of the
16 Department an annual report on the program established
17 under this section, including a description of—

18 (1) the entities receiving grants;

19 (2) the activities carried out using the grants;

20 (3) best practices used to leverage the invest-
21 ment of the Federal Government;

22 (4) the rate of employment for participants
23 after completing a job training and education pro-
24 gram carried out using a grant; and

1 (5) an assessment of the results achieved by the
2 program.

3 (1) AUTHORIZATION OF APPROPRIATIONS.—There is
4 authorized to be appropriated to carry out this section
5 \$20,000,000 for each of fiscal years 2017 through 2020.

6 **Subtitle H—Recycling**

7 **SEC. 3701. RECYCLED CARBON FIBER.**

8 (a) STUDY.—

9 (1) IN GENERAL.—The Secretary shall conduct
10 a study on—

11 (A) the technology of recycled carbon fiber
12 and production waste carbon fiber; and

13 (B) the potential lifecycle energy savings
14 and economic impact of recycled carbon fiber.

15 (2) FACTORS FOR CONSIDERATION.—In con-
16 ducting the study under paragraph (1), the Sec-
17 retary shall consider—

18 (A) the quantity of recycled carbon fiber or
19 production waste carbon fiber that would make
20 the use of recycled carbon fiber or production
21 waste carbon fiber economically viable;

22 (B) any existing or potential barriers to re-
23 cycling carbon fiber or using recycled carbon
24 fiber;

1 (C) any financial incentives that may be
2 necessary for the development of recycled car-
3 bon fiber or production waste carbon fiber;

4 (D) the potential lifecycle savings in energy
5 from producing recycled carbon fiber, as com-
6 pared to producing new carbon fiber;

7 (E) the best and highest use for recycled
8 carbon fiber;

9 (F) the potential reduction in carbon diox-
10 ide emissions from producing recycled carbon
11 fiber, as compared to producing new carbon
12 fiber;

13 (G) any economic benefits gained from
14 using recycled carbon fiber or production waste
15 carbon fiber;

16 (H) workforce training and skills needed to
17 address labor demands in the development of
18 recycled carbon fiber or production waste car-
19 bon fiber; and

20 (I) how the Department can leverage exist-
21 ing efforts in the industry on the use of produc-
22 tion waste carbon fiber.

23 (3) REPORT.—Not later than 1 year after the
24 date of enactment of this Act, the Secretary shall

1 submit to Congress a report describing the results of
2 the study conducted under paragraph (1).

3 (b) RECYCLED CARBON FIBER DEMONSTRATION
4 PROJECT.—On completion of the study required under
5 subsection (a)(1), the Secretary shall consult with the
6 aviation and automotive industries and existing programs
7 of the Advanced Manufacturing Office of the Department
8 to develop a carbon fiber recycling demonstration project.

9 (c) AUTHORIZATION OF APPROPRIATIONS.—There is
10 authorized to be appropriated to the Secretary to carry
11 out this section \$10,000,000, to remain available until ex-
12 pended.

13 **SEC. 3702. ENERGY GENERATION AND REGULATORY RE-**
14 **LIEF STUDY REGARDING RECOVERY AND**
15 **CONVERSION OF NONRECYCLED MIXED**
16 **PLASTICS.**

17 (a) DEFINITIONS.—In this section:

18 (1) ENGINEERED FUEL.—The term “engi-
19 neered fuel” means a solid fuel that is manufactured
20 from nonrecycled constituents of municipal solid
21 waste or other secondary materials.

22 (2) GASIFICATION.—The term “gasification”
23 means a process through which nonrecycled waste is
24 heated and converted to synthesis gas in an oxygen-

1 deficient atmosphere, which can be converted into
2 fuels such as ethanol or other chemical feedstocks.

3 (3) PYROLYSIS.—The term “pyrolysis” means a
4 process through which nonrecycled plastics are heat-
5 ed in the absence of oxygen until melted and ther-
6 mally decomposed, and are then cooled, condensed,
7 and converted into synthetic crude oil or refined into
8 synthetic fuels and feedstocks such as diesel or
9 naphtha.

10 (b) STUDY.—With respect to nonrecycled mixed plas-
11 tics that are part of municipal solid waste or other sec-
12 ondary materials in the United States (and are often de-
13 posited in landfills), the Secretary shall conduct a study
14 to determine the manner in which the United States can
15 make progress toward a cost-effective system (including
16 with respect to environmental issues) through which pyrol-
17 ysis, gasification, and other innovative technologies such
18 as engineered fuels are used to convert such plastics, alone
19 or in combination with other municipal solid waste or sec-
20 ondary materials, into materials that can be used to gen-
21 erate electric energy or fuels or as chemical feedstocks.

22 (c) COMPLETION OF STUDY.—Not later than 2 years
23 after the date of enactment of this Act, the Secretary shall
24 complete the study described in subsection (b) and submit
25 to the appropriate committees of Congress reports pro-

1 viding findings and recommendations developed through
2 the study.

3 (d) FUNDING.—The Secretary may use unobligated
4 funds of the Department to carry out this section.

5 **SEC. 3703. ELIGIBLE PROJECTS.**

6 Section 1703(b)(1) of the Energy Policy Act of 2005
7 (42 U.S.C. 16513(b)(1)) is amended by inserting “(ex-
8 cluding the burning of commonly recycled paper that has
9 been segregated from solid waste to generate electricity)”
10 after “systems”.

11 **TITLE IV—ACCOUNTABILITY**
12 **Subtitle A—Loan Programs**

13 **SEC. 4001. TERMS AND CONDITIONS FOR INCENTIVES FOR**
14 **INNOVATIVE TECHNOLOGIES.**

15 (a) BORROWER PAYMENT OF SUBSIDY COST.—

16 (1) IN GENERAL.—Section 1702 of the Energy
17 Policy Act of 2005 (42 U.S.C. 16512) is amended
18 by adding at the end the following:

19 “(1) BORROWER PAYMENT OF SUBSIDY COST.—

20 “(1) IN GENERAL.—In addition to the require-
21 ment in subsection (b)(1), no guarantee shall be
22 made unless the Secretary has received from the
23 borrower not less than 25 percent of the cost of the
24 guarantee.

1 “(2) ESTIMATE.—The Secretary shall provide
2 to the borrower, as soon as practicable, an estimate
3 or range of the cost of the guarantee under para-
4 graph (1).”.

5 (2) CONFORMING AMENDMENT.—Section
6 1702(b) of the Energy Policy Act of 2005 (42
7 U.S.C. 16512(b)) is amended—

8 (A) by striking “(1) IN GENERAL.—No
9 guarantee” and inserting the following: “Sub-
10 ject to subsection (l), no guarantee”;

11 (B) by redesignating subparagraphs (A),
12 (B), and (C) as paragraphs (1), (2), and (3),
13 respectively, and indenting appropriately; and

14 (C) in paragraph (3) (as so redesign-
15 ated)—

16 (i) by striking “subparagraph (A)”
17 and inserting “paragraph (1)”; and

18 (ii) by striking “subparagraph (B)”
19 and inserting “paragraph (2)”.

20 (3) EFFECTIVE DATE.—The amendments made
21 by paragraphs (1) and (2) shall take effect on Octo-
22 ber 1, 2019.

23 (b) PROHIBITION ON SUBORDINATION OF DEBT.—
24 Section 1702(d)(3) of the Energy Policy Act of 2005 (42
25 U.S.C. 16512(d)(3)) is amended by striking “is not subor-

1 dinate” and inserting “(including any reorganization, re-
2 structuring, or termination of the obligation) shall not at
3 any time be subordinate”.

4 (c) LOAN PROGRAM TRANSPARENCY.—Section 1703
5 of the Energy Policy Act of 2005 (42 U.S.C. 16513) is
6 amended by adding at the end the following:

7 “(f) LOAN STATUS.—

8 “(1) REQUEST.—If the Secretary does not
9 make a final decision on an application for a loan
10 guarantee under this section by the date that is 270
11 days after receipt of the application by the Sec-
12 retary, on that date and every 90 days thereafter
13 until the final decision is made, the applicant may
14 request that the Secretary provide to the applicant
15 a description of the status of the application.

16 “(2) RESPONSE.—Not later than 10 days after
17 receiving a request from an applicant under para-
18 graph (1), the Secretary shall provide to the appli-
19 cant a response that includes—

20 “(A) a summary of any factors that are
21 delaying a final decision on the application; and

22 “(B) an estimate of when review of the ap-
23 plication will be completed.”.

1 (d) TEMPORARY PROGRAM FOR RAPID DEPLOYMENT
2 OF RENEWABLE ENERGY AND ELECTRIC POWER TRANS-
3 MISSION PROJECTS.—

4 (1) REPEAL.—Section 1705 of the Energy Pol-
5 icy Act of 2005 (42 U.S.C. 16516) is repealed.

6 (2) RESCISSION.—There is rescinded the unob-
7 ligated balance of amounts made available to carry
8 out the loan guarantee program established under
9 section 1705 of the Energy Policy Act of 2005 (42
10 U.S.C. 16516) (before the amendment made by
11 paragraph (1)).

12 (3) MANAGEMENT.—The Secretary shall ensure
13 rigorous continued management and oversight of all
14 outstanding loans guaranteed under the program de-
15 scribed in subsection (b) until those loans have been
16 repaid in full.

17 **SEC. 4002. STATE LOAN ELIGIBILITY.**

18 (a) DEFINITIONS.—Section 1701 of the Energy Pol-
19 icy Act of 2005 (42 U.S.C. 16511) is amended by adding
20 at the end the following:

21 “(6) STATE.—The term ‘State’ has the mean-
22 ing given the term in section 202 of the Energy
23 Conservation and Production Act (42 U.S.C. 6802).

24 “(7) STATE ENERGY FINANCING INSTITU-
25 TION.—

1 “(A) IN GENERAL.—The term ‘State en-
2 ergy financing institution’ means a quasi-inde-
3 pendent entity or an entity within a State agen-
4 cy or financing authority established by a
5 State—

6 “(i) to provide financing support or
7 credit enhancements, including loan guar-
8 antees and loan loss reserves, for eligible
9 projects; and

10 “(ii) to create liquid markets for eligi-
11 ble projects, including warehousing and
12 securitization, or take other steps to reduce
13 financial barriers to the deployment of ex-
14 isting and new eligible projects.

15 “(B) INCLUSION.—The term ‘State energy
16 financing institution’ includes an entity or orga-
17 nization established to achieve the purposes de-
18 scribed in clauses (i) and (ii) of subparagraph
19 (A) by an Indian tribal entity or an Alaska Na-
20 tive Corporation.”.

21 (b) TERMS AND CONDITIONS.—Section 1702 of the
22 Energy Policy Act of 2005 (42 U.S.C. 16512) (as amend-
23 ed by section 4001(a)(1)) is amended—

1 (1) in subsection (a), by inserting “or to a
2 State energy financing institution” after “for
3 projects”; and

4 (2) by adding at the end the following:

5 “(m) STATE ENERGY FINANCING INSTITUTIONS.—

6 “(1) ELIGIBILITY.—To be eligible for a guar-
7 antee under this title, a State energy financing insti-
8 tution—

9 “(A) shall meet the requirements of section
10 1703(a)(1); and

11 “(B) shall not be required to meet the re-
12 quirements of section 1703(a)(2).

13 “(2) PARTNERSHIPS AUTHORIZED.—In car-
14 rying out a project receiving a loan guarantee under
15 this title, State energy financing institutions may
16 enter into partnerships with private entities, tribal
17 entities, and Alaska Native corporations.

18 “(3) PROHIBITION ON USE OF APPROPRIATED
19 FUNDS.—Amounts appropriated to the Department
20 of Energy before the date of enactment of this sub-
21 section shall not be available to be used for the cost
22 of loan guarantees made to State energy financing
23 institutions under this subsection.”.

1 **SEC. 4003. GAO STUDY ON FOSSIL LOAN GUARANTEE IN-**
2 **CENTIVE PROGRAM.**

3 (a) IN GENERAL.—Not later than 180 days after the
4 date of enactment of this Act, the Comptroller General
5 of the United States shall carry out, and submit to Con-
6 gress a report describing the results of, a study on the
7 effectiveness of the advanced fossil loan guarantee incen-
8 tive program and other incentive programs for advanced
9 fossil energy of the Department.

10 (b) CONTENTS.—In carrying out the study under
11 subsection (a), the Comptroller General of the United
12 States shall—

13 (1) solicit industry and stakeholder input;

14 (2) evaluate the effectiveness of the advanced
15 fossil loan guarantee incentive program, alone or in
16 combination with other incentives, in advancing car-
17 bon capture and storage technology;

18 (3) review each Federal incentive provided by
19 the Department and other Federal agencies for car-
20 bon capture and storage demonstration projects to
21 determine the adequacy and effectiveness of the
22 combined Federal incentives in advancing carbon
23 capture and storage and advanced fossil energy tech-
24 nologies;

25 (4) assess whether combinations of the incentive
26 programs in existence as of the date of enactment of

1 this Act could be effective to advance carbon capture
2 and storage and advanced fossil energy technologies;
3 and

4 (5) evaluate the impact and costs of imple-
5 menting the recommendations described in the Jan-
6 uary 2015 National Coal Council report entitled
7 “Fossil Forward: Revitalizing CCS, Bringing Scale
8 and Speed to CCS Deployment” on the effectiveness
9 of the advanced fossil loan guarantee program.

10 **SEC. 4004. PROGRAM ELIGIBILITY FOR VESSELS.**

11 Subtitle B of title I of the Energy Independence and
12 Security Act of 2007 (42 U.S.C. 17011 et seq.) is amend-
13 ed by adding at the end the following:

14 **“SEC. 137. ADVANCED TECHNOLOGY VEHICLES MANUFAC-**
15 **TURING INCENTIVE PROGRAM ELIGIBILITY**
16 **FOR VESSELS.**

17 “(a) DEFINITION OF VESSEL.—In this section, the
18 term ‘vessel’ means a vessel (as defined in section 3 of
19 title 1, United States Code), whether in existence or under
20 construction, that has been issued a certificate of docu-
21 mentation as a United States flagged vessel under chapter
22 121 of title 46, United States Code and that meets the
23 standards established under section 4005(a) of the Energy
24 Policy Modernization Act of 2015.

