

114TH CONGRESS
1ST SESSION

S. _____

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

IN THE SENATE OF THE UNITED STATES

_____ introduced the following bill; which was read twice
and referred to the Committee on _____

A BILL

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

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

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.

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- Sec. 1002. Budget-neutral demonstration program for energy and water conservation improvements at multifamily residential units.
- Sec. 1003. Coordination of energy retrofit assistance for schools.
- Sec. 1004. Energy efficiency retrofit pilot program.
- Sec. 1005. Utility energy service contracts.
- Sec. 1006. Use of energy and water efficiency measures in Federal buildings.
- Sec. 1007. Building training and assessment centers.
- Sec. 1008. Career skills training.
- Sec. 1009. Energy-efficient and energy-saving information technologies.
- Sec. 1010. Availability of funds for design updates.
- Sec. 1011. Energy efficient data centers.
- Sec. 1012. Weatherization Assistance Program.
- Sec. 1013. Reauthorization of State energy program.
- Sec. 1014. Smart building acceleration.
- Sec. 1015. 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.

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.

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.

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 test drawdown and sale notification and definition change.
- Sec. 2102. Strategic Petroleum Reserve mission readiness optimization.
- Sec. 2103. 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.

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

Subtitle E—Computing

- Sec. 2401. Exascale computer research program.

TITLE III—SUPPLY

Subtitle A—Renewables

PART I—HYDROELECTRIC

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

PART II—GEOTHERMAL

SUBPART A—GEOTHERMAL ENERGY

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

SUBPART B—GEOTHERMAL EXPLORATION

- Sec. 3012. Geothermal exploration test projects.

PART III—MARINE HYDROKINETIC

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

PART IV—BIOMASS

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Sec. 3017. Biopower.

Subtitle B—Oil and Gas

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

Subtitle C—Helium

Sec. 3201. Rights to helium.

Subtitle D—Critical Minerals

Sec. 3301. Definitions.

Sec. 3302. Policy.

Sec. 3303. Critical mineral designations.

Sec. 3304. Resource assessment.

Sec. 3305. Permitting.

Sec. 3306. Federal Register process.

Sec. 3307. Recycling, efficiency, and alternatives.

Sec. 3308. Analysis and forecasting.

Sec. 3309. Education and workforce.

Sec. 3310. National geological and geophysical data preservation program.

Sec. 3311. Administration.

Sec. 3312. Authorization of appropriations.

Subtitle E—Coal

Sec. 3401. Fossil energy.

Subtitle F—Nuclear

Sec. 3501. Report on fusion and fission reactor prototypes.

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.

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.

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

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- 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.

Subtitle D—Grid Reliability

- Sec. 4301. Bulk-power system reliability impact statement.
- Sec. 4302. Report by transmission organizations on diversity of supply.
- Sec. 4303. Activities carried out during an authorization during war or emergency.

Subtitle E—Management

- Sec. 4401. Federal land management.
- Sec. 4402. Quadrennial Energy Review.
- Sec. 4403. State oversight of oil and gas programs.
- Sec. 4404. Under Secretary for Science and Energy.

Subtitle F—Markets

- Sec. 4501. Enhanced information on critical energy supplies.
- Sec. 4502. Working Group on Energy Markets.
- Sec. 4503. Study of regulatory framework for energy markets.

Subtitle G—Affordability

- Sec. 4601. E-prize competition pilot program.

Subtitle H—Code Maintenance

- Sec. 4701. Repeal of off-highway motor vehicles study.
- Sec. 4702. Repeal of methanol study.
- Sec. 4703. Repeal of authorization of appropriations provision.
- Sec. 4704. Repeal of residential energy efficiency standards study.
- Sec. 4705. Repeal of weatherization study.
- Sec. 4706. Repeal of report to Congress.
- Sec. 4707. Repeal of certain reports.
- Sec. 4708. Repeal of report by General Services Administration.
- Sec. 4709. Repeal of intergovernmental energy management planning and coordination workshops.
- Sec. 4710. Repeal of Inspector General audit survey and President's Council on Integrity and Efficiency report to Congress.
- Sec. 4711. Repeal of procurement and identification of energy efficient products program.
- Sec. 4712. Repeal of national action plan for demand response.
- Sec. 4713. Repeal of national coal policy study.
- Sec. 4714. Repeal of study on compliance problem of small electric utility systems.
- Sec. 4715. Repeal of study of socioeconomic impacts of increased coal production and other energy development.
- Sec. 4716. Repeal of study of the use of petroleum and natural gas in combustors.
- Sec. 4717. Repeal of submission of reports.
- Sec. 4718. Repeal of electric utility conservation plan.
- Sec. 4719. Emergency Energy Conservation repeals.

Sec. 4720. Energy Security Act repeals.

Sec. 4721. Nuclear Safety Research, Development, and Demonstration Act of 1980 repeals.

Sec. 4722. Elimination and consolidation of certain America COMPETES programs.

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:

16 “(14) MODEL BUILDING ENERGY CODE.—The
17 term ‘model building energy code’ means a voluntary
18 building energy code and standards developed and
19 updated through a consensus process among inter-

1 ested persons, such as the IECC or the code used
2 by—

3 “(A) the Council of American Building Of-
4 ficials, or its legal successor, International Code
5 Council, Inc.;

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

8 “(C) other appropriate organizations.”;
9 and

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

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

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

17 (b) STATE BUILDING ENERGY EFFICIENCY
18 CODES.—Section 304 of the Energy Conservation and
19 Production Act (42 U.S.C. 6833) is amended to read as
20 follows:

21 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-
22 CIENCY CODES.**

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

24 “(1) encourage and support the adoption of
25 building energy codes by States, Indian tribes, and,

1 as appropriate, by local governments that meet or
2 exceed the model building energy codes, or achieve
3 equivalent or greater energy savings; and

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

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

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

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

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

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

24 “(ii) the targets established under sec-
25 tion 307(b)(2).

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

11 “(2) 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 code provi-
15 sions of the State or Indian tribe, respectively,
16 meet the criteria specified in paragraph (1);
17 and

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

20 “(c) IMPROVEMENTS IN COMPLIANCE WITH BUILD-
21 ING ENERGY CODES.—

22 “(1) REQUIREMENT.—

23 “(A) IN GENERAL.—Not later than 3 years
24 after the date of a certification under sub-
25 section (b), each State and Indian tribe shall

1 certify whether or not the State and Indian
2 tribe, respectively, has—

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

8 “(ii) made significant progress under
9 paragraph (4) toward achieving compliance
10 with the applicable certified State and In-
11 dian tribe building energy code or with the
12 associated model building energy code.

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

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

22 “(A) independent inspections of a random
23 sample of the buildings covered by the code in
24 the preceding year; or

1 “(B) an alternative method that yields an
2 accurate measure of compliance.

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

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

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

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

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

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

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

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

16 “(B) if the determination is positive, vali-
17 date the certification.

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

20 “(1) REPORTING.—A State or Indian tribe that
21 has not made a certification required under sub-
22 section (b) or (c) by the applicable deadline shall
23 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 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 ENERGY SAVINGS.—Section
10 804(2) of the National Energy Conservation Policy Act
11 (42 U.S.C. 8287c(2)) is amended—

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

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

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

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

21 “(E) the use, sale, or transfer of energy in-
22 centives, rebates, or credits (including renew-
23 able energy credits) from Federal, State, or
24 local governments or utilities; and

1 “(F) any revenue generated from a reduc-
2 tion in energy or water use, more efficient
3 waste recycling, or additional energy generated
4 from more efficient equipment.”.

5 **SEC. 1007. BUILDING TRAINING AND ASSESSMENT CEN-**
6 **TERS.**

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

13 (1) to identify opportunities for optimizing en-
14 ergy efficiency and environmental performance in
15 buildings;

16 (2) to promote the application of emerging con-
17 cepts and technologies in commercial and institu-
18 tional buildings;

19 (3) to train engineers, architects, building sci-
20 entists, building energy permitting and enforcement
21 officials, and building technicians in energy-efficient
22 design and operation;

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

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

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

11 (b) COORDINATION AND NONDUPLICATION.—

12 (1) IN GENERAL.—The Secretary shall coordi-
13 nate the program with the industrial research and
14 assessment centers program and with other Federal
15 programs to avoid duplication of effort.

16 (2) COLLOCATION.—To the maximum extent
17 practicable, building, training, and assessment cen-
18 ters established under this section shall be collocated
19 with Industrial Assessment Centers.

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

23 **SEC. 1008. CAREER SKILLS TRAINING.**

24 (a) IN GENERAL.—The Secretary shall pay grants to
25 eligible entities described in subsection (b) to pay the Fed-

1 eral share of associated career skills training programs
2 under which students concurrently receive classroom in-
3 struction and on-the-job training for the purpose of ob-
4 taining an industry-related certification to install energy
5 efficient buildings technologies, including technologies de-
6 scribed in section 307(b)(3) of the Energy Conservation
7 and Production Act (42 U.S.C. 6836(b)(3)).

8 (b) **ELIGIBILITY.**—To be eligible to obtain a grant
9 under subsection (a), an entity shall be a nonprofit part-
10 nership described in section 171(e)(2)(B)(ii) of the Work-
11 force Investment Act of 1998 (29 U.S.C.
12 2916(e)(2)(B)(ii)).

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

16 (d) **AUTHORIZATION OF APPROPRIATIONS.**—There is
17 authorized to be appropriated to carry out this section
18 \$10,000,000, to remain available until expended.

19 **SEC. 1009. ENERGY-EFFICIENT AND ENERGY-SAVING IN-**
20 **FORMATION TECHNOLOGIES.**

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

1 “(h) FEDERAL IMPLEMENTATION STRATEGY FOR
2 ENERGY-EFFICIENT AND ENERGY-SAVING INFORMATION
3 TECHNOLOGIES.—

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

5 “(A) DIRECTOR.—The term ‘Director’
6 means the Director of the Office of Manage-
7 ment and Budget.

8 “(B) INFORMATION TECHNOLOGY.—The
9 term ‘information technology’ has the meaning
10 given the term in section 11101 of title 40,
11 United States Code.

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

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

24 “(A) advanced metering infrastructure;

1 “(B) energy efficient data center strategies
2 and methods of increasing asset and infrastruc-
3 ture utilization;

4 “(C) advanced power management tools;

5 “(D) building information modeling, in-
6 cluding building energy management; and

7 “(E) secure telework and travel substi-
8 tution tools.

9 “(4) PERFORMANCE GOALS.—

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

17 “(B) BEST PRACTICES.—The Chief Infor-
18 mation Officers Council established under sec-
19 tion 3603 of title 44, United States Code, shall
20 supplement the performance goals established
21 under this paragraph with recommendations on
22 best practices for the attainment of the per-
23 formance goals, to include a requirement for
24 agencies to consider the use of—

1 “(i) energy savings performance con-
2 tracting; and

3 “(ii) utility energy services con-
4 tracting.

5 “(5) REPORTS.—

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

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

22 “(C) USE OF EXISTING REPORTING STRUC-
23 TURES.—The Director may require Federal
24 agencies to submit any information required to
25 be submitted under this subsection though re-

1 porting structures in use as of the date of en-
2 actment of the Energy Policy Modernization
3 Act of 2015.”.

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

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

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

9 (2) by inserting after subsection (c) the fol-
10 lowing:

11 “(d) AVAILABILITY OF FUNDS FOR DESIGN UP-
12 DATES.—

13 “(1) IN GENERAL.—Subject to paragraph (2),
14 for any project for which congressional approval is
15 received under subsection (a) and for which the de-
16 sign has been substantially completed but construc-
17 tion has not begun, the Administrator of General
18 Services may use appropriated funds to update the
19 project design to meet applicable Federal building
20 energy efficiency standards established under section
21 305 of the Energy Conservation and Production Act
22 (42 U.S.C. 6834) and other requirements estab-
23 lished under section 3312.

24 “(2) LIMITATION.—The use of funds under
25 paragraph (1) shall not exceed 125 percent of the

1 estimated energy or other cost savings associated
2 with the updates as determined by a life cycle cost
3 analysis under section 544 of the National Energy
4 Conservation Policy Act (42 U.S.C. 8254).”.

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

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

8 (1) in subsection (b)—

9 (A) in paragraph (2)(D)(iv), by striking
10 “the organization” and inserting “an organiza-
11 tion”; and

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

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

15 “(c) **STAKEHOLDER INVOLVEMENT.**—

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

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

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

8 “(B) obtain and address input from the
9 National Laboratories (as that term is defined
10 in section 2 of the Energy Policy Act of 2005
11 (42 U.S.C. 15801)) or any institution of higher
12 education, research institution, industry asso-
13 ciation, company, or public interest group with
14 applicable expertise;

15 “(C) follow—

16 “(i) commonly accepted procedures
17 for the development of specifications; and

18 “(ii) accredited standards development
19 processes; or

20 “(D) have a mission to promote energy ef-
21 ficiency for data centers and information tech-
22 nology.

23 “(d) MEASUREMENTS AND SPECIFICATIONS.—The
24 Secretary and the Administrator shall consider and assess
25 the adequacy of the specifications, measurements, and

1 benchmarks described in subsection (b) for use by the
2 Federal Energy Management Program, the Energy Star
3 Program, and other efficiency programs of the Depart-
4 ment of Energy or the Environmental Protection Agency.

5 “(e) STUDY.—The Secretary, in consultation with the
6 Administrator, not later than 18 months after the date
7 of enactment of the Energy Policy Modernization Act of
8 2015, shall make available to the public an update to the
9 report submitted to Congress pursuant to section 1 of the
10 Act of December 20, 2006 (Public Law 109–431; 120
11 Stat. 2920), entitled ‘Report to Congress on Server and
12 Data Center Energy Efficiency’ and dated August 2,
13 2007, that provides—

14 “(1) a comparison and gap analysis of the esti-
15 mates and projections contained in the original re-
16 port with new data regarding the period from 2007
17 through 2014;

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

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

1 “(4) an evaluation of water usage in data cen-
2 ters and recommendations for reductions in such
3 water usage; and

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

6 “(f) DATA CENTER ENERGY PRACTITIONER PRO-
7 GRAM.—

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

15 “(2) EVALUATIONS.—Each Federal agency
16 shall consider having the data centers of the agency
17 evaluated once every 4 years by energy practitioners
18 certified pursuant to the program, whenever prac-
19 ticable using certified practitioners employed by the
20 agency.

21 “(g) OPEN DATA INITIATIVE.—

22 “(1) IN GENERAL.—The Secretary, in consulta-
23 tion with key stakeholders and the Director of the
24 Office of Management and Budget, shall establish
25 an open data initiative for Federal data center en-

1 energy usage data, with the purpose of making the
2 data available and accessible in a manner that en-
3 courages further data center innovation, optimiza-
4 tion, and consolidation.

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

8 “(h) INTERNATIONAL SPECIFICATIONS AND
9 METRICS.—The Secretary, in consultation with key stake-
10 holders, shall actively participate in efforts to harmonize
11 global specifications and metrics for data center energy
12 and water efficiency.

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

18 “(j) PROTECTION OF PROPRIETARY INFORMATION.—
19 The Secretary and the Administrator shall not disclose
20 any proprietary information or trade secrets provided by
21 any individual or company for the purposes of carrying
22 out this section or the programs and initiatives established
23 under this section.”.

1 **SEC. 1012. WEATHERIZATION ASSISTANCE PROGRAM.**

2 (a) REAUTHORIZATION OF WEATHERIZATION AS-
3 SISTANCE PROGRAM.—Section 422 of the Energy Con-
4 servation and Production Act (42 U.S.C. 6872) is amend-
5 ed by striking “appropriated—” and all that follows
6 through the period at the end and inserting “appropriated
7 \$350,000,000 for each of fiscal years 2016 through
8 2020.”.

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

16 **“SEC. 414C. GRANTS FOR NEW, SELF-SUSTAINING LOW-IN-**
17 **COME, SINGLE-FAMILY AND MULTIFAMILY**
18 **HOUSING ENERGY RETROFIT MODEL PRO-**
19 **GRAMS TO ELIGIBLE MULTISTATE HOUSING**
20 **AND ENERGY NONPROFIT ORGANIZATIONS.**

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

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

25 “(2) to promote innovation and new models of
26 retrofitting low-income homes through new Federal

1 partnerships with covered organizations that lever-
2 age substantial donations, donated materials, volun-
3 teer labor, homeowner labor equity, and other pri-
4 vate sector resources;

5 “(3) to assist the covered organizations in dem-
6 onstrating, evaluating, improving, and replicating
7 widely the model low-income energy retrofit pro-
8 grams of the covered organizations; and

9 “(4) to ensure that the covered organizations
10 make the energy retrofit programs of the covered or-
11 ganizations self-sustaining by the time grant funds
12 have been expended.

13 “(b) DEFINITIONS.—In this section:

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

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

19 “(B) has an established record of con-
20 structing, renovating, repairing, or making en-
21 ergy efficient a total of not less than 250
22 owner-occupied, single-family or multifamily
23 homes per year for low-income households, ei-
24 ther directly or through affiliates, chapters, or

1 other direct partners (using the most recent
2 year for which data are available).

3 “(2) LOW-INCOME.—The term ‘low-income’
4 means an income level that is not more than 200
5 percent of the poverty level (as determined in ac-
6 cordance with criteria established by the Director of
7 the Office of Management and Budget) applicable to
8 a family of the size involved, except that the Sec-
9 retary may establish a higher or lower level if the
10 Secretary determines that a higher or lower level is
11 necessary to carry out this section.

12 “(3) WEATHERIZATION ASSISTANCE PROGRAM
13 FOR LOW-INCOME PERSONS.—The term ‘Weatheriza-
14 tion Assistance Program for Low-Income Persons’
15 means the program established under this part (in-
16 cluding part 440 of title 10, Code of Federal Regu-
17 lations, or successor regulations).

18 “(c) COMPETITIVE GRANT PROGRAM.—The Sec-
19 retary shall make grants to covered organizations through
20 a national competitive process for use in accordance with
21 this section.

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

24 “(1) the number of low-income homes the appli-
25 cant—

1 “(A) has built, renovated, repaired, or
2 made more energy efficient as of the date of the
3 application; and

4 “(B) can reasonably be projected to build,
5 renovate, repair, or make energy efficient dur-
6 ing the 10-year period beginning on the date of
7 the application;

8 “(2) the qualifications, experience, and past
9 performance of the applicant, including experience
10 successfully managing and administering Federal
11 funds;

12 “(3) the number and diversity of States and cli-
13 mates in which the applicant works as of the date
14 of the application;

15 “(4) the amount of non-Federal funds, donated
16 or discounted materials, discounted or volunteer
17 skilled labor, volunteer unskilled labor, homeowner
18 labor equity, and other resources the applicant will
19 provide;

20 “(5) the extent to which the applicant could
21 successfully replicate the energy retrofit program of
22 the applicant and sustain the program after the
23 grant funds have been expended;

24 “(6) regional diversity;

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

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

3 “(e) APPLICATIONS.—

4 “(1) IN GENERAL.—Not later than 180 days
5 after the date of enactment of this section, the Sec-
6 retary shall request proposals from covered organiza-
7 tions.

8 “(2) ADMINISTRATION.—To be eligible to re-
9 ceive a grant under this section, an applicant shall
10 submit to the Secretary an application at such time,
11 in such manner, and containing such information as
12 the Secretary may require.

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

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

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

21 “(2) energy efficiency materials and supplies;

22 “(3) organizational capacity—

23 “(A) to significantly increase the number
24 of energy retrofits;

1 “(B) if the amount made available to carry
2 out this section for a fiscal year is less than
3 \$225,000,000, \$1,500,000.

4 “(2) TECHNICAL AND TRAINING ASSISTANCE.—
5 The total amount of a grant provided under this sec-
6 tion shall be reduced by the cost of any technical
7 and training assistance provided by the Secretary
8 that relates to the grant.

9 “(h) GUIDELINES.—

10 “(1) IN GENERAL.—Not later than 90 days
11 after the date of enactment of this section, the Sec-
12 retary shall issue guidelines to implement the grant
13 program established under this section.

14 “(2) ADMINISTRATION.—The guidelines—

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

18 “(B) may rely on applicable provisions of
19 law governing the Weatherization Assistance
20 Program for Low-Income Persons to estab-
21 lish—

22 “(i) standards for allowable expendi-
23 tures;

24 “(ii) a minimum savings-to-investment
25 ratio;

1 “(iii) standards—
2 “(I) to carry out training pro-
3 grams;
4 “(II) to conduct energy audits
5 and program activities;
6 “(III) to provide technical assist-
7 ance;
8 “(IV) to monitor program activi-
9 ties; and
10 “(V) to verify energy and cost
11 savings;
12 “(iv) liability insurance requirements;
13 and
14 “(v) recordkeeping requirements,
15 which shall include reporting to the Office
16 of Weatherization and Intergovernmental
17 Programs of the Department of Energy
18 applicable data on each home retrofitted.

19 “(i) REVIEW AND EVALUATION.—The Secretary shall
20 review and evaluate the performance of any covered orga-
21 nization that receives a grant under this section (which
22 may include an audit), as determined by the Secretary.

23 “(j) COMPLIANCE WITH STATE AND LOCAL LAW.—
24 Nothing in this section or any program carried out using
25 a grant provided under this section supersedes or other-

1 wise affects any State or local law, to the extent that the
2 State or local law contains a requirement that is more
3 stringent than the applicable requirement of this section.

4 “(k) ANNUAL REPORTS.—The Secretary shall submit
5 to Congress annual reports that provide—

6 “(1) findings;

7 “(2) a description of energy and cost savings
8 achieved and actions taken under this section; and

9 “(3) any recommendations for further action.

10 “(l) FUNDING.—Of the amount of funds that are
11 made available to carry out the Weatherization Assistance
12 Program for each of fiscal years 2016 through 2020 under
13 section 422, the Secretary shall use to carry out this sec-
14 tion for each of fiscal years 2016 through 2020 not less
15 than—

16 “(1) 2 percent of the amount if the amount is
17 less than \$225,000,000;

18 “(2) 5 percent of the amount if the amount is
19 \$225,000,000 or more but less than \$260,000,000;
20 and

21 “(3) 10 percent of the amount if the amount is
22 \$260,000,000 or more.”.

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

1 “(f) STANDARDS PROGRAM.—

2 “(1) CONTRACTOR QUALIFICATION.—Effective
3 beginning January 1, 2016, to be eligible to carry
4 out weatherization using funds made available under
5 this part, a contractor shall be selected through a
6 competitive bidding process and be—

7 “(A) accredited by the Building Perform-
8 ance Institute;

9 “(B) an Energy Smart Home Performance
10 Team accredited under the Residential Energy
11 Services Network; or

12 “(C) accredited by an equivalent accredita-
13 tion or program accreditation-based State cer-
14 tification program approved by the Secretary.

15 “(2) GRANTS FOR ENERGY RETROFIT MODEL
16 PROGRAMS.—

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

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

23 “(ii) supervises the work performed
24 with grant funds.

1 “(B) VOLUNTEER LABOR.—A volunteer
2 who performs work for a covered organization
3 that receives a grant under section 414C shall
4 not be required to be certified under this sub-
5 section if the volunteer is not directly installing
6 or repairing mechanical equipment or other
7 items that require skilled labor.

8 “(C) TRAINING.—The Secretary shall use
9 training and technical assistance funds available
10 to the Secretary to assist covered organizations
11 under section 414C in providing training to ob-
12 tain certification required under this subsection,
13 including provisional or temporary certification.

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

17 “(A) each retrofit for which weatherization
18 assistance is provided under this part meets
19 minimum efficiency and quality of work stand-
20 ards established by the Secretary after weather-
21 ization of a dwelling unit;

22 “(B) at least 10 percent of the dwelling
23 units are randomly inspected by a third party
24 accredited under this subsection to ensure com-
25 pliance with the minimum efficiency and quality

1 of work standards established under subpara-
2 graph (A); and

3 “(C) the standards established under this
4 subsection meet or exceed the industry stand-
5 ards for home performance work that are in ef-
6 fect on the date of enactment of this subsection,
7 as determined by the Secretary.”.

8 **SEC. 1013. REAUTHORIZATION OF STATE ENERGY PRO-**
9 **GRAM.**

10 Section 365(f) of the Energy Policy and Conservation
11 Act (42 U.S.C. 6325(f)) is amended by striking
12 “\$125,000,000 for each of fiscal years 2007 through
13 2012” and inserting “\$90,000,000 for each of fiscal years
14 2016 through 2020, of which not greater than 5 percent
15 may be used to provide competitively awarded financial as-
16 sistance”.

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

18 (a) DEFINITIONS.—In this section:

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

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

25 (A) is flexible and automated;

1 (B) has extensive operational monitoring
2 and communication connectivity, allowing re-
3 mote monitoring and analysis of all building
4 functions;

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

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

12 (E) is cybersecure.

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

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

19 (B) that, on successful demonstration,
20 would accelerate investment in energy effi-
21 ciency.

22 (b) FEDERAL SMART BUILDING PROGRAM.—

23 (1) ESTABLISHMENT.—Not later than 1 year
24 after the date of enactment of this Act, the Sec-

1 retary shall establish a program to be known as the
2 “Federal Smart Building Program”—

3 (A) to implement smart building tech-
4 nology; and

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

7 (2) SELECTION.—

8 (A) IN GENERAL.—The Secretary shall co-
9 ordinate the selection of not fewer than 1 build-
10 ing from among each of several key Federal
11 agencies, as described in paragraph (4), to com-
12 pose an appropriately diverse set of smart
13 buildings based on size, type, and geographic lo-
14 cation.

15 (B) INCLUSION OF COMMERCIALY OPER-
16 ATED BUILDINGS.—In making selections under
17 subparagraph (A), the Secretary may include
18 buildings that are owned by the Federal Gov-
19 ernment but are commercially operated.

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

- 1 (ii) show the most promise for—
- 2 (I) increasing building energy
- 3 savings;
- 4 (II) increasing service perform-
- 5 ance to building occupants;
- 6 (III) reducing environmental im-
- 7 pacts; and
- 8 (IV) establishing cybersecurity;
- 9 and
- 10 (B) any other information the Secretary
- 11 determines to be appropriate.

12 (7) AWARDS.—The Secretary may expand

13 awards made under the Federal Energy Manage-

14 ment Program and the Better Building Challenge to

15 recognize specific agency achievements in accel-

16 erating the adoption of smart building technologies.

17 (c) SURVEY OF PRIVATE SECTOR SMART BUILD-

18 INGS.—

19 (1) SURVEY.—The Secretary shall conduct a

20 survey of privately owned smart buildings through-

21 out the United States, including commercial build-

22 ings, laboratory facilities, hospitals, multifamily resi-

23 dential buildings, and buildings owned by nonprofit

24 organizations and institutions of higher education.

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

6 (3) 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 technologies
13 and systems—

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 (d) LEVERAGING EXISTING PROGRAMS.—

2 (1) BETTER BUILDING CHALLENGE.—As part
3 of the Better Building Challenge of the Department,
4 the Secretary, in consultation with major private
5 sector property owners, shall develop smart building
6 accelerators to demonstrate innovative policies and
7 approaches that will accelerate the transition to
8 smart buildings in the public, institutional, and com-
9 mercial buildings sectors.

10 (2) RESEARCH AND DEVELOPMENT.—

11 (A) IN GENERAL.—The Secretary shall
12 conduct research and development to address
13 key barriers to the integration of advanced
14 building technologies and to accelerate the tran-
15 sition to smart buildings.

16 (B) INCLUSION.—The research and devel-
17 opment conducted under subparagraph (A)
18 shall include research and development on—

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

22 (ii) improving physical components,
23 such as sensors and controls, to be adapt-
24 ive, anticipatory, and networked;

- 1 (iii) reducing the cost of key compo-
2 nents to accelerate the adoption of smart
3 building technologies;
- 4 (iv) data management, including the
5 capture and analysis of data and the inter-
6 operability of the energy systems;
- 7 (v) protecting against cybersecurity
8 threats and addressing security
9 vulnerabilities of building systems or
10 equipment;
- 11 (vi) business models, including how
12 business models may limit the adoption of
13 smart building technologies and how to
14 support transactive energy;
- 15 (vii) integration and application of
16 combined heat and power systems and en-
17 ergy storage for resiliency;
- 18 (viii) characterization of buildings and
19 components;
- 20 (ix) consumer and utility protections;
- 21 (x) continuous management, including
22 the challenges of managing multiple energy
23 systems and optimizing systems for dis-
24 parate stakeholders; and

1 (xi) other areas of research and devel-
2 opment, as determined appropriate by the
3 Secretary.

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

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

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

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

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

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

21 **SEC. 1016. FEDERAL BUILDING ENERGY EFFICIENCY PER-**
22 **FORMANCE STANDARDS.**

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

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

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

5 “(19) MAJOR RENOVATION.—The term ‘major
6 renovation’ means a modification of building energy
7 systems sufficiently extensive that the whole building
8 can meet energy standards for new buildings, based
9 on criteria to be established by the Secretary
10 through notice and comment rulemaking.”.

11 (b) FEDERAL BUILDING EFFICIENCY STANDARDS.—
12 Section 305(a)(3) of the Energy Conservation and Pro-
13 duction Act (42 U.S.C. 6834(a)(3)) (as amended by sec-
14 tion 1015) is amended—

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

18 “(3) REVISED FEDERAL BUILDING ENERGY EF-
19 FICIENCY PERFORMANCE STANDARDS.—

20 “(A) REVISED FEDERAL BUILDING EN-
21 ERGY EFFICIENCY PERFORMANCE STAND-
22 ARDS.—

23 “(i) IN GENERAL.—Not later than 1
24 year after the date of enactment of the En-
25 ergy Policy Modernization Act of 2015, the

1 Secretary shall establish, by rule, revised
2 Federal building energy efficiency perform-
3 ance standards that require that—

4 “(I) new Federal buildings and
5 alterations and additions to existing
6 Federal buildings—

7 “(aa) meet or exceed the
8 most recent revision of the Inter-
9 national Energy Conservation
10 Code (in the case of residential
11 buildings) or ASHRAE Standard
12 90.1 (in the case of commercial
13 buildings) as of the date of en-
14 actment of the Energy Policy
15 Modernization Act of 2015; and

16 “(bb) meet or exceed the en-
17 ergy provisions of State and local
18 building codes applicable to the
19 building, if the codes are more
20 stringent than the International
21 Energy Conservation Code or
22 ASHRAE Standard 90.1, as ap-
23 plicable;

24 “(II) unless demonstrated not to
25 be life-cycle cost effective for new

1 Federal buildings and Federal build-
2 ings with major renovations—

3 “(aa) the buildings be de-
4 signed to achieve energy con-
5 sumption levels that are at least
6 30 percent below the levels estab-
7 lished in the version of the
8 ASHRAE Standard or the Inter-
9 national Energy Conservation
10 Code, as appropriate, that is ap-
11 plied under subclause (I)(aa), in-
12 cluding updates under subpara-
13 graph (B); and

14 “(bb) sustainable design
15 principles are applied to the loca-
16 tion, siting, design, and construc-
17 tion of all new Federal buildings
18 and replacement Federal build-
19 ings;

20 “(III) if water is used to achieve
21 energy efficiency, water conservation
22 technologies shall be applied to the ex-
23 tent that the technologies are life-
24 cycle cost effective; and

1 “(IV) if life-cycle cost effective,
2 as compared to other reasonably avail-
3 able technologies, not less than 30
4 percent of the hot water demand for
5 each new Federal building or Federal
6 building undergoing a major renova-
7 tion be met through the installation
8 and use of solar hot water heaters.

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

13 “(B) UPDATES.—Not later than 1 year
14 after the date of approval of each subsequent
15 revision of the ASHRAE Standard or the Inter-
16 national Energy Conservation Code, as appro-
17 priate, the Secretary shall determine whether
18 the revised standards established under sub-
19 paragraph (A) should be updated to reflect the
20 revisions, based on the energy savings and life-
21 cycle cost-effectiveness of the revisions.”; and

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

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

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

2 Beginning in fiscal year 2016 and each fiscal year
3 thereafter through fiscal year 2025, the head of each Fed-
4 eral agency shall, unless otherwise specified and where
5 life-cycle cost-effective, promote building energy conserva-
6 tion, efficiency, and management by reducing, in Federal
7 buildings of the agency, building energy intensity, as
8 measured in British thermal units per gross square foot,
9 by 2.5 percent each fiscal year, relative to the baseline
10 of the building energy use of the applicable Federal build-
11 ings in fiscal year 2015 and after taking into account the
12 progress of the Federal agency in preceding fiscal years.

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

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

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

19 “(D) CERTIFICATION FOR GREEN BUILD-
20 INGS.—

21 “(i) SUSTAINABLE DESIGN PRIN-
22 CIPLES.—Sustainable design principles
23 shall be applied to the siting, design, and
24 construction of buildings covered by this
25 subparagraph.

1 “(ii) SELECTION OF CERTIFICATION
2 SYSTEMS.—The Secretary, after reviewing
3 the findings of the Federal Director under
4 section 436(h) of the Energy Independence
5 and Security Act of 2007 (42 U.S.C.
6 17092(h)), in consultation with the Admin-
7 istrator of General Services, and in con-
8 sultation with the Secretary of Defense re-
9 lating to those facilities under the custody
10 and control of the Department of Defense,
11 shall determine those certification systems
12 for green commercial and residential build-
13 ings that the Secretary determines to be
14 the most likely to encourage a comprehen-
15 sive and environmentally sound approach
16 to certification of green buildings.

17 “(iii) BASIS FOR SELECTION.—The
18 determination of the certification systems
19 under clause (ii) shall be based on ongoing
20 review of the findings of the Federal Direc-
21 tor under section 436(h) of the Energy
22 Independence and Security Act of 2007
23 (42 U.S.C. 17092(h)) and the criteria de-
24 scribed in clause (v).

1 “(iv) ADMINISTRATION.—In deter-
2 mining certification systems under this
3 subparagraph, the Secretary shall—

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

6 “(II) confirm that the criteria
7 used to support the selection of build-
8 ing products, materials, brands, and
9 technologies—

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

14 “(bb) do not prohibit, dis-
15 favor, or discriminate against se-
16 lection based on technically inad-
17 equate information to inform
18 human or environmental risk;
19 and

20 “(cc) are expressed to prefer
21 performance measures whenever
22 performance measures may rea-
23 sonably be used in lieu of pre-
24 scriptive measures; and

1 “(III) use environmental and
2 health criteria that are based on risk
3 assessment methodology that is gen-
4 erally accepted by the applicable sci-
5 entific disciplines.

6 “(v) CONSIDERATIONS.—In deter-
7 mining the green building certification sys-
8 tems under this subparagraph, the Sec-
9 retary shall take into consideration—

10 “(I) the ability and availability of
11 assessors and auditors to independ-
12 ently verify the criteria and measure-
13 ment of metrics at the scale necessary
14 to implement this subparagraph;

15 “(II) the ability of the applicable
16 certification organization to collect
17 and reflect public comment;

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

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

1 “(aa) efficient and sustain-
2 able use of water, energy, and
3 other natural resources;

4 “(bb) the use of renewable
5 energy sources;

6 “(cc) improved indoor envi-
7 ronmental quality through en-
8 hanced indoor air quality, ther-
9 mal comfort, acoustics, day light-
10 ing, pollutant source control, and
11 use of low-emission materials and
12 building system controls; and

13 “(dd) such other criteria as
14 the Secretary determines to be
15 appropriate; and

16 “(V) national recognition within
17 the building industry.

18 “(vi) REVIEW.—The Secretary, in
19 consultation with the Administrator of
20 General Services and the Secretary of De-
21 fense, shall conduct an ongoing review to
22 evaluate and compare private sector green
23 building certification systems, taking into
24 account—

1 “(I) the criteria described in
2 clause (v); and

3 “(II) the identification made by
4 the Federal Director under section
5 436(h) of the Energy Independence
6 and Security Act of 2007 (42 U.S.C.
7 17092(h)).

8 “(vii) EXCLUSIONS.—

9 “(I) IN GENERAL.—Subject to
10 subclause (II), if a certification sys-
11 tem fails to meet the review require-
12 ments of clause (v), the Secretary
13 shall—

14 “(aa) identify the portions
15 of the system, whether pre-
16 requisites, credits, points, or oth-
17 erwise, that meet the review cri-
18 teria of clause (v);

19 “(bb) determine the portions
20 of the system that are suitable
21 for use; and

22 “(cc) exclude all other por-
23 tions of the system from identi-
24 fication and use.

1 “(II) ENTIRE SYSTEMS.—The
2 Secretary shall exclude an entire sys-
3 tem from use if an exclusion under
4 subclause (I)—

5 “(aa) impedes the integrated
6 use of the system;

7 “(bb) creates disparate re-
8 view criteria or unequal point ac-
9 cess for competing materials; or

10 “(cc) increases agency costs
11 of the use.

12 “(viii) INTERNAL CERTIFICATION
13 PROCESSES.—The Secretary may by rule
14 allow Federal agencies to develop internal
15 certification processes, using certified pro-
16 fessionals, in lieu of certification by certifi-
17 cation entities identified under clause (ii).

18 “(ix) PRIVATIZED MILITARY HOUS-
19 ING.—With respect to privatized military
20 housing, the Secretary of Defense, after
21 consultation with the Secretary may,
22 through rulemaking, develop alternative
23 certification systems and levels than the
24 systems and levels identified under clause
25 (ii) that achieve an equivalent result in

1 terms of energy savings, sustainable de-
2 sign, and green building performance.

3 “(x) WATER CONSERVATION TECH-
4 NOLOGIES.—In addition to any use of
5 water conservation technologies otherwise
6 required by this section, water conservation
7 technologies shall be applied to the extent
8 that the technologies are life-cycle cost-ef-
9 fective.

10 “(xi) EFFECTIVE DATE.—

11 “(I) DETERMINATIONS MADE
12 AFTER DECEMBER 31, 2015.—This
13 subparagraph shall apply to any de-
14 termination made by a Federal agency
15 after December 31, 2015.

16 “(II) DETERMINATIONS MADE ON
17 OR BEFORE DECEMBER 31, 2015.—
18 This subparagraph (as in effect on the
19 day before the date of enactment of
20 the Energy Policy Modernization Act
21 of 2015) shall apply to any use of a
22 certification system for green commer-
23 cial and residential buildings by a
24 Federal agency on or before December
25 31, 2015.”; and

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

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

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

7 “(2) on completion of a review under paragraph
8 (1), if the Secretary determines that significant en-
9 ergy savings would result, upgrade the standards to
10 include all new energy efficiency and renewable en-
11 ergy measures that are technologically feasible and
12 economically justified.”.

13 **SEC. 1019. HIGH PERFORMANCE GREEN FEDERAL BUILD-**
14 **INGS.**

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

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

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

21 “(1) IN GENERAL.—Based on an ongoing re-
22 view, the Federal Director shall identify and shall
23 provide to the Secretary pursuant to section
24 305(a)(3)(D) of the Energy Conservation and Pro-
25 duction Act (42 U.S.C. 6834(a)(3)(D)), a list of

1 those certification systems that the Director identi-
2 fies as the most likely to encourage a comprehensive
3 and environmentally sound approach to certification
4 of green buildings.”; and

5 (3) in paragraph (2)—

6 (A) in the matter preceding subparagraph
7 (A), by striking “system” and inserting “sys-
8 tems”;

9 (B) by striking subparagraph (A) and in-
10 sserting the following:

11 “(A) an ongoing review provided to the
12 Secretary pursuant to section 305(a)(3)(D) of
13 the Energy Conservation and Production Act
14 (42 U.S.C. 6834(a)(3)(D)), which shall—

15 “(i) be carried out by the Federal Di-
16 rector to compare and evaluate standards;
17 and

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

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

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

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

2 “(G) a finding that, for all credits address-
3 ing grown, harvested, or mined materials, the
4 system does not discriminate against the use of
5 domestic products that have obtained certifi-
6 cations of responsible sourcing; and

7 “(H) a finding that the system incor-
8 porates life-cycle assessment as a credit path-
9 way.”.

10 **Subtitle B—Appliances**

11 **SEC. 1101. EXTENDED PRODUCT SYSTEM REBATE PRO-** 12 **GRAM.**

13 (a) DEFINITIONS.—In this section:

14 (1) ELECTRIC MOTOR.—The term “electric
15 motor” has the meaning given the term in section
16 431.12 of title 10, Code of Federal Regulations (as
17 in effect on the date of enactment of this Act).

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

20 (A) a power converter; or

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

23 (3) EXTENDED PRODUCT SYSTEM.—The term
24 “extended product system” means an electric motor

1 and any required associated electronic control and
2 driven load that—

3 (A) offers variable speed or multispeed op-
4 eration;

5 (B) offers partial load control that reduces
6 input energy requirements (as measured in kilo-
7 watt-hours) as compared to identified base lev-
8 els set by the Secretary; and

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

10 (ii) uses an extended product system tech-
11 nology, as determined by the Secretary.

12 (4) QUALIFIED EXTENDED PRODUCT SYS-
13 TEM.—

14 (A) IN GENERAL.—The term “qualified ex-
15 tended product system” means an extended
16 product system that—

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

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

1 (B) INCLUSIONS.—The term “qualified ex-
2 tended product system” includes commercial or
3 industrial machinery or equipment that—

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

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

11 (ii) was previously used prior to, and
12 was placed back into service during, cal-
13 endar year 2016 or 2017.

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

19 (c) QUALIFIED ENTITIES.—

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

22 (A) in the case of a qualified extended
23 product system described in subsection
24 (a)(4)(A), the purchaser of the qualified ex-
25 tended product that is installed; and

1 (B) in the case of a qualified extended
2 product system described in subsection
3 (a)(4)(B), the manufacturer of the commercial
4 or industrial machinery or equipment that in-
5 corporated the extended product system into
6 that machinery or equipment.

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

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

13 (B) a certification that includes dem-
14 onstrated evidence—

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

16 and

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

19 (aa) that the qualified entity in-
20 stalled the qualified extended product
21 system during the 2 fiscal years fol-
22 lowing the date of enactment of this
23 Act;

1 (bb) that the qualified extended
2 product system meets the require-
3 ments of subsection (a)(4)(A); and

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

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

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

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

22 (d) AUTHORIZED AMOUNT OF REBATE.—

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

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

3 (i) the electric motor to which the
4 qualified extended product system is at-
5 tached; and

6 (ii) the electronic control; and

7 (B) \$25.

8 (2) MAXIMUM AGGREGATE AMOUNT.—A quali-
9 fied entity shall not be entitled to aggregate rebates
10 under this section in excess of \$25,000 per calendar
11 year.

12 (e) AUTHORIZATION OF APPROPRIATIONS.—There is
13 authorized to be appropriated to carry out this section
14 \$5,000,000 for each of the first 2 full fiscal years following
15 the date of enactment of this Act, to remain available until
16 expended.

17 **SEC. 1102. ENERGY EFFICIENT TRANSFORMER REBATE**
18 **PROGRAM.**

19 (a) DEFINITIONS.—In this section:

20 (1) QUALIFIED ENERGY EFFICIENT TRANS-
21 FORMER.—The term “qualified energy efficient
22 transformer” means a transformer that meets or ex-
23 ceeds the applicable energy conservation standards
24 described in the tables in subsection (b)(2) and
25 paragraphs (1) and (2) of subsection (c) of section

1 431.196 of title 10, Code of Federal Regulations (as
2 in effect on the date of enactment of this Act).

3 (2) QUALIFIED ENERGY INEFFICIENT TRANS-
4 FORMER.—The term “qualified energy inefficient
5 transformer” means a transformer with an equal
6 number of phases and capacity to a transformer de-
7 scribed in any of the tables in subsection (b)(2) and
8 paragraphs (1) and (2) of subsection (c) of section
9 431.196 of title 10, Code of Federal Regulations (as
10 in effect on the date of enactment of this Act)
11 that—

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

15 (B)(i) was manufactured between January
16 1, 1985, and December 31, 2006, for a trans-
17 former with an equal number of phases and ca-
18 pacity as a transformer described in the table
19 in subsection (b)(2) of section 431.196 of title
20 10, Code of Federal Regulations (as in effect on
21 the date of enactment of this Act); or

22 (ii) was manufactured between January 1,
23 1990, and December 31, 2009, for a trans-
24 former with an equal number of phases and ca-
25 pacity as a transformer described in the table

1 in paragraph (1) or (2) of subsection (c) of that
2 section (as in effect on the date of enactment
3 of this Act).

4 (3) QUALIFIED ENTITY.—The term “qualified
5 entity” means an owner of industrial or manufac-
6 turing facilities, commercial buildings, or multifamily
7 residential buildings, a utility, or an energy service
8 company that fulfills the requirements of subsection
9 (d).

10 (b) ESTABLISHMENT.—Not later than 90 days after
11 the date of enactment of this Act, the Secretary shall es-
12 tablish a program to provide rebates to qualified entities
13 for expenditures made by the qualified entity for the re-
14 placement of a qualified energy inefficient transformer
15 with a qualified energy efficient transformer.

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

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

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

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

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

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

8 (B) for transformers described in sub-
9 section (a)(2)(B)(i), as selected from a table of
10 default values as determined by the Secretary
11 in consultation with applicable industry; and

12 (5) that the qualified energy inefficient trans-
13 former has been permanently decommissioned and
14 scrapped.

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

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

23 (A) the qualified energy inefficient trans-
24 former; and

1 (B) the qualified energy efficient trans-
2 former; or

3 (2) for a transformer described in subsection
4 (a)(2)(B)(i), the amount determined using a table of
5 default rebate values by rated transformer output,
6 as measured in kilovolt-amperes, as determined by
7 the Secretary in consultation with applicable indus-
8 try.

9 (e) AUTHORIZATION OF APPROPRIATIONS.—There is
10 authorized to be appropriated to carry out this section
11 \$5,000,000 for each of fiscal years 2016 and 2017, to re-
12 main available until expended.

13 (f) TERMINATION OF EFFECTIVENESS.—The author-
14 ity provided by this section terminates on December 31,
15 2017.

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

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

20 “(E) RESTRICTION ON FINAL RULE FOR
21 RESIDENTIAL NON-WEATHERIZED GAS FUR-
22 NACES AND MOBILE HOME FURNACES.—

23 “(i) IN GENERAL.—Notwithstanding
24 any other provision of this Act, the Sec-
25 retary shall not prescribe a final rule

1 amending the efficiency standards for resi-
2 dential non-weatherized gas furnaces or
3 mobile home furnaces until each of the fol-
4 lowing has occurred:

5 “(I) The Secretary convenes a
6 representative advisory group of inter-
7 ested stakeholders, including the man-
8 ufacturers, distributors, and contrac-
9 tors of residential non-weatherized gas
10 furnaces and mobile home furnaces,
11 home builders, building owners, en-
12 ergy efficiency advocates, natural gas
13 utilities, electric utilities, and con-
14 sumer groups.

15 “(II) Not later than 1 year after
16 the date of enactment of this subpara-
17 graph, the advisory group described in
18 subclause (I) completes an analysis of
19 a nationwide requirement of a con-
20 densing furnace efficiency standard
21 including—

22 “(aa) a complete analysis of
23 current market trends regarding
24 the transition of sales from non-

1 condensing furnaces to con-
2 densing furnaces;

3 “(bb) the projected net loss
4 in the industry of the present
5 value of original equipment man-
6 ufactured after adoption of the
7 standard;

8 “(cc) the projected consumer
9 payback period and life cycle cost
10 savings after adoption of the
11 standard;

12 “(dd) a determination of
13 whether the standard is economi-
14 cally justified, based solely on the
15 definition of energy under section
16 321; and

17 “(ee) other common eco-
18 nomic principles.

19 “(III) The advisory group de-
20 scribed in subclause (I) reviews the
21 analysis and determines whether a na-
22 tionwide requirement of a condensing
23 furnace efficiency standard is tech-
24 nically feasible and economically justi-
25 fied.

1 “(IV) The final determination of
2 the advisory group under subclause
3 (III) is published in the Federal Reg-
4 ister.

5 “(ii) AMENDED STANDARDS.—If the
6 advisory group determines under clause
7 (i)(III) that a nationwide requirement of a
8 condensing furnace efficiency standard is
9 not technically feasible and economically
10 justified, the Secretary shall, not later than
11 180 days after the date on which the final
12 determination of the advisory group is pub-
13 lished in the Federal Register under clause
14 (i)(IV), establish amended standards
15 through the negotiated rulemaking proce-
16 dure provided for under subchapter III of
17 chapter 5 of title 5, United States Code
18 (commonly known as the ‘Negotiated Rule-
19 making Act of 1990’).”.

20 **SEC. 1104. THIRD-PARTY CERTIFICATION UNDER ENERGY**
21 **STAR PROGRAM.**

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

25 “(e) THIRD-PARTY CERTIFICATION.—

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

9 “(2) ADMINISTRATION.—In the case of a pro-
10 gram partner described in paragraph (1), the new
11 requirements under paragraph (1)—

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

14 “(B) may require that test data and other
15 product information be submitted to facilitate
16 product listing and performance verification for
17 a sample of products.

18 “(3) THIRD PARTIES.—Nothing in this sub-
19 section prevents the Administrator from using third
20 parties in the course of the administration of the
21 Energy Star program.

22 “(4) TERMINATION.—

23 “(A) IN GENERAL.—Subject to subpara-
24 graph (B), an exemption from third-party cer-
25 tification provided to a program partner under

1 paragraph (1) shall terminate if the program
2 partner is found to have violated program re-
3 quirements with respect to at least 2 separate
4 models during a 2-year period.

5 “(B) RESUMPTION.—A termination for a
6 program partner under subparagraph (A) shall
7 cease if the program partner complies with all
8 Energy Star program requirements for a period
9 of at least 3 years.”.

10 **Subtitle C—Manufacturing**

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

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

13 (1) to reform and reorient the industrial effi-
14 ciency programs of the Department;

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

18 (3) to accelerate the deployment of technologies
19 and practices that will increase industrial energy ef-
20 ficiency and improve productivity;

21 (4) to accelerate the development and dem-
22 onstration of technologies that will assist the deploy-
23 ment goals of the industrial efficiency programs of
24 the Department and increase manufacturing effi-
25 ciency;

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

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

7 (b) FUTURE OF INDUSTRY PROGRAM.—

8 (1) IN GENERAL.—Section 452 of the Energy
9 Independence and Security Act of 2007 (42 U.S.C.
10 17111) is amended by striking the section heading
11 and inserting the following: “**FUTURE OF INDUS-**
12 **TRY PROGRAM**”.

13 (2) DEFINITION OF ENERGY SERVICE PRO-
14 VIDER.—Section 452(a) of the Energy Independence
15 and Security Act of 2007 (42 U.S.C. 17111(a)) is
16 amended—

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

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

22 “(3) ENERGY SERVICE PROVIDER.—The term
23 ‘energy service provider’ means any business pro-
24 viding technology or services to improve the energy
25 efficiency, water efficiency, power factor, or load

1 management of a manufacturing site or other indus-
2 trial process in an energy-intensive industry, or any
3 utility operating under a utility energy service
4 project.”.

5 (3) INDUSTRIAL RESEARCH AND ASSESSMENT
6 CENTERS.—Section 452(e) of the Energy Independ-
7 ence and Security Act of 2007 (42 U.S.C. 17111(e))
8 is amended—

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

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

14 “(1) IN GENERAL.—The Secretary”;

15 (C) in subparagraph (A) (as redesignated
16 by subparagraph (A)), by inserting before the
17 semicolon at the end the following: “, including
18 assessments of sustainable manufacturing goals
19 and the implementation of information tech-
20 nology advancements for supply chain analysis,
21 logistics, system monitoring, industrial and
22 manufacturing processes, and other purposes”;
23 and

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

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

4 “(A) coordinate with Manufacturing Ex-
5 tension Partnership Centers of the National In-
6 stitute of Standards and Technology;

7 “(B) coordinate with the Building Tech-
8 nologies Program of the Department of Energy
9 to provide building assessment services to man-
10 ufacturers;

11 “(C) increase partnerships with the Na-
12 tional Laboratories of the Department of En-
13 ergy to leverage the expertise and technologies
14 of the National Laboratories for national indus-
15 trial and manufacturing needs;

16 “(D) increase partnerships with energy
17 service providers and technology providers to le-
18 verage private sector expertise and accelerate
19 deployment of new and existing technologies
20 and processes for energy efficiency, power fac-
21 tor, and load management;

22 “(E) identify opportunities for reducing
23 greenhouse gas emissions; and

1 “(F) promote sustainable manufacturing
2 practices for small- and medium-sized manufac-
3 turers.