1 “(b) ELIGIBILITY.—Subject to the terms and condi-
2 tions of subsections (d) and (f) of section 136, projects
3 for the reequipping, expanding, or establishing of a manu-
4 facturing facility in the United States to produce vessels
5 shall be considered eligible for direct loans under section
6 136(d).

7 “(c) FUNDING.—

8 “(1) PROHIBITION ON USE OF EXISTING CRED-
9 IT SUBSIDY.—None of the projects made eligible
10 under this section shall be eligible to receive any
11 credit subsidy provided under section 136 before the
12 date of enactment of this section.

13 “(2) SPECIFIC APPROPRIATION OR CONTRIBU-
14 TION.—The authority under this section to incur in-
15 debtedness, or enter into contracts, obligating
16 amounts to be expended by the Federal Government
17 shall be effective for any fiscal year only—

18 “(A)(i) to such extent or in such amounts
19 as are provided in advance by appropriation
20 Acts; and

21 “(ii) if the borrower has agreed to pay a
22 reasonable percentage of the cost of the obliga-
23 tion; or

24 “(B) if the Secretary has received from the
25 borrower a payment in full for the cost of the

1 obligation and deposited the payment into the
2 Treasury.”.

3 **SEC. 4005. ADDITIONAL REFORMS.**

4 (a) ISSUANCE OF RULE.—Not later than 180 days
5 after the date of enactment of this Act and after consulta-
6 tion with, and taking into account comments from, the
7 vessel industry, the Secretary shall issue a rule that speci-
8 fies which energy efficiency improvement standards shall
9 apply to applicants for loans under section 137 of the En-
10 ergy Independence and Security Act of 2007 (as added
11 by section 4004) for the manufacturing, retrofitting, or
12 repowering vessels that have been issued certificates of
13 documentation as United States flagged vessels under
14 chapter 121 of title 46, United States Code.

15 (b) FEES.—Section 136 of the Energy Independence
16 and Security Act of 2007 (42 U.S.C. 17013) is amended
17 by striking subsection (f) and inserting the following:

18 “(f) FEES.—

19 “(1) IN GENERAL.—The Secretary shall charge
20 and collect fees for loans provided under this section
21 in amounts that the Secretary determines are suffi-
22 cient to cover applicable administrative expenses as-
23 sociated with the loans, including reasonable closing
24 fees on the loans.

1 “(2) AVAILABILITY.—Fees collected under
2 paragraph (1) shall—

3 “(A) be deposited by the Secretary into the
4 Treasury; and

5 “(B) remain available until expended, sub-
6 ject to such other conditions as are contained in
7 annual appropriations Acts.”.

8 **SEC. 4006. DEPARTMENT OF ENERGY INDIAN ENERGY EDU-**
9 **CATION PLANNING AND MANAGEMENT AS-**
10 **SISTANCE PROGRAM.**

11 Section 2602(b)(6) of the Energy Policy Act of 1992
12 (25 U.S.C. 3502(b)(6)) is amended by striking “2016”
13 and inserting “2026”.

14 **Subtitle B—Energy-Water Nexus**

15 **SEC. 4101. NEXUS OF ENERGY AND WATER FOR SUSTAIN-**
16 **ABILITY.**

17 (a) DEFINITIONS.—In this section:

18 (1) ENERGY-WATER NEXUS.—The term “en-
19 ergy-water nexus” means the links between—

20 (A) the water needed to produce fuels,
21 electricity, and other forms of energy; and

22 (B) the energy needed to transport, re-
23 claim, and treat water and wastewater.

24 (2) INTERAGENCY COORDINATION COM-
25 MITTEE.—The term “Interagency Coordination

1 Committee” means the Committee on the Nexus of
2 Energy and Water for Sustainability (or the
3 “NEWS Committee”) established under subsection
4 (b)(1).

5 (3) NEXUS OF ENERGY AND WATER SUSTAIN-
6 ABILITY OFFICE; NEWS OFFICE.—The term “Nexus
7 of Energy and Water Sustainability Office” or the
8 “NEWS Office” means an office located at the De-
9 partment and managed in cooperation with the De-
10 partment of the Interior pursuant to an agreement
11 between the 2 agencies to carry out leadership and
12 administrative functions for the Interagency Coordi-
13 nation Committee.

14 (4) RD&D ACTIVITIES.—The term “RD&D ac-
15 tivities” means research, development, and dem-
16 onstration activities.

17 (b) INTERAGENCY COORDINATION COMMITTEE.—

18 (1) ESTABLISHMENT.—Not later than 180 days
19 after the date of enactment of this Act, the Sec-
20 retary and the Secretary of the Interior shall estab-
21 lish the joint NEWS Office and Interagency Coordi-
22 nation Committee on the Nexus of Energy and
23 Water for Sustainability (or the “NEWS Com-
24 mittee”) to carry out the duties described in para-
25 graph (3).

1 (2) ADMINISTRATION.—

2 (A) CHAIRS.—The Secretary and the Sec-
3 retary of the Interior shall jointly manage the
4 NEWS Office and serve as co-chairs of the
5 Interagency Coordination Committee.

6 (B) MEMBERSHIP; STAFFING.—Member-
7 ship and staffing shall be determined by the co-
8 chairs.

9 (3) DUTIES.—The Interagency Coordination
10 Committee shall—

11 (A) serve as a forum for developing com-
12 mon Federal goals and plans on energy-water
13 nexus RD&D activities in coordination with the
14 National Science and Technology Council;

15 (B) not later than 1 year after the date of
16 enactment of this Act, and biannually there-
17 after, issue a strategic plan on energy-water
18 nexus RD&D activities priorities and objectives;

19 (C) convene and promote coordination of
20 the activities of Federal departments and agen-
21 cies on energy-water nexus RD&D activities, in-
22 cluding the activities of—

23 (i) the Department;

24 (ii) the Department of the Interior;

25 (iii) the Corps of Engineers;

- 1 (iv) the Department of Agriculture;
- 2 (v) the Department of Defense;
- 3 (vi) the Department of State;
- 4 (vii) the Environmental Protection
- 5 Agency;
- 6 (viii) the Council on Environmental
- 7 Quality;
- 8 (ix) the National Institute of Stand-
- 9 ards and Technology;
- 10 (x) the National Oceanic and Atmos-
- 11 pheric Administration;
- 12 (xi) the National Science Foundation;
- 13 (xii) the Office of Management and
- 14 Budget;
- 15 (xiii) the Office of Science and Tech-
- 16 nology Policy;
- 17 (xiv) the National Aeronautics and
- 18 Space Administration; and
- 19 (xv) such other Federal departments
- 20 and agencies as the Interagency Coordina-
- 21 tion Committee considers appropriate;
- 22 (D)(i) coordinate and develop capabilities
- 23 and methodologies for data collection, manage-
- 24 ment, and dissemination of information related
- 25 to energy-water nexus RD&D activities from

1 and to other Federal departments and agencies;
2 and

3 (ii) promote information exchange between
4 Federal departments and agencies—

5 (I) to identify and document Federal
6 and non-Federal programs and funding op-
7 portunities that support basic and applied
8 research, development, and demonstration
9 proposals to advance energy-water nexus
10 related science and technologies;

11 (II) to leverage existing programs by
12 encouraging joint solicitations, block
13 grants, and matching programs with non-
14 Federal entities; and

15 (III) to identify opportunities for do-
16 mestic and international public-private
17 partnerships, innovative financing mecha-
18 nisms, information and data exchange;

19 (E) promote the integration of energy-
20 water nexus considerations into existing Federal
21 water, energy, and other natural resource, in-
22 frastructure, and science programs at the na-
23 tional and regional levels and with programs
24 administered in partnership with non-Federal
25 entities; and

1 (ii) includes a recommendation on
2 whether the Interagency Coordination
3 Committee should continue.

4 (c) CROSSCUT BUDGET.—Not later than 30 days
5 after the President submits the budget of the United
6 States Government under section 1105 of title 31, United
7 States Code, the co-chairs of the Interagency Coordination
8 Committee (acting through the NEWS Office) shall sub-
9 mit to the Committee on Energy and Natural Resources
10 of the Senate and the Committees on Science, Space, and
11 Technology, Energy and Commerce, and Natural Re-
12 sources of the House of Representatives, an interagency
13 budget crosscut report that displays at the program-,
14 project-, and activity-level for each of the Federal agencies
15 that carry out or support (including through grants, con-
16 tracts, interagency and intraagency transfers, and
17 multiyear and no-year funds) basic and applied RD&D ac-
18 tivities to advance the energy-water nexus related science
19 and technologies—

20 (1) the budget proposed in the budget request
21 of the President for the upcoming fiscal year;

22 (2) expenditures and obligations for the prior
23 fiscal year; and

24 (3) estimated expenditures and obligations for
25 the current fiscal year.

1 **SEC. 4102. SMART ENERGY AND WATER EFFICIENCY PILOT**
2 **PROGRAM.**

3 Subtitle A of title IX of the Energy Policy Act of
4 2005 (42 U.S.C. 16191 et seq.) is amended by adding at
5 the end the following:

6 **“SEC. 918. SMART ENERGY AND WATER EFFICIENCY PILOT**
7 **PROGRAM.**

8 “(a) DEFINITIONS.—In this section:

9 “(1) ELIGIBLE ENTITY.—The term ‘eligible en-
10 tity’ means—

11 “(A) a utility;

12 “(B) a municipality;

13 “(C) a water district;

14 “(D) an Indian tribe or Alaska Native vil-
15 lage; and

16 “(E) any other authority that provides
17 water, wastewater, or water reuse services.

18 “(2) SMART ENERGY AND WATER EFFICIENCY
19 PILOT PROGRAM.—The term ‘smart energy and
20 water efficiency pilot program’ or ‘pilot program’
21 means the pilot program established under sub-
22 section (b).

23 “(b) SMART ENERGY AND WATER EFFICIENCY
24 PILOT PROGRAM.—

1 “(1) IN GENERAL.—The Secretary shall estab-
2 lish and carry out a smart energy and water effi-
3 ciency pilot program in accordance with this section.

4 “(2) PURPOSE.—The purpose of the smart en-
5 ergy and water efficiency pilot program is to award
6 grants to eligible entities to demonstrate unique, ad-
7 vanced, or innovative technology-based solutions that
8 will—

9 “(A) increase the energy efficiency of
10 water, wastewater, and water reuse systems;

11 “(B) improve energy efficiency of water,
12 wastewater, and water reuse systems to help
13 communities across the United States make
14 measurable progress in conserving water, saving
15 energy, and reducing costs;

16 “(C) support the implementation of inno-
17 vative and unique processes and the installation
18 of established advanced automated systems that
19 provide real-time data on energy and water; and

20 “(D) improve energy-water conservation
21 and quality and predictive maintenance through
22 technologies that utilize internet connected
23 technologies, including sensors, intelligent gate-
24 ways, and security embedded in hardware.

25 “(3) PROJECT SELECTION.—

1 “(A) IN GENERAL.—The Secretary shall
2 make competitive, merit-reviewed grants under
3 the pilot program to not less than 3, but not
4 more than 5, eligible entities.

5 “(B) SELECTION CRITERIA.—In selecting
6 an eligible entity to receive a grant under the
7 pilot program, the Secretary shall consider—

8 “(i) energy and cost savings;

9 “(ii) the uniqueness, commercial via-
10 bility, and reliability of the technology to
11 be used;

12 “(iii) the degree to which the project
13 integrates next-generation sensors soft-
14 ware, analytics, and management tools;

15 “(iv) the anticipated cost-effectiveness
16 of the pilot project through measurable en-
17 ergy efficiency savings, water savings or
18 reuse, and infrastructure costs averted;

19 “(v) whether the technology can be
20 deployed in a variety of geographic regions
21 and the degree to which the technology can
22 be implemented in a wide range of applica-
23 tions ranging in scale from small towns to
24 large cities, including tribal communities;

1 “(vi) whether the technology has been
2 successfully deployed elsewhere;

3 “(vii) whether the technology was
4 sourced from a manufacturer based in the
5 United States; and

6 “(viii) whether the project will be
7 completed in 5 years or less.

8 “(C) APPLICATIONS.—

9 “(i) IN GENERAL.—Subject to clause
10 (ii), an eligible entity seeking a grant
11 under the pilot program shall submit to
12 the Secretary an application at such time,
13 in such manner, and containing such infor-
14 mation as the Secretary determines to be
15 necessary.

16 “(ii) CONTENTS.—An application
17 under clause (i) shall, at a minimum, in-
18 clude—

19 “(I) a description of the project;

20 “(II) a description of the tech-
21 nology to be used in the project;

22 “(III) the anticipated results, in-
23 cluding energy and water savings, of
24 the project;

1 oped by the Secretary, consistent with the
2 purposes of this section.

3 “(ii) REQUIREMENTS.—Consistent
4 with the performance measures and bench-
5 marks developed under clause (i), in car-
6 rying out an evaluation under that clause,
7 the Secretary shall —

8 “(I) evaluate the progress and
9 impact of the project; and

10 “(II) assesses the degree to
11 which the project is meeting the goals
12 of the pilot program.

13 “(C) TECHNICAL AND POLICY ASSIST-
14 ANCE.—On the request of a grant recipient, the
15 Secretary shall provide technical and policy as-
16 sistance.

17 “(D) BEST PRACTICES.—The Secretary
18 shall make available to the public through the
19 Internet and other means the Secretary con-
20 siders to be appropriate—

21 “(i) a copy of each evaluation carried
22 out under subparagraph (B); and

23 “(ii) a description of any best prac-
24 tices identified by the Secretary as a result
25 of those evaluations.