4 “(3) OUTREACH.—The Secretary shall provide
5 funding for—

6 “(A) outreach activities by the industrial
7 research and assessment centers to inform
8 small- and medium-sized manufacturers of the
9 information, technologies, and services avail-
10 able; and

11 “(B) coordination activities by each indus-
12 trial research and assessment center to leverage
13 efforts with—

14 “(i) Federal and State efforts;

15 “(ii) the efforts of utilities and energy
16 service providers;

17 “(iii) the efforts of regional energy ef-
18 ficiency organizations; and

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

21 “(4) WORKFORCE TRAINING.—

22 “(A) IN GENERAL.—The Secretary shall
23 pay the Federal share of associated internship
24 programs under which students work with or
25 for industries, manufacturers, and energy serv-

1 ice providers to implement the recommendations
2 of industrial research and assessment centers.

3 “(B) FEDERAL SHARE.—The Federal
4 share of the cost of carrying out internship pro-
5 grams described in subparagraph (A) shall be
6 50 percent.

7 “(5) SMALL BUSINESS LOANS.—The Adminis-
8 trator of the Small Business Administration shall, to
9 the maximum extent practicable, expedite consider-
10 ation of applications from eligible small business
11 concerns for loans under the Small Business Act (15
12 U.S.C. 631 et seq.) to implement recommendations
13 of industrial research and assessment centers estab-
14 lished under paragraph (1).

15 “(6) ADVANCED MANUFACTURING STEERING
16 COMMITTEE.—The Secretary shall establish an advi-
17 sory steering committee to provide recommendations
18 to the Secretary on planning and implementation of
19 the Advanced Manufacturing Office of the Depart-
20 ment of Energy.”.

21 (c) SUSTAINABLE MANUFACTURING INITIATIVE.—

22 (1) IN GENERAL.—Part E of title III of the
23 Energy Policy and Conservation Act (42 U.S.C.
24 6341) is amended by adding at the end the fol-
25 lowing:

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

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

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

8 “(2) preventing pollution and minimizing waste;

9 “(3) improving efficient use of water in manu-
10 facturing processes;

11 “(4) conserving natural resources; and

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

14 “(b) COORDINATION.—The Secretary shall carry out
15 the initiative in coordination with the private sector and
16 appropriate agencies, including the National Institute of
17 Standards and Technology, to accelerate adoption of new
18 and existing technologies and processes that improve en-
19 ergy efficiency.

20 “(c) RESEARCH AND DEVELOPMENT PROGRAM FOR
21 SUSTAINABLE MANUFACTURING AND INDUSTRIAL TECH-
22 NOLOGIES AND PROCESSES.—As part of the industrial ef-
23 ficiency programs of the Department of Energy, the Sec-
24 retary shall carry out a joint industry-government partner-
25 ship program to research, develop, and demonstrate new
26 sustainable manufacturing and industrial technologies and

1 processes that maximize the energy efficiency of industrial
2 plants, reduce pollution, and conserve natural resources.”.

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

“Sec. 376. Sustainable manufacturing initiative.”.

8 (d) CONFORMING AMENDMENTS.—

9 (1) Section 106 of the Energy Policy Act of
10 2005 (42 U.S.C. 15811) is repealed.

11 (2) Sections 131, 132, 133, 2103, and 2107 of
12 the Energy Policy Act of 1992 (42 U.S.C. 6348,
13 6349, 6350, 13453, 13456) are repealed.

14 (3) Section 2101(a) of the Energy Policy Act of
15 1992 (42 U.S.C. 13451(a)) is amended in the third
16 sentence by striking “sections 2102, 2103, 2104,
17 2105, 2106, 2107, and 2108” and inserting “sec-
18 tions 2102, 2104, 2105, 2106, and 2108 of this Act
19 and section 376 of the Energy Policy and Conserva-
20 tion Act,”.

21 **SEC. 1202. LEVERAGING EXISTING FEDERAL AGENCY PRO-**
22 **GRAMS TO ASSIST SMALL AND MEDIUM MAN-**
23 **UFACTURERS.**

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

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

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

12 (A) receives funding from the Department;

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

17 (C) identifies opportunities for potential
18 savings for small- and medium-size manufac-
19 turer plant sites from energy efficiency improve-
20 ments, waste minimization, pollution preven-
21 tion, and productivity improvement.

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

1 (4) SMALL AND MEDIUM MANUFACTURERS.—

2 The term “small and medium manufacturers”
3 means manufacturing firms—

4 (A) classified in the North American In-
5 dustry Classification System as any of sectors
6 31 through 33;

7 (B) with gross annual sales of less than
8 \$100,000,000;

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

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

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

21 (b) EXPANSION OF TECHNICAL ASSISTANCE PRO-
22 GRAMS.—The Secretary shall expand the scope of tech-
23 nologies covered by the Industrial Assessment Centers of
24 the Department—

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

3 (2) to equip the directors of the Industrial As-
4 sessment Centers with the training and tools nec-
5 essary to provide technical assistance in smart man-
6 ufacturing technologies and practices, including en-
7 ergy management systems, to manufacturers.

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

10 **SEC. 1203. LEVERAGING SMART MANUFACTURING INFRA-**
11 **STRUCTURE AT NATIONAL LABORATORIES.**

12 (a) STUDY.—

13 (1) IN GENERAL.—Not later than 180 days
14 after the date of enactment of this Act, the Sec-
15 retary shall conduct a study on ways in which the
16 Department can increase access to existing high-per-
17 formance computing resources in the National Lab-
18 oratories, particularly for small and medium manu-
19 facturers.

20 (2) INCLUSIONS.—In identifying ways to in-
21 crease access to National Laboratories under para-
22 graph (1), the Secretary shall—

23 (A) focus on increasing access to the com-
24 puting facilities of the National Laboratories;
25 and

1 (B) ensure that—

2 (i) the information from the manufac-
3 turer is protected; and

4 (ii) the security of the National Lab-
5 oratory facility is maintained.

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

10 (b) ACTIONS FOR INCREASED ACCESS.—The Sec-
11 retary shall facilitate access to the National Laboratories
12 studied under subsection (a) for small and medium manu-
13 facturers so that small and medium manufacturers can
14 fully use the high-performance computing resources of the
15 National Laboratories to enhance the manufacturing com-
16 petitiveness of the United States.

17 **TITLE II—INFRASTRUCTURE**

18 **Subtitle A—Cybersecurity**

19 **SEC. 2001. CYBERSECURITY THREATS.**

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

22 **“SEC. 224. CYBERSECURITY THREATS.**

23 “(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) CYBERSECURITY THREAT.—The term ‘cy-
5 bersecurity threat’ means the imminent danger of an
6 act that severely disrupts, attempts to severely dis-
7 rupt, or poses a significant risk of severely dis-
8 rupting the operation of programmable electronic de-
9 vices or communications networks (including hard-
10 ware, software, and data) essential to the reliable
11 operation of the bulk-power system.

12 “(3) ELECTRIC RELIABILITY ORGANIZATION.—
13 The term ‘Electric Reliability Organization’ has the
14 meaning given the term in section 215.

15 “(4) SECRETARY.—The term ‘Secretary’ means
16 the Secretary of Energy.

17 “(b) EMERGENCY AUTHORITY OF SECRETARY.—

18 “(1) IN GENERAL.—If the President notifies
19 the Secretary that the President has made a deter-
20 mination that immediate action is necessary to pro-
21 tect the bulk-power system from a cybersecurity
22 threat, the Secretary may require, by order and with
23 or without notice, any entity that is registered with
24 the Electric Reliability Organization as an owner,
25 operator, or user of the bulk-power system to take

1 such actions as the Secretary determines will best
2 avert or mitigate the cybersecurity threat.

3 “(2) WRITTEN EXPLANATION.—As soon as
4 practicable after notifying the Secretary under para-
5 graph (1), the President shall provide to the Sec-
6 retary, in writing, a record of the determination and
7 an explanation of the reasons for the determination.

8 “(3) COORDINATION WITH CANADA AND MEX-
9 ICO.—In exercising the authority pursuant to this
10 subsection, the Secretary is encouraged to consult
11 and coordinate with the appropriate officials in Can-
12 ada and Mexico responsible for the protection of cy-
13 bersecurity of the interconnected North American
14 electricity grid.

15 “(4) CONSULTATION.—Before exercising au-
16 thority pursuant to this subsection, to the maximum
17 extent practicable, taking into consideration the na-
18 ture of an identified cybersecurity threat and the ur-
19 gency of need for action, the Secretary shall consult
20 regarding implementation of actions that will effec-
21 tively address the cybersecurity threat with—

22 “(A) any entities potentially subject to the
23 cybersecurity threat that own, control, or oper-
24 ate bulk-power system facilities;

25 “(B) the Electric Reliability Organization;

1 “(C) the Electricity Sub-sector Coordi-
2 nating Council (as established by the Electric
3 Reliability Organization); and

4 “(D) officials of other Federal departments
5 and agencies, as appropriate.

6 “(5) COST RECOVERY.—

7 “(A) IN GENERAL.—The Commission shall
8 adopt regulations that permit entities subject to
9 an order under paragraph (1) to seek recovery
10 of prudently incurred costs required to imple-
11 ment actions ordered by the Secretary under
12 this subsection.

13 “(B) REQUIREMENTS.—Any rate or charge
14 approved under regulations adopted pursuant to
15 this paragraph—

16 “(i) shall be just and reasonable; and

17 “(ii) shall not be unduly discrimina-
18 tory or preferential.

19 “(c) DURATION OF EMERGENCY ORDERS.—An order
20 issued by the Secretary pursuant to subsection (b) shall
21 remain in effect for not longer than the 30-day period be-
22 ginning on the effective date of the order, unless, during
23 that 30 day-period, the Secretary—

1 “(1) provides to interested persons an oppor-
2 tunity to submit written data, recommendations, and
3 arguments; and

4 “(2) affirms, amends, or repeals the order, sub-
5 ject to the condition that an amended order shall not
6 exceed a total duration of 90 days.”.

7 **SEC. 2002. ENHANCED GRID SECURITY.**

8 (a) DEFINITIONS.—In this section:

9 (1) ELECTRIC UTILITY.—The term “electric
10 utility” has the meaning given the term in section
11 3 of the Federal Power Act (16 U.S.C. 796).

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

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

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

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

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

4 (2) DUTIES.—As the designated Sector-Specific
5 Agency for cybersecurity, the duties of the Depart-
6 ment shall include—

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

10 (B) collaborating with—

11 (i) critical infrastructure owners and
12 operators; and

13 (ii) as appropriate—

14 (I) independent regulatory agen-
15 cies; and

16 (II) State, local, tribal and terri-
17 torial entities;

18 (C) serving as a day-to-day Federal inter-
19 face for the dynamic prioritization and coordi-
20 nation of sector-specific activities;

21 (D) carrying out incident management re-
22 sponsibilities consistent with applicable law (in-
23 cluding regulations) and other appropriate poli-
24 cies or directives;

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

5 (F) supporting the reporting requirements
6 of the Department of Homeland Security under
7 applicable law by providing, on an annual basis,
8 sector-specific critical infrastructure informa-
9 tion.

10 (c) CYBERSECURITY FOR THE ENERGY SECTOR RE-
11 SEARCH, DEVELOPMENT, AND DEMONSTRATION PRO-
12 GRAM.—

13 (1) IN GENERAL.—The Secretary, in consulta-
14 tion with appropriate Federal agencies, the energy
15 sector, the States, and other stakeholders, shall
16 carry out a program—

17 (A) to develop advanced cybersecurity ap-
18 plications and technologies for the energy sec-
19 tor—

20 (i) to identify and mitigate
21 vulnerabilities, including—

22 (I) dependencies on other critical
23 infrastructure; and

24 (II) impacts from weather and
25 fuel supply; and

1 (ii) to advance the security of field de-
2 vices and third-party control systems, in-
3 cluding—

4 (I) systems for generation, trans-
5 mission, distribution, end use, and
6 market functions;

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

11 (III) forensic analysis of infected
12 systems; and

13 (IV) secure communications;

14 (B) to leverage electric grid architecture as
15 a means to assess risks to the energy sector, in-
16 cluding by implementing an all-hazards ap-
17 proach to communications infrastructure, con-
18 trol systems architecture, and power systems
19 architecture;

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

23 (D) to develop workforce development cur-
24 ricula for energy sector-related cybersecurity.

1 (2) AUTHORIZATION OF APPROPRIATIONS.—

2 There is authorized to be appropriated to carry out
3 this subsection \$65,000,000 for each of fiscal years
4 2017 through 2025.

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

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

9 (A) to establish a cybertesting and mitiga-
10 tion program to identify vulnerabilities of en-
11 ergy sector supply chain products to known
12 threats;

13 (B) to oversee third-party cybertesting;
14 and

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

17 (2) AUTHORIZATION OF APPROPRIATIONS.—

18 There is authorized to be appropriated to carry out
19 this subsection \$15,000,000 for each of fiscal years
20 2017 through 2025.

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

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

25 (A) to enhance and periodically test—

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

3 (ii) the coordination of the Depart-
4 ment with other agencies, the National
5 Laboratories, and private industry;

6 (B) to expand cooperation of the Depart-
7 ment with the intelligence communities for en-
8 ergy sector-related threat collection and anal-
9 ysis;

10 (C) to enhance the tools of the Department
11 and ES–ISAC for monitoring the status of the
12 energy sector;

13 (D) to expand industry participation in
14 ES–ISAC; and

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

18 (2) AUTHORIZATION OF APPROPRIATIONS.—

19 There is authorized to be appropriated to carry out
20 this subsection \$10,000,000 for each of fiscal years
21 2017 through 2025.

22 (f) MODELING AND ASSESSING ENERGY INFRA-
23 STRUCTURE RISK.—

24 (1) IN GENERAL.—The Secretary shall develop
25 an advanced energy security program to secure en-

1 ergy networks, including electric, natural gas, and
2 oil exploration, transmission, and delivery.

3 (2) SECURITY AND RESILIENCY OBJECTIVE.—

4 The objective of the program developed under para-
5 graph (1) is to increase the functional preservation
6 of the electric grid operations or natural gas and oil
7 operations in the face of natural and human-made
8 threats and hazards, including electric magnetic
9 pulse and geomagnetic disturbances.

10 (3) ELIGIBLE ACTIVITIES.—In carrying out the
11 program developed under paragraph (1), the Sec-
12 retary may—

13 (A) develop capabilities to identify
14 vulnerabilities and critical components that pose
15 major risks to grid security if destroyed or im-
16 paired;

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

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

22 (D) conduct exercises and assessments to
23 identify and mitigate vulnerabilities to the elec-
24 tric grid, including providing mitigation rec-
25 ommendations;

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

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

6 (G) provide technical assistance to States
7 and other entities for standards and risk analysis.
8

9 (4) AUTHORIZATION OF APPROPRIATIONS.—

10 There is authorized to be appropriated to carry out
11 this subsection \$10,000,000 for each of fiscal years
12 2017 through 2025.

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

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

19 (2) existing programs of the Department; and

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

25 (h) STUDY.—

1 (1) IN GENERAL.—Not later than 180 days
2 after the date of enactment of this Act, the Sec-
3 retary, in consultation with the Federal Energy Reg-
4 ulatory Commission and the North American Elec-
5 tric Reliability Corporation, shall conduct a study to
6 explore alternative management structures and fund-
7 ing mechanisms to expand industry membership and
8 participation in ES–ISAC.

9 (2) REPORT.—The Secretary shall submit to
10 the appropriate committees of Congress a report de-
11 scribing the results of the study conducted under
12 paragraph (1).

13 **Subtitle B—Strategic Petroleum**
14 **Reserve**

15 **SEC. 2101. STRATEGIC PETROLEUM RESERVE TEST DRAW-**
16 **DOWN AND SALE NOTIFICATION AND DEFINI-**
17 **TION CHANGE.**

18 (a) NOTICE TO CONGRESS.—Section 161(g) of the
19 Energy Policy and Conservation Act (42 U.S.C. 6241(g))
20 is amended by striking paragraph (8) and inserting the
21 following:

22 “(8) NOTICE TO CONGRESS.—

23 “(A) PRIOR NOTICE.—Not less than 14
24 days before the date on which a test is carried

1 out under this subsection, the Secretary shall
2 notify both Houses of Congress of the test.

3 “(B) EMERGENCY.—The prior notice re-
4 quirement in subparagraph (A) shall not apply
5 if the Secretary determines that an emergency
6 exists which requires a test to be carried out,
7 in which case the Secretary shall notify both
8 Houses of Congress of the test as soon as pos-
9 sible.

10 “(C) DETAILED DESCRIPTION.—

11 “(i) IN GENERAL.—Not later than
12 180 days after the date on which a test is
13 completed under this subsection, the Sec-
14 retary shall submit to both Houses of Con-
15 gress a detailed description of the test.

16 “(ii) REPORT.—A detailed description
17 submitted under clause (i) may be included
18 as part of a report made to the President
19 and Congress under section 165.”.

20 (b) DEFINITION CHANGE.—Section 3(8)(C)(iii) of
21 the Energy Policy and Conservation Act (42 U.S.C.
22 6202(8)(C)(iii)) is amended by striking “sabotage or an
23 act of God” and inserting “sabotage, an act of terrorism,
24 or an act of God”.

1 **SEC. 2102. STRATEGIC PETROLEUM RESERVE MISSION**
2 **READINESS OPTIMIZATION.**

3 Not later than 180 days after the date of enactment
4 of this Act, the Secretary shall—

5 (1) complete a long-range strategic review of
6 the Strategic Petroleum Reserve; and

7 (2) develop and submit to Congress a proposed
8 action plan, including a proposed implementation
9 schedule, that—

10 (A) specifies near- and long-term roles of
11 the Strategic Petroleum Reserve relative to the
12 energy and economic security goals and objec-
13 tives of the United States;

14 (B) describes whether existing legal au-
15 thorities that govern the policies, configuration,
16 and capabilities of the Strategic Petroleum Re-
17 serve are adequate to ensure that the Strategic
18 Petroleum Reserve can meet the current and
19 future energy and economic security goals and
20 objectives of the United States;

21 (C) identifies the configuration and per-
22 formance capabilities of the Strategic Petro-
23 leum Reserve and recommends an action plan
24 to achieve the optimal —

1 (i) capacity, location, and composition
2 of petroleum products in the Strategic Pe-
3 troleum Reserve; and

4 (ii) storage and distributional capabili-
5 ties; and

6 (D) estimates the resources required to at-
7 tain and maintain the long-term sustainability
8 and operational effectiveness of the Strategic
9 Petroleum Reserve.

10 **SEC. 2103. STRATEGIC PETROLEUM RESERVE MODERNIZA-**
11 **TION.**

12 (a) REAFFIRMATION OF POLICY.—Congress reaf-
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 **SEC. 2304. HYBRID MICRO-GRID SYSTEMS FOR ISOLATED**
6 **AND RESILIENT COMMUNITIES.**

7 (a) DEFINITIONS.—In this section:

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

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

13 (B) may use grid-scale energy storage.

14 (2) ISOLATED COMMUNITY.—The term “iso-
15 lated community” means a community that is pow-
16 ered by a stand-alone electric generation and dis-
17 tribution system without the economic and reliability
18 benefits of connection to a regional electric grid.

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

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

25 (b) PROGRAM.—

1 (1) ESTABLISHMENT.—The Secretary shall es-
2 tablish a program to promote the development of—

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

5 (B) micro-grid systems to increase the re-
6 silience of critical infrastructure.

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

10 (A) Phase I, which shall consist of the de-
11 velopment of a feasibility assessment for—

12 (i) hybrid micro-grid systems in iso-
13 lated communities; and

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

16 (B) Phase II, which shall consist of the de-
17 velopment of an implementation strategy, in ac-
18 cordance with paragraph (3), to promote the
19 development of hybrid micro-grid systems for
20 isolated communities, particularly for those
21 communities exposed to extreme weather condi-
22 tions and high energy costs, including elec-
23 tricity, space heating and cooling, and transpor-
24 tation.

1 (C) Phase III, which shall be carried out
2 in parallel with Phase II and consist of the de-
3 velopment of an implementation strategy to
4 promote the development of micro-grid systems
5 that increase the resilience of critical infrastruc-
6 ture.

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

13 (E) Phase V, which shall establish a bene-
14 fits analysis plan to help inform regulators, pol-
15 icymakers, and industry stakeholders about the
16 affordability, environmental and resilience bene-
17 fits associated with Phases II, III and IV.

18 (3) REQUIREMENTS FOR STRATEGY.—In devel-
19 oping the strategy under paragraph (2)(B), the Sec-
20 retary shall consider—

21 (A) establishing future targets for the eco-
22 nomic displacement of conventional generation
23 using hybrid micro-grid systems, including dis-
24 placement of conventional generation used for

1 electric power generation, heating and cooling,
2 and transportation;

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

6 (C) opportunities for improving the effi-
7 ciency of existing hybrid micro-grid systems;

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

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

14 (F) leveraging existing capacity within
15 local or regional research organizations, such as
16 organizations based at institutions of higher
17 education, to support development of hybrid
18 micro-grid systems, including by testing novel
19 components and systems prior to field deploy-
20 ment;

21 (G) the need for basic infrastructure to de-
22 velop, deploy, and sustain a hybrid micro-grid
23 system;

1 (H) input of traditional knowledge from
2 local leaders of isolated communities in the de-
3 velopment of a hybrid micro-grid system;

4 (I) the impact of hybrid micro-grid systems
5 on defense, homeland security, economic devel-
6 opment, and environmental interests;

7 (J) opportunities to leverage existing inter-
8 agency coordination efforts and recommenda-
9 tions for new interagency coordination efforts to
10 minimize unnecessary overhead, mobilization,
11 and other project costs; and

12 (K) any other criteria the Secretary deter-
13 mines appropriate.

14 (c) COLLABORATION.—The program established
15 under subsection (b)(1) shall be carried out in collabora-
16 tion with relevant stakeholders, including, as appro-
17 priate—

18 (1) States;

19 (2) Indian tribes;

20 (3) regional entities and regulators;

21 (4) units of local government;

22 (5) institutions of higher education; and

23 (6) private sector entities.

24 (d) REPORT.—Not later than 180 days after the date
25 of enactment of this Act, and annually thereafter, the Sec-

1 retary shall submit to the Committee on Energy and Nat-
2 ural Resources of the Senate and the Committee on En-
3 ergy and Commerce of the House of Representatives a re-
4 port on the efforts to implement the program established
5 under subsection (b)(1) and the status of the strategy de-
6 veloped under subsection (b)(2)(B).

7 **SEC. 2305. VOLUNTARY MODEL PATHWAYS.**

8 (a) ESTABLISHMENT OF VOLUNTARY MODEL PATH-
9 WAYS.—

10 (1) ESTABLISHMENT.—Not later than 90 days
11 after the date of enactment of this Act, the Sec-
12 retary shall initiate the development of voluntary
13 model pathways for modernizing the electric grid
14 through a collaborative, public-private effort that—

15 (A) produces illustrative policy pathways
16 that can be adapted for State and regional ap-
17 plications by regulators and policymakers;

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

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

23 (D) acknowledges and provides for dif-
24 ferent priorities, electric systems, and rate
25 structures across States and regions.

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

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

6 (B) Data visualization.

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

9 (D) Enhanced certainty for private invest-
10 ment in the electric system.

11 (E) Increased innovation.

12 (F) Greater consumer empowerment.

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

15 (H) Improved—

16 (i) integration of distributed energy
17 resources;

18 (ii) interoperability of the electric sys-
19 tem; and

20 (iii) predictive modeling and capacity
21 forecasting.

22 (3) STEERING COMMITTEE.—Not later than 90
23 days after the date of enactment of this Act, the
24 Secretary shall establish a steering committee to fa-
25 cilitate the development of the pathways under para-

1 graph (1), to be composed of members appointed by
2 the Secretary, consisting of persons with appropriate
3 expertise representing a diverse range of interests in
4 the public, private, and academic sectors, including
5 representatives of—

6 (A) the Smart Grid Task Force; and

7 (B) the Smart Grid Advisory Committee.

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

12 **SEC. 2306. PERFORMANCE METRICS FOR ELECTRICITY IN-**
13 **FRASTRUCTURE PROVIDERS.**

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

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

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

23 (b) CONSIDERATIONS FOR DEVELOPMENT OF
24 METRICS.—In developing metrics for evaluating and

1 quantifying the electric grid under subsection (a), the Sec-
2 retary shall consider—

3 (1) standard methodologies for calculating im-
4 provements or deteriorations in the performance
5 metrics, such as reliability, grid efficiency, power
6 quality, consumer satisfaction, sustainability, and fi-
7 nancial incentives;

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

12 (3) appropriate ownership and operating roles
13 for electric utilities that would enable improved per-
14 formance through the adoption of emerging, com-
15 mercially available or advanced grid technologies or
16 solutions, including—

17 (A) multicustomer micro-grids;

18 (B) distributed energy resources;

19 (C) energy storage;

20 (D) electric vehicles;

21 (E) electric vehicle charging infrastructure;

22 (F) integrated information and commu-
23 nications systems; and

24 (G) advanced demand management sys-
25 tems; and

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

4 (A) electric utilities remain financially via-
5 ble;

6 (B) electric utilities make the needed in-
7 vestments that ensure a reliable, secure, and re-
8 silient grid; and

9 (C) costs incurred to transform to an inte-
10 grated grid are allocated and recovered respon-
11 sibly, efficiently, and equitably.