1 “(E) REPORT TO CONGRESS.—The Sec-
2 retary shall submit to Congress a report con-
3 taining the results of each evaluation carried
4 out under subparagraph (B).

5 “(c) AUTHORIZATION OF APPROPRIATIONS.—There
6 is authorized to be appropriated to carry out this section
7 \$15,000,000, to remain available until expended.”.

8 **Subtitle C—Innovation**

9 **SEC. 4201. AMERICA COMPETES PROGRAMS.**

10 (a) BASIC RESEARCH.—Section 971(b) of the Energy
11 Policy Act of 2005 (42 U.S.C. 16311(b)) is amended—

12 (1) in paragraph (6), by striking “and” at the
13 end;

14 (2) in paragraph (7), by striking the period at
15 the end and inserting a semicolon; and

16 (3) by adding at the end the following:

17 “(8) \$5,271,000,000 for fiscal year 2016;

18 “(9) \$5,485,000,000 for fiscal year 2017;

19 “(10) \$5,704,000,000 for fiscal year 2018;

20 “(11) \$5,932,000,000 for fiscal year 2019; and

21 “(12) \$6,178,000,000 for fiscal year 2020.”.

22 (b) ADVANCED RESEARCH PROJECTS AGENCY-EN-
23 ERGY.—Section 5012 of the America COMPETES Act
24 (42 U.S.C. 16538) is amended—

1 (1) in subsection (a)(3), by striking “subsection
2 (n)(1)” and inserting “subsection (o)(1)”;

3 (2) in subsection (i), by striking paragraph (1)
4 and inserting the following:

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

7 “(A) the activities of ARPA–E are coordi-
8 nated with, and do not duplicate the efforts of,
9 programs and laboratories within the Depart-
10 ment and other relevant research agencies; and

11 “(B) ARPA–E does not provide funding
12 for a project unless the prospective grantee
13 demonstrates sufficient attempts to secure pri-
14 vate financing or indicates that the project is
15 not independently commercially viable.”;

16 (3) by redesignating subsection (n) as sub-
17 section (o);

18 (4) by inserting after subsection (m) the fol-
19 lowing:

20 “(n) PROTECTION OF INFORMATION.—The following
21 types of information collected by the ARPA–E from recipi-
22 ents of financial assistance awards shall be considered
23 commercial and financial information obtained from a per-
24 son and privileged or confidential and not subject to dis-

1 closure under section 552(b)(4) of title 5, United States
2 Code:

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

7 “(2) Investments provided to an awardee from
8 third parties (such as venture capital firms, hedge
9 funds, and private equity firms), including amounts
10 and the percentage of ownership of the awardee pro-
11 vided in return for the investments.

12 “(3) Additional financial support that the
13 awardee—

14 “(A) plans to or has invested into the tech-
15 nology developed under the award; or

16 “(B) is seeking from third parties.

17 “(4) Revenue from the licensing or sale of new
18 products or services resulting from research con-
19 ducted under the award.”; and

20 (5) in subsection (o) (as redesignated by para-
21 graph (3))—

22 (A) in paragraph (2)—

23 (i) in the matter preceding subpara-
24 graph (A), by striking “paragraphs (4)
25 and (5)” and inserting “paragraph (4)”;

1 (ii) in subparagraph (D), by striking
2 “and” at the end;

3 (iii) in subparagraph (E), by striking
4 the period at the end and inserting a semi-
5 colon; and

6 (iv) by adding at the end the fol-
7 lowing:

8 “(F) \$291,200,000 for fiscal year 2016;

9 “(G) \$303,600,000 for fiscal year 2017;

10 “(H) \$314,700,000 for fiscal year 2018;

11 “(I) \$327,300,000 for fiscal year 2019;

12 and

13 “(J) \$340,600,000 for fiscal year 2020 .”;

14 and

15 (B) in paragraph (4)(B), by striking

16 “(c)(2)(D)” and inserting “(c)(2)(C)”.

17 **SEC. 4202. INCLUSION OF EARLY STAGE TECHNOLOGY**

18 **DEMONSTRATION IN AUTHORIZED TECH-**

19 **NOLOGY TRANSFER ACTIVITIES.**

20 Section 1001 of the Energy Policy Act of 2005 (42

21 U.S.C. 16391) is amended—

22 (1) by redesignating subsection (g) as sub-
23 section (h); and

24 (2) by inserting after subsection (f) the fol-

25 lowing:

1 “(g) EARLY STAGE TECHNOLOGY DEMONSTRA-
2 TION.—The Secretary shall permit the directors of the Na-
3 tional Laboratories to use funds authorized to support
4 technology transfer within the Department to carry out
5 early stage and precommercial technology demonstration
6 activities to remove technology barriers that limit private
7 sector interest and demonstrate potential commercial ap-
8 plications of any research and technologies arising from
9 National Laboratory activities.”.

10 **SEC. 4203. SUPPORTING ACCESS OF SMALL BUSINESS CON-**
11 **CERNS TO NATIONAL LABORATORIES.**

12 (a) DEFINITIONS.—In this section:

13 (1) NATIONAL LABORATORY.—The term “Na-
14 tional Laboratory” has the meaning given the term
15 in section 2 of the Energy Policy Act of 2005 (42
16 U.S.C. 15801).

17 (2) SMALL BUSINESS CONCERN.—The term
18 “small business concern” has the same meaning as
19 in section 3 of the Small Business Act (15 U.S.C.
20 632).

21 (b) ACTIONS FOR INCREASED ACCESS AT NATIONAL
22 LABORATORIES FOR SMALL BUSINESS CONCERNS.—To
23 promote the technology transfer of innovative energy tech-
24 nologies and enhance the competitiveness of the United
25 States, the Secretary shall take such actions as are appro-

1 piate to facilitate access to the National Laboratories for
2 small business concerns.

3 (c) INFORMATION ON THE DOE WEBSITE RELATING
4 TO NATIONAL LABORATORY PROGRAMS AVAILABLE TO
5 SMALL BUSINESS CONCERNS.—

6 (1) IN GENERAL.—Not later than 180 days
7 after the date of enactment of this Act, the Sec-
8 retary, in coordination with the Directors of the Na-
9 tional Laboratories, shall—

10 (A) publish in a consolidated manner on
11 the website of the Department information re-
12 lating to National Laboratory programs that
13 are available to small business concerns;

14 (B) provide for the information published
15 under subparagraph (A) to be kept up-to-date;
16 and

17 (C) include in the information published
18 under subparagraph (A), information on each
19 available program under which small business
20 concerns are eligible to enter into agreements to
21 work with the National Laboratories.

22 (2) COMPONENTS.—The information published
23 on the Department website under paragraph (1)
24 shall include—

1 (A) a brief description of each agreement
2 available to small business concerns to work
3 with National Laboratories;

4 (B) a step-by-step guide for completing
5 agreements to work with National Laboratories;

6 (C) best practices for working with Na-
7 tional Laboratories;

8 (D) individual National Laboratory
9 websites that provide information specific to
10 technology transfer and working with small
11 business concerns;

12 (E) links to funding opportunity announce-
13 ments, nonfinancial resources, and other pro-
14 grams available to small business concerns; and

15 (F) any other information that the Sec-
16 retary determines to be appropriate.

17 (3) ACCESSIBILITY.—The information published
18 on the Department website under paragraph (1)
19 shall be—

20 (A) readily accessible and easily found on
21 the Internet by the public and members and
22 committees of Congress; and

23 (B) presented in a searchable, machine-
24 readable format.

1 (4) GUIDANCE.—The Secretary shall issue De-
2 partmental guidance to ensure that the information
3 published on the Department website under para-
4 graph (1) is provided in a manner that presents a
5 coherent picture of all National Laboratory pro-
6 grams that are relevant to small business concerns.

7 **SEC. 4204. MICROLAB TECHNOLOGY COMMERCIALIZATION.**

8 (a) DEFINITIONS.—In this section:

9 (1) MICROLAB.—The term “microlab” means a
10 small laboratory established by the Secretary under
11 subsection (b).

12 (2) NATIONAL LABORATORY.—The term “na-
13 tional laboratory” means—

14 (A) a National Laboratory, as defined in
15 section 2 of the Energy Policy Act of 2005 (42
16 U.S.C. 15801); and

17 (B) a national security laboratory, as de-
18 fined in section 3281 of the National Nuclear
19 Security Administration Act (50 U.S.C. 2471).

20 (b) ESTABLISHMENT OF MICROLAB PROGRAM.—

21 (1) IN GENERAL.—The Secretary, in collabora-
22 tion with the directors of national laboratories, may
23 establish a microlab program under which the Sec-
24 retary establishes microlabs that are located in close

1 proximity to national laboratories and that are ac-
2 cessible to the public for the purposes of—

3 (A) enhancing collaboration with regional
4 research groups, such as institutions of higher
5 education and industry groups;

6 (B) accelerating technology transfer from
7 national laboratories to the marketplace; and

8 (C) promoting regional workforce develop-
9 ment through science, technology, engineering,
10 and mathematics (“STEM”) instruction and
11 training.

12 (2) CRITERIA.—In determining the placement
13 of microlabs under paragraph (1), the Secretary
14 shall consider—

15 (A) the commitment of a national labora-
16 tory to establishing a microlab;

17 (B) the existence of a joint research insti-
18 tute or a new facility that—

19 (i) is not on the main site of a na-
20 tional laboratory;

21 (ii) is in close proximity to a national
22 laboratory; and

23 (iii) has the capability to house a
24 microlab;

1 (C) whether employees of a national lab-
2 oratory and persons from academia, industry,
3 and government are available to be assigned to
4 the microlab; and

5 (D) cost-sharing or in-kind contributions
6 from State and local governments and private
7 industry.

8 (3) TIMING.—If the Secretary, in collaboration
9 with the directors of national laboratories, elects to
10 establish a microlab program under this subsection,
11 the Secretary, in collaboration with the directors of
12 national laboratories, shall—

13 (A) not later than 60 days after the date
14 of enactment of this Act, begin the process of
15 determining the placement of microlabs under
16 paragraph (1); and

17 (B) not later than 180 days after the date
18 of enactment of this Act, implement the
19 microlab program under this subsection.

20 (c) REPORTS.—

21 (1) INITIAL REPORT.—Not later than 60 days
22 after the date of implementation of the microlab pro-
23 gram under subsection (b), the Secretary shall sub-
24 mit to the Committee on Armed Services of the Sen-
25 ate, the Committee on Armed Services of the House

1 of Representatives, the Committee on Energy and
2 Natural Resources of the Senate, and the Committee
3 on Science, Space, and Technology of the House of
4 Representatives a report that provides an update on
5 the implementation of the microlab program under
6 subsection (b).

7 (2) PROGRESS REPORT.—Not later than 1 year
8 after the date of implementation of the microlab pro-
9 gram under subsection (b), the Secretary shall sub-
10 mit to the Committee on Armed Services of the Sen-
11 ate, the Committee on Armed Services of the House
12 of Representatives, the Committee on Energy and
13 Natural Resources of the Senate, and the Committee
14 on Science, Space, and Technology of the House of
15 Representatives a report on the microlab program
16 under subsection (b), including findings and rec-
17 ommendations of the Secretary.

18 (d) AUTHORIZATION OF APPROPRIATIONS.—There is
19 authorized to be appropriated to carry out this Act
20 \$50,000,000 for fiscal year 2016.

21 **Subtitle D—Grid Reliability**

22 **SEC. 4301. BULK-POWER SYSTEM RELIABILITY IMPACT** 23 **STATEMENT.**

24 (a) RELIABILITY REPORTS.—Section 215(g) of the
25 Federal Power Act (16 U.S.C. 824o(g)) is amended—

1 (1) by striking “The ERO” and inserting the
2 following:

3 “(1) IN GENERAL.—The ERO”; and

4 (2) by adding at the end the following:

5 “(2) REGIONAL ENTITIES.—Not later than 180
6 days after the date of enactment of this paragraph
7 and not less than every 3 years thereafter, each re-
8 gional entity shall submit to the appropriate commit-
9 tees of Congress and the Commission a report that
10 describes, as of the date of the report—

11 “(A) the state of and prospects for the re-
12 liability of electricity within the geographic area
13 covered by the regional entity; and

14 “(B) the most significant risks to the reli-
15 ability of the bulk-power system that might
16 arise or need to be monitored within the geo-
17 graphic area covered by the regional entity, in-
18 cluding risks from proposed or final Federal
19 regulations.”.

20 (b) RELIABILITY IMPACT STATEMENT.—Section 215
21 of the Federal Power Act (16 U.S.C. 824o) is amended
22 by adding at the end the following:

23 “(1) RELIABILITY IMPACT STATEMENT.—

24 “(1) SOLICITATION BY COMMISSION.—Not later
25 than 15 days after the date on which the head of a

1 Federal agency proposes a major rule (as defined in
2 section 804 of title 5, United States Code) that may
3 significantly affect the reliable operation of the bulk-
4 power system, the Commission shall solicit from any
5 applicable regional entity affected by the proposed
6 rule a reliability impact statement with respect to
7 the proposed rule.

8 “(2) VOLUNTARY SUBMISSION BY REGIONAL
9 ENTITY.—A regional entity may prepare, on the ini-
10 tiative of the regional entity, a reliability impact
11 statement for any proposed major Federal rule that
12 the regional entity determines would significantly af-
13 fect the reliable operation of the bulk-power system
14 within the area covered by the regional entity.

15 “(3) MULTIJURISDICTIONAL COORDINATION.—
16 If a proposed rule subject to a reliability impact
17 statement under paragraph (1) or (2) affects an
18 area broader than the area covered by a single re-
19 gional entity, the ERO shall convene a committee of
20 the affected regional entities to produce a single reli-
21 ability impact statement that demonstrates for each
22 affected area the reliability impact of the proposed
23 rule.

1 “(4) REQUIREMENTS.—A reliability impact
2 statement under paragraph (1) or (2) shall include
3 a detailed statement on—

4 “(A) the impact of the proposed rule on
5 the reliable operation of the bulk-power system;

6 “(B) any adverse effects on the reliable op-
7 eration of the bulk-power system if the pro-
8 posed rule was implemented; and

9 “(C) alternatives to cure the identified ad-
10 verse reliability impacts, including, at the dis-
11 cretion of the regional entity, a no-action alter-
12 native.

13 “(5) SUBMISSION TO COMMISSION.—On comple-
14 tion of a reliability impact statement under para-
15 graph (1) or (2), the regional entity or a committee
16 of affected regional entities convened under para-
17 graph (3) shall submit to the Commission the reli-
18 ability impact statement.

19 “(6) TRANSMITTAL TO HEAD OF FEDERAL
20 AGENCY.—On receipt of a reliability impact state-
21 ment submitted to the Commission under paragraph
22 (5), the Commission shall transmit to the head of
23 the applicable Federal agency the reliability impact
24 statement prepared under this subsection for inclu-
25 sion in the public record.

1 “(7) INCLUSION OF DETAILED RESPONSE IN
2 FINAL RULE.—With respect to a final major rule
3 subject to a reliability impact statement prepared
4 under paragraph (1) or (2), the head of the Federal
5 agency shall—

6 “(A) consider the reliability impact state-
7 ment;

8 “(B) give due weight to the technical ex-
9 pertise of the regional entity with respect to
10 matters that are the subject of the reliability
11 impact statement; and

12 “(C) include in the final rule a detailed re-
13 sponse to the reliability impact statement that
14 reasonably addresses the detailed statements re-
15 quired under paragraph (4).”.

16 **SEC. 4302. REPORT BY TRANSMISSION ORGANIZATIONS ON**
17 **DIVERSITY OF SUPPLY.**

18 (a) DEFINITIONS.—In this section:

19 (1) ELECTRIC GENERATING CAPACITY RE-
20 SOURCE.—

21 (A) IN GENERAL.—The term “electric gen-
22 erating capacity resource” means an electric
23 generating resource, as measured by the max-
24 imum load-carrying ability of the resource, ex-
25 clusive of station use and planned, unplanned,

1 or other outage or derating subject to dispatch
2 by the transmission organization to meet the re-
3 source adequacy needs of the systems operated
4 by the transmission organization.

5 (B) EFFECT.—The term “electric gener-
6 ating capacity resource” does not address non-
7 electric generating resources that are qualified
8 as capacity resources in the tariffs of various
9 transmission organizations as of the date of en-
10 actment of this Act.

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

15 (b) REPORT.—

16 (1) NOTICE.—Not later than 14 days after the
17 date of enactment of this Act, the Commission (as
18 the term is defined in section 3 of the Federal
19 Power Act (16 U.S.C. 796)) shall submit to each
20 transmission organization that has a tariff on file
21 with the Commission that includes provisions ad-
22 dressing the procurement of electric generating ca-
23 pacity resources, a notice that the transmission or-
24 ganization is required to file with the Commission a
25 report in accordance with paragraph (2).

1 (2) REPORT.—Not later than 180 days after
2 the date on which a transmission organization re-
3 ceives a notice under paragraph (1), the trans-
4 mission organization shall submit to the Commission
5 a report that, to the maximum extent practicable—

6 (A)(i) identifies electric generating capac-
7 ity resources that are available to the trans-
8 mission organization as of the date of the re-
9 port; and

10 (ii) describes the primary energy sources
11 and operational characteristics of electric capac-
12 ity resources available, in the aggregate, to the
13 transmission organization;

14 (B) evaluates, using generally accepted
15 metrics, the current operational performance, in
16 the aggregate, of electric capacity resources;

17 (C) identifies, for the aggregate of electric
18 generating capacity resources available to the
19 transmission organization—

20 (i) over the short- and long-term peri-
21 ods in the planning cycle of the trans-
22 mission organization, reasonable projec-
23 tions concerning the operational and eco-
24 nomic risk profile of electric generating ca-
25 pacity resources;

1 (ii) the projected future needs of the
2 transmission organization for electric gen-
3 erating capacity resources; and

4 (iii) the availability of transmission fa-
5 cilities and transmission support services
6 necessary to provide for the transmission
7 organization reasonable assurances of es-
8 sential reliability services, including ade-
9 quate voltage support; and

10 (D) assesses whether and to what extent
11 the market rules of the transmission organiza-
12 tion—

13 (i) yield capacity auction clearing
14 prices that promote necessary and prudent
15 investment;

16 (ii) yield energy market clearing
17 prices that reflect the marginal cost of
18 supply, taking into account transmission
19 constraints and other factors needed to en-
20 sure reliable grid operation;

21 (iii) produce meaningful price signals
22 that clearly indicate where new supply and
23 investment are needed;

1 (iv) reduce uncertainty or instability
2 resulting from changes to market rules,
3 processes, or protocols;

4 (v) promote transparency and commu-
5 nication by the market operator to market
6 participants;

7 (vi) support a diverse generation port-
8 folio and the availability of transmission
9 facilities and transmission support services
10 on a short- and long-term basis necessary
11 to provide reasonable assurances of a con-
12 tinuous supply of electricity for customers
13 of the transmission organization at the
14 proper voltage and frequency; and

15 (vii) provide an enhanced opportunity
16 for self-supply of electric generating capac-
17 ity resources by electric cooperatives, Fed-
18 eral power marketing agencies, and State
19 utilities with a service obligation (as those
20 terms are defined in section 217(a)) of the
21 Federal Power Act (16 U.S.C. 824q(a))) in
22 a manner that is consistent with tradi-
23 tional utility business models and does not
24 unduly affect wholesale market prices.

1 **Subtitle E—Management**

2 **SEC. 4401. FEDERAL LAND MANAGEMENT.**

3 (a) DEFINITIONS.—In this section:

4 (1) CADASTRE.—The term “cadastre” means
5 an inventory of buildings and other real property
6 (including associated infrastructure such as roads
7 and utility transmission lines and pipelines) located
8 on land administered by the Secretary, which is de-
9 veloped through collecting, storing, retrieving, or dis-
10 seminating graphical or digital data and any infor-
11 mation related to the data, including surveys, maps,
12 charts, images, and services.

13 (2) SECRETARY.—The term “Secretary” means
14 the Secretary of the Interior.

15 (b) CADASTRE OF FEDERAL REAL PROPERTY.—

16 (1) IN GENERAL.—The Secretary is author-
17 ized—

18 (A) to develop and maintain a current and
19 accurate multipurpose cadastre to support Fed-
20 eral land management activities for the Depart-
21 ment of the Interior;

22 (B) to incorporate any related inventories
23 of Federal real property, including any inven-
24 tories prepared under applicable land or re-
25 source management plans; and

1 (C) to enter into discussions with other
2 Federal agencies to make the cadastre available
3 for use by the agency to support agency man-
4 agement activities.

5 (2) COST-SHARING AGREEMENTS.—

6 (A) IN GENERAL.—The Secretary may
7 enter into cost-sharing agreements with other
8 Federal agencies, and with States, Indian
9 tribes, and local governments, to include any
10 non-Federal land in a State in the cadastre.

11 (B) COST SHARE.—The Federal share of
12 any cost agreement described in subparagraph
13 (A) shall not exceed 50 percent of the total cost
14 to a State, Indian tribe, or local government for
15 the development of the cadastre of non-Federal
16 land.

17 (3) CONSOLIDATION AND REPORT.—Not later
18 than 180 days after the date of enactment of this
19 Act, the Secretary shall submit to the Committee on
20 Energy and Natural Resources of the Senate and
21 the Committee on Natural Resources of the House
22 of Representatives a report on the real property in-
23 ventories or any components of any cadastre or re-
24 lated inventories that—

1 (A) exist as of the date of enactment of
2 this Act;

3 (B) are authorized by law or conducted by
4 the Secretary; and

5 (C) are of sufficient accuracy to be in-
6 cluded in the cadastre authorized under para-
7 graph (1).

8 (4) COORDINATION.—In carrying out this sub-
9 section, the Secretary shall—

10 (A) participate (in accordance with section
11 216 of the E-Government Act of 2002 (44
12 U.S.C. 3501 note; Public Law 107–347)) in the
13 establishment of such standards and common
14 protocols as are necessary to ensure the inter-
15 operability of geospatial information pertaining
16 to the cadastre for all users of the information;

17 (B) coordinate with, seek assistance and
18 cooperation of, and provide liaison to the Fed-
19 eral Geographic Data Committee pursuant to
20 Office of Management and Budget Circular A-
21 16 and Executive Order 12906 (43 U.S.C.
22 1457 note; relating to coordinating geographic
23 data acquisition and access: the National Spa-
24 tial Data Infrastructure) for the implementa-

1 tion of and compliance with such standards as
2 may be applicable to the cadastre;

3 (C) make the cadastre interoperable with
4 the Federal Real Property Profile established
5 pursuant to Executive Order 13327 (40 U.S.C.
6 121 note; relating to Federal real property
7 asset management);

8 (D) integrate with and leverage, to the
9 maximum extent practicable, cadastre activities
10 of units of State and local government; and

11 (E) use contracts with the private sector,
12 if practicable, to provide such products and
13 services as are necessary to develop the cadas-
14 tre.

15 (c) **TRANSPARENCY AND PUBLIC ACCESS.**—The Sec-
16 retary shall—

17 (1) make the cadastre required under this sec-
18 tion publically available on the Internet in a graphi-
19 cally geoenabled and searchable format; and

20 (2) in consultation with the Secretary of De-
21 fense and the Secretary of Homeland Security, pre-
22 vent the disclosure of the identity of any buildings
23 or facilities, or information related to the buildings
24 or facilities, if the disclosure would impair or jeop-

1 ardize the national security or homeland defense of
2 the United States.

3 (d) EFFECT.—Nothing in this section—

4 (1) creates any substantive or procedural right
5 or benefit;

6 (2) authorizes any new surveying or mapping of
7 Federal real property, except that a Federal agency
8 may conduct a new survey to update the accuracy of
9 the inventory data of the agency before storage on
10 a cadaster; or

11 (3) authorizes—

12 (A) the evaluation of any real property
13 owned by the United States for disposal; or

14 (B) new appraisals or assessments of the
15 value of—

16 (i) real property; or

17 (ii) cultural or archaeological re-
18 sources on any parcel of Federal land or
19 other real property.

20 **SEC. 4402. QUADRENNIAL ENERGY REVIEW.**

21 (a) IN GENERAL.—Section 801 of the Department of
22 Energy Organization Act (42 U.S.C. 7321) is amended
23 to read as follows:

1 **“SEC. 801. QUADRENNIAL ENERGY REVIEW.**

2 “(a) QUADRENNIAL ENERGY REVIEW TASK
3 FORCE.—

4 “(1) ESTABLISHMENT.—The President shall es-
5 tablish a Quadrennial Energy Review Task Force
6 (referred to in this section as the ‘Task Force’) to
7 coordinate the Quadrennial Energy Review.

8 “(2) COCHAIRPERSONS.—The President shall
9 designate appropriate senior Federal Government of-
10 ficials to be cochairpersons of the Task Force.

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

14 “(A) the Department of Energy;

15 “(B) the Department of Commerce;

16 “(C) the Department of Defense;

17 “(D) the Department of State;

18 “(E) the Department of the Interior;

19 “(F) the Department of Agriculture;

20 “(G) the Department of the Treasury;

21 “(H) the Department of Transportation;

22 “(I) the Department of Homeland Secu-
23 rity;

24 “(J) the Office of Management and Budg-
25 et;

26 “(K) the National Science Foundation;

1 “(L) the Environmental Protection Agen-
2 cy; and

3 “(M) such other Federal agencies, and en-
4 tities within the Executive Office of the Presi-
5 dent, as the President considers to be appro-
6 priate.

7 “(b) CONDUCT OF REVIEW.—

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

10 “(A) provide an integrated view of impor-
11 tant national energy objectives and Federal en-
12 ergy policy; and

13 “(B) identify the maximum practicable
14 alignment of research programs, incentives, reg-
15 ulations, and partnerships.

16 “(2) ELEMENTS.—A Quadrennial Energy Re-
17 view shall—

18 “(A) establish integrated, governmentwide
19 national energy objectives in the context of eco-
20 nomic, environmental, and security priorities;

21 “(B) recommend coordinated actions
22 across Federal agencies;

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

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

3 “(E) consider reasonable estimates of fu-
4 ture Federal budgetary resources when making
5 recommendations; and

6 “(F) be conducted with substantial input
7 from—

8 “(i) Congress;

9 “(ii) the energy industry;

10 “(iii) academia;

11 “(iv) State, local, and tribal govern-
12 ments;

13 “(v) nongovernmental organizations;

14 and

15 “(vi) the public.

16 “(c) SUBMISSION OF QUADRENNIAL ENERGY RE-
17 VIEW TO CONGRESS.—

18 “(1) IN GENERAL.—The President—

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

22 “(B) more frequently than once every 4
23 years, as the President determines to be appro-
24 priate, may prepare and publish interim reports
25 as part of the Quadrennial Energy Review.