12 **SEC. 2307. STATE AND REGIONAL ELECTRICITY DISTRIBU-**
13 **TION PLANNING.**

14 (a) IN GENERAL.—Upon the request of a State or
15 regional organization, the Secretary shall partner with
16 States and regional organizations to facilitate the develop-
17 ment of State and regional electricity distribution plans
18 by—

19 (1) conducting a resource assessment and anal-
20 ysis of future demand and distribution requirements;
21 and

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

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

1 (1) the evaluation of the physical and cyberse-
2 curity needs of an advanced distribution manage-
3 ment system and the integration of distributed en-
4 ergy resources; and

5 (2) advanced use of grid architecture to analyze
6 risks in an all-hazards approach that includes com-
7 munications infrastructure, control systems architec-
8 ture, and power systems architecture.

9 (c) TECHNICAL ASSISTANCE.—For the purpose of de-
10 veloping State and regional electricity distribution plans,
11 the Secretary shall provide technical assistance to—

12 (1) States;

13 (2) regional reliability entities; and

14 (3) other distribution asset owners and opera-
15 tors.

16 **SEC. 2308. AUTHORIZATION OF APPROPRIATIONS.**

17 There is authorized to be appropriated to the Sec-
18 retary to carry out sections 2302 through 2307
19 \$200,000,000 for each of fiscal years 2017 through 2026.

20 **SEC. 2309. ELECTRIC TRANSMISSION INFRASTRUCTURE**
21 **PERMITTING.**

22 (a) INTERAGENCY RAPID RESPONSE TEAM FOR
23 TRANSMISSION.—

24 (1) ESTABLISHMENT.—There is established an
25 interagency rapid response team, to be known as the

1 “Interagency Rapid Response Team for Trans-
2 mission” (referred to in this subsection as the
3 “Team”), to expedite and improve the permitting
4 process for electric transmission infrastructure on
5 Federal land and non-Federal land.

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

8 (A) to improve the timeliness and effi-
9 ciency of electric transmission infrastructure
10 permitting; and

11 (B) to facilitate the performance of main-
12 tenance and upgrades to electric transmission
13 lines on Federal land and non-Federal land.

14 (3) MEMBERSHIP.—The Team shall be com-
15 prised of representatives of—

16 (A) the Federal Energy Regulatory Com-
17 mission;

18 (B) the Department;

19 (C) the Department of the Interior;

20 (D) the Department of Defense;

21 (E) the Department of Agriculture;

22 (F) the Council on Environmental Quality;

23 (G) the Department of Commerce;

24 (H) the Advisory Council on Historic Pres-
25 ervation; and

1 (I) the Environmental Protection Agency.

2 (4) DUTIES.—The Team shall—

3 (A) facilitate coordination and unified envi-
4 ronmental documentation among electric trans-
5 mission infrastructure project applicants, Fed-
6 eral agencies, States, and Indian tribes involved
7 in the siting and permitting process;

8 (B) establish clear timelines for the review
9 and coordination of electric transmission infra-
10 structure projects by the applicable agencies;

11 (C) ensure that each electric transmission
12 infrastructure project is posted on the Federal
13 permitting transmission tracking system known
14 as “e-Trans”, including information on the sta-
15 tus and anticipated completion date of each
16 project; and

17 (D) regularly notify all participating mem-
18 bers of the Team involved in any specific permit
19 of—

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

22 (ii) any approval or required comment
23 that has exceeded statutory or agency
24 timelines for completion, including an iden-
25 tification of any Federal agency, depart-

1 ment, or field office that has not met the
2 applicable timeline.

3 (5) ANNUAL REPORTS.—Annually, the Team
4 shall submit to the Committee on Energy and Nat-
5 ural Resources of the Senate and the Committee on
6 Energy and Commerce of the House of Representa-
7 tives a report that describes the average completion
8 time for specific categories of regionally and nation-
9 ally significant transmission projects, based on infor-
10 mation obtained from the applicable Federal agen-
11 cies.

12 (6) USE OF DATA BY OMB.—Using data pro-
13 vided by the Team, the Director of the Office of
14 Management and Budget shall prioritize inclusion of
15 individual electric transmission infrastructure
16 projects on the website operated by the Office of
17 Management and Budget in accordance with section
18 1122 of title 31, United States Code.

19 (b) TRANSMISSION OMBUDSPERSON.—

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

1 (A) resolving interagency or intra-agency
2 issues or delays with respect to electric trans-
3 mission infrastructure permits; and

4 (B) receiving and resolving complaints
5 from parties with outstanding or in-process ap-
6 plications relating to electric transmission infra-
7 structure.

8 (2) DUTIES.—The Ombudsperson shall—

9 (A) establish a process for—

10 (i) facilitating the permitting process
11 for performance of maintenance and up-
12 grades to electric transmission lines on
13 Federal land and non-Federal land, with a
14 special emphasis on facilitating access for
15 immediate maintenance, repair, and vege-
16 tation management needs;

17 (ii) resolving complaints filed with the
18 Ombudsperson with respect to in-process
19 electric transmission infrastructure per-
20 mits; and

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

24 (B) hear, compile, and share any com-
25 plaints filed with Ombudsperson relating to in-

1 process electric transmission infrastructure per-
2 mits.

3 (c) AGREEMENTS.—The Secretary of the Interior,
4 with respect to public lands (as defined in section 103(e)
5 of the Federal Land Policy and Management Act (43
6 U.S.C. 1702(e))), and the Secretary of Agriculture, with
7 respect to National Forest System land, shall enter into
8 an agreement with the Federal department or agency
9 holding any existing right-of-way on public lands or Na-
10 tional Forest system lands granted prior to October 21,
11 1976, to ensure the continued use of the right-of-way for
12 the transmission of electric energy across such lands, in-
13 cluding vegetation management agreements, where appli-
14 cable.

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

18 (a) DEFINITIONS.—In this section:

19 (1) DISTRIBUTED ENERGY RESOURCE.—The
20 term “distributed energy resource” means an elec-
21 tricity supply resource that, as permitted by State
22 law—

23 (A)(i) is interconnected to the electric sys-
24 tem operated by a transmission organization at
25 or below 69kV; and

1 (ii) is subject to dispatch by the trans-
2 mission organization; and

3 (B)(i) generates electricity using any pri-
4 mary energy source, including solar energy and
5 other renewable resources; or

6 (ii) stores energy and is capable of sup-
7 plying electricity to the electric system operated
8 by the transmission organization from the stor-
9 age reservoir.

10 (2) ELECTRIC GENERATING CAPACITY RE-
11 SOURCE.—The term “electric generating capacity re-
12 source” means an electric generating resource, as
13 measured by the maximum load-carrying ability of
14 the resource, exclusive of station use and planned,
15 unplanned, or other outage or derating, that is sub-
16 ject to dispatch by a transmission organization to
17 meet the resource adequacy needs of the systems op-
18 erated by the transmission organization.

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

22 (A) serves an electric load at or below
23 69kV from a distributed energy resource or
24 electric generating capacity resource; and

1 (B) is subject to dispatch by a trans-
2 mission organization.

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

7 (b) REPORT.—

8 (1) NOTICE.—Not later than 14 days after the
9 date of enactment of this section, the Commission
10 shall submit to each transmission organization no-
11 tice that the transmission organization is required to
12 file with the Commission a report in accordance with
13 paragraph (2).

14 (2) REPORT.—Not later than 180 days after
15 the date on which a transmission organization re-
16 ceives a notice under paragraph (1), the trans-
17 mission organization shall submit to the Commission
18 a report that—

19 (A)(i) identifies distributed energy re-
20 sources and micro-grid systems that are subject
21 to dispatch by the transmission organization as
22 of the date of the report; and

23 (ii) describes the fuel sources and oper-
24 ational characteristics of such distributed en-
25 ergy resources and micro-grid systems, includ-

1 ing, to the extent practicable, a discussion of
2 the benefits and costs associated with the dis-
3 tributed energy resources and micro-grid sys-
4 tems identified under clause (i);

5 (B) evaluates, with due regard for oper-
6 ational and economic benefits and costs, the po-
7 tential for distributed energy resources and
8 micro-grid systems to be deployed to the trans-
9 mission organization over the short- and long-
10 term periods in the planning cycle of the trans-
11 mission organization; and

12 (C) identifies—

13 (i) over the short- and long-term peri-
14 ods in the planning cycle of the trans-
15 mission organization, barriers to the de-
16 ployment to the transmission organization
17 of distributed energy resources and micro-
18 grid systems; and

19 (ii) potential changes to the oper-
20 ational requirements for, or charges associ-
21 ated with, the interconnection of distrib-
22 uted energy resources and micro-grid sys-
23 tems to the transmission organization that
24 would reduce the barriers identified under
25 clause (i).

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

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

5 **“SEC. 1841. NET METERING STUDY GUIDANCE.**

6 “(a) IN GENERAL.—The Secretary shall issue guid-
7 ance on criteria required to be included in studies of net
8 metering to be conducted by the Department.

9 “(b) REQUIREMENTS.—The guidance issued under
10 subsection (a) shall clarify without prejudice to other
11 study criteria that any study of net metering conducted
12 by the Department shall—

13 “(1) be publicly available; and

14 “(2) assess benefits and costs of net metering,
15 including—

16 “(A) load data, including hourly profiles;

17 “(B) distributed generation production
18 data;

19 “(C) best available technology, including
20 inverter capability; and

21 “(D) benefits and costs of renewables de-
22 ployment, including—

23 “(i) environmental benefits;

24 “(ii) changes in electric system reli-
25 ability;

- 1 “(iii) changes in peak power require-
2 ments;
3 “(iv) provision of ancillary services,
4 including reactive power;
5 “(v) changes in power quality;
6 “(vi) changes in land-use effects;
7 “(vii) changes in right-of-way acquisi-
8 tion costs;
9 “(viii) changes in vulnerability to ter-
10 rorism; and
11 “(ix) changes in infrastructure resil-
12 ience.”.

13 **Subtitle E—Computing**

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

15 (a) RENAMING OF ACT.—

16 (1) IN GENERAL.—Section 1 of the Department
17 of Energy High-End Computing Revitalization Act
18 of 2004 (15 U.S.C. 5501 note; Public Law 108–
19 423) is amended by striking “Department of Energy
20 High-End Computing Revitalization Act of 2004”
21 and inserting “Exascale Computing Act of 2015”.

22 (2) CONFORMING AMENDMENT.—Section
23 976(a)(1) of the Energy Policy Act of 2005 (42
24 U.S.C. 16316(1)) is amended by striking “Depart-
25 ment of Energy High-End Computing Revitalization

1 Act of 2004” and inserting “Exascale Computing
2 Act of 2015”.

3 (b) DEFINITIONS.—Section 2 of the Exascale Com-
4 puting Act of 2015 (15 U.S.C. 5541) is amended—

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

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

9 “(1) DEPARTMENT.—The term ‘Department’
10 means the Department of Energy.

11 “(2) EXASCALE COMPUTING.—The term
12 ‘exascale computing’ means computing through the
13 use of a computing machine that performs near or
14 above 10 to the 18th power floating point operations
15 per second.”; and

16 (3) in paragraph (6) (as redesignated by para-
17 graph (1)), by striking “, acting through the Direc-
18 tor of the Office of Science of the Department of
19 Energy”.

20 (c) DEPARTMENT OF ENERGY HIGH-END COM-
21 PUTING RESEARCH AND DEVELOPMENT PROGRAM.—Sec-
22 tion 3 of the Exascale Computing Act of 2015 (15 U.S.C.
23 5542) is amended—

1 (1) in subsection (a)(1), by striking “program”
2 and inserting “coordinated program across the De-
3 partment”;

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

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

9 “(d) EXASCALE COMPUTING PROGRAM.—

10 “(1) IN GENERAL.—The Secretary shall con-
11 duct a research program (referred to in this sub-
12 section as the ‘Program’) to develop 2 or more
13 exascale computing machine architectures to pro-
14 mote the missions of the Department.

15 “(2) IMPLEMENTATION.—

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

18 “(i) establish 2 or more National Lab-
19 oratory partnerships with industry part-
20 ners and institutions of higher education
21 for the research and development of 2 or
22 more exascale computing architectures
23 across all applicable organizations of the
24 Department; and

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

8 “(B) SELECTION OF PARTNERS.—The Sec-
9 retary shall select members for the partnerships
10 with the computing facilities of the Department
11 under subparagraph (A) through a competitive,
12 peer-review process.

13 “(3) CODESIGN AND APPLICATION DEVELOP-
14 MENT.—

15 “(A) IN GENERAL.—The Secretary shall
16 carry out the Program through an integration
17 of applications, computer science, applied math-
18 ematics, and computer hardware architecture
19 using the partnerships established pursuant to
20 paragraph (2) to ensure that, to the maximum
21 extent practicable, 2 or more exascale com-
22 puting machine architectures are capable of
23 solving Department target applications and
24 broader scientific problems.

1 “(B) REPORT.—The Secretary shall sub-
2 mit to Congress a report on how the integration
3 under subparagraph (A) is furthering applica-
4 tion science data and computational workloads
5 across application interests, including national
6 security, material science, physical science, cy-
7 bersecurity, biological science, the Materials Ge-
8 nome and BRAIN Initiatives of the President,
9 advanced manufacturing, and the national elec-
10 tric grid.

11 “(4) PROJECT REVIEW.—

12 “(A) IN GENERAL.—The exascale architec-
13 tures developed pursuant to partnerships estab-
14 lished pursuant to paragraph (2) shall be re-
15 viewed through a project review process.

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

20 “(i) the results of the review con-
21 ducted under subparagraph (A); and

22 “(ii) the coordination and manage-
23 ment of the Program to ensure an inte-
24 grated research program across the De-
25 partment.

1 “(5) ANNUAL REPORTS.—At the time of the
2 budget submission of the Department for each fiscal
3 year, the Secretary, in consultation with the mem-
4 bers of the partnerships established pursuant to
5 paragraph (2), shall submit to Congress a report
6 that describes funding for the Program as a whole
7 by functional element of the Department and critical
8 milestones.”.

9 (d) AUTHORIZATION OF APPROPRIATIONS.—Section
10 4 of the Exascale Computing Act of 2015 (15 U.S.C.
11 5543) is amended—

12 (1) by striking “this Act” and inserting “sec-
13 tion 3(d)”; and

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

16 “(1) \$272,000,000 for fiscal year 2016;

17 “(2) \$340,000,000 for fiscal year 2017; and

18 “(3) \$360,000,000 for fiscal year 2018.”.

19 **TITLE III—SUPPLY**
20 **Subtitle A—Renewables**

21 **PART I—HYDROELECTRIC**

22 **SEC. 3001. HYDROPOWER REGULATORY IMPROVEMENTS.**

23 (a) SENSE OF CONGRESS ON THE USE OF HYDRO-
24 POWER RENEWABLE RESOURCES.—It is the sense of Con-
25 gress that—

1 (1) hydropower is a renewable resource for pur-
2 poses of all Federal programs and is an essential
3 source of energy in the United States; and

4 (2) the United States should increase substan-
5 tially the capacity and generation of clean, renewable
6 hydropower resources that would improve environ-
7 mental quality in the United States.

8 (b) MODIFYING THE DEFINITION OF RENEWABLE
9 ENERGY TO INCLUDE HYDROPOWER.—Section 203 of the
10 Energy Policy Act of 2005 (42 U.S.C. 15852) is amend-
11 ed—

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

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

19 “(2) RENEWABLE ENERGY.—The term ‘renew-
20 able energy’ means energy produced from solar,
21 wind, biomass, landfill gas, ocean (including tidal,
22 wave, current, and thermal), geothermal, municipal
23 solid waste, or hydropower.”.

1 (c) LICENSES FOR CONSTRUCTION.—Section 4(e) of
2 the Federal Power Act (16 U.S.C. 797(e)) is amended,
3 in the first proviso—

4 (1) by striking “deem” and inserting “deter-
5 mine to be”; and

6 (2) by striking “utilization of such reservation”
7 and all that follows through “in consultation with
8 the Federal Energy Regulatory Commission.” and
9 inserting the following: “utilization of such reserva-
10 tion, but only if the conditions pertain to reservation
11 land on which project works are located, have a clear
12 and direct nexus to the presence or operations of the
13 project being licensed, and are submitted in accord-
14 ance with the schedule established under section
15 35:”.

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

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

20 (2) in subsection (b)—

21 (A) by striking “Commission may extend
22 the period of a preliminary permit once for not
23 more than 2 additional years beyond the 3
24 years” and inserting the following: “Commis-
25 sion may—

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

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

6 (C) by adding at the end the following:

7 “(2) after the end of an extension period grant-
8 ed under paragraph (1), issue an additional permit
9 to the permittee if the Commission determines that
10 there are extraordinary circumstances that warrant
11 the issuance of the additional permit.”.

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

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

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

21 “(e) LICENSE TERM ON RELICENSING.—

22 “(1) IN GENERAL.—Except”; and

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

24 “(2) CONSIDERATION.—In determining the
25 term of a license under paragraph (1), the Commis-

1 sion shall consider project-related investments by the
2 licensee over the term of the existing license (includ-
3 ing any terms under annual licenses) that resulted
4 in new development, construction, capacity, effi-
5 ciency improvements, or environmental measures,
6 but which did not result in the extension of the term
7 of the license by the Commission.”.

8 (g) OPERATION OF NAVIGATION FACILITIES.—Sec-
9 tion 18 of the Federal Power Act (16 U.S.C. 811) is
10 amended—

11 (1) in the first sentence, by inserting after the
12 “Secretary of Commerce” the following: “or the Sec-
13 retary of the Interior, as appropriate, but only if the
14 fishways are necessary to mitigate effects of the
15 project on fish populations, have a clear and direct
16 nexus to the presence or operations of the project
17 being licensed, and are submitted in accordance with
18 the schedule established under section 35”; and

19 (2) by striking the second, third, and fourth
20 sentences.

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 “(B) a variety of technologies in multiple
2 test berths at a single location; and

3 “(C) arrays of technology devices; and

4 “(3) serve as information clearinghouses for the
5 marine and hydrokinetic renewable energy industry
6 by collecting and disseminating information on best
7 practices in all areas relating to developing and
8 managing marine and hydrokinetic renewable energy
9 resources and energy systems.”.

10 **SEC. 3016. AUTHORIZATION OF APPROPRIATIONS.**

11 Section 636 of the Energy Independence and Security
12 Act of 2007 (42 U.S.C. 17215) is amended by striking
13 “\$50,000,000 for each of the fiscal years 2008 through
14 2012” and inserting “\$55,000,000 for each of fiscal years
15 2017 and 2018 and \$60,000,000 for each of fiscal years
16 2019 through 2021”.

17 **PART IV—BIOMASS**

18 **SEC. 3017. BIOPOWER.**

19 (a) BIOHEAT AND BIOPOWER INITIATIVE.—

20 (1) DEFINITIONS OF BIOHEAT AND
21 BIOPOWER.—Section 9008(a) of the Farm Security
22 and Rural Investment Act of 2002 (7 U.S.C.
23 8108(a)) is amended—

24 (A) by redesignating paragraphs (2) and

25 (3) as paragraphs (5) and (6), respectively; and

1 (B) by inserting after paragraph (1) the
2 following:

3 “(2) BIOHEAT.—The term ‘bioheat’ means the
4 use of woody biomass to generate heat.

5 “(3) BIOPOWER.—The term ‘biopower’ means
6 the use of woody biomass to generate electricity.

7 “(4) BOARD.—The term ‘Board’ means the
8 Biomass Research and Development Board.”.

9 (2) BIOMASS RESEARCH AND DEVELOPMENT
10 BOARD.—Section 9008(c)(3)(A) of the Farm Secu-
11 rity and Rural Investment Act of 2002 (7 U.S.C.
12 8108(c)(3)(A)) is amended by striking “biofuels and
13 biobased products” and inserting “biofuels, biobased
14 products, biopower, and bioheat projects”.

15 (3) BIOHEAT AND BIOPOWER GRANTS.—Section
16 9008 of the Farm Security and Rural Investment
17 Act of 2002 (7 U.S.C. 8108) is amended—

18 (A) by redesignating subsections (f), (g),
19 and (h) as subsections (g), (h), and (i), respec-
20 tively; and

21 (B) by inserting after subsection (e) the
22 following:

23 “(f) BIOHEAT AND BIOPOWER GRANTS.—

24 “(1) ESTABLISHMENT.—The Secretary of Agri-
25 culture and the Secretary of Energy, in consultation

1 with the Board, shall establish a program under
2 which the Secretary of Agriculture and the Secretary
3 of Energy shall provide grants to relevant projects
4 to support innovation and market development in
5 bioheat and biopower.

6 “(2) APPLICATIONS.—To be eligible to receive a
7 grant under this subsection, the owner or operator
8 of a relevant project shall submit to the Secretary of
9 Agriculture and the Secretary of Energy an applica-
10 tion at such time, in such manner, and containing
11 such information as the Secretary of Agriculture and
12 the Secretary of Energy may require.

13 “(3) ALLOCATION.—Of the amounts appro-
14 priated to carry out this subsection, the Secretary of
15 Agriculture and the Secretary of Energy shall not
16 provide more than—

17 “(A) \$15,000,000 for projects that develop
18 innovative techniques for preprocessing biomass
19 for bioheat and biopower, with the goals of low-
20 ering the costs of—

21 “(i) distributed preprocessing tech-
22 nologies, including technologies designed to
23 promote densification, torrefaction, and the
24 broader commoditization of bioenergy feed-
25 stocks; and

1 “(ii) transportation; and

2 “(B) \$15,000,000 for innovative bioheat
3 and biopower demonstration projects, includ-
4 ing—

5 “(i) district energy projects;

6 “(ii) innovation in transportation; and

7 “(iii) projects addressing the chal-
8 lenges of retrofitting existing coal-fired
9 electricity generation facilities to use bio-
10 mass.

11 “(4) REGIONAL DISTRIBUTION.—In selecting
12 projects to receive grants under this subsection, the
13 Secretary of Agriculture and the Secretary of En-
14 ergy shall ensure, to the maximum extent prac-
15 ticable, diverse geographical distribution among the
16 projects.

17 “(5) COST SHARE.—The Federal share of the
18 cost of a project carried out using a grant under this
19 subsection shall be 50 percent.

20 “(6) DUTIES OF RECIPIENTS.—As a condition
21 of receiving a grant under this subsection, the owner
22 or operator of a project shall—

23 “(A) participate in the applicable working
24 group under paragraph (7);

1 “(B) submit to the Secretary of Agri-
2 culture and the Secretary of Energy a report
3 that includes—

4 “(i) a description of the project and
5 any relevant findings; and

6 “(ii) such other information as the
7 Secretary of Agriculture and the Secretary
8 of Energy determine to be necessary to
9 complete the report of the Secretary under
10 paragraph (8); and

11 “(C) carry out such other activities as the
12 Secretary of Agriculture and the Secretary of
13 Energy determine to be necessary.

14 “(7) WORKING GROUPS.—The Secretary of Ag-
15 riculture and the Secretary of Energy shall establish
16 2 working groups to share best practices and col-
17 laborate in project implementation, of which—

18 “(A) 1 shall be comprised of representa-
19 tives of projects that receive grants under para-
20 graph (3)(A); and

21 “(B) 1 shall be comprised of representa-
22 tives of projects that receive grants under para-
23 graph (3)(B).

24 “(8) REPORTS.—Not later than 5 years after
25 the date of enactment of this Act, the Secretary of

1 Agriculture and the Secretary of Energy shall sub-
2 mit to Congress a report describing—

3 “(A) each project for which a grant has
4 been provided under this subsection;

5 “(B) any findings as a result of those
6 projects; and

7 “(C) the state of market and technology
8 development, including market barriers and op-
9 portunities.”.

10 (b) LOAN PROGRAMS; STRATEGIC ANALYSIS AND RE-
11 SEARCH.—

12 (1) LOW-INTEREST LOANS.—

13 (A) ESTABLISHMENT.—The Secretary of
14 Agriculture shall establish, within the Rural
15 Development Office, a low-interest loan pro-
16 gram to support construction of residential,
17 commercial or institutional, and industrial
18 bioheat and biopower systems.

19 (B) REQUIREMENTS.—The program under
20 this subsection shall be carried out in accord-
21 ance with such requirements as the Secretary of
22 Agriculture may establish, by regulation, in tak-
23 ing into consideration best practices.

24 (C) AUTHORIZATION OF APPROPRIA-
25 TIONS.—There is authorized to be appropriated

1 to the Secretary of Agriculture to carry out this
2 subsection \$50,000,000.

3 (2) ENERGY EFFICIENCY AND CONSERVATION
4 LOAN PROGRAM.—In addition to loans under para-
5 graph (1), bioheat residential, commercial or institu-
6 tional, and industrial wood energy systems shall be
7 eligible to receive loans under the energy efficiency
8 and conservation loan program of the Department of
9 Agriculture under section 2 of the Rural Electrifica-
10 tion Act of 1936 (7 U.S.C. 902).