1 “(2) INCLUSIONS.—The reports described in
2 paragraph (1) shall address or consider, as appro-
3 priate—

4 “(A) an integrated view of short-term, in-
5 termediate-term, and long-term objectives for
6 Federal energy policy in the context of eco-
7 nomic, environmental, and security priorities;

8 “(B) potential executive actions (including
9 programmatic, regulatory, and fiscal actions)
10 and resource requirements—

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

13 “(ii) to be coordinated across multiple
14 agencies;

15 “(C) analysis of the existing and prospec-
16 tive roles of parties (including academia, indus-
17 try, consumers, the public, and Federal agen-
18 cies) in achieving the objectives described in
19 subparagraph (A), including—

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

22 “(I) commercial and residential
23 buildings;

24 “(II) the industrial sector;

25 “(III) transportation; and

- 1 “(IV) electric power;
- 2 “(ii) requirements for invention, adop-
- 3 tion, development, and diffusion of energy
- 4 technologies as they relate to each of the
- 5 energy use sectors; and
- 6 “(iii) other research that informs
- 7 strategies to incentivize desired actions;
- 8 “(D) assessment of policy options to in-
- 9 crease domestic energy supplies and energy effi-
- 10 ciency;
- 11 “(E) evaluation of national and regional
- 12 energy storage, transmission, and distribution
- 13 requirements, including requirements for renew-
- 14 able energy;
- 15 “(F) portfolio assessments that describe
- 16 the optimal deployment of resources, including
- 17 prioritizing financial resources for energy-rel-
- 18 evant programs;
- 19 “(G) mapping of the linkages among basic
- 20 research and applied programs, demonstration
- 21 programs, and other innovation mechanisms
- 22 across the Federal agencies;
- 23 “(H) identification of demonstration
- 24 projects;

1 “(I) identification of public and private
2 funding needs for various energy technologies,
3 systems, and infrastructure, including consider-
4 ation of public-private partnerships, loans, and
5 loan guarantees;

6 “(J) assessment of global competitors and
7 an identification of programs that can be en-
8 hanced with international cooperation;

9 “(K) identification of policy gaps that need
10 to be filled to accelerate the adoption and diffu-
11 sion of energy technologies, including consider-
12 ation of—

13 “(i) Federal tax policies; and

14 “(ii) the role of Federal agencies as
15 early adopters and purchasers of new en-
16 ergy technologies;

17 “(L) priority listing for implementation of
18 objectives and actions taking into account esti-
19 mated Federal budgetary resources;

20 “(M) analysis of—

21 “(i) points of maximum leverage for
22 policy intervention to achieve outcomes;
23 and

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

4 “(N) recommendations for executive
5 branch organization changes to facilitate the
6 development and implementation of Federal en-
7 ergy policies.

8 “(d) REPORT DEVELOPMENT.—The Secretary of En-
9 ergy shall provide such support for the Quadrennial En-
10 ergy Review with the necessary analytical, financial, and
11 administrative support for the conduct of each Quadren-
12 nial Energy Review required under this section as may
13 be requested by the cochairpersons designated under sub-
14 section (a)(2).

15 “(e) COOPERATION.—The heads of applicable Fed-
16 eral agencies shall cooperate with the Secretary and pro-
17 vide such assistance, information, and resources as the
18 Secretary may require to assist in carrying out this sec-
19 tion.”.

20 (b) TABLE OF CONTENTS AMENDMENT.—The item
21 relating to section 801 in the table of contents of such
22 Act is amended to read as follows:

 “Sec. 801. Quadrennial Energy Review.”.

23 (c) ADMINISTRATION.—Nothing in this section or an
24 amendment made by this section supersedes, modifies,
25 amends, or repeals any provision of Federal law not ex-

1 pressly superseded, modified, amended, or repealed by this
2 section.

3 **SEC. 4403. STATE OVERSIGHT OF OIL AND GAS PROGRAMS.**

4 On request of the Governor of a State, the Secretary
5 of the Interior shall establish a program under which the
6 Director of the Bureau of Land Management shall enter
7 into a memorandum of understanding with the State to
8 consider the costs and benefits of consistent rules and
9 processes for the measurement of oil and gas production
10 activities, inspection of meters or other measurement
11 methodologies, and other operational activities, as deter-
12 mined by the Secretary of the Interior.

13 **SEC. 4404. UNDER SECRETARY FOR SCIENCE AND ENERGY.**

14 (a) IN GENERAL.—Section 202(b) of the Department
15 of Energy Organization Act (42 U.S.C. 7132(b)) is
16 amended—

17 (1) in paragraph (1), by striking “for Science”
18 and inserting “for Science and Energy (referred to
19 in this subsection as the ‘Under Secretary’)”;

20 (2) in paragraph (3), in the matter preceding
21 subparagraph (A), by striking “for Science”; and

22 (3) in paragraph (4)—

23 (A) in the matter preceding subparagraph

24 (A), by striking “for Science”;

1 (B) in subparagraph (F), by striking
2 “and” at the end;

3 (C) in subparagraph (G), by striking the
4 period at the end and inserting a semicolon;
5 and

6 (D) by inserting after subparagraph (G)
7 the following:

8 “(H) establish appropriate linkages be-
9 tween offices under the jurisdiction of the
10 Under Secretary; and

11 “(I) perform such functions and duties as
12 the Secretary shall prescribe, consistent with
13 this section.”.

14 (b) CONFORMING AMENDMENT.—Section 641(h)(2)
15 of the United States Energy Storage Competitiveness Act
16 of 2007 (42 U.S.C. 17231(h)(2)) is amended by striking
17 “Under Secretary for Science” and inserting “Under Sec-
18 retary for Science and Energy”.

19 **Subtitle F—Markets**

20 **SEC. 4501. ENHANCED INFORMATION ON CRITICAL ENERGY** 21 **SUPPLIES.**

22 (a) IN GENERAL.—Section 205 of the Department of
23 Energy Organization Act (42 U.S.C. 7135) is amended
24 by adding at the end the following:

1 “(n) COLLECTION OF INFORMATION ON CRITICAL
2 ENERGY SUPPLIES.—

3 “(1) IN GENERAL.—To ensure transparency of
4 information relating to energy infrastructure and
5 product ownership in the United States and improve
6 the ability to evaluate the energy security of the
7 United States, the Administrator, in consultation
8 with other Federal agencies (as necessary), shall—

9 “(A) not later than 120 days after the date
10 of enactment of this subsection, develop and
11 provide notice of a plan to collect, in coopera-
12 tion with the Commodity Futures Trade Com-
13 mission, information identifying all oil inven-
14 tories, and other physical oil assets (including
15 all petroleum-based products and the storage of
16 such products in off-shore tankers), that are
17 owned by the 50 largest traders of oil contracts
18 (including derivative contracts), as determined
19 by the Commodity Futures Trade Commission;
20 and

21 “(B) not later than 90 days after the date
22 on which notice is provided under subparagraph
23 (A), implement the plan described in that sub-
24 paragraph.

1 “(2) INFORMATION.—The plan required under
2 paragraph (1) shall include a description of the plan
3 of the Administrator for collecting company-specific
4 data, including—

5 “(A) volumes of product under ownership;
6 and

7 “(B) storage and transportation capacity
8 (including owned and leased capacity).

9 “(3) PROTECTION OF PROPRIETARY INFORMA-
10 TION.—Section 12(f) of the Federal Energy Admin-
11 istration Act of 1974 (15 U.S.C. 771(f)) shall apply
12 to information collected under this subsection.

13 “(o) COLLECTION OF INFORMATION ON STORAGE
14 CAPACITY FOR OIL AND NATURAL GAS.—

15 “(1) IN GENERAL.—Not later than 90 days
16 after the date of enactment of this subsection, the
17 Administrator of the Energy Information Adminis-
18 tration shall collect information quantifying the com-
19 mercial storage capacity for oil and natural gas in
20 the United States.

21 “(2) UPDATES.—The Administrator shall up-
22 date annually the information required under para-
23 graph (1).

24 “(3) PROTECTION OF PROPRIETARY INFORMA-
25 TION.—Section 12(f) of the Federal Energy Admin-

1 istration Act of 1974 (15 U.S.C. 771(f)) shall apply
2 to information collected under this subsection.

3 “(p) FINANCIAL MARKET ANALYSIS OFFICE.—

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

7 “(2) DUTIES.—The Office shall—

8 “(A) be responsible for analysis of the fi-
9 nancial aspects of energy markets;

10 “(B) review the reports required by section
11 4503(c) of the Energy Policy Modernization Act
12 of 2015 in advance of the submission of the re-
13 ports to Congress; and

14 “(C) not later than 1 year after the date
15 of enactment of this subsection—

16 “(i) make recommendations to the
17 Administrator of the Energy Information
18 Administration that identify and quantify
19 any additional resources that are required
20 to improve the ability of the Energy Infor-
21 mation Administration to more fully inte-
22 grate financial market information into the
23 analyses and forecasts of the Energy Infor-
24 mation Administration, including the role
25 of energy futures contracts, energy com-

1 modity swaps, and derivatives in price for-
2 mation for oil;

3 “(ii) conduct a review of implications
4 of policy changes (including changes in ex-
5 port or import policies) and changes in
6 how crude oil and refined petroleum prod-
7 ucts are transported with respect to price
8 formation of crude oil and refined petro-
9 leum products; and

10 “(iii) notify the Committee on Energy
11 and Natural Resources, and the Committee
12 on Appropriations, of the Senate and the
13 Committee on Energy and Commerce, and
14 the Committee on Appropriations, of the
15 House of Representatives of the rec-
16 ommendations described in clause (i).

17 “(3) ANALYSES.—The Administrator of the En-
18 ergy Information Administration shall take analyses
19 by the Office into account in conducting analyses
20 and forecasting of energy prices.”.

21 (b) CONFORMING AMENDMENT.—Section 645 of the
22 Department of Energy Organization Act (42 U.S.C. 7255)
23 is amended by inserting “(15 U.S.C. 3301 et seq.) and
24 the Natural Gas Act (15 U.S.C. 717 et seq.)” after “Nat-
25 ural Gas Policy Act of 1978”.

1 **SEC. 4502. WORKING GROUP ON ENERGY MARKETS.**

2 (a) ESTABLISHMENT.—There is established a Work-
3 ing Group on Energy Markets (referred to in this section
4 as the “Working Group”).

5 (b) COMPOSITION.—The Working Group shall be
6 composed of—

7 (1) the Secretary;

8 (2) the Secretary of the Treasury;

9 (3) the Chairman of the Federal Energy Regu-
10 latory Commission;

11 (4) the Chairman of Federal Trade Commis-
12 sion;

13 (5) the Chairman of the Securities and Ex-
14 change Commission;

15 (6) the Chairman of the Commodity Futures
16 Trading Commission; and

17 (7) the Administrator of the Energy Informa-
18 tion Administration.

19 (c) CHAIRPERSON.—The Secretary shall serve as the
20 Chairperson of the Working Group.

21 (d) COMPENSATION.—A member of the Working
22 Group shall serve without additional compensation for the
23 work of the member of the Working Group.

24 (e) PURPOSE AND FUNCTION.—The Working Group
25 shall—

1 (1) investigate the effect of increased financial
2 investment in energy commodities on energy prices
3 and the energy security of the United States;

4 (2) recommend to the President and Congress
5 laws (including regulations) that may be needed to
6 prevent excessive speculation in energy commodity
7 markets in order to prevent or minimize the adverse
8 impact of excessive speculation on energy prices on
9 consumers and the economy of the United States;
10 and

11 (3) review energy security implications of devel-
12 opments in international energy markets.

13 (f) ADMINISTRATION.—The Secretary shall provide
14 the Working Group with such administrative and support
15 services as may be necessary for the performance of the
16 functions of the Working Group.

17 (g) COOPERATION OF OTHER AGENCIES.—The heads
18 of Executive departments, agencies, and independent in-
19 strumentalities shall, to the extent permitted by law, pro-
20 vide the Working Group with such information as the
21 Working Group requires to carry out this section.

22 (h) CONSULTATION.—The Working Group shall con-
23 sult, as appropriate, with representatives of the various
24 exchanges, clearinghouses, self-regulatory bodies, other

1 major market participants, consumers, and the general
2 public.

3 **SEC. 4503. STUDY OF REGULATORY FRAMEWORK FOR EN-**
4 **ERGY MARKETS.**

5 (a) STUDY.—The Working Group shall conduct a
6 study—

7 (1) to identify the factors that affect the pricing
8 of crude oil and refined petroleum products, includ-
9 ing an examination of the effects of market specula-
10 tion on prices; and

11 (2) to review and assess—

12 (A) existing statutory authorities relating
13 to the oversight and regulation of markets crit-
14 ical to the energy security of the United States;
15 and

16 (B) the need for additional statutory au-
17 thority for the Federal Government to effec-
18 tively oversee and regulate markets critical to
19 the energy security of the United States.

20 (b) ELEMENTS OF STUDY.—The study shall in-
21 clude—

22 (1) an examination of price formation of crude
23 oil and refined petroleum products;

24 (2) an examination of relevant international
25 regulatory regimes; and

1 (3) an examination of the degree to which
2 changes in energy market transparency, liquidity,
3 and structure have influenced or driven abuse, ma-
4 nipulation, excessive speculation, or inefficient price
5 formation.

6 (c) REPORT AND RECOMMENDATIONS.—The Sec-
7 retary shall submit to the Committee on Energy and Nat-
8 ural Resources of the Senate and the Committee on En-
9 ergy and Commerce of the House of Representatives quar-
10 terly progress reports during the conduct of the study
11 under this section, and a final report not later than 1 year
12 after the date of enactment of this Act, that—

13 (1) describes the results of the study; and

14 (2) provides options and the recommendations
15 of the Working Group for appropriate Federal co-
16 ordination of oversight and regulatory actions to en-
17 sure transparency of crude oil and refined petroleum
18 product pricing and the elimination of excessive
19 speculation, including recommendations on data col-
20 lection and analysis to be carried out by the Finan-
21 cial Market Analysis Office established by section
22 205(p) of the Department of Energy Organization
23 Act (42 U.S.C. 7135(p)).