11 **Subtitle B—Oil and Gas**

12 **SEC. 3101. AMENDMENTS TO THE METHANE HYDRATE RE-** 13 **SEARCH AND DEVELOPMENT ACT OF 2000.**

14 (a) METHANE HYDRATE RESEARCH AND DEVELOP-
15 MENT PROGRAM.—

16 (1) IN GENERAL.—Section 4 of the Methane
17 Hydrate Research and Development Act of 2000 (30
18 U.S.C. 2003) is amended by striking subsection (b)
19 and inserting the following:

20 “(b) GRANTS, CONTRACTS, COOPERATIVE AGREE-
21 MENTS, INTERAGENCY FUNDS TRANSFER AGREEMENTS,
22 AND FIELD WORK PROPOSALS.—

23 “(1) ASSISTANCE AND COORDINATION.—In car-
24 rying out the program of methane hydrate research
25 and development authorized by this section, the Sec-

1 retary may award grants to, or enter into contracts
2 or cooperative agreements with, institutions—

3 “(A) to conduct basic and applied re-
4 search—

5 “(i) to identify, explore, assess, and
6 develop methane hydrate as a commercially
7 viable source of energy; and

8 “(ii) to identify the environmental,
9 health, and safety impacts of methane hy-
10 drate development;

11 “(B) to identify and characterize methane
12 hydrate resources using remote sensing and
13 seismic data, including the characterization of
14 hydrate concentrations in marine reservoirs in
15 the Gulf of Mexico or the Atlantic Ocean Basin
16 by the date that is 4 years after the date of en-
17 actment of the Energy Policy Modernization
18 Act of 2015;

19 “(C) to develop technologies required for
20 efficient and environmentally sound develop-
21 ment of methane hydrate resources;

22 “(D) to conduct basic and applied research
23 to assess and mitigate the environmental im-
24 pact of hydrate degassing (including natural

1 degassing and degassing associated with com-
2 mercial development);

3 “(E) to develop technologies to reduce the
4 risks of drilling through methane hydrates;

5 “(F) to conduct exploratory drilling, well
6 testing, and production testing operations on
7 permafrost and nonpermafrost gas hydrates in
8 support of the activities authorized by this
9 paragraph, including—

10 “(i) drilling of a test well and per-
11 forming a long-term hydrate production
12 test on land in the United States Arctic re-
13 gion by the date that is 4 years after the
14 date of enactment of the Energy Policy
15 Modernization Act of 2015;

16 “(ii) drilling of a test well and per-
17 forming a long-term hydrate production
18 test in a marine environment by the date
19 that is 10 years after the date of enact-
20 ment of the Energy Policy Modernization
21 Act of 2015; and

22 “(iii) drilling a full-scale production
23 test well at a location to be determined by
24 the Secretary; or

1 “(G) to expand education and training pro-
2 grams in methane hydrate resource research
3 and resource development through fellowships
4 or other means for graduate education and
5 training.

6 “(2) ENVIRONMENTAL MONITORING AND RE-
7 SEARCH.—The Secretary shall conduct a long-term
8 environmental monitoring and research program to
9 study the effects of production from methane hy-
10 drate reservoirs.

11 “(3) COMPETITIVE PEER REVIEW.—Funds
12 made available under paragraphs (1) and (2) shall
13 be made available based on a competitive process
14 using external scientific peer review of proposed re-
15 search.”.

16 (2) CONFORMING AMENDMENT.—Section 4(e)
17 of the Methane Hydrate Research and Development
18 Act of 2000 (30 U.S.C. 2003(e)) is amended in the
19 matter preceding paragraph (1) by striking “sub-
20 section (b)(1)” and inserting “paragraphs (1) and
21 (2) of subsection (b)”.

22 (b) AUTHORIZATION OF APPROPRIATIONS.—The
23 Methane Hydrate Research and Development Act of 2000
24 is amended by striking section 7 (30 U.S.C. 2006) and
25 inserting the following:

1 **“SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

2 “There is authorized to be appropriated to carry out
3 this Act \$35,000,000 for each of fiscal years 2017 through
4 2021.”.

5 **Subtitle C—Helium**

6 **SEC. 3201. RIGHTS TO HELIUM.**

7 (a) REPEAL OF RESERVATION OF HELIUM
8 RIGHTS.—The first section of the Mineral Leasing Act
9 (30 U.S.C. 181) is amended by striking the flush text that
10 follows the last undesignated subsection.

11 (b) RIGHTS TO HELIUM UNDER LEASES UNDER
12 MINERAL LEASING ACT FOR ACQUIRED LANDS.—The
13 Mineral Leasing Act for Acquired Lands (30 U.S.C. 351
14 et seq.) is amended by adding at the end the following:

15 **“SEC. 12. RIGHTS TO HELIUM.**

16 “Any lease issued under this Act that authorizes ex-
17 ploration for, or development or production of, gas shall
18 be considered to grant to the lessee a right of first refusal
19 to engage in exploration for, and development and produc-
20 tion of, helium on land that is subject to the lease in ac-
21 cordance with regulations issued by the Secretary.”.

22 **Subtitle D—Critical Minerals**

23 **SEC. 3301. DEFINITIONS.**

24 In this subtitle:

25 (1) CRITICAL MINERAL.—

1 (A) IN GENERAL.—The term “critical min-
2 eral” means any mineral, element, substance, or
3 material designated as critical pursuant to sec-
4 tion 3303.

5 (B) EXCLUSIONS.—The term “critical
6 mineral” does not include—

7 (i) fuel minerals, including oil, natural
8 gas, or any other fossil fuels; or

9 (ii) water, ice, or snow.

10 (2) CRITICAL MINERAL MANUFACTURING.—The
11 term “critical mineral manufacturing” means—

12 (A) the production, processing, refining,
13 alloying, separation, concentration, magnetic
14 sintering, melting, or beneficiation of critical
15 minerals within the United States;

16 (B) the fabrication, assembly, or produc-
17 tion, within the United States, of equipment,
18 components, or other goods with energy tech-
19 nology-, defense-, agriculture-, consumer elec-
20 tronics-, or health care-related applications; or

21 (C) any other value-added, manufacturing-
22 related use of critical minerals undertaken with-
23 in the United States.

24 (3) INDIAN TRIBE.—The term “Indian tribe”
25 has the meaning given the term in section 4 of the

1 Indian Self-Determination and Education Assistance
2 Act (25 U.S.C. 450b).

3 (4) STATE.—The term “State” means—

4 (A) a State;

5 (B) the District of Columbia;

6 (C) the Commonwealth of Puerto Rico;

7 (D) Guam;

8 (E) American Samoa;

9 (F) the Commonwealth of the Northern
10 Mariana Islands; and

11 (G) the United States Virgin Islands.

12 **SEC. 3302. POLICY.**

13 (a) IN GENERAL.—Section 3 of the National Mate-
14 rials and Minerals Policy, Research and Development Act
15 of 1980 (30 U.S.C. 1602) is amended in the second sen-
16 tence—

17 (1) by striking paragraph (3) and inserting the
18 following:

19 “(3) establish an analytical and forecasting ca-
20 pability for identifying critical mineral demand, sup-
21 ply, and other factors to allow informed actions to
22 be taken to avoid supply shortages, mitigate price
23 volatility, and prepare for demand growth and other
24 market shifts;”;

1 (2) in paragraph (6), by striking “and” after
2 the semicolon at the end; and

3 (3) by striking paragraph (7) and inserting the
4 following:

5 “(7) encourage Federal agencies to facilitate
6 the availability, development, and environmentally
7 responsible production of domestic resources to meet
8 national material or critical mineral needs;

9 “(8) avoid duplication of effort, prevent unneces-
10 sary paperwork, and minimize delays in the ad-
11 ministration of applicable laws (including regula-
12 tions) and the issuance of permits and authoriza-
13 tions necessary to explore for, develop, and produce
14 critical minerals and to construct critical mineral
15 manufacturing facilities in accordance with applica-
16 ble environmental and land management laws;

17 “(9) strengthen educational and research capa-
18 bilities and workforce training;

19 “(10) bolster international cooperation through
20 technology transfer, information sharing, and other
21 means;

22 “(11) promote the efficient production, use, and
23 recycling of critical minerals;

24 “(12) develop alternatives to critical minerals;
25 and

1 “(13) establish contingencies for the production
2 of, or access to, critical minerals for which viable
3 sources do not exist within the United States.”.

4 (b) CONFORMING AMENDMENT.—Section 2(b) of the
5 National Materials and Minerals Policy, Research and De-
6 velopment Act of 1980 (30 U.S.C. 1601(b)) is amended
7 by striking “(b) As used in this Act, the term” and insert-
8 ing the following:

9 “(b) DEFINITIONS.—In this Act:

10 “(1) CRITICAL MINERAL.—The term ‘critical
11 mineral’ means any mineral or element designated
12 as a critical mineral pursuant to section 3303 of the
13 Energy Policy Modernization Act of 2015.

14 “(2) MATERIALS.—The term”.

15 **SEC. 3303. CRITICAL MINERAL DESIGNATIONS.**

16 (a) DRAFT METHODOLOGY.—Not later than 90 days
17 after the date of enactment of this Act, the Secretary of
18 the Interior (acting through the Director of the United
19 States Geological Survey) (referred to in this subtitle as
20 the “Secretary”), in consultation with relevant Federal
21 agencies and entities, shall publish in the Federal Register
22 for public comment a draft methodology for determining
23 which minerals qualify as critical minerals based on an
24 assessment of whether the minerals are—

1 (1) subject to potential supply restrictions (in-
2 cluding restrictions associated with foreign political
3 risk, abrupt demand growth, military conflict, violent
4 unrest, anti-competitive or protectionist behaviors,
5 and other risks throughout the supply chain); and

6 (2) important in use (including energy tech-
7 nology-, defense-, currency-, agriculture-, consumer
8 electronics-, and health care-related applications).

9 (b) AVAILABILITY OF DATA.—If available data is in-
10 sufficient to provide a quantitative basis for the method-
11 ology developed under this section, qualitative evidence
12 may be used to the extent necessary.

13 (c) FINAL METHODOLOGY.—After reviewing public
14 comments on the draft methodology under subsection (a)
15 and updating the draft methodology as appropriate, not
16 later than 270 days after the date of enactment of this
17 Act, the Secretary shall publish in the Federal Register
18 a description of the final methodology for determining
19 which minerals qualify as critical minerals.

20 (d) DESIGNATIONS.—

21 (1) IN GENERAL.—For purposes of carrying out
22 this subtitle, the Secretary shall maintain a list of
23 minerals and elements designated as critical, pursu-
24 ant to the methodology under subsection (c).

1 (2) INITIAL LIST.—Subject to paragraph (1),
2 not later than 1 year after the date of enactment of
3 this Act, the Secretary shall publish in the Federal
4 Register an initial list of minerals designated as crit-
5 ical pursuant to the final methodology under sub-
6 section (c) for the purpose of carrying out this sub-
7 title.

8 (3) INCLUSIONS.—Notwithstanding the criteria
9 under subsection (c), the Secretary may designate
10 and include on the list any mineral or element deter-
11 mined by another Federal agency to be strategic and
12 critical to the defense or national security of the
13 United States.

14 (e) SUBSEQUENT REVIEW.—

15 (1) IN GENERAL.—The Secretary shall review
16 the methodology and designations under subsections
17 (c) and (d) at least every 3 years, or more frequently
18 as the Secretary considers to be appropriate.

19 (2) REVISIONS.—Subject to subsection (d)(1),
20 the Secretary may—

21 (A) revise the methodology described in
22 this section;

23 (B) determine that minerals or elements
24 previously determined to be critical minerals are
25 no longer critical minerals; and

1 (C) designate additional minerals or ele-
2 ments as critical minerals.

3 (f) NOTICE.—On finalization of the methodology
4 under subsection (c), the list under subsection (d), or any
5 revision to the methodology or list under subsection (e),
6 the Secretary shall submit to Congress written notice of
7 the action.

8 **SEC. 3304. RESOURCE ASSESSMENT.**

9 (a) IN GENERAL.—Not later than 4 years after the
10 date of enactment of this Act, in consultation with applica-
11 ble State (including geological surveys), local, academic,
12 industry, and other entities, the Secretary shall complete
13 a comprehensive national assessment of each critical min-
14 eral that—

15 (1) identifies and quantifies known critical min-
16 eral resources, using all available public and private
17 information and datasets, including exploration his-
18 tories; and

19 (2) provides a quantitative and qualitative as-
20 sessment of undiscovered critical mineral resources
21 throughout the United States, including probability
22 estimates of tonnage and grade, using all available
23 public and private information and datasets, includ-
24 ing exploration histories.

1 (b) SUPPLEMENTARY INFORMATION.—In carrying
2 out this section, the Secretary may carry out surveys and
3 field work (including drilling, remote sensing, geophysical
4 surveys, geological mapping, and geochemical sampling
5 and analysis) to supplement existing information and
6 datasets available for determining the existence of critical
7 minerals in the United States.

8 (c) TECHNICAL ASSISTANCE.—At the request of the
9 Governor of a State or the head of an Indian tribe, the
10 Secretary may provide technical assistance to State gov-
11 ernments and Indian tribes conducting critical mineral re-
12 source assessments on non-Federal land.

13 (d) PRIORITIZATION.—

14 (1) IN GENERAL.—The Secretary may sequence
15 the completion of resource assessments for each crit-
16 ical mineral such that critical minerals considered to
17 be most critical under the methodology established
18 under section 3303 are completed first.

19 (2) REPORTING.—During the period beginning
20 not later than 1 year after the date of enactment of
21 this Act and ending on the date of completion of all
22 of the assessments required under this section, the
23 Secretary shall submit to Congress on an annual
24 basis an interim report that—

1 (A) identifies the sequence and schedule
2 for completion of the assessments if the Sec-
3 retary sequences the assessments; or

4 (B) describes the progress of the assess-
5 ments if the Secretary does not sequence the
6 assessments.

7 (e) UPDATES.—The Secretary may periodically up-
8 date the assessments conducted under this section based
9 on—

10 (1) the generation of new information or
11 datasets by the Federal Government; or

12 (2) the receipt of new information or datasets
13 from critical mineral producers, State geological sur-
14 veys, academic institutions, trade associations, or
15 other persons.

16 (f) ADDITIONAL SURVEYS.—The Secretary shall com-
17 plete a resource assessment for each additional mineral
18 or element subsequently designated as a critical mineral
19 under section 3303(e)(2) not later than 2 years after the
20 designation of the mineral or element.

21 (g) REPORT.—Not later than 2 years after the date
22 of enactment of this Act, the Secretary shall submit to
23 Congress a report describing the status of geological sur-
24 veying of Federal land for any mineral commodity—

1 (1) for which the United States was dependent
2 on a foreign country for more than 25 percent of the
3 United States supply, as depicted in the report
4 issued by the United States Geological Survey enti-
5 tled “Mineral Commodity Summaries 2015”; but

6 (2) that is not designated as a critical mineral
7 under section 3303.

8 **SEC. 3305. PERMITTING.**

9 (a) **PERFORMANCE IMPROVEMENTS.**—To improve
10 the quality and timeliness of decisions, the Secretary (act-
11 ing through the Director of the Bureau of Land Manage-
12 ment) and the Secretary of Agriculture (acting through
13 the Chief of the Forest Service) (referred to in this section
14 as the “Secretaries”) shall, to the maximum extent prac-
15 ticable, with respect to critical mineral production on Fed-
16 eral land, complete Federal permitting and review proc-
17 esses with maximum efficiency and effectiveness, while
18 supporting vital economic growth, by—

19 (1) establishing and adhering to timelines and
20 schedules for the consideration of, and final deci-
21 sions regarding, applications, operating plans, leases,
22 licenses, permits, and other use authorizations for
23 mineral-related activities on Federal land;

1 (2) establishing clear, quantifiable, and tem-
2 poral permitting performance goals and tracking
3 progress against those goals;

4 (3) engaging in early collaboration among agen-
5 cies, project sponsors, and affected stakeholders—

6 (A) to incorporate and address the inter-
7 ests of those parties; and

8 (B) to minimize delays;

9 (4) ensuring transparency and accountability by
10 using cost-effective information technology to collect
11 and disseminate information regarding individual
12 projects and agency performance;

13 (5) engaging in early and active consultation
14 with State, local, and Indian tribal governments to
15 avoid conflicts or duplication of effort, resolve con-
16 cerns, and allow for concurrent, rather than sequen-
17 tial, reviews;

18 (6) providing demonstrable improvements in the
19 performance of Federal permitting and review proc-
20 esses, including lower costs and more timely deci-
21 sions;

22 (7) expanding and institutionalizing permitting
23 and review process improvements that have proven
24 effective;

1 (8) developing mechanisms to better commu-
2 nicate priorities and resolve disputes among agencies
3 at the national, regional, State, and local levels; and

4 (9) developing other practices, such as
5 preapplication procedures.

6 (b) REVIEW AND REPORT.—Not later than 1 year
7 after the date of enactment of this Act, the Secretaries
8 shall submit to Congress a report that—

9 (1) identifies additional measures (including
10 regulatory and legislative proposals, as appropriate)
11 that would increase the timeliness of permitting ac-
12 tivities for the exploration and development of do-
13 mestic critical minerals;

14 (2) identifies options (including cost recovery
15 paid by permit applicants) for ensuring adequate
16 staffing and training of Federal entities and per-
17 sonnel responsible for the consideration of applica-
18 tions, operating plans, leases, licenses, permits, and
19 other use authorizations for critical mineral-related
20 activities on Federal land;

21 (3) quantifies the amount of time typically re-
22 quired (including range derived from minimum and
23 maximum durations, mean, median, variance, and
24 other statistical measures or representations) to
25 complete each step (including those aspects outside

1 the control of the executive branch, such as judicial
2 review, applicant decisions, or State and local gov-
3 ernment involvement) associated with the develop-
4 ment and processing of applications, operating
5 plans, leases, licenses, permits, and other use au-
6 thorizations for critical mineral-related activities on
7 Federal land, which shall serve as a baseline for the
8 performance metric under subsection (c); and

9 (4) describes actions carried out pursuant to
10 subsection (a).

11 (c) PERFORMANCE METRIC.—Not later than 90 days
12 after the date of submission of the report under subsection
13 (b), the Secretaries, after providing public notice and an
14 opportunity to comment, shall develop and publish a per-
15 formance metric for evaluating the progress made by the
16 executive branch to expedite the permitting of activities
17 that will increase exploration for, and development of, do-
18 mestic critical minerals, while maintaining environmental
19 standards.

20 (d) ANNUAL REPORTS.—Beginning with the first
21 budget submission by the President under section 1105
22 of title 31, United States Code, after publication of the
23 performance metric required under subsection (c), and an-
24 nually thereafter, the Secretaries shall submit to Congress
25 a report that—

1 (1) summarizes the implementation of rec-
2 ommendations, measures, and options identified in
3 paragraphs (1) and (2) of subsection (b);

4 (2) using the performance metric under sub-
5 section (c), describes progress made by the executive
6 branch, as compared to the baseline established pur-
7 suant to subsection (b)(3), on expediting the permit-
8 ting of activities that will increase exploration for,
9 and development of, domestic critical minerals; and

10 (3) compares the United States to other coun-
11 tries in terms of permitting efficiency and any other
12 criteria relevant to the globally competitive critical
13 minerals industry.

14 (e) INDIVIDUAL PROJECTS.—Using data from the
15 Secretaries generated under subsection (d), the Director
16 of the Office of Management and Budget shall prioritize
17 inclusion of individual critical mineral projects on the
18 website operated by the Office of Management and Budget
19 in accordance with section 1122 of title 31, United States
20 Code.

21 (f) REPORT OF SMALL BUSINESS ADMINISTRA-
22 TION.—Not later than 1 year and 300 days after the date
23 of enactment of this Act, the Administrator of the Small
24 Business Administration shall submit to the applicable

1 committees of Congress a report that assesses the per-
2 formance of Federal agencies with respect to—

3 (1) complying with chapter 6 of title 5, United
4 States Code (commonly known as the “Regulatory
5 Flexibility Act”), in promulgating regulations appli-
6 cable to the critical minerals industry; and

7 (2) performing an analysis of regulations appli-
8 cable to the critical minerals industry that may be
9 outmoded, inefficient, duplicative, or excessively bur-
10 densome.

11 **SEC. 3306. FEDERAL REGISTER PROCESS.**

12 (a) DEPARTMENTAL REVIEW.—Absent any extraor-
13 dinary circumstance, and except as otherwise required by
14 law, the Secretary and the Secretary of Agriculture shall
15 ensure that each Federal Register notice described in sub-
16 section (b) shall be—

17 (1) subject to any required reviews within the
18 Department of the Interior or the Department of
19 Agriculture; and

20 (2) published in final form in the Federal Reg-
21 ister not later than 45 days after the date of initial
22 preparation of the notice.

23 (b) PREPARATION.—The preparation of Federal Reg-
24 ister notices required by law associated with the issuance
25 of a critical mineral exploration or mine permit shall be

1 delegated to the organizational level within the agency re-
2 sponsible for issuing the critical mineral exploration or
3 mine permit.

4 (c) TRANSMISSION.—All Federal Register notices re-
5 garding official document availability, announcements of
6 meetings, or notices of intent to undertake an action shall
7 be originated in, and transmitted to the Federal Register
8 from, the office in which, as applicable—

9 (1) the documents or meetings are held; or

10 (2) the activity is initiated.

11 **SEC. 3307. RECYCLING, EFFICIENCY, AND ALTERNATIVES.**

12 (a) ESTABLISHMENT.—The Secretary of Energy (re-
13 ferred to in this section as the “Secretary”) shall conduct
14 a program of research and development—

15 (1) to promote the efficient production, use,
16 and recycling of critical minerals throughout the
17 supply chain; and

18 (2) to develop alternatives to critical minerals
19 that do not occur in significant abundance in the
20 United States.

21 (b) COOPERATION.—In carrying out the program, the
22 Secretary shall cooperate with appropriate—

23 (1) Federal agencies and National Laboratories;

24 (2) critical mineral producers;

25 (3) critical mineral processors;

- 1 (4) critical mineral manufacturers;
- 2 (5) trade associations;
- 3 (6) academic institutions;
- 4 (7) small businesses; and
- 5 (8) other relevant entities or individuals.

6 (c) ACTIVITIES.—Under the program, the Secretary
7 shall carry out activities that include the identification and
8 development of—

9 (1) advanced critical mineral extraction, pro-
10 duction, separation, alloying, or processing tech-
11 nologies that decrease the energy consumption, envi-
12 ronmental impact, and costs of those activities, in-
13 cluding—

14 (A) efficient water and wastewater man-
15 agement strategies;

16 (B) technologies and management strate-
17 gies to control the environmental impacts of
18 radionuclides in ore tailings; and

19 (C) technologies for separation and proc-
20 essing;

21 (2) technologies or process improvements that
22 minimize the use, or lead to more efficient use, of
23 critical minerals across the full supply chain;

24 (3) technologies, process improvements, or de-
25 sign optimizations that facilitate the recycling of

1 critical minerals, and options for improving the rates
2 of collection of products and scrap containing critical
3 minerals from post-consumer, industrial, or other
4 waste streams;

5 (4) commercial markets, advanced storage
6 methods, energy applications, and other beneficial
7 uses of critical minerals processing byproducts;

8 (5) alternative minerals, metals, and materials,
9 particularly those available in abundance within the
10 United States and not subject to potential supply re-
11 strictions, that lessen the need for critical minerals;
12 and

13 (6) alternative energy technologies or alter-
14 native designs of existing energy technologies, par-
15 ticularly those that use minerals that—

16 (A) occur in abundance in the United
17 States; and

18 (B) are not subject to potential supply re-
19 strictions.

20 (d) REPORTS.—Not later than 2 years after the date
21 of enactment of this Act, and annually thereafter, the Sec-
22 retary shall submit to Congress a report summarizing the
23 activities, findings, and progress of the program.

1 **SEC. 3308. ANALYSIS AND FORECASTING.**

2 (a) CAPABILITIES.—In order to evaluate existing crit-
3 ical mineral policies and inform future actions that may
4 be taken to avoid supply shortages, mitigate price vola-
5 tility, and prepare for demand growth and other market
6 shifts, the Secretary, in consultation with the Energy In-
7 formation Administration, academic institutions, and oth-
8 ers in order to maximize the application of existing com-
9 petencies related to developing and maintaining computer-
10 models and similar analytical tools, shall conduct and pub-
11 lish the results of an annual report that includes—

12 (1) as part of the annually published Mineral
13 Commodity Summaries from the United States Geo-
14 logical Survey, a comprehensive review of critical
15 mineral production, consumption, and recycling pat-
16 terns, including—

17 (A) the quantity of each critical mineral
18 domestically produced during the preceding
19 year;

20 (B) the quantity of each critical mineral
21 domestically consumed during the preceding
22 year;

23 (C) market price data or other price data
24 for each critical mineral;

25 (D) an assessment of—

1 (i) critical mineral requirements to
2 meet the national security, energy, eco-
3 nomic, industrial, technological, and other
4 needs of the United States during the pre-
5 ceding year;

6 (ii) the reliance of the United States
7 on foreign sources to meet those needs
8 during the preceding year; and

9 (iii) the implications of any supply
10 shortages, restrictions, or disruptions dur-
11 ing the preceding year;

12 (E) the quantity of each critical mineral
13 domestically recycled during the preceding year;

14 (F) the market penetration during the pre-
15 ceding year of alternatives to each critical min-
16 eral;

17 (G) a discussion of international trends as-
18 sociated with the discovery, production, con-
19 sumption, use, costs of production, prices, and
20 recycling of each critical mineral as well as the
21 development of alternatives to critical minerals;
22 and

23 (H) such other data, analyses, and evalua-
24 tions as the Secretary finds are necessary to
25 achieve the purposes of this section; and

1 (2) a comprehensive forecast, entitled the “An-
2 nual Critical Minerals Outlook”, of projected critical
3 mineral production, consumption, and recycling pat-
4 terns, including—

5 (A) the quantity of each critical mineral
6 projected to be domestically produced over the
7 subsequent 1-year, 5-year, and 10-year periods;

8 (B) the quantity of each critical mineral
9 projected to be domestically consumed over the
10 subsequent 1-year, 5-year, and 10-year periods;

11 (C) an assessment of—

12 (i) critical mineral requirements to
13 meet projected national security, energy,
14 economic, industrial, technological, and
15 other needs of the United States;

16 (ii) the projected reliance of the
17 United States on foreign sources to meet
18 those needs; and

19 (iii) the projected implications of po-
20 tential supply shortages, restrictions, or
21 disruptions;

22 (D) the quantity of each critical mineral
23 projected to be domestically recycled over the
24 subsequent 1-year, 5-year, and 10-year periods;

1 (E) the market penetration of alternatives
2 to each critical mineral projected to take place
3 over the subsequent 1-year, 5-year, and 10-year
4 periods;

5 (F) a discussion of reasonably foreseeable
6 international trends associated with the dis-
7 covery, production, consumption, use, costs of
8 production, and recycling of each critical min-
9 eral as well as the development of alternatives
10 to critical minerals; and

11 (G) such other projections relating to each
12 critical mineral as the Secretary determines to
13 be necessary to achieve the purposes of this sec-
14 tion.

15 (b) PROPRIETARY INFORMATION.—In preparing a re-
16 port described in subsection (a), the Secretary shall en-
17 sure, consistent with section 5(f) of the National Materials
18 and Minerals Policy, Research and Development Act of
19 1980 (30 U.S.C. 1604(f)), that—

20 (1) no person uses the information and data
21 collected for the report for a purpose other than the
22 development of or reporting of aggregate data in a
23 manner such that the identity of the person or firm
24 who supplied the information is not discernible and

1 is not material to the intended uses of the informa-
2 tion;

3 (2) no person discloses any information or data
4 collected for the report unless the information or
5 data has been transformed into a statistical or ag-
6 gregate form that does not allow the identification of
7 the person or firm who supplied particular informa-
8 tion; and

9 (3) procedures are established to require the
10 withholding of any information or data collected for
11 the report if the Secretary determines that with-
12 holding is necessary to protect proprietary informa-
13 tion, including any trade secrets or other confiden-
14 tial information.

15 **SEC. 3309. EDUCATION AND WORKFORCE.**

16 (a) **WORKFORCE ASSESSMENT.**—Not later than 1
17 year and 300 days after the date of enactment of this Act,
18 the Secretary of Labor (in consultation with the Secretary,
19 the Director of the National Science Foundation, institu-
20 tions of higher education with substantial expertise in
21 mining, and employers in the critical minerals sector) shall
22 submit to Congress an assessment of the domestic avail-
23 ability of technically trained personnel necessary for crit-
24 ical mineral exploration, development, assessment, produc-

1 tion, manufacturing, recycling, analysis, forecasting, edu-
2 cation, and research, including an analysis of—

3 (1) skills that are in the shortest supply as of
4 the date of the assessment;

5 (2) skills that are projected to be in short sup-
6 ply in the future;

7 (3) the demographics of the critical minerals in-
8 dustry and how the demographics will evolve under
9 the influence of factors such as an aging workforce;

10 (4) the effectiveness of training and education
11 programs in addressing skills shortages;

12 (5) opportunities to hire locally for new and ex-
13 isting critical mineral activities;

14 (6) the sufficiency of personnel within relevant
15 areas of the Federal Government for achieving the
16 policies described in section 3 of the National Mate-
17 rials and Minerals Policy, Research and Develop-
18 ment Act of 1980 (30 U.S.C. 1602); and

19 (7) the potential need for new training pro-
20 grams to have a measurable effect on the supply of
21 trained workers in the critical minerals industry.

22 (b) CURRICULUM STUDY.—

23 (1) IN GENERAL.—The Secretary and the Sec-
24 retary of Labor shall jointly enter into an arrange-
25 ment with the National Academy of Sciences and the

1 National Academy of Engineering under which the
2 Academies shall coordinate with the National
3 Science Foundation on conducting a study—

4 (A) to design an interdisciplinary program
5 on critical minerals that will support the critical
6 mineral supply chain and improve the ability of
7 the United States to increase domestic, critical
8 mineral exploration, development, production,
9 manufacturing, and recycling;

10 (B) to address undergraduate and grad-
11 uate education, especially to assist in the devel-
12 opment of graduate level programs of research
13 and instruction that lead to advanced degrees
14 with an emphasis on the critical mineral supply
15 chain or other positions that will increase do-
16 mestic, critical mineral exploration, develop-
17 ment, production, manufacturing, and recycling;

18 (C) to develop guidelines for proposals
19 from institutions of higher education with sub-
20 stantial capabilities in the required disciplines
21 for activities to improve the critical mineral
22 supply chain and advance the capacity of the
23 United States to increase domestic, critical min-
24 eral exploration, research, development, produc-
25 tion, manufacturing, and recycling; and

1 (D) to outline criteria for evaluating per-
2 formance and recommendations for the amount
3 of funding that will be necessary to establish
4 and carry out the program described in sub-
5 section (c).

6 (2) REPORT.—Not later than 2 years after the
7 date of enactment of this Act, the Secretary shall
8 submit to Congress a description of the results of
9 the study required under paragraph (1).

10 (c) PROGRAM.—

11 (1) ESTABLISHMENT.—The Secretary and the
12 Secretary of Labor shall jointly conduct a competi-
13 tive grant program under which institutions of high-
14 er education may apply for and receive 4-year grants
15 for—

16 (A) startup costs for newly designated fac-
17 ulty positions in integrated critical mineral edu-
18 cation, research, innovation, training, and work-
19 force development programs consistent with
20 subsection (b);

21 (B) internships, scholarships, and fellow-
22 ships for students enrolled in programs related
23 to critical minerals;

1 (C) equipment necessary for integrated
2 critical mineral innovation, training, and work-
3 force development programs; and

4 (D) research of critical minerals and their
5 applications, particularly concerning the manu-
6 facture of critical components vital to national
7 security.

8 (2) RENEWAL.—A grant under this subsection
9 shall be renewable for up to 2 additional 3-year
10 terms based on performance criteria outlined under
11 subsection (b)(1)(D).

12 **SEC. 3310. NATIONAL GEOLOGICAL AND GEOPHYSICAL**
13 **DATA PRESERVATION PROGRAM.**

14 Section 351(k) of the Energy Policy Act of 2005 (42
15 U.S.C. 15908(k)) is amended by striking “\$30,000,000
16 for each of fiscal years 2006 through 2010” and inserting
17 “\$5,000,000 for each of fiscal years 2017 through 2026,
18 to remain available until expended”.

19 **SEC. 3311. ADMINISTRATION.**

20 (a) IN GENERAL.—The National Critical Materials
21 Act of 1984 (30 U.S.C. 1801 et seq.) is repealed.

22 (b) CONFORMING AMENDMENT.—Section 3(d) of the
23 National Superconductivity and Competitiveness Act of
24 1988 (15 U.S.C. 5202(d)) is amended in the first sentence
25 by striking “, with the assistance of the National Critical

1 Materials Council as specified in the National Critical Ma-
2 terials Act of 1984 (30 U.S.C. 1801 et seq.),”.

3 (c) SAVINGS CLAUSES.—

4 (1) IN GENERAL.—Nothing in this subtitle or
5 an amendment made by this subtitle modifies any
6 requirement or authority provided by—

7 (A) the matter under the heading “**GEO-**
8 **LOGICAL SURVEY**” of the first section of the
9 Act of March 3, 1879 (43 U.S.C. 31(a)); or

10 (B) the first section of Public Law 87–626
11 (43 U.S.C. 31(b)).

12 (2) POTASH.—Nothing in this subtitle affects
13 any aspect of Secretarial Order 3324, issued by the
14 Secretary of the Interior on December 3, 2012, with
15 respect to potash and oil and gas operators.

16 **SEC. 3312. AUTHORIZATION OF APPROPRIATIONS.**

17 There is authorized to be appropriated to carry out
18 this subtitle \$50,000,000 for each of fiscal years 2017
19 through 2026.

20 **Subtitle E—Coal**

21 **SEC. 3401. FOSSIL ENERGY.**

22 Section 961(a) of the Energy Policy Act of 2005 (42
23 U.S.C. 16291(a)) is amended by adding at the end the
24 following:

1 “(8) Improving the conversion, use, and storage
2 of carbon dioxide produced from fossil fuels.”.

3 **Subtitle F—Nuclear**

4 **SEC. 3501. REPORT ON FUSION AND FISSION REACTOR** 5 **PROTOTYPES.**

6 (a) IN GENERAL.—Not later than 180 days after the
7 date of enactment of this Act, the Secretary, in consulta-
8 tion with the National Laboratories, relevant Federal
9 agencies, and other stakeholders, shall submit to the Com-
10 mittees on Energy and Natural Resources and Environ-
11 ment and Public Works of the Senate and the Committee
12 on Science, Space, and Technology of the House of Rep-
13 resentatives a report assessing the capability of the De-
14 partment to host privately funded fusion and fission reac-
15 tor prototypes up to 20 megawatts thermal output and
16 related demonstration facilities at sites owned by the De-
17 partment.

18 (b) CONTENT.—The report submitted under sub-
19 section (a) shall describe the results of an assessment of—

20 (1) the safety review, oversight capabilities, and
21 potential liability of the Department;

22 (2) potential sites capable of hosting research,
23 development, and demonstration of prototype reac-
24 tors and related facilities for the purpose of reducing
25 technical risk;

1 (3) the existing physical and technical capabili-
2 ties of the Department and the National Labora-
3 tories relevant to research, development, and over-
4 sight;

5 (4) the efficacy of the available contractual
6 mechanisms of the Department, including—

7 (A) cooperative research and development
8 agreements;

9 (B) work for others agreements; and

10 (C) agreements for commercializing tech-
11 nology;

12 (5) potential cost structures relating to physical
13 security, decommissioning, liability, and other long-
14 term project costs;

15 (6) the feasibility of the Department providing
16 technical assistance to developers of privately funded
17 fusion and advanced fission reactors in connection
18 with obtaining a license from the Nuclear Regu-
19 latory Commission for demonstration reactors or
20 commercial reactors of varying size and readiness
21 levels up to 2 gigawatts of thermal output; and

22 (7) other challenges or considerations identified
23 by the Secretary, including issues relating to poten-
24 tial cases of demonstration reactors up to 2
25 gigawatts of thermal output.

1 **Subtitle G—Workforce**
2 **Development**

3 **SEC. 3601. 21ST CENTURY ENERGY WORKFORCE ADVISORY**
4 **BOARD.**

5 (a) ESTABLISHMENT.—The Secretary shall establish
6 the 21st Century Energy Workforce Advisory Board (re-
7 ferred to in this section as the “Board”), to develop a
8 strategy for the support and development of a skilled en-
9 ergy workforce that—

10 (1) meets the current and future industry and
11 labor needs of the energy sector;

12 (2) provides opportunities for students to be-
13 come qualified for placement in traditional energy
14 sector and clean energy sector jobs;

15 (3) aligns apprenticeship programs and work-
16 force development programs to provide industry rec-
17 ognized certifications and credentials;

18 (4) integrates educational standards to develop
19 foundational skills for secondary and postsecondary
20 education;

21 (5) appropriately supports other Federal agen-
22 cies;

23 (6) benefits Department workforce priorities;
24 and

1 (7) supports the design and replication of exist-
2 ing model energy curricula, particularly in new and
3 emerging technologies, that leads to industry-wide
4 credentials.

5 (b) MEMBERSHIP.—

6 (1) IN GENERAL.—The Board shall be com-
7 posed of 9 members, with the initial members of the
8 Board to be appointed by the Secretary not later
9 than 1 year after the date of enactment of this Act.

10 (2) NOMINATIONS.—Not later than 1 year after
11 the date of enactment of this Act, the President’s
12 Council of Advisors on Science and Technology shall
13 nominate for appointment to the Board under para-
14 graph (1) not less than 18 individuals who meet the
15 qualifications described in paragraph (3).

16 (3) QUALIFICATIONS.—Each individual nomi-
17 nated for appointment to the Board under para-
18 graph (1) shall—

19 (A) be eminent in the field of economics or
20 workforce development;

21 (B) have expertise in relevant traditional
22 energy industries and clean energy industries;

23 (C) have expertise in secondary and post-
24 secondary education;

1 (D) have expertise in energy workforce de-
2 velopment or apprentice programs of States and
3 units of local government; or

4 (E) have expertise in relevant organized
5 labor organizations.

6 (4) REPRESENTATION.—The membership of the
7 Board shall be representative of the broad range of
8 the energy industry, labor organizations, workforce
9 development, education, and economics disciplines
10 related to activities carried out under this section.

11 (5) LIMITATION.—No individual shall be nomi-
12 nated for appointment to the Board who is an em-
13 ployee of an entity applying for a grant under sec-
14 tion 3602.

15 (c) ADVISORY BOARD REVIEW AND RECOMMENDA-
16 TIONS.—

17 (1) DETERMINATION BY BOARD.—In developing
18 the strategy required under subsection (a), the
19 Board shall—

20 (A) determine whether there are opportuni-
21 ties to more effectively and efficiently use the
22 capabilities of the Department in the develop-
23 ment of a skilled energy workforce; and

24 (B) identify ways in which the Department
25 could work with other relevant Federal agen-

1 cies, States, units of local government, edu-
2 cational institutions, labor, and industry in the
3 development of a skilled energy workforce.

4 (2) REQUIRED ANALYSIS.—In developing the
5 strategy required under subsection (a), the Board
6 shall analyze the effectiveness of—

7 (A) existing Department directed support;

8 and

9 (B) developing energy workforce training
10 programs.

11 (3) REPORT.—Not later than 1 year after the
12 date on which the Board is established under this
13 section, and each year thereafter, the Board shall
14 submit to the Secretary and Congress, and make
15 public, a report containing the findings of the Board
16 and model energy curricula with respect to the strat-
17 egy required to be developed under subsection (a).

18 (d) REPORT BY SECRETARY.—Not later than 18
19 months after the date on which the Board is established
20 under this section, the Secretary shall submit to the Com-
21 mittees on Appropriations of Senate and the House of
22 Representatives, the Committee on Energy and Natural
23 Resources of the Senate, and the Committee on Energy
24 and Commerce of the House of Representatives a report
25 that—

1 (1) describes whether the Secretary approves or
2 disapproves the recommendations of the Board
3 under subsection (c)(3); and

4 (2) provides an implementation plan for rec-
5 ommendations approved by the Board under para-
6 graph (1).

7 (e) SUNSET.—The Board established under this sec-
8 tion shall remain in effect until September 30, 2020.

9 **SEC. 3602. ENERGY WORKFORCE PILOT GRANT PROGRAM.**

10 (a) IN GENERAL.—Not later than 1 year after the
11 date of enactment of this Act, the Secretary, in consulta-
12 tion with the Secretary of Labor and the Secretary of
13 Education, shall establish a pilot program to award grants
14 on a competitive basis to eligible entities for job training
15 programs that lead to an industry-recognized credential.

16 (b) ELIGIBILITY.—To be eligible to receive a grant
17 under this section, an entity shall be a public or nonprofit
18 organization or a consortium of public or nonprofit organi-
19 zations that—

20 (1) includes an advisory board of proportional
21 participation, as determined by the Secretary, of rel-
22 evant organizations, including—

23 (A) relevant energy industry organizations,
24 including public and private employers;

25 (B) labor organizations;

1 (C) postsecondary education organizations;

2 and

3 (D) workforce development boards;

4 (2) demonstrates experience in implementing
5 and operating job training and education programs;

6 (3) demonstrates the ability to recruit and sup-
7 port individuals who plan to work in the energy in-
8 dustry in the successful completion of relevant job
9 training and education programs; and

10 (4) provides students who complete the job
11 training and education program with an industry-
12 recognized credential.

13 (c) APPLICATIONS.—Eligible entities desiring a grant
14 under this section shall submit to the Secretary an appli-
15 cation at such time, in such manner, and containing such
16 information as the Secretary may require.

17 (d) PRIORITY.—In selecting eligible entities to receive
18 grants under this section, the Secretary shall prioritize ap-
19 plicants that—

20 (1) house the job training and education pro-
21 grams in—

22 (A) a community college or institution of
23 higher education that includes basic science and
24 math education in the curriculum of the com-

1 community college, institution of higher education;

2 or

3 (B) an apprenticeship program registered

4 with the Department of Labor or a State;

5 (2) work with the Secretary of Defense or vet-

6 erans organizations to transition members of the

7 Armed Forces and veterans to careers in the energy

8 sector;

9 (3) work with Indian tribes (as defined in sec-

10 tion 4 of the Indian Self-Determination and Edu-

11 cation Assistance Act (25 U.S.C. 450b));

12 (4) apply as a State or regional consortia to le-

13 verage best practices already available in the State

14 or region in which the community college or institu-

15 tion of higher education is located;

16 (5) have a State-supported entity included in

17 the consortium applying for the grant;

18 (6) include an apprenticeship program reg-

19 istered with the Department of Labor or a State as

20 part of the job training and education program;

21 (7) provide support services and career coach-

22 ing; or

23 (8) provide introductory energy workforce devel-

24 opment training.

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 **TITLE IV—ACCOUNTABILITY**

14 **Subtitle A—Loan Programs**

15 **SEC. 4001. TERMS AND CONDITIONS FOR INCENTIVES FOR** 16 **INNOVATIVE TECHNOLOGIES.**

17 (a) BORROWER PAYMENT OF SUBSIDY COST.—

18 (1) IN GENERAL.—Section 1702 of the Energy
19 Policy Act of 2005 (42 U.S.C. 16512) is amended
20 by adding at the end the following:

21 “(1) BORROWER PAYMENT OF SUBSIDY COST.—

22 “(1) IN GENERAL.—No guarantee shall be
23 made unless the Secretary has received from the
24 borrower not less than 25 percent of the cost of the
25 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 (b) PROHIBITION ON SUBORDINATION OF DEBT.—
21 Section 1702(d)(3) of the Energy Policy Act of 2005 (42
22 U.S.C. 16512(d)(3)) is amended by striking “is not subor-
23 dinate” and inserting “(including any reorganization, re-
24 structuring, or termination of the obligation) shall not at
25 any time be subordinate”.

1 (c) LOAN PROGRAM TRANSPARENCY.—Section 1703
2 of the Energy Policy Act of 2005 (42 U.S.C. 16513) is
3 amended by adding at the end the following:

4 “(f) LOAN STATUS.—

5 “(1) REQUEST.—If the Secretary does not
6 make a final decision on an application for a loan
7 guarantee under this section by the date that is 270
8 days after receipt of the application by the Sec-
9 retary, on that date and every 90 days thereafter
10 until the final decision is made, the applicant may
11 request that the Secretary provide to the applicant
12 a description of the status of the application.

13 “(2) RESPONSE.—Not later than 10 days after
14 receiving a request from an applicant under para-
15 graph (1), the Secretary shall provide to the appli-
16 cant a response that includes—

17 “(A) a summary of any factors that are
18 delaying a final decision on the application; and

19 “(B) an estimate of when review of the ap-
20 plication will be completed.”.

21 (d) TEMPORARY PROGRAM FOR RAPID DEPLOYMENT
22 OF RENEWABLE ENERGY AND ELECTRIC POWER TRANS-
23 MISSION PROJECTS.—

24 (1) REPEAL.—Section 1705 of the Energy Pol-
25 icy Act of 2005 (42 U.S.C. 16516) is repealed.

1 securitization, or take other steps to reduce fi-
2 nancial barriers to the deployment of existing
3 and new eligible projects.”.

4 (b) TERMS AND CONDITIONS.—Section 1702 of the
5 Energy Policy Act of 2005 (42 U.S.C. 16512) (as amend-
6 ed by section 4001(a)(1)) is amended—

7 (1) in subsection (a), by inserting “or to a
8 State energy financing institution” after “for
9 projects”; and

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

11 “(m) STATE ENERGY FINANCING INSTITUTIONS.—

12 “(1) ELIGIBILITY.—To be eligible for a guar-
13 antee under this title, a State energy financing insti-
14 tution—

15 “(A) shall meet the requirements of section
16 1703(a)(1); and

17 “(B) shall not be required to meet the re-
18 quirements of section 1703(a)(2).

19 “(2) PARTNERSHIPS AUTHORIZED.—In car-
20 rying out a project receiving a loan guarantee under
21 this title, State energy financing institutions may
22 enter into partnerships with private entities, tribal
23 entities, and Alaska Native corporations.”.

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 (42 U.S.C. 17013) is amended by strik-
17 ing 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 (c) SUNSETS.—

9 (1) Subsection (d) of section 136 of the Energy
10 Independence and Security Act of 2007 (42 U.S.C.
11 17013) shall be repealed on January 1, 2023.

12 (2) Section 137 of the Energy Independence of
13 Security Act of 2007 (as added by section 4004)
14 shall be repealed on January 1, 2023.

15 (d) NATIONAL DEBT REPAYMENT.—Any amount ap-
16 propriated for loans pursuant to sections 136(d) of the
17 Energy Independence and Security Act of 2007 (42
18 U.S.C. 17013(d)) or section 137 of that Act (as added
19 by section 4004) that remains unobligated as of the appli-
20 cable date set forth in subsection (c) is rescinded on that
21 date and shall be used by the Secretary of the Treasury
22 to pay down the national debt.

1 **Subtitle B—Energy-Water Nexus**

2 **SEC. 4101. NEXUS OF ENERGY AND WATER FOR SUSTAIN-**
3 **ABILITY.**

4 (a) DEFINITIONS.—In this section:

5 (1) ENERGY-WATER NEXUS.—The term “en-
6 ergy-water nexus” means the links between—

7 (A) the water needed to produce fuels,
8 electricity, and other forms of energy; and

9 (B) the energy needed to transport, re-
10 claim, and treat water and wastewater.

11 (2) INTERAGENCY COORDINATION COM-
12 MITTEE.—The term “Interagency Coordination
13 Committee” means the Committee on the Nexus of
14 Energy and Water for Sustainability (or the
15 “NEWS Committee”) established under subsection
16 (b)(1).

17 (3) NEXUS OF ENERGY AND WATER SUSTAIN-
18 ABILITY OFFICE; NEWS OFFICE.—The term “Nexus
19 of Energy and Water Sustainability Office” or the
20 “NEWS Office” means an office located at the De-
21 partment and managed in cooperation with the De-
22 partment of the Interior pursuant to an agreement
23 between the 2 agencies to carry out leadership and
24 administrative functions for the Interagency Coordi-
25 nation Committee.

1 (4) RD&D ACTIVITIES.—The term “RD&D ac-
2 tivities” means research, development, and dem-
3 onstration activities.

4 (b) INTERAGENCY COORDINATION COMMITTEE.—

5 (1) ESTABLISHMENT.—Not later than 180 days
6 after the date of enactment of this Act, the Sec-
7 retary and the Secretary of the Interior shall estab-
8 lish the joint NEWS Office and Interagency Coordi-
9 nation Committee on the Nexus of Energy and
10 Water for Sustainability (or the “NEWS Com-
11 mittee”) to carry out the duties described in para-
12 graph (3).

13 (2) ADMINISTRATION.—

14 (A) CHAIRS.—The Secretary and the Sec-
15 retary of the Interior shall jointly manage the
16 NEWS Office and serve as co-chairs of the
17 Interagency Coordination Committee.

18 (B) MEMBERSHIP; STAFFING.—Member-
19 ship and staffing shall be determined by the co-
20 chairs.

21 (3) DUTIES.—The Interagency Coordination
22 Committee shall—

23 (A) serve as a forum for developing com-
24 mon Federal goals and plans on energy-water

1 nexus RD&D activities in coordination with the
2 National Science and Technology Council;

3 (B) not later than 1 year after the date of
4 enactment of this Act, and biannually there-
5 after, issue a strategic plan on energy-water
6 nexus RD&D activities priorities and objectives;

7 (C) convene and promote coordination of
8 the activities of Federal departments and agen-
9 cies on energy-water nexus RD&D activities, in-
10 cluding the activities of—

11 (i) the Department;

12 (ii) the Department of the Interior;

13 (iii) the Corps of Engineers;

14 (iv) the Department of Agriculture;

15 (v) the Department of Defense;

16 (vi) the Department of State;

17 (vii) the Environmental Protection
18 Agency;

19 (viii) the Council on Environmental
20 Quality;

21 (ix) the National Institute of Stand-
22 ards and Technology;

23 (x) the National Oceanic and Atmos-
24 pheric Administration;

25 (xi) the National Science Foundation;

1 (xii) the Office of Management and
2 Budget;

3 (xiii) the Office of Science and Tech-
4 nology Policy;

5 (xiv) the National Aeronautics and
6 Space Administration; and

7 (xv) such other Federal departments
8 and agencies as the Interagency Coordina-
9 tion Committee considers appropriate;

10 (D)(i) coordinate and develop capabilities
11 and methodologies for data collection, manage-
12 ment, and dissemination of information related
13 to energy-water nexus RD&D activities from
14 and to other Federal departments and agencies;
15 and

16 (ii) promote information exchange between
17 Federal departments and agencies—

18 (I) to identify and document Federal
19 and non-Federal programs and funding op-
20 portunities that support basic and applied
21 research, development, and demonstration
22 proposals to advance energy-water nexus
23 related science and technologies;

24 (II) to leverage existing programs by
25 encouraging joint solicitations, block

1 grants, and matching programs with non-
2 Federal entities; and

3 (III) to identify opportunities for do-
4 mestic and international public-private
5 partnerships, innovative financing mecha-
6 nisms, information and data exchange; and

7 (E) promote the integration of energy-
8 water nexus considerations into existing Federal
9 water, energy, and other natural resource, in-
10 frastructure, and science programs at the na-
11 tional and regional levels and with programs
12 administered in partnership with non-Federal
13 entities.

14 (4) NO REGULATION.—Nothing in this sub-
15 section grants to the Interagency Coordination Com-
16 mittee the authority to promulgate regulations or set
17 standards.

18 (5) REVIEW; REPORT.—At the end of the 5-
19 year period beginning on the date on which the
20 Interagency Coordination Committee and NEWS Of-
21 fice are established, the NEWS Office shall—

22 (A) review the activities, relevance, and ef-
23 fectiveness of the Interagency Coordination
24 Committee; and

1 (B) submit to the Committee on Energy
2 and Natural Resources of the Senate and the
3 Committees on Science, Space, and Technology,
4 Energy and Commerce, and Natural Resources
5 of the House of Representatives a report that—

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

8 (ii) includes a recommendation on
9 whether the Interagency Coordination
10 Committee should continue.

11 (c) CROSSCUT BUDGET.—Not later than 30 days
12 after the President submits the budget of the United
13 States Government under section 1105 of title 31, United
14 States Code, the co-chairs of the Interagency Coordination
15 Committee (acting through the NEWS Office) shall sub-
16 mit to the Committee on Energy and Natural Resources
17 of the Senate and the Committees on Science, Space, and
18 Technology, Energy and Commerce, and Natural Re-
19 sources of the House of Representatives, an interagency
20 budget crosscut report that displays at the program-,
21 project-, and activity-level for each of the Federal agencies
22 that carry out or support (including through grants, con-
23 tracts, interagency and intraagency transfers, and
24 multiyear and no-year funds) basic and applied RD&D ac-

1 tivities to advance the energy-water nexus related science
2 and technologies—

3 (1) the budget proposed in the budget request
4 of the President for the upcoming fiscal year;

5 (2) expenditures and obligations for the prior
6 fiscal year; and

7 (3) estimated expenditures and obligations for
8 the current fiscal year.