1 **Subtitle G—Affordability**

2 **SEC. 4601. E-PRIZE COMPETITION PILOT PROGRAM.**

3 Section 1008 of the Energy Policy Act of 2005 (42
4 U.S.C. 16396) is amended by adding at the end the fol-
5 lowing:

6 “(g) E-PRIZE COMPETITION PILOT PROGRAM.—

7 “(1) DEFINITIONS.—In this section:

8 “(A) ELIGIBLE ENTITY.—The term ‘eligi-
9 ble entity’ means—

10 “(i) a private sector for-profit or non-
11 profit entity;

12 “(ii) a public-private partnership; or

13 “(iii) a local, municipal, or tribal gov-
14 ernmental entity.

15 “(B) HIGH-COST REGION.—The term
16 ‘high-cost region’ means a region in which the
17 average annual unsubsidized costs of electrical
18 power retail rates or household space heating
19 costs per square foot exceed 150 percent of the
20 national average, as determined by the Sec-
21 retary.

22 “(2) E-PRIZE COMPETITION PILOT PROGRAM.—

23 “(A) IN GENERAL.—The Secretary shall
24 establish an e-prize competition or challenge
25 pilot program to broadly implement sustainable

1 community and regional energy solutions that
2 seek to reduce energy costs through increased
3 efficiency, conservation, and technology innova-
4 tion in high-cost regions.

5 “(B) SELECTION.—In carrying out the
6 pilot program under subparagraph (A), the Sec-
7 retary shall award a prize purse, in amounts to
8 be determined by the Secretary, to each eligible
9 entity selected through 1 or more of the fol-
10 lowing competitions or challenges:

11 “(i) A point solution competition that
12 rewards and spurs the development of solu-
13 tions for a particular, well-defined problem.

14 “(ii) An exposition competition that
15 helps identify and promote a broad range
16 of ideas and practices that may not other-
17 wise attract attention, facilitating further
18 development of the idea or practice by
19 third parties.

20 “(iii) A participation competition that
21 creates value during and after the competi-
22 tion by encouraging contestants to change
23 their behavior or develop new skills that
24 may have beneficial effects during and
25 after the competition.

1 “(iv) Such other types of prizes or
2 challenges as the Secretary, in consultation
3 with relevant heads of Federal agencies,
4 considers appropriate to stimulate innova-
5 tion that has the potential to advance the
6 mission of the applicable Federal agency.

7 “(3) AUTHORIZATION OF APPROPRIATIONS.—
8 There is authorized to be appropriated to carry out
9 this subsection \$10,000,000, to remain available
10 until expended.”.

11 **Subtitle H—Code Maintenance**

12 **SEC. 4701. REPEAL OF OFF-HIGHWAY MOTOR VEHICLES** 13 **STUDY.**

14 (a) REPEAL.—Part I of title III of the Energy Policy
15 and Conservation Act (42 U.S.C. 6373) is repealed.

16 (b) CONFORMING AMENDMENT.—The table of con-
17 tents for the Energy Policy and Conservation Act (Public
18 Law 94–163; 89 Stat. 871) is amended—

19 (1) by striking the item relating to part I of
20 title III; and

21 (2) by striking the item relating to section 385.

22 **SEC. 4702. REPEAL OF METHANOL STUDY.**

23 Section 400EE of the Energy Policy and Conserva-
24 tion Act (42 U.S.C. 6374d) is amended—

25 (1) by striking subsection (a); and

1 (2) by redesignating subsections (b) and (c) as
2 subsections (a) and (b), respectively.

3 **SEC. 4703. REPEAL OF AUTHORIZATION OF APPROPRIA-**
4 **TIONS PROVISION.**

5 (a) REPEAL.—Section 208 of the Energy Conserva-
6 tion and Production Act (42 U.S.C. 6808) is repealed.

7 (b) CONFORMING AMENDMENT.—The table of con-
8 tents for the Energy Conservation and Production Act
9 (Public Law 94–385; 90 Stat. 1126) is amended by strik-
10 ing the item relating to section 208.

11 **SEC. 4704. REPEAL OF RESIDENTIAL ENERGY EFFICIENCY**
12 **STANDARDS STUDY.**

13 (a) REPEAL.—Section 253 of the National Energy
14 Conservation Policy Act (42 U.S.C. 8232) is repealed.

15 (b) CONFORMING AMENDMENT.—The table of con-
16 tents for the National Energy Conservation Policy Act
17 (Public Law 95–619; 92 Stat. 3206) is amended by strik-
18 ing the item relating to section 253.

19 **SEC. 4705. REPEAL OF WEATHERIZATION STUDY.**

20 (a) REPEAL.—Section 254 of the National Energy
21 Conservation Policy Act (42 U.S.C. 8233) is repealed.

22 (b) CONFORMING AMENDMENT.—The table of con-
23 tents for the National Energy Conservation Policy Act
24 (Public Law 95–619; 92 Stat. 3206) is amended by strik-
25 ing the item relating to section 254.

1 **SEC. 4706. REPEAL OF REPORT TO CONGRESS.**

2 (a) REPEAL.—Section 273 of the National Energy
3 Conservation Policy Act (42 U.S.C. 8236b) is repealed.

4 (b) CONFORMING AMENDMENT.—The table of con-
5 tents for the National Energy Conservation Policy Act
6 (Public Law 95–619; 92 Stat. 3206) is amended by strik-
7 ing the item relating to section 273.

8 **SEC. 4707. REPEAL OF REPORT BY GENERAL SERVICES AD-**
9 **MINISTRATION.**

10 (a) REPEAL.—Section 154 of the Energy Policy Act
11 of 1992 (42 U.S.C. 8262a) is repealed.

12 (b) CONFORMING AMENDMENTS.—

13 (1) The table of contents for the Energy Policy
14 Act of 1992 (Public Law 102–486; 106 Stat. 2776)
15 is amended by striking the item relating to section
16 154.

17 (2) Section 159 of the Energy Policy Act of
18 1992 (42 U.S.C. 8262e) is amended by striking sub-
19 section (c).

20 **SEC. 4708. REPEAL OF INTERGOVERNMENTAL ENERGY**
21 **MANAGEMENT PLANNING AND COORDINA-**
22 **TION WORKSHOPS.**

23 (a) REPEAL.—Section 156 of the Energy Policy Act
24 of 1992 (42 U.S.C. 8262b) is repealed.

25 (b) CONFORMING AMENDMENT.—The table of con-
26 tents for the Energy Policy Act of 1992 (Public Law 102–

1 486; 106 Stat. 2776) is amended by striking the item re-
 2 lating to section 156.

3 **SEC. 4709. REPEAL OF INSPECTOR GENERAL AUDIT SUR-**
 4 **VEY AND PRESIDENT’S COUNCIL ON INTEG-**
 5 **RITY AND EFFICIENCY REPORT TO CON-**
 6 **GRESS.**

7 (a) REPEAL.—Section 160 of the Energy Policy Act
 8 of 1992 (42 U.S.C. 8262f) is amended by striking the sec-
 9 tion designation and heading and all that follows through
 10 “(c) INSPECTOR GENERAL REVIEW.—Each Inspector
 11 General” and inserting the following:

12 **“SEC. 160. INSPECTOR GENERAL REVIEW.**

13 “Each Inspector General”.

14 (b) CONFORMING AMENDMENT.—The table of con-
 15 tents for the Energy Policy Act of 1992 (Public Law 102–
 16 486; 106 Stat. 2776) is amended by striking the item re-
 17 lating to section 160 and inserting the following:

“Sec. 160. Inspector General review. ”.

18 **SEC. 4710. REPEAL OF PROCUREMENT AND IDENTIFICA-**
 19 **TION OF ENERGY EFFICIENT PRODUCTS PRO-**
 20 **GRAM.**

21 (a) REPEAL.—Section 161 of the Energy Policy Act
 22 of 1992 (42 U.S.C. 8262g) is repealed.

23 (b) CONFORMING AMENDMENT.—The table of con-
 24 tents for the Energy Policy Act of 1992 (Public Law 102–

1 486; 106 Stat. 2776) is amended by striking the item re-
2 lating to section 161.

3 **SEC. 4711. REPEAL OF NATIONAL ACTION PLAN FOR DE-**
4 **MAND RESPONSE.**

5 (a) REPEAL.—Part 5 of title V of the National En-
6 ergy Conservation Policy Act (42 U.S.C. 8279 et seq.) is
7 repealed.

8 (b) CONFORMING AMENDMENT.—The table of con-
9 tents for the National Energy Conservation Policy Act
10 (Public Law 95–619; 92 Stat. 3206; 121 Stat. 1665) is
11 amended—

12 (1) by striking the item relating to part 5 of
13 title V; and

14 (2) by striking the item relating to section 571.

15 **SEC. 4712. REPEAL OF NATIONAL COAL POLICY STUDY.**

16 (a) REPEAL.—Section 741 of the Powerplant and In-
17 dustrial Fuel Use Act of 1978 (42 U.S.C. 8451) is re-
18 pealed.

19 (b) CONFORMING AMENDMENT.—The table of con-
20 tents for the Powerplant and Industrial Fuel Use Act of
21 1978 (Public Law 95–620; 92 Stat. 3289) is amended by
22 striking the item relating to section 741.

1 **SEC. 4713. REPEAL OF STUDY ON COMPLIANCE PROBLEM**
2 **OF SMALL ELECTRIC UTILITY SYSTEMS.**

3 (a) REPEAL.—Section 744 of the Powerplant and In-
4 dustrial Fuel Use Act of 1978 (42 U.S.C. 8454) is re-
5 pealed.

6 (b) CONFORMING AMENDMENT.—The table of con-
7 tents for the Powerplant and Industrial Fuel Use Act of
8 1978 (Public Law 95–620; 92 Stat. 3289) is amended by
9 striking the item relating to section 744.

10 **SEC. 4714. REPEAL OF STUDY OF SOCIOECONOMIC IM-**
11 **PACTS OF INCREASED COAL PRODUCTION**
12 **AND OTHER ENERGY DEVELOPMENT.**

13 (a) REPEAL.—Section 746 of the Powerplant and In-
14 dustrial Fuel Use Act of 1978 (42 U.S.C. 8456) is re-
15 pealed.

16 (b) CONFORMING AMENDMENT.—The table of con-
17 tents for the Powerplant and Industrial Fuel Use Act of
18 1978 (Public Law 95–620; 92 Stat. 3289) is amended by
19 striking the item relating to section 746.

20 **SEC. 4715. REPEAL OF STUDY OF THE USE OF PETROLEUM**
21 **AND NATURAL GAS IN COMBUSTORS.**

22 (a) REPEAL.—Section 747 of the Powerplant and In-
23 dustrial Fuel Use Act of 1978 (42 U.S.C. 8457) is re-
24 pealed.

25 (b) CONFORMING AMENDMENT.—The table of con-
26 tents for the Powerplant and Industrial Fuel Use Act of

1 1978 (Public Law 95–620; 92 Stat. 3289) is amended by
2 striking the item relating to section 747.

3 **SEC. 4716. REPEAL OF SUBMISSION OF REPORTS.**

4 (a) REPEAL.—Section 807 of the Powerplant and In-
5 dustrial Fuel Use Act of 1978 (42 U.S.C. 8483) is re-
6 pealed.

7 (b) CONFORMING AMENDMENT.—The table of con-
8 tents for the Powerplant and Industrial Fuel Use Act of
9 1978 (Public Law 95–620; 92 Stat. 3289) is amended by
10 striking the item relating to section 807.

11 **SEC. 4717. REPEAL OF ELECTRIC UTILITY CONSERVATION**

12 **PLAN.**

13 (a) REPEAL.—Section 808 of the Powerplant and In-
14 dustrial Fuel Use Act of 1978 (42 U.S.C. 8484) is re-
15 pealed.

16 (b) CONFORMING AMENDMENTS.—

17 (1) TABLE OF CONTENTS.—The table of con-
18 tents for the Powerplant and Industrial Fuel Use
19 Act of 1978 (Public Law 95–620; 92 Stat. 3289) is
20 amended by striking the item relating to section
21 808.

22 (2) REPORT ON IMPLEMENTATION.—Section
23 712 of the Powerplant and Industrial Fuel Use Act
24 of 1978 (42 U.S.C. 8422) is amended—

25 (A) by striking “(a) GENERALLY.—”; and

1 (B) by striking subsection (b).

2 **SEC. 4718. EMERGENCY ENERGY CONSERVATION REPEALS.**

3 (a) REPEALS.—

4 (1) Section 201 of the Emergency Energy Con-
5 servation Act of 1979 (42 U.S.C. 8501) is amend-
6 ed—

7 (A) in the section heading, by striking
8 “**FINDINGS AND**”; and

9 (B) by striking subsection (a).

10 (2) Section 221 of the Emergency Energy Con-
11 servation Act of 1979 (42 U.S.C. 8521) is repealed.

12 (3) Section 222 of the Emergency Energy Con-
13 servation Act of 1979 (42 U.S.C. 8522) is repealed.

14 (4) 241 of the Emergency Energy Conservation
15 Act of 1979 (42 U.S.C. 8531) is repealed.

16 (b) CONFORMING AMENDMENT.—The table of con-
17 tents for the Emergency Energy Conservation Act of 1979
18 (Public Law 96–102; 93 Stat. 749) is amended—

19 (1) by striking the item relating to section 201
20 and inserting the following:

“Sec. 201. Purposes.”; and

21 (2) by striking the items relating to sections
22 221, 222, and 241.

1 **SEC. 4719. ENERGY SECURITY ACT REPEALS.**

2 (a) BIOMASS ENERGY DEVELOPMENT PLANS.—Sub-
3 title A of title II of the Energy Security Act (42 U.S.C.
4 8811 et seq.) is repealed.

5 (b) MUNICIPAL WASTE BIOMASS ENERGY.—Subtitle
6 B of title II of the Energy Security Act (42 U.S.C. 8831
7 et seq.) is repealed.

8 (c) USE OF GASOHOL IN FEDERAL MOTOR VEHI-
9 CLES.—Section 271 of the Energy Security Act (42
10 U.S.C. 8871) is repealed.