9 **SEC. 4102. SMART ENERGY AND WATER EFFICIENCY PILOT**
10 **PROGRAM.**

11 Subtitle A of title IX of the Energy Policy Act of
12 2005 (42 U.S.C. 16191 et seq.) is amended by adding at
13 the end the following:

14 **“SEC. 918. SMART ENERGY AND WATER EFFICIENCY PILOT**
15 **PROGRAM.**

16 “(a) DEFINITIONS.—In this section:

17 “(1) ELIGIBLE ENTITY.—The term ‘eligible en-
18 tity’ means—

19 “(A) a utility;

20 “(B) a municipality;

21 “(C) a water district;

22 “(D) an Indian tribe or Alaska Native vil-
23 lage; and

24 “(E) any other authority that provides
25 water, wastewater, or water reuse services.

1 “(2) SMART ENERGY AND WATER EFFICIENCY
2 PILOT PROGRAM.—The term ‘smart energy and
3 water efficiency pilot program’ or ‘pilot program’
4 means the pilot program established under sub-
5 section (b).

6 “(b) SMART ENERGY AND WATER EFFICIENCY
7 PILOT PROGRAM.—

8 “(1) IN GENERAL.—The Secretary shall estab-
9 lish and carry out a smart energy and water effi-
10 ciency pilot program in accordance with this section.

11 “(2) PURPOSE.—The purpose of the smart en-
12 ergy and water efficiency pilot program is to award
13 grants to eligible entities to demonstrate unique, ad-
14 vanced, or innovative technology-based solutions that
15 will—

16 “(A) increase the energy efficiency of
17 water, wastewater, and water reuse systems;

18 “(B) improve energy efficiency of water,
19 wastewater, and water reuse systems to help
20 communities across the United States make
21 measurable progress in conserving water, saving
22 energy, and reducing costs;

23 “(C) support the implementation of inno-
24 vative and unique processes and the installation

1 of established advanced automated systems that
2 provide real-time data on energy and water; and

3 “(D) improve energy-water conservation
4 and quality and predictive maintenance through
5 technologies that utilize internet connected
6 technologies, including sensors, intelligent gate-
7 ways, and security embedded in hardware.

8 “(3) PROJECT SELECTION.—

9 “(A) IN GENERAL.—The Secretary shall
10 make competitive, merit-reviewed grants under
11 the pilot program to not less than 3, but not
12 more than 5, eligible entities.

13 “(B) SELECTION CRITERIA.—In selecting
14 an eligible entity to receive a grant under the
15 pilot program, the Secretary shall consider—

16 “(i) energy and cost savings;

17 “(ii) the uniqueness, commercial via-
18 bility, and reliability of the technology to
19 be used;

20 “(iii) the degree to which the project
21 integrates next-generation sensors soft-
22 ware, analytics, and management tools;

23 “(iv) the anticipated cost-effectiveness
24 of the pilot project through measurable en-

1 ergy efficiency savings, water savings or
2 reuse, and infrastructure costs averted;

3 “(v) whether the technology can be
4 deployed in a variety of geographic regions
5 and the degree to which the technology can
6 be implemented in a wide range of applica-
7 tions ranging in scale from small towns to
8 large cities, including tribal communities;

9 “(vi) whether the technology has been
10 successfully deployed elsewhere;

11 “(vii) whether the technology was
12 sourced from a manufacturer based in the
13 United States; and

14 “(viii) whether the project will be
15 completed in 5 years or less.

16 “(C) APPLICATIONS.—

17 “(i) IN GENERAL.—Subject to clause
18 (ii), an eligible entity seeking a grant
19 under the pilot program shall submit to
20 the Secretary an application at such time,
21 in such manner, and containing such infor-
22 mation as the Secretary determines to be
23 necessary.

1 “(ii) CONTENTS.—An application
2 under clause (i) shall, at a minimum, in-
3 clude—

4 “(I) a description of the project;

5 “(II) a description of the tech-
6 nology to be used in the project;

7 “(III) the anticipated results, in-
8 cluding energy and water savings, of
9 the project;

10 “(IV) a comprehensive budget for
11 the project;

12 “(V) the names of the project
13 lead organization and any partners;

14 “(VI) the number of users to be
15 served by the project;

16 “(VII) a description of the ways
17 in which the proposal would meet per-
18 formance measures established by the
19 Secretary; and

20 “(VIII) any other information
21 that the Secretary determines to be
22 necessary to complete the review and
23 selection of a grant recipient.

24 “(4) ADMINISTRATION.—

1 “(A) IN GENERAL.—Not later than 300
2 days after the date of enactment of this section,
3 the Secretary shall select grant recipients under
4 this section.

5 “(B) EVALUATIONS.—

6 “(i) ANNUAL EVALUATIONS.—The
7 Secretary shall annually carry out an eval-
8 uation of each project for which a grant is
9 provided under this section that meets per-
10 formance measures and benchmarks devel-
11 oped by the Secretary, consistent with the
12 purposes of this section.

13 “(ii) REQUIREMENTS.—Consistent
14 with the performance measures and bench-
15 marks developed under clause (i), in car-
16 rying out an evaluation under that clause,
17 the Secretary shall —

18 “(I) evaluate the progress and
19 impact of the project; and

20 “(II) assesses the degree to
21 which the project is meeting the goals
22 of the pilot program.

23 “(C) TECHNICAL AND POLICY ASSIST-
24 ANCE.—On the request of a grant recipient, the

1 Secretary shall provide technical and policy as-
2 sistance.

3 “(D) BEST PRACTICES.—The Secretary
4 shall make available to the public through the
5 Internet and other means the Secretary con-
6 siders to be appropriate—

7 “(i) a copy of each evaluation carried
8 out under subparagraph (B); and

9 “(ii) a description of any best prac-
10 tices identified by the Secretary as a result
11 of those evaluations.

12 “(E) REPORT TO CONGRESS.—The Sec-
13 retary shall submit to Congress a report con-
14 taining the results of each evaluation carried
15 out under subparagraph (B).

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

19 **Subtitle C—Innovation**

20 **SEC. 4201. AMERICA COMPETES PROGRAMS.**

21 (a) BASIC RESEARCH.—Section 971(b) of the Energy
22 Policy Act of 2005 (42 U.S.C. 16311(b)) is amended—

23 (1) in paragraph (6), by striking “and” at the
24 end;

1 (2) in paragraph (7), by striking the period at
2 the end and inserting a semicolon; and

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

4 “(8) \$5,271,000,000 for fiscal year 2016;

5 “(9) \$5,485,000,000 for fiscal year 2017;

6 “(10) \$5,704,000,000 for fiscal year 2018;

7 “(11) \$5,932,000,000 for fiscal year 2019; and

8 “(12) \$6,178,000,000 for fiscal year 2020.”.

9 (b) ADVANCED RESEARCH PROJECTS AGENCY-EN-
10 ERGY.—Section 5012 of the America COMPETES Act
11 (42 U.S.C. 16538) is amended—

12 (1) in subsection (a)(3), by striking “subsection
13 (n)(1)” and inserting “subsection (o)(1)”;

14 (2) in subsection (i), by striking paragraph (1)
15 and inserting the following:

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

18 “(A) the activities of ARPA-E are coordi-
19 nated with, and do not duplicate the efforts of,
20 programs and laboratories within the Depart-
21 ment and other relevant research agencies; and

22 “(B) ARPA-E does not provide funding
23 for a project unless the prospective grantee
24 demonstrates sufficient attempts to secure pri-

1 vate financing or indicates that the project is
2 not independently commercially viable.”;

3 (3) by redesignating subsection (n) as sub-
4 section (o);

5 (4) by inserting after subsection (m) the fol-
6 lowing:

7 “(n) PROTECTION OF INFORMATION.—The following
8 types of information collected by the ARPA–E from recipi-
9 ents of financial assistance awards shall be considered
10 commercial and financial information obtained from a per-
11 son and privileged or confidential and not subject to dis-
12 closure under section 552(b)(4) of title 5, United States
13 Code:

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

18 “(2) Investments provided to an awardee from
19 third parties (such as venture capital firms, hedge
20 funds, and private equity firms), including amounts
21 and the percentage of ownership of the awardee pro-
22 vided in return for the investments.

23 “(3) Additional financial support that the
24 awardee—

1 “(A) plans to or has invested into the tech-
2 nology developed under the award; or

3 “(B) is seeking from third parties.

4 “(4) Revenue from the licensing or sale of new
5 products or services resulting from research con-
6 ducted under the award.”; and

7 (5) in subsection (o) (as redesignated by para-
8 graph (3))—

9 (A) in paragraph (2)—

10 (i) in the matter preceding subpara-
11 graph (A), by striking “paragraphs (4)
12 and (5)” and inserting “paragraph (4)”;

13 (ii) in subparagraph (D), by striking
14 “and” at the end;

15 (iii) in subparagraph (E), by striking
16 the period at the end and inserting a semi-
17 colon; and

18 (iv) by adding at the end the fol-
19 lowing:

20 “(F) \$291,200,000 for fiscal year 2016;

21 “(G) \$303,600,000 for fiscal year 2017;

22 “(H) \$314,700,000 for fiscal year 2018;

23 “(I) \$327,300,000 for fiscal year 2019;

24 and

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

5 (2) SMALL BUSINESS CONCERN.—The term
6 “small business concern” has the same meaning as
7 in section 3 of the Small Business Act (15 U.S.C.
8 632).

9 (b) ACTIONS FOR INCREASED ACCESS AT NATIONAL
10 LABORATORIES FOR SMALL BUSINESS CONCERNS.—To
11 promote the technology transfer of innovative energy tech-
12 nologies and enhance the competitiveness of the United
13 States, the Secretary shall take such actions as are appro-
14 priate to facilitate access to the National Laboratories for
15 small business concerns.

16 (c) INFORMATION ON THE DOE WEBSITE RELATING
17 TO NATIONAL LABORATORY PROGRAMS AVAILABLE TO
18 SMALL BUSINESS CONCERNS.—

19 (1) IN GENERAL.—Not later than 180 days
20 after the date of enactment of this Act, the Sec-
21 retary, in coordination with the Directors of the Na-
22 tional Laboratories, shall—

23 (A) publish in a consolidated manner on
24 the website of the Department information re-

1 lating to National Laboratory programs that
2 are available to small business concerns;

3 (B) provide for the information published
4 under subparagraph (A) to be kept up-to-date;
5 and

6 (C) include in the information published
7 under subparagraph (A), information on each
8 available program under which small business
9 concerns are eligible to enter into agreements to
10 work with the National Laboratories.

11 (2) COMPONENTS.—The information published
12 on the Department website under paragraph (1)
13 shall include—

14 (A) a brief description of each agreement
15 available to small business concerns to work
16 with National Laboratories;

17 (B) a step-by-step guide for completing
18 agreements to work with National Laboratories;

19 (C) best practices for working with Na-
20 tional Laboratories;

21 (D) individual National Laboratory
22 websites that provide information specific to
23 technology transfer and working with small
24 business concerns;

1 (E) links to funding opportunity announce-
2 ments, nonfinancial resources, and other pro-
3 grams available to small business concerns; and

4 (F) any other information that the Sec-
5 retary determines to be appropriate.

6 (3) ACCESSIBILITY.—The information published
7 on the Department website under paragraph (1)
8 shall be—

9 (A) readily accessible and easily found on
10 the Internet by the public and members and
11 committees of Congress; and

12 (B) presented in a searchable, machine-
13 readable format.

14 (4) GUIDANCE.—The Secretary shall issue De-
15 partmental guidance to ensure that the information
16 published on the Department website under para-
17 graph (1) is provided in a manner that presents a
18 coherent picture of all National Laboratory pro-
19 grams that are relevant to small business concerns.

20 **Subtitle D—Grid Reliability**

21 **SEC. 4301. BULK-POWER SYSTEM RELIABILITY IMPACT** 22 **STATEMENT.**

23 (a) RELIABILITY REPORTS.—Section 215(g) of the
24 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 **SEC. 4303. ACTIVITIES CARRIED OUT DURING AN AUTHOR-**
2 **IZATION DURING WAR OR EMERGENCY.**

3 Section 202(c) of the Federal Power Act (16 U.S.C.
4 824a(c)) is amended—

5 (1) in the first sentence, by striking “(c) Dur-

6 ing” and inserting the following:

7 “(c) AUTHORIZATION DURING WAR OR EMER-

8 GENCY.—

9 “(1) IN GENERAL.—During”; and

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

11 “(2) NO LIABILITY.—Subject to paragraph (3),

12 any person subject to an order issued under this

13 subsection or under subsection 224(b)(1) shall not

14 be liable for actions carried out in compliance with

15 the order.

16 “(3) EXCEPTIONS.—The waiver of liability

17 under paragraph (2) shall not apply in a case of

18 gross negligence or willful misconduct.”.

19 **Subtitle E—Management**

20 **SEC. 4401. FEDERAL LAND MANAGEMENT.**

21 (a) DEFINITIONS.—In this section:

22 (1) CADASTRE.—The term “cadastre” means

23 an inventory of buildings and other real property

24 (including associated infrastructure such as roads

25 and utility transmission lines and pipelines) located

26 on land administered by the Secretary, which is de-

1 developed through collecting, storing, retrieving, or dis-
2 seminating graphical or digital data and any infor-
3 mation related to the data, including surveys, maps,
4 charts, images, and services.

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

7 (b) CADASTRE OF FEDERAL REAL PROPERTY.—

8 (1) IN GENERAL.—The Secretary is author-
9 ized—

10 (A) to develop and maintain a current and
11 accurate multipurpose cadastre to support Fed-
12 eral land management activities for the Depart-
13 ment of the Interior;

14 (B) to incorporate any related inventories
15 of Federal real property, including any inven-
16 tories prepared under applicable land or re-
17 source management plans; and

18 (C) to enter into discussions with other
19 Federal agencies to make the cadastre available
20 for use by the agency to support agency man-
21 agement activities.

22 (2) COST-SHARING AGREEMENTS.—

23 (A) IN GENERAL.—The Secretary may
24 enter into cost-sharing agreements with other
25 Federal agencies, and with States, Indian

1 tribes, and local governments, to include any
2 non-Federal land in a State in the cadastre.

3 (B) COST SHARE.—The Federal share of
4 any cost agreement described in subparagraph
5 (A) shall not exceed 50 percent of the total cost
6 to a State, Indian tribe, or local government for
7 the development of the cadastre of non-Federal
8 land.

9 (3) CONSOLIDATION AND REPORT.—Not later
10 than 180 days after the date of enactment of this
11 Act, the Secretary shall submit to the Committee on
12 Energy and Natural Resources of the Senate and
13 the Committee on Natural Resources of the House
14 of Representatives a report on the real property in-
15 ventories or any components of any cadastre or re-
16 lated inventories that—

17 (A) exist as of the date of enactment of
18 this Act;

19 (B) are authorized by law or conducted by
20 the Secretary; and

21 (C) are of sufficient accuracy to be in-
22 cluded in the cadastre authorized under para-
23 graph (1).

24 (4) COORDINATION.—In carrying out this sub-
25 section, the Secretary shall—

1 (A) participate (in accordance with section
2 216 of the E–Government Act of 2002 (44
3 U.S.C. 3501 note; Public Law 107–347)) in the
4 establishment of such standards and common
5 protocols as are necessary to ensure the inter-
6 operability of geospatial information pertaining
7 to the cadastre for all users of the information;

8 (B) coordinate with, seek assistance and
9 cooperation of, and provide liaison to the Fed-
10 eral Geographic Data Committee pursuant to
11 Office of Management and Budget Circular A–
12 16 and Executive Order 12906 (43 U.S.C.
13 1457 note; relating to coordinating geographic
14 data acquisition and access: the National Spa-
15 tial Data Infrastructure) for the implementa-
16 tion of and compliance with such standards as
17 may be applicable to the cadastre;

18 (C) make the cadastre interoperable with
19 the Federal Real Property Profile established
20 pursuant to Executive Order 13327 (40 U.S.C.
21 121 note; relating to Federal real property
22 asset management);

23 (D) integrate with and leverage, to the
24 maximum extent practicable, cadastre activities
25 of units of State and local government; and

1 (E) use contracts with the private sector,
2 if practicable, to provide such products and
3 services as are necessary to develop the cadas-
4 tre.

5 (c) **TRANSPARENCY AND PUBLIC ACCESS.**—The Sec-
6 retary shall—

7 (1) make the cadastre required under this sec-
8 tion publically available on the Internet in a graphi-
9 cally geoenabled and searchable format; and

10 (2) in consultation with the Secretary of De-
11 fense and the Secretary of Homeland Security, pre-
12 vent the disclosure of the identity of any buildings
13 or facilities, or information related to the buildings
14 or facilities, if the disclosure would impair or jeop-
15 ardize the national security or homeland defense of
16 the United States.

17 (d) **EFFECT.**—Nothing in this section—

18 (1) creates any substantive or procedural right
19 or benefit;

20 (2) authorizes any new surveying or mapping of
21 Federal real property, except that a Federal agency
22 may conduct a new survey to update the accuracy of
23 the inventory data of the agency before storage on
24 a cadaster; or

25 (3) authorizes—

1 (A) the evaluation of any real property
2 owned by the United States for disposal; or

3 (B) new appraisals or assessments of the
4 value of—

5 (i) real property; or

6 (ii) cultural or archaeological re-
7 sources on any parcel of Federal land or
8 other real property.

9 **SEC. 4402. QUADRENNIAL ENERGY REVIEW.**

10 (a) IN GENERAL.—Section 801 of the Department of
11 Energy Organization Act (42 U.S.C. 7321) is amended
12 to read as follows:

13 **“SEC. 801. QUADRENNIAL ENERGY REVIEW.**

14 “(a) QUADRENNIAL ENERGY REVIEW TASK
15 FORCE.—

16 “(1) ESTABLISHMENT.—The President shall es-
17 tablish a Quadrennial Energy Review Task Force
18 (referred to in this section as the ‘Task Force’) to
19 coordinate the Quadrennial Energy Review.

20 “(2) COCHAIRPERSONS.—The President shall
21 designate appropriate senior Federal Government of-
22 ficials to be cochairpersons of the Task Force.

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

1 “(A) the Department of Energy;
2 “(B) the Department of Commerce;
3 “(C) the Department of Defense;
4 “(D) the Department of State;
5 “(E) the Department of the Interior;
6 “(F) the Department of Agriculture;
7 “(G) the Department of the Treasury;
8 “(H) the Department of Transportation;
9 “(I) the Department of Homeland Security;
10 rity;
11 “(J) the Office of Management and Budget;
12 et;
13 “(K) the National Science Foundation;
14 “(L) the Environmental Protection Agency;
15 cy; and
16 “(M) such other Federal agencies, and entities
17 within the Executive Office of the President,
18 as the President considers to be appropriate.
19 priate.

20 “(b) CONDUCT OF REVIEW.—

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

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

1 “(B) identify the maximum practicable
2 alignment of research programs, incentives, reg-
3 ulations, and partnerships.

4 “(2) ELEMENTS.—A Quadrennial Energy Re-
5 view shall—

6 “(A) establish integrated, governmentwide
7 national energy objectives in the context of eco-
8 nomic, environmental, and security priorities;

9 “(B) recommend coordinated actions
10 across Federal agencies;

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

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

15 “(E) consider reasonable estimates of fu-
16 ture Federal budgetary resources when making
17 recommendations; and

18 “(F) be conducted with substantial input
19 from—

20 “(i) Congress;

21 “(ii) the energy industry;

22 “(iii) academia;

23 “(iv) State, local, and tribal govern-
24 ments;

1 “(v) nongovernmental organizations;

2 and

3 “(vi) the public.

4 “(c) SUBMISSION OF QUADRENNIAL ENERGY RE-
5 VIEW TO CONGRESS.—

6 “(1) IN GENERAL.—The President—

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

10 “(B) more frequently than once every 4
11 years, as the President determines to be appro-
12 priate, may prepare and publish interim reports
13 as part of the Quadrennial Energy Review.

14 “(2) INCLUSIONS.—The reports described in
15 paragraph (1) shall address or consider, as appro-
16 priate—

17 “(A) an integrated view of short-term, in-
18 termediate-term, and long-term objectives for
19 Federal energy policy in the context of eco-
20 nomic, environmental, and security priorities;

21 “(B) potential executive actions (including
22 programmatic, regulatory, and fiscal actions)
23 and resource requirements—

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

1 “(ii) to be coordinated across multiple
2 agencies;

3 “(C) analysis of the existing and prospec-
4 tive roles of parties (including academia, indus-
5 try, consumers, the public, and Federal agen-
6 cies) in achieving the objectives described in
7 subparagraph (A), including—

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

10 “(I) commercial and residential
11 buildings;

12 “(II) the industrial sector;

13 “(III) transportation; and

14 “(IV) electric power;

15 “(ii) requirements for invention, adop-
16 tion, development, and diffusion of energy
17 technologies as they relate to each of the
18 energy use sectors; and

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

21 “(D) assessment of policy options to in-
22 crease domestic energy supplies and energy effi-
23 ciency;

24 “(E) evaluation of national and regional
25 energy storage, transmission, and distribution

1 requirements, including requirements for renew-
2 able energy;

3 “(F) portfolio assessments that describe
4 the optimal deployment of resources, including
5 prioritizing financial resources for energy-rel-
6 evant programs;

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

11 “(H) identification of demonstration
12 projects;

13 “(I) identification of public and private
14 funding needs for various energy technologies,
15 systems, and infrastructure, including consider-
16 ation of public-private partnerships, loans, and
17 loan guarantees;

18 “(J) assessment of global competitors and
19 an identification of programs that can be en-
20 hanced with international cooperation;

21 “(K) identification of policy gaps that need
22 to be filled to accelerate the adoption and diffu-
23 sion of energy technologies, including consider-
24 ation of—

25 “(i) Federal tax policies; and

1 “(ii) the role of Federal agencies as
2 early adopters and purchasers of new en-
3 ergy technologies;

4 “(L) priority listing for implementation of
5 objectives and actions taking into account esti-
6 mated Federal budgetary resources;

7 “(M) analysis of—

8 “(i) points of maximum leverage for
9 policy intervention to achieve outcomes;
10 and

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

14 “(N) recommendations for executive
15 branch organization changes to facilitate the
16 development and implementation of Federal en-
17 ergy policies.

18 “(d) REPORT DEVELOPMENT.—The Secretary of En-
19 ergy shall provide such support for the Quadrennial En-
20 ergy Review with the necessary analytical, financial, and
21 administrative support for the conduct of each Quadren-
22 nial Energy Review required under this section as may
23 be requested by the cochairpersons designated under sub-
24 section (a)(2).

1 “(e) COOPERATION.—The heads of applicable Fed-
2 eral agencies shall cooperate with the Secretary and pro-
3 vide such assistance, information, and resources as the
4 Secretary may require to assist in carrying out this sec-
5 tion.”.

6 (b) TABLE OF CONTENTS AMENDMENT.—The item
7 relating to section 801 in the table of contents of such
8 Act is amended to read as follows:

“Sec. 801. Quadrennial Energy Review.”.

9 (c) ADMINISTRATION.—Nothing in this section or an
10 amendment made by this section supersedes, modifies,
11 amends, or repeals any provision of Federal law not ex-
12 pressly superseded, modified, amended, or repealed by this
13 section.

14 **SEC. 4403. STATE OVERSIGHT OF OIL AND GAS PROGRAMS.**

15 On request of the Governor of a State, the Secretary
16 of the Interior shall establish a program under which the
17 Director of the Bureau of Land Management shall enter
18 into a memorandum of understanding with the State to
19 consider the costs and benefits of consistent rules and
20 processes for the measurement of oil and gas production
21 activities, inspection of meters or other measurement
22 methodologies, and other operational activities, as deter-
23 mined by the Secretary of the Interior.

1 **SEC. 4404. UNDER SECRETARY FOR SCIENCE AND ENERGY.**

2 (a) IN GENERAL.—Section 202(b) of the Department
3 of Energy Organization Act (42 U.S.C. 7132(b)) is
4 amended—

5 (1) in paragraph (1), by striking “for Science”
6 and inserting “for Science and Energy (referred to
7 in this subsection as the ‘Under Secretary’)”;

8 (2) in paragraph (3), in the matter preceding
9 subparagraph (A), by striking “for Science”; and

10 (3) in paragraph (4)—

11 (A) in the matter preceding subparagraph
12 (A), by striking “for Science”;

13 (B) in subparagraph (F), by striking
14 “and” at the end;

15 (C) in subparagraph (G), by striking the
16 period at the end and inserting a semicolon;
17 and

18 (D) by inserting after subparagraph (G)
19 the following:

20 “(H) establish appropriate linkages be-
21 tween offices under the jurisdiction of the
22 Under Secretary; and

23 “(I) perform such functions and duties as
24 the Secretary shall prescribe, consistent with
25 this section.”.

1 (b) CONFORMING AMENDMENT.—Section 641(h)(2)
2 of the United States Energy Storage Competitiveness Act
3 of 2007 (42 U.S.C. 17231(h)(2)) is amended by striking
4 “Under Secretary for Science” and inserting “Under Sec-
5 retary for Science and Energy”.

6 **Subtitle F—Markets**

7 **SEC. 4501. ENHANCED INFORMATION ON CRITICAL ENERGY**
8 **SUPPLIES.**

9 (a) IN GENERAL.—Section 205 of the Department of
10 Energy Organization Act (42 U.S.C. 7135) is amended
11 by adding at the end the following:

12 “(n) COLLECTION OF INFORMATION ON CRITICAL
13 ENERGY SUPPLIES.—

14 “(1) IN GENERAL.—To ensure transparency of
15 information relating to energy infrastructure and
16 product ownership in the United States and improve
17 the ability to evaluate the energy security of the
18 United States, the Administrator, in consultation
19 with other Federal agencies (as necessary), shall—

20 “(A) not later than 120 days after the date
21 of enactment of this subsection, develop and
22 provide notice of a plan to collect, in coopera-
23 tion with the Commodity Futures Trade Com-
24 mission, information identifying all oil inven-
25 tories, and other physical oil assets (including

1 all petroleum-based products and the storage of
2 such products in off-shore tankers), that are
3 owned by the 50 largest traders of oil contracts
4 (including derivative contracts), as determined
5 by the Commodity Futures Trade Commission;
6 and

7 “(B) not later than 90 days after the date
8 on which notice is provided under subparagraph
9 (A), implement the plan described in that sub-
10 paragraph.