11 (d) CONFORMING AMENDMENTS.—

12 (1) The table of contents for the Energy Secu-
13 rity Act (Public Law 96–294; 94 Stat. 611) is
14 amended—

15 (A) by striking the items relating to sub-
16 title A and B of title II;

17 (B) by striking the item relating to section
18 204 and inserting the following:

“Sec. 204. Funding. ”; and

19 (C) by striking the item relating to section
20 271.

21 (2) Section 203 of the Biomass Energy and Al-
22 cohol Fuels Act of 1980 (42 U.S.C. 8802) is amend-
23 ed—

24 (A) by striking paragraph (16); and

1 (B) by redesignating paragraphs (17)
2 through (19) as paragraphs (16) through (18),
3 respectively.

4 (3) Section 204 of the Energy Security Act (42
5 U.S.C. 8803) is amended—

6 (A) in the section heading, by striking
7 “FOR SUBTITLES A AND B”; and

8 (B) in subsection (a)—

9 (i) in paragraph (1), by adding “and”
10 after the semicolon at the end;

11 (ii) in paragraph (2), by striking “;
12 and” at the end and inserting a period;
13 and

14 (iii) by striking paragraph (3).

15 **SEC. 4720. NUCLEAR SAFETY RESEARCH, DEVELOPMENT,**
16 **AND DEMONSTRATION ACT OF 1980 REPEALS.**

17 Sections 5 and 6 of the Nuclear Safety Research, De-
18 velopment, and Demonstration Act of 1980 (42 U.S.C.
19 9704, 9705) are repealed.

20 **SEC. 4721. ELIMINATION AND CONSOLIDATION OF CERTAIN**
21 **AMERICA COMPETES PROGRAMS.**

22 (a) **ELIMINATION OF PROGRAM AUTHORITIES.—**

23 (1) **NUCLEAR SCIENCE TALENT EXPANSION**
24 **PROGRAM FOR INSTITUTIONS OF HIGHER EDU-**

1 CATION.—Section 5004 of the America COMPETES
2 Act (42 U.S.C. 16532) is repealed.

3 (2) HYDROCARBON SYSTEMS SCIENCE TALENT
4 EXPANSION PROGRAM FOR INSTITUTIONS OF HIGH-
5 ER EDUCATION.—

6 (A) IN GENERAL.—Section 5005(e) of the
7 America COMPETES Act (42 U.S.C.
8 16533(e)) is repealed.

9 (B) CONFORMING AMENDMENTS.—Section
10 5005(f) of the America COMPETES Act (42
11 U.S.C. 16533(f)) is amended—

12 (i) by striking paragraph (2);

13 (ii) by striking the subsection designa-
14 tion and heading and all that follows
15 through “There are” in paragraph (1) and
16 inserting the following:

17 “(e) AUTHORIZATION OF APPROPRIATIONS.—There
18 are”; and

19 (iii) by redesignating subparagraphs
20 (A) through (F) as paragraphs (1) through
21 (6), respectively, and indenting appro-
22 priately.

23 (3) DISCOVERY SCIENCE AND ENGINEERING IN-
24 NOVATION INSTITUTES.—Section 5008 of the Amer-
25 ica COMPETES Act (42 U.S.C. 16535) is repealed.

1 (4) ELIMINATION OF DUPLICATIVE AUTHORITY
2 FOR EDUCATION PROGRAMS.—Sections 3181 and
3 3185 of the Department of Energy Science Edu-
4 cation Enhancement Act (42 U.S.C. 7381*l*, 42
5 U.S.C. 7381*n*) are repealed.

6 (5) MENTORING PROGRAM.—Section 3195 of
7 the Department of Energy Science Education En-
8 hancement Act (42 U.S.C. 7381*r*) is repealed.

9 (b) REPEAL OF AUTHORIZATIONS.—

10 (1) DEPARTMENT OF ENERGY EARLY CAREER
11 AWARDS FOR SCIENCE, ENGINEERING, AND MATHE-
12 MATICS RESEARCHERS.—Section 5006 of the Amer-
13 ica COMPETES Act (42 U.S.C. 16534) is amended
14 by striking subsection (h).

15 (2) DISTINGUISHED SCIENTIST PROGRAM.—
16 Section 5011 of the America COMPETES Act (42
17 U.S.C. 16537) is amended by striking subsection (j).

18 (3) PROTECTING AMERICA'S COMPETITIVE
19 EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.—
20 Section 5009 of the America COMPETES Act (42
21 U.S.C. 16536) is amended by striking subsection (f).

22 (c) CONSOLIDATION OF DUPLICATIVE PROGRAM AU-
23 THORITIES.—

1 (2) CONSOLIDATION OF DEPARTMENT OF EN-
2 ERGY EARLY CAREER AWARDS FOR SCIENCE, ENGI-
3 NEERING, AND MATHEMATICS RESEARCHERS PRO-
4 GRAM AND DISTINGUISHED SCIENTIST PROGRAM.—

5 (A) FUNDING.—Section 971(c) of the En-
6 ergy Policy Act of 2005 (42 U.S.C. 16311(c))
7 is amended by adding at the end the following:

8 “(8) For the Department of Energy early ca-
9 reer awards for science, engineering, and mathe-
10 matics researchers program under section 5006 of
11 the America COMPETES Act (42 U.S.C. 16534)
12 and the distinguished scientist program under sec-
13 tion 5011 of that Act (42 U.S.C. 16537),
14 \$150,000,000 for each of fiscal years 2016 through
15 2020, of which not more than 65 percent of the
16 amount made available for a fiscal year under this
17 paragraph may be used to carry out section 5006 or
18 5011 of that Act.”.

19 (B) DEPARTMENT OF ENERGY EARLY CA-
20 REER AWARDS FOR SCIENCE, ENGINEERING,
21 AND MATHEMATICS RESEARCHERS.—Section
22 5006 of the America COMPETES Act (42
23 U.S.C. 16534) is amended—

24 (i) in subsection (b)(1)—

1 (I) in the matter preceding sub-
2 paragraph (A)—

3 (aa) by inserting “average”
4 before “amount”; and

5 (bb) by inserting “for each
6 year” before “shall”;

7 (II) in subparagraph (A), by
8 striking “\$80,000” and inserting
9 “\$190,000”; and

10 (III) in subparagraph (B), by
11 striking “\$125,000” and inserting
12 “\$490,000”;

13 (ii) in subsection (c)(1)(C)—

14 (I) in clause (i)—

15 (aa) by striking “assistant
16 professor or equivalent title” and
17 inserting “untenured assistant or
18 associate professor”; and

19 (bb) by inserting “or” after
20 the semicolon at the end;

21 (II) by striking clause (ii); and

22 (III) by redesignating clause (iii)
23 as clause (ii);

24 (iii) in subsection (d), by striking “on
25 a competitive, merit-reviewed basis” and

1 inserting “through a competitive process
2 using merit-based peer review.”;

3 (iv) in subsection (e)—

4 (I) by striking “(e)” and all that
5 follows through “To be eligible” and
6 inserting the following:

7 “(e) SELECTION PROCESS AND CRITERIA.—To be eli-
8 gible”; and

9 (II) by striking paragraph (2);

10 and

11 (v) in subsection (f)(1), by striking
12 “nonprofit, nondegree-granting research
13 organizations” and inserting “National
14 Laboratories”.

15 (3) SCIENCE EDUCATION PROGRAMS.—Section
16 3164 of the Department of Energy Science Edu-
17 cation Enhancement Act (42 U.S.C. 7381a) is
18 amended—

19 (A) in subsection (b)—

20 (i) by striking paragraphs (1) and (2)

21 and inserting the following:

22 “(1) IN GENERAL.—The Director of the Office
23 of Science (referred to in this subsection as the ‘Di-
24 rector’) shall provide for appropriate coordination of
25 science, technology, engineering, and mathematics

1 education programs across all functions of the De-
2 partment.

3 “(2) ADMINISTRATION.—In carrying out para-
4 graph (1), the Director shall—

5 “(A) consult with—

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

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

12 “(B) seek to increase the participation and
13 advancement of women and underrepresented
14 minorities at every level of science, technology,
15 engineering, and mathematics education.”; and

16 (ii) in paragraph (3)—

17 (I) in subparagraph (D), by
18 striking “and” at the end;

19 (II) by redesignating subpara-
20 graph (E) as subparagraph (F); and

21 (III) by inserting after subpara-
22 graph (D) the following:

23 “(E) represent the Department as the
24 principal interagency liaison for all coordination
25 activities under the President for science, tech-

1 nology, engineering, and mathematics education
2 programs; and”;

3 (B) in subsection (d)—

4 (i) by striking “The Secretary” and
5 inserting the following:

6 “(1) IN GENERAL.—The Secretary”; and

7 (ii) by adding at the end the fol-
8 lowing:

9 “(2) REPORT.—Not later than 180 days after
10 the date of enactment of this subparagraph, the Di-
11 rector shall submit a report describing the impact of
12 the activities assisted with the Fund established
13 under paragraph (1) to—

14 “(A) the Committee on Science, Space,
15 and Technology of the House of Representa-
16 tives; and

17 “(B) the Committee on Energy and Nat-
18 ural Resources of the Senate.”.

19 (4) PROTECTING AMERICA’S COMPETITIVE
20 EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.—
21 Section 5009 of the America COMPETES Act (42
22 U.S.C. 16536) is amended—

23 (A) in subsection (c)—

1 (i) in paragraph (1) by striking “, in-
2 volving” and all that follows through “Sec-
3 retary”; and

4 (ii) in paragraph (2), by striking sub-
5 paragraph (B) and inserting the following:

6 “(B) to demonstrate excellent academic
7 performance and understanding of scientific or
8 technical subjects; and”;

9 (B) in subsection (d)(1)(B)(i), by inserting
10 “full or partial” before “graduate tuition”; and

11 (C) in subsection (e), in the matter pre-
12 ceding paragraph (1), by striking “Director of
13 Science, Engineering, and Mathematics Edu-
14 cation” and inserting “Director of the Office of
15 Science.”.

16 (d) CONFORMING AMENDMENTS.—The table of con-
17 tents for the America COMPETES ACT (Public Law
18 110–69; 121 Stat. 573) is amended by striking the items
19 relating to sections 5004 and 5008.

20 **SEC. 4722. REPEAL OF STATE UTILITY REGULATORY AS-**
21 **SISTANCE.**

22 (a) REPEAL.—Section 207 of the Energy Conserva-
23 tion and Production Act (42 U.S.C. 6807) is repealed.

24 (b) CONFORMING AMENDMENT.—The table of con-
25 tents for the Energy Conservation and Production Act

1 (Public Law 94–385; 90 Stat. 1126) is amended by strik-
2 ing the item relating to section 207.

3 **SEC. 4723. REPEAL OF SURVEY OF ENERGY SAVING POTEN-**
4 **TIAL.**

5 (a) REPEAL.—Section 550 of the National Energy
6 Conservation Policy Act (42 U.S.C. 8258b) is repealed.

7 (b) CONFORMING AMENDMENTS.—

8 (1) The table of contents for the National En-
9 ergy Conservation Policy Act (Public Law 95–619;
10 92 Stat. 3206; 106 Stat. 2851) is amended by strik-
11 ing the item relating to section 550.

12 (2) Section 543(d)(2) of the National Energy
13 Conservation Policy Act (42 U.S.C. 8253(d)(2)) is
14 amended by striking “, incorporating any relevant
15 information obtained from the survey conducted pur-
16 suant to section 550”.

17 **SEC. 4724. REPEAL OF PHOTOVOLTAIC ENERGY PROGRAM.**

18 (a) REPEAL.—Part 4 of title V of the National En-
19 ergy Conservation Policy Act (42 U.S.C. 8271 et seq.) is
20 repealed.

21 (b) CONFORMING AMENDMENT.—The table of con-
22 tents for the National Energy Conservation Policy Act
23 (Public Law 95–619; 92 Stat. 3206) is amended—

24 (1) by striking the item relating to part 4 of
25 title V; and

1 (2) by striking the items relating to sections
2 561 through 569.

3 **SEC. 4725. REPEAL OF ENERGY AUDITOR TRAINING AND**
4 **CERTIFICATION.**

5 (a) REPEAL.—Subtitle F of title V of the Energy Se-
6 curity Act (42 U.S.C. 8285 et seq.) is repealed.

7 (b) CONFORMING AMENDMENT.—The table of con-
8 tents for the Energy Security Act (Public Law 96–294;
9 94 Stat. 611) is amended by striking the items relating
10 to subtitle F of title V.

11 **SEC. 4726. REPEAL OF AUTHORIZATION OF APPROPRIA-**
12 **TIONS.**

13 (a) REPEAL.—Subtitle F of title VII of the Power-
14 plant and Industrial Fuel Use Act of 1978 (42 U.S.C.
15 8461) is repealed.

16 (b) CONFORMING AMENDMENT.—The table of con-
17 tents for the Powerplant and Industrial Fuel Use Act of
18 1978 (Public Law 95–620; 92 Stat. 3289) is amended by
19 striking the item relating to subtitle F of title VII.

20 **SEC. 4727. REPEAL OF RENEWABLE ENERGY AND ENERGY**
21 **EFFICIENCY TECHNOLOGY COMPETITIVE-**
22 **NESS ACT OF 1989.**

23 (a) REPEAL.—The Renewable Energy and Energy
24 Efficiency Technology Competitiveness Act of 1989 (42
25 U.S.C. 12001 et seq.) is repealed.

1 (b) CONFORMING AMENDMENTS.—

2 (1) Section 6(b)(3) of the Federal Nonnuclear
3 Energy Research and Development Act of 1974 (42
4 U.S.C. 5905(b)(3)) is amended—

5 (A) in subparagraph (Q), by adding “and”
6 after the semicolon;

7 (B) by striking subparagraph (R); and

8 (C) by redesignating subparagraph (S) as
9 subparagraph (R).

10 (2) Section 1204 of the Energy Policy Act of
11 1992 (42 U.S.C. 13313) is amended—

12 (A) in subsection (b), in the matter pre-
13 ceding paragraph (1), in the first sentence, by
14 striking “, in consultation with” and all that
15 follows through “under section 6 of the Renew-
16 able Energy and Energy Efficiency Technology
17 Competitiveness Act of 1989,”; and

18 (B) in subsection (c), by striking “, in con-
19 sultation with the Advisory Committee,”.

20 **SEC. 4728. REPEAL OF HYDROGEN RESEARCH, DEVELOP-**
21 **MENT, AND DEMONSTRATION PROGRAM.**

22 The Spark M. Matsunaga Hydrogen Research, Devel-
23 opment, and Demonstration Act of 1990 (42 U.S.C.
24 12401 et seq.) is repealed.

1 **SEC. 4729. REPEAL OF STUDY ON ALTERNATIVE FUEL USE**
2 **IN NONROAD VEHICLES AND ENGINES.**

3 (a) IN GENERAL.—Section 412 of the Energy Policy
4 Act of 1992 (42 U.S.C. 13238) is repealed.

5 (b) CONFORMING AMENDMENT.—The table of con-
6 tents for the Energy Policy Act of 1992 (Public Law 102–
7 486; 106 Stat. 2776) is amended by striking the item re-
8 lating to section 412.

9 **SEC. 4730. REPEAL OF LOW INTEREST LOAN PROGRAM FOR**
10 **SMALL BUSINESS FLEET PURCHASES.**

11 (a) IN GENERAL.—Section 414 of the Energy Policy
12 Act of 1992 (42 U.S.C. 13239) is repealed.

13 (b) CONFORMING AMENDMENT.—The table of con-
14 tents for the Energy Policy Act of 1992 (Public Law 102–
15 486; 106 Stat. 2776) is amended by striking the item re-
16 lating to section 414.

17 **SEC. 4731. REPEAL OF TECHNICAL AND POLICY ANALYSIS**
18 **FOR REPLACEMENT FUEL DEMAND AND SUP-**
19 **PLY INFORMATION.**

20 (a) IN GENERAL.—Section 506 of the Energy Policy
21 Act of 1992 (42 U.S.C. 13256) is repealed.

22 (b) CONFORMING AMENDMENTS.—

23 (1) The table of contents for the Energy Policy
24 Act of 1992 (Public Law 102–486; 106 Stat. 2776)
25 is amended by striking the item relating to section
26 506.

1 (2) Section 507(m) of the Energy Policy Act of
2 1992 (42 U.S.C. 13257(m)) is amended by striking
3 “and section 506”.

4 **SEC. 4732. REPEAL OF 1992 REPORT ON CLIMATE CHANGE.**

5 (a) IN GENERAL.—Section 1601 of the Energy Policy
6 Act of 1992 (42 U.S.C. 13381) is repealed.

7 (b) CONFORMING AMENDMENTS.—

8 (1) The table of contents for the Energy Policy
9 Act of 1992 (Public Law 102–486; 106 Stat. 2776)
10 is amended by striking the item relating to section
11 1601.

12 (2) Section 1602(a) of the Energy Policy Act of
13 1992 (42 U.S.C. 13382(a)) is amended, in the mat-
14 ter preceding paragraph (1), in the third sentence,
15 by striking “the report required under section 1601
16 and”.

17 **SEC. 4733. REPEAL OF DIRECTOR OF CLIMATE PROTECTOR**
18 **ESTABLISHMENT.**

19 (a) IN GENERAL.—Section 1603 of the Energy Policy
20 Act of 1992 (42 U.S.C. 13383) is repealed.

21 (b) CONFORMING AMENDMENT.—The table of con-
22 tents for the Energy Policy Act of 1992 (Public Law 102–
23 486; 106 Stat. 2776) is amended by striking the item re-
24 lating to section 1603.

1 **SEC. 4734. REPEAL OF 1994 REPORT ON GLOBAL CLIMATE**
2 **CHANGE EMISSIONS.**

3 (a) IN GENERAL.—Section 1604 of the Energy Policy
4 Act of 1992 (42 U.S.C. 13384) is repealed.

5 (b) CONFORMING AMENDMENT.—The table of con-
6 tents for the Energy Policy Act of 1992 (Public Law 102–
7 486; 106 Stat. 2776) is amended by striking the item re-
8 lating to section 1604.

9 **SEC. 4735. REPEAL OF TELECOMMUTING STUDY.**

10 (a) IN GENERAL.—Section 2028 of the Energy Policy
11 Act of 1992 (42 U.S.C. 13438) is repealed.

12 (b) CONFORMING AMENDMENT.—The table of con-
13 tents for the Energy Policy Act of 1992 (Public Law 102–
14 486; 106 Stat. 2776) is amended by striking the item re-
15 lating to section 2028.

16 **SEC. 4736. REPEAL OF ADVANCED BUILDINGS FOR 2005**
17 **PROGRAM.**

18 (a) IN GENERAL.—Section 2104 of the Energy Policy
19 Act of 1992 (42 U.S.C. 13454) is repealed.

20 (b) CONFORMING AMENDMENTS.—

21 (1) The table of contents for the Energy Policy
22 Act of 1992 (Public Law 102–486; 106 Stat. 2776)
23 is amended by striking the item relating to section
24 2104.

25 (2) Section 2101(a) of the Energy Policy Act of
26 1992 (42 U.S.C. 13451(a)) (as amended by section

1 1201(d)(3)) is amended, in the third sentence, by
2 striking “2104,”.

3 **SEC. 4737. REPEAL OF ENERGY RESEARCH, DEVELOPMENT,**
4 **DEMONSTRATION, AND COMMERCIAL APPLI-**
5 **CATION ADVISORY BOARD.**

6 (a) IN GENERAL.—Section 2302 of the Energy Policy
7 Act of 1992 (42 U.S.C. 13522) is repealed.

8 (b) CONFORMING AMENDMENTS.—

9 (1) The table of contents for the Energy Policy
10 Act of 1992 (Public Law 102–486; 106 Stat. 2776)
11 is amended by striking the item relating to section
12 2302.

13 (2) Section 6 of the Federal Nonnuclear Energy
14 Research and Development Act of 1974 (42 U.S.C.
15 5905) is amended—

16 (A) in subsection (a), in the matter pre-
17 ceding paragraph (1), in the first sentence, by
18 striking “, in consultation with the Advisory
19 Board established under section 2302 of the
20 Energy Policy Act of 1992,”;

21 (B) in subsection (b)—

22 (i) in paragraph (1), in the first sen-
23 tence, by striking “, in consultation with
24 the Advisory Board established under sec-

1 tion 2302 of the Energy Policy Act of
2 1992,”; and

3 (ii) in paragraph (2), in the second
4 sentence, by striking “, in consultation
5 with the Advisory Board established under
6 section 2302 of the Energy Policy Act of
7 1992,”; and

8 (C) in subsection (c), in the first sentence,
9 by striking “, in consultation with the Advisory
10 Board established under section 2302 of the
11 Energy Policy Act of 1992,”.

12 (3) Section 2011(c) of the Energy Policy Act of
13 1992 (42 U.S.C. 13411(c)) is amended, in the sec-
14 ond sentence, by striking “, and with the Advisory
15 Board established under section 2302”.

16 (4) Section 2304 of the Energy Policy Act of
17 1992 (42 U.S.C. 13523), is amended—

18 (A) in subsection (a), by striking “, in con-
19 sultation with the Advisory Board established
20 under section 2302,”; and

21 (B) in subsection (c), in the matter pre-
22 ceding paragraph (1), in the first sentence, by
23 striking “, with the advice of the Advisory
24 Board established under section 2302 of this
25 Act,”.

1 **SEC. 4738. REPEAL OF STUDY ON USE OF ENERGY FUTURES**
2 **FOR FUEL PURCHASE.**

3 (a) IN GENERAL.—Section 3014 of the Energy Policy
4 Act of 1992 (42 U.S.C. 13552) is repealed.

5 (b) CONFORMING AMENDMENT.—The table of con-
6 tents for the Energy Policy Act of 1992 (Public Law 102–
7 486; 106 Stat. 2776) is amended by striking the item re-
8 lating to section 3014.

9 **SEC. 4739. REPEAL OF ENERGY SUBSIDY STUDY.**

10 (a) IN GENERAL.—Section 3015 of the Energy Policy
11 Act of 1992 (42 U.S.C. 13553) is repealed.

12 (b) CONFORMING AMENDMENT.—The table of con-
13 tents for the Energy Policy Act of 1992 (Public Law 102–
14 486; 106 Stat. 2776) is amended by striking the item re-
15 lating to section 3015.

16 **TITLE V—CONSERVATION**
17 **REAUTHORIZATION**

18 **SEC. 5001. NATIONAL PARK SERVICE MAINTENANCE AND**
19 **REVITALIZATION CONSERVATION FUND.**

20 (a) IN GENERAL.—Chapter 1049 of title 54, United
21 States Code, is amended by adding at the end the fol-
22 lowing:

23 **“§ 104908. National Park Service Maintenance and**
24 **Revitalization Conservation Fund**

25 “(a) IN GENERAL.—There is established in the
26 Treasury a fund, to be known as the ‘National Park Serv-

1 ice Critical Maintenance and Revitalization Conservation
2 Fund' (referred to in this section as the 'Fund').

3 “(b) DEPOSITS TO FUND.—Notwithstanding any
4 provision of law providing that the proceeds shall be cred-
5 ited to miscellaneous receipts of the Treasury, for each
6 fiscal year, there shall be deposited in the Fund, from rev-
7 enues due and payable to the United States under section
8 9 of the Outer Continental Shelf Lands Act (43 U.S.C.
9 1338) \$150,000,000.

10 “(c) USE AND AVAILABILITY.—

11 “(1) IN GENERAL.—Amounts deposited in the
12 Fund shall—

13 “(A) be used only for the purposes de-
14 scribed in subsection (d); and

15 “(B) be available for expenditure only after
16 the amounts are appropriated for those pur-
17 poses.

18 “(2) AVAILABILITY.—Any amounts in the Fund
19 not appropriated shall remain available in the Fund
20 until appropriated.

21 “(3) NO LIMITATION.—Appropriations from the
22 Fund pursuant to this section may be made without
23 fiscal year limitation.

24 “(d) NATIONAL PARK SYSTEM CRITICAL DEFERRED
25 MAINTENANCE.—The Secretary shall use amounts appro-

1 priated from the Fund for high-priority deferred mainte-
2 nance needs of the Service that support critical infrastruc-
3 ture and visitor services.

4 “(e) LAND ACQUISITION PROHIBITION.—Amounts in
5 the Fund shall not be used for land acquisition.”.

6 (b) CLERICAL AMENDMENT.—The table of sections
7 for chapter 1049 of title 54, United States Code, is
8 amended by inserting after the item relating to section
9 104907 the following:

“§104908. National Park Service Maintenance and Revitalization Conservation
Fund.”.

10 **SEC. 5002. LAND AND WATER CONSERVATION FUND.**

11 (a) REAUTHORIZATION.—Section 200302 of title 54,
12 United States Code, is amended—

13 (1) in subsection (b), in the matter preceding
14 paragraph (1), by striking “During the period end-
15 ing September 30, 2018, there” and inserting
16 “There”; and

17 (2) in subsection (c)(1), by striking “through
18 September 30, 2018”.

19 (b) ALLOCATION OF FUNDS.—Section 200304 of title
20 54, United States Code, is amended—

21 (1) by striking “There” and inserting “(a) In
22 General.—There”; and

23 (2) by striking the second sentence and insert-
24 ing the following:

1 “(b) ALLOCATION.—Of the appropriations from the
2 Fund—

3 “(1) not less than 40 percent shall be used col-
4 lectively for Federal purposes under section 200306;

5 “(2) not less than 40 percent shall be used col-
6 lectively—

7 “(A) to provide financial assistance to
8 States under section 200305;

9 “(B) for the Forest Legacy Program es-
10 tablished under section 7 of the Cooperative
11 Forestry Assistance Act of 1978 (16 U.S.C.
12 2103c);

13 “(C) for cooperative endangered species
14 grants authorized under section 6 of the En-
15 dangered Species Act of 1973 (16 U.S.C.
16 1535); and

17 “(D) for the American Battlefield Protec-
18 tion Program established under chapter 3081;
19 and

20 “(3) not less than 1.5 percent or \$10,000,000,
21 whichever is greater, shall be used for projects that
22 secure recreational public access to Federal public
23 land for hunting, fishing, or other recreational pur-
24 poses.”.

1 (c) CONSERVATION EASEMENTS.—Section 200306 of
2 title 54, United States Code, is amended by adding at the
3 end the following:

4 “(c) CONSERVATION EASEMENTS.—The Secretary
5 and the Secretary of Agriculture shall consider the acqui-
6 sition of conservation easements and other similar inter-
7 ests in land where appropriate and feasible.”.

8 (d) ACQUISITION CONSIDERATIONS.—Section
9 200306 of title 54, United States Code (as amended by
10 subsection (c)), is amended by adding at the end the fol-
11 lowing:

12 “(d) ACQUISITION CONSIDERATIONS.—The Secretary
13 and the Secretary of Agriculture shall take into account
14 the following in determining the land or interests in land
15 to acquire:

16 “(1) Management efficiencies.

17 “(2) Management cost savings.

18 “(3) Geographic distribution.

19 “(4) Significance of the acquisition.

20 “(5) Urgency of the acquisition.

21 “(6) Threats to the integrity of the land to be
22 acquired.

23 “(7) The recreational value of the land.”.

1 **SEC. 5003. HISTORIC PRESERVATION FUND.**

2 Section 303102 of title 54, United States Code, is
3 amended by striking “of fiscal years 2012 to 2015” and
4 inserting “fiscal year”.