11 “(2) INFORMATION.—The plan required under
12 paragraph (1) shall include a description of the plan
13 of the Administrator for collecting company-specific
14 data, including—

15 “(A) volumes of product under ownership;
16 and

17 “(B) storage and transportation capacity
18 (including owned and leased capacity).

19 “(3) PROTECTION OF PROPRIETARY INFORMA-
20 TION.—Section 12(f) of the Federal Energy Admin-
21 istration Act of 1974 (15 U.S.C. 771(f)) shall apply
22 to information collected under this subsection.

23 “(o) COLLECTION OF INFORMATION ON STORAGE
24 CAPACITY FOR OIL AND NATURAL GAS.—

1 “(1) IN GENERAL.—Not later than 90 days
2 after the date of enactment of this subsection, the
3 Administrator of the Energy Information Adminis-
4 tration shall collect information quantifying the com-
5 mercial storage capacity for oil and natural gas in
6 the United States.

7 “(2) UPDATES.—The Administrator shall up-
8 date annually the information required under para-
9 graph (1).

10 “(3) PROTECTION OF PROPRIETARY INFORMA-
11 TION.—Section 12(f) of the Federal Energy Admin-
12 istration Act of 1974 (15 U.S.C. 771(f)) shall apply
13 to information collected under this subsection.

14 “(p) FINANCIAL MARKET ANALYSIS OFFICE.—

15 “(1) ESTABLISHMENT.—There shall be within
16 the Energy Information Administration a Financial
17 Market Analysis Office, headed by a director, who
18 shall report directly to the Administrator of the En-
19 ergy Information Administration.

20 “(2) DUTIES.—The Office shall—

21 “(A) be responsible for analysis of the fi-
22 nancial aspects of energy markets;

23 “(B) review the reports required by section
24 4503(c) of the Energy Policy Modernization Act

1 of 2015 in advance of the submission of the re-
2 ports to Congress; and

3 “(C) not later than 1 year after the date
4 of enactment of this subsection—

5 “(i) make recommendations to the
6 Administrator of the Energy Information
7 Administration that identify and quantify
8 any additional resources that are required
9 to improve the ability of the Energy Infor-
10 mation Administration to more fully inte-
11 grate financial market information into the
12 analyses and forecasts of the Energy Infor-
13 mation Administration, including the role
14 of energy futures contracts, energy com-
15 modity swaps, and derivatives in price for-
16 mation for oil;

17 “(ii) conduct a review of implications
18 of policy changes (including changes in ex-
19 port or import policies) and changes in
20 how crude oil and refined petroleum prod-
21 ucts are transported with respect to price
22 formation of crude oil and refined petro-
23 leum products; and

24 “(iii) notify the Committee on Energy
25 and Natural Resources, and the Committee

1 on Appropriations, of the Senate and the
2 Committee on Energy and Commerce, and
3 the Committee on Appropriations, of the
4 House of Representatives of the rec-
5 ommendations described in clause (i).

6 “(3) ANALYSES.—The Administrator of the En-
7 ergy Information Administration shall take analyses
8 by the Office into account in conducting analyses
9 and forecasting of energy prices.”.

10 (b) CONFORMING AMENDMENT.—Section 645 of the
11 Department of Energy Organization Act (42 U.S.C. 7255)
12 is amended by inserting “(15 U.S.C. 3301 et seq.) and
13 the Natural Gas Act (15 U.S.C. 717 et seq.)” after “Nat-
14 ural Gas Policy Act of 1978”.

15 **SEC. 4502. WORKING GROUP ON ENERGY MARKETS.**

16 (a) ESTABLISHMENT.—There is established a Work-
17 ing Group on Energy Markets (referred to in this section
18 as the “Working Group”).

19 (b) COMPOSITION.—The Working Group shall be
20 composed of—

- 21 (1) the Secretary;
22 (2) the Secretary of the Treasury;
23 (3) the Chairman of the Federal Energy Regu-
24 latory Commission;

1 (4) the Chairman of Federal Trade Commis-
2 sion;

3 (5) the Chairman of the Securities and Ex-
4 change Commission;

5 (6) the Chairman of the Commodity Futures
6 Trading Commission; and

7 (7) the Administrator of the Energy Informa-
8 tion Administration.

9 (c) CHAIRPERSON.—The Secretary shall serve as the
10 Chairperson of the Working Group.

11 (d) COMPENSATION.—A member of the Working
12 Group shall serve without additional compensation for the
13 work of the member of the Working Group.

14 (e) PURPOSE AND FUNCTION.—The Working Group
15 shall—

16 (1) investigate the effect of increased financial
17 investment in energy commodities on energy prices
18 and the energy security of the United States;

19 (2) recommend to the President and Congress
20 laws (including regulations) that may be needed to
21 prevent excessive speculation in energy commodity
22 markets in order to prevent or minimize the adverse
23 impact of excessive speculation on energy prices on
24 consumers and the economy of the United States;
25 and

1 (3) review energy security implications of devel-
2 opments in international energy markets.

3 (f) ADMINISTRATION.—The Secretary shall provide
4 the Working Group with such administrative and support
5 services as may be necessary for the performance of the
6 functions of the Working Group.

7 (g) COOPERATION OF OTHER AGENCIES.—The heads
8 of Executive departments, agencies, and independent in-
9 strumentalities shall, to the extent permitted by law, pro-
10 vide the Working Group with such information as the
11 Working Group requires to carry out this section.

12 (h) CONSULTATION.—The Working Group shall con-
13 sult, as appropriate, with representatives of the various
14 exchanges, clearinghouses, self-regulatory bodies, other
15 major market participants, consumers, and the general
16 public.

17 **SEC. 4503. STUDY OF REGULATORY FRAMEWORK FOR EN-**
18 **ERGY MARKETS.**

19 (a) STUDY.—The Working Group shall conduct a
20 study—

21 (1) to identify the factors that affect the pricing
22 of crude oil and refined petroleum products, includ-
23 ing an examination of the effects of market specula-
24 tion on prices; and

25 (2) to review and assess—

1 (A) existing statutory authorities relating
2 to the oversight and regulation of markets crit-
3 ical to the energy security of the United States;
4 and

5 (B) the need for additional statutory au-
6 thority for the Federal Government to effec-
7 tively oversee and regulate markets critical to
8 the energy security of the United States.

9 (b) ELEMENTS OF STUDY.—The study shall in-
10 clude—

11 (1) an examination of price formation of crude
12 oil and refined petroleum products;

13 (2) an examination of relevant international
14 regulatory regimes; and

15 (3) an examination of the degree to which
16 changes in energy market transparency, liquidity,
17 and structure have influenced or driven abuse, ma-
18 nipulation, excessive speculation, or inefficient price
19 formation.

20 (c) REPORT AND RECOMMENDATIONS.—The Sec-
21 retary shall submit to the Committee on Energy and Nat-
22 ural Resources of the Senate and the Committee on En-
23 ergy and Commerce of the House of Representatives quar-
24 terly progress reports during the conduct of the study

1 under this section, and a final report not later than 1 year
2 after the date of enactment of this Act, that—

3 (1) describes the results of the study; and

4 (2) provides options and the recommendations
5 of the Working Group for appropriate Federal co-
6 ordination of oversight and regulatory actions to en-
7 sure transparency of crude oil and refined petroleum
8 product pricing and the elimination of excessive
9 speculation, including recommendations on data col-
10 lection and analysis to be carried out by the Finan-
11 cial Market Analysis Office established by section
12 205(p) of the Department of Energy Organization
13 Act (42 U.S.C. 7135(p)).

14 **Subtitle G—Affordability**

15 **SEC. 4601. E-PRIZE COMPETITION PILOT PROGRAM.**

16 Section 1008 of the Energy Policy Act of 2005 (42
17 U.S.C. 16396) is amended by adding at the end the fol-
18 lowing:

19 “(g) E-PRIZE COMPETITION PILOT PROGRAM.—

20 “(1) DEFINITIONS.—In this section:

21 “(A) ELIGIBLE ENTITY.—The term ‘eligi-
22 ble entity’ means—

23 “(i) a private sector for-profit or non-
24 profit entity;

25 “(ii) a public-private partnership; or

1 “(iii) a local, municipal, or tribal gov-
2 ernmental entity.

3 “(B) HIGH-COST REGION.—The term
4 ‘high-cost region’ means a region in which the
5 average annual unsubsidized costs of electrical
6 power retail rates or household space heating
7 costs per square foot exceed 150 percent of the
8 national average, as determined by the Sec-
9 retary.

10 “(2) E-PRIZE COMPETITION PILOT PROGRAM.—

11 “(A) IN GENERAL.—The Secretary shall
12 establish an e-prize competition or challenge
13 pilot program to broadly implement sustainable
14 community and regional energy solutions that
15 seek to reduce energy costs through increased
16 efficiency, conservation, and technology innova-
17 tion in high-cost regions.

18 “(B) SELECTION.—In carrying out the
19 pilot program under subparagraph (A), the Sec-
20 retary shall award a prize purse, in amounts to
21 be determined by the Secretary, to each eligible
22 entity selected through 1 or more of the fol-
23 lowing competitions or challenges:

1 “(i) A point solution competition that
2 rewards and spurs the development of solu-
3 tions for a particular, well-defined problem.

4 “(ii) An exposition competition that
5 helps identify and promote a broad range
6 of ideas and practices that may not other-
7 wise attract attention, facilitating further
8 development of the idea or practice by
9 third parties.

10 “(iii) A participation competition that
11 creates value during and after the competi-
12 tion by encouraging contestants to change
13 their behavior or develop new skills that
14 may have beneficial effects during and
15 after the competition.

16 “(iv) Such other types of prizes or
17 challenges as the Secretary, in consultation
18 with relevant heads of Federal agencies,
19 considers appropriate to stimulate innova-
20 tion that has the potential to advance the
21 mission of the applicable Federal agency.

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

1 **Subtitle H—Code Maintenance**

2 **SEC. 4701. REPEAL OF OFF-HIGHWAY MOTOR VEHICLES**
3 **STUDY.**

4 (a) REPEAL.—Part I of title III of the Energy Policy
5 and Conservation Act (42 U.S.C. 6373) is repealed.

6 (b) CONFORMING AMENDMENT.—The table of con-
7 tents for the Energy Policy and Conservation Act (Public
8 Law 94–163; 89 Stat. 871) is amended—

9 (1) by striking the item relating to part I of
10 title III; and

11 (2) by striking the item relating to section 385.

12 **SEC. 4702. REPEAL OF METHANOL STUDY.**

13 Section 400EE of the Energy Policy and Conserva-
14 tion Act (42 U.S.C. 6374d) is amended—

15 (1) by striking subsection (a); and

16 (2) by redesignating subsections (b) and (c) as
17 subsections (a) and (b), respectively.

18 **SEC. 4703. REPEAL OF AUTHORIZATION OF APPROPRIA-**
19 **TIONS PROVISION.**

20 (a) REPEAL.—Section 208 of the Energy Conserva-
21 tion and Production Act (42 U.S.C. 6808) is repealed.

22 (b) CONFORMING AMENDMENT.—The table of con-
23 tents for the Energy Conservation and Production Act is
24 amended by striking the item relating to section 208.

1 **SEC. 4704. REPEAL OF RESIDENTIAL ENERGY EFFICIENCY**
2 **STANDARDS STUDY.**

3 (a) REPEAL.—Section 253 of the National Energy
4 Conservation Policy Act (42 U.S.C. 8232) is repealed.

5 (b) CONFORMING AMENDMENT.—The table of con-
6 tents for the National Energy Conservation Policy Act
7 (Public Law 95–619; 92 Stat. 3206) is amended by strik-
8 ing the item relating to section 253.

9 **SEC. 4705. REPEAL OF WEATHERIZATION STUDY.**

10 (a) REPEAL.—Section 254 of the National Energy
11 Conservation Policy Act (42 U.S.C. 8233) is repealed.

12 (b) CONFORMING AMENDMENT.—The table of con-
13 tents for the National Energy Conservation Policy Act
14 (Public Law 95–619; 92 Stat. 3206) is amended by strik-
15 ing the item relating to section 254.

16 **SEC. 4706. REPEAL OF REPORT TO CONGRESS.**

17 (a) REPEAL.—Section 273 of the National Energy
18 Conservation Policy Act (42 U.S.C. 8236b) is repealed.

19 (b) CONFORMING AMENDMENT.—The table of con-
20 tents for the National Energy Conservation Policy Act
21 (Public Law 95–619; 92 Stat. 3206) is amended by strik-
22 ing the item relating to section 273.

23 **SEC. 4707. REPEAL OF CERTAIN REPORTS.**

24 (a) REPEAL.—Section 548 of the National Energy
25 Conservation Policy Act (42 U.S.C. 8258) is repealed.

1 (b) CONFORMING AMENDMENT.—The table of con-
2 tents for the National Energy Conservation Policy Act
3 (Public Law 95–619; 92 Stat. 3206; 106 Stat. 2851) is
4 amended by striking the item relating to section 548.

5 **SEC. 4708. REPEAL OF REPORT BY GENERAL SERVICES AD-**
6 **MINISTRATION.**

7 (a) REPEAL.—Section 154 of the Energy Policy Act
8 of 1992 (42 U.S.C. 8262a) is repealed.

9 (b) CONFORMING AMENDMENTS.—

10 (1) The table of contents for the Energy Policy
11 Act of 1992 (Public Law 102–486; 106 Stat. 2776)
12 is amended by striking the item relating to section
13 154.

14 (2) Section 159 of the Energy Policy Act of
15 1992 (42 U.S.C. 8262e) is amended by striking sub-
16 section (c).

17 **SEC. 4709. REPEAL OF INTERGOVERNMENTAL ENERGY**
18 **MANAGEMENT PLANNING AND COORDINA-**
19 **TION WORKSHOPS.**

20 (a) REPEAL.—Section 156 of the Energy Policy Act
21 of 1992 (42 U.S.C. 8262b) is repealed.

22 (b) CONFORMING AMENDMENT.—The table of con-
23 tents for the Energy Policy Act of 1992 (Public Law 102–
24 486; 106 Stat. 2776) is amended by striking the item re-
25 lating to section 156.

1 **SEC. 4710. REPEAL OF INSPECTOR GENERAL AUDIT SUR-**
2 **VEY AND PRESIDENT'S COUNCIL ON INTEG-**
3 **RITY AND EFFICIENCY REPORT TO CON-**
4 **GRESS.**

5 Section 160 of the Energy Policy Act of 1992 (42
6 U.S.C. 8262f) is amended by striking subsections (a) and
7 (b).

8 **SEC. 4711. REPEAL OF PROCUREMENT AND IDENTIFICA-**
9 **TION OF ENERGY EFFICIENT PRODUCTS PRO-**
10 **GRAM.**

11 (a) REPEAL.—Section 161 of the Energy Policy Act
12 of 1992 (42 U.S.C. 8262g) 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 161.

17 **SEC. 4712. REPEAL OF NATIONAL ACTION PLAN FOR DE-**
18 **MAND RESPONSE.**

19 (a) REPEAL.—Part 5 of title V of the National En-
20 ergy Conservation Policy Act (42 U.S.C. 8279 et seq.) is
21 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; 121 Stat. 1665) is
25 amended—

1 (1) by striking the item relating to part 5 of
2 title V; and

3 (2) by striking the item relating to section 571.

4 **SEC. 4713. REPEAL OF NATIONAL COAL POLICY STUDY.**

5 (a) REPEAL.—Section 741 of the Powerplant and In-
6 dustrial Fuel Use Act of 1978 (42 U.S.C. 8451) is re-
7 pealed.

8 (b) CONFORMING AMENDMENT.—The table of con-
9 tents for the Powerplant and Industrial Fuel Use Act of
10 1978 (Public Law 95–620; 92 Stat. 3289) is amended by
11 striking the item relating to section 741.

12 **SEC. 4714. REPEAL OF STUDY ON COMPLIANCE PROBLEM**
13 **OF SMALL ELECTRIC UTILITY SYSTEMS.**

14 (a) REPEAL.—Section 744 of the Powerplant and In-
15 dustrial Fuel Use Act of 1978 (42 U.S.C. 8454) is re-
16 pealed.

17 (b) CONFORMING AMENDMENT.—The table of con-
18 tents for the Powerplant and Industrial Fuel Use Act of
19 1978 (Public Law 95–620; 92 Stat. 3289) is amended by
20 striking the item relating to section 744.

1 **SEC. 4715. REPEAL OF STUDY OF SOCIOECONOMIC IM-**
2 **PACTS OF INCREASED COAL PRODUCTION**
3 **AND OTHER ENERGY DEVELOPMENT.**

4 (a) REPEAL.—Section 746 of the Powerplant and In-
5 dustrial Fuel Use Act of 1978 (42 U.S.C. 8456) 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 746.

11 **SEC. 4716. REPEAL OF STUDY OF THE USE OF PETROLEUM**
12 **AND NATURAL GAS IN COMBUSTORS.**

13 (a) REPEAL.—Section 747 of the Powerplant and In-
14 dustrial Fuel Use Act of 1978 (42 U.S.C. 8457) 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 747.

20 **SEC. 4717. REPEAL OF SUBMISSION OF REPORTS.**

21 (a) REPEAL.—Section 807 of the Powerplant and In-
22 dustrial Fuel Use Act of 1978 (42 U.S.C. 8483) is re-
23 pealed.

24 (b) CONFORMING AMENDMENT.—The table of con-
25 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 807.

3 **SEC. 4718. REPEAL OF ELECTRIC UTILITY CONSERVATION**
4 **PLAN.**

5 (a) REPEAL.—Section 808 of the Powerplant and In-
6 dustrial Fuel Use Act of 1978 (42 U.S.C. 8484) is re-
7 pealed.

8 (b) CONFORMING AMENDMENTS.—

9 (1) TABLE OF CONTENTS.—The table of con-
10 tents for the Powerplant and Industrial Fuel Use
11 Act of 1978 (Public Law 95–620; 92 Stat. 3289) is
12 amended by striking the item relating to section
13 808.

14 (2) REPORT ON IMPLEMENTATION.—Section
15 712 of the Powerplant and Industrial Fuel Use Act
16 of 1978 (42 U.S.C. 8422) is amended—

17 (A) by striking “(a) GENERALLY.—”; and

18 (B) by striking subsection (b).

19 **SEC. 4719. EMERGENCY ENERGY CONSERVATION REPEALS.**

20 (a) REPEALS.—

21 (1) Section 201 of the Emergency Energy Con-
22 servation Act of 1979 (42 U.S.C. 8501) is amend-
23 ed—

24 (A) in the section heading, by striking

25 “**FINDINGS AND**”; and

1 (B) by striking subsection (a).

2 (2) Section 221 of the Emergency Energy Con-
3 servation Act of 1979 (42 U.S.C. 8521) is repealed.

4 (3) Section 222 of the Emergency Energy Con-
5 servation Act of 1979 (42 U.S.C. 8522) is repealed.

6 (4) 241 of the Emergency Energy Conservation
7 Act of 1979 (42 U.S.C. 8531) is repealed.

8 (b) CONFORMING AMENDMENT.—The table of con-
9 tents for the Emergency Energy Conservation Act of 1979
10 (Public Law 96–102; 93 Stat. 749) is amended—

11 (1) by striking the item relating to section 201
12 and inserting the following:

“Sec. 201. Congressional purposes.”; and

13 (2) by striking the items relating to sections
14 221, 222, and 241.

15 **SEC. 4720. ENERGY SECURITY ACT REPEALS.**

16 (a) BIOMASS ENERGY DEVELOPMENT PLANS.—Sub-
17 title A of title II of the Energy Security Act (42 U.S.C.
18 8811 et seq.) is repealed.

19 (b) MUNICIPAL WASTE BIOMASS ENERGY.—Subtitle
20 B of title II of the Energy Security Act (42 U.S.C. 8831
21 et seq.) is repealed.

22 (c) USE OF GASOHOL IN FEDERAL MOTOR VEHI-
23 CLES.—Section 271 of the Energy Security Act (42
24 U.S.C. 8871) is repealed.

25 (d) CONFORMING AMENDMENTS.—

1 **SEC. 4721. NUCLEAR SAFETY RESEARCH, DEVELOPMENT,**
2 **AND DEMONSTRATION ACT OF 1980 REPEALS.**

3 Sections 5 and 6 of the Nuclear Safety Research, De-
4 velopment, and Demonstration Act of 1980 (42 U.S.C.
5 9704, 9705) are repealed.

6 **SEC. 4722. ELIMINATION AND CONSOLIDATION OF CERTAIN**
7 **AMERICA COMPETES PROGRAMS.**

8 (a) ELIMINATION OF PROGRAM AUTHORITIES.—

9 (1) NUCLEAR SCIENCE TALENT EXPANSION
10 PROGRAM FOR INSTITUTIONS OF HIGHER EDU-
11 CATION.—Section 5004 of the America COMPETES
12 Act (42 U.S.C. 16532) is repealed.

13 (2) HYDROCARBON SYSTEMS SCIENCE TALENT
14 EXPANSION PROGRAM FOR INSTITUTIONS OF HIGH-
15 ER EDUCATION.—

16 (A) IN GENERAL.—Section 5005(e) of the
17 America COMPETES Act (42 U.S.C.
18 16533(e)) is repealed.

19 (B) CONFORMING AMENDMENTS.—

20 (i) Section 5005(f) of the America
21 COMPETES Act (42 U.S.C. 16533(f)) is
22 amended—

23 (I) by striking paragraph (2);

24 (II) by striking the subsection
25 designation and heading and all that

1 follows through “There are” in para-
2 graph (1) and inserting the following:

3 “(f) AUTHORIZATION OF APPROPRIATIONS.—There
4 are”; and

5 (III) by redesignating subpara-
6 graphs (A) through (C) as paragraphs
7 (1) through (3), respectively, and in-
8 denting appropriately.

9 (ii) Section 5005 of the America
10 COMPETES Act (42 U.S.C. 16533) is
11 amended by redesignating subsection (f) as
12 subsection (e).

13 (3) DISCOVERY SCIENCE AND ENGINEERING IN-
14 NOVATION INSTITUTES.—Section 5008 of the Amer-
15 ica COMPETES Act (42 U.S.C. 16535) is repealed.

16 (4) ELIMINATION OF DUPLICATIVE AUTHORITY
17 FOR EDUCATION PROGRAMS.—Sections 3181 and
18 3185 of the Department of Energy Science Edu-
19 cation Enhancement Act (42 U.S.C. 7381l, 42
20 U.S.C. 7381n) are repealed.

21 (5) MENTORING PROGRAM.—Section 3195 of
22 the Department of Energy Science Education En-
23 hancement Act (42 U.S.C. 7381r) is repealed.

24 (b) REPEAL OF AUTHORIZATIONS.—

1 (1) DEPARTMENT OF ENERGY EARLY CAREER
2 AWARDS FOR SCIENCE, ENGINEERING, AND MATHE-
3 MATICS RESEARCHERS.—Section 5006 of the Amer-
4 ica COMPETES Act (42 U.S.C. 16534) is amended
5 by striking subsection (h).

6 (2) DISTINGUISHED SCIENTIST PROGRAM.—
7 Section 5011 of the America COMPETES Act (42
8 U.S.C. 16537) is amended by striking subsection (j).

9 (3) PROTECTING AMERICA’S COMPETITIVE
10 EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.—
11 Section 5009 of the America COMPETES Act (42
12 U.S.C. 16536) is amended by striking subsection (f).

13 (c) CONSOLIDATION OF DUPLICATIVE PROGRAM AU-
14 THORITIES.—

15 (1) UNIVERSITY NUCLEAR SCIENCE AND ENGI-
16 NEERING SUPPORT.—Section 954 of the Energy Pol-
17 icy Act of 2005 (42 U.S.C. 16274) is amended—

18 (A) in subsection (a), by inserting “nuclear
19 chemistry,” after “nuclear engineering,”; and

20 (B) in subsection (b)—

21 (i) by redesignating paragraphs (3)
22 through (5) as paragraphs (4) through (6),
23 respectively; and

24 (ii) by inserting after paragraph (2)
25 the following:

1 “(3) award grants, not to exceed 5 years in du-
2 ration, to institutions of higher education with exist-
3 ing academic degree programs in nuclear sciences
4 and related fields—

5 “(A) to increase the number of graduates
6 in nuclear science and related fields;

7 “(B) to enhance the teaching and research
8 of advanced nuclear technologies;

9 “(C) to undertake collaboration with indus-
10 try and National Laboratories; and

11 “(D) to bolster or sustain nuclear infra-
12 structure and research facilities of institutions
13 of higher education, such as research and train-
14 ing reactors and laboratories;”.

15 (2) CONSOLIDATION OF DEPARTMENT OF EN-
16 ERGY EARLY CAREER AWARDS FOR SCIENCE, ENGI-
17 NEERING, AND MATHEMATICS RESEARCHERS PRO-
18 GRAM AND DISTINGUISHED SCIENTIST PROGRAM.—

19 (A) FUNDING.—Section 971(c) of the En-
20 ergy Policy Act of 2005 (42 U.S.C. 16311(c))
21 is amended by adding at the end the following:

22 “(8) For the Department of Energy early ca-
23 reer awards for science, engineering, and mathe-
24 matics researchers program under section 5006 of
25 the America COMPETES Act (42 U.S.C. 16534)

1 and the distinguished scientist program under sec-
2 tion 5011 of that Act (42 U.S.C. 16537),
3 \$150,000,000 for each of fiscal years 2016 through
4 2020, of which not more than 65 percent of the
5 amount made available for a fiscal year under this
6 paragraph may be used to carry out section 5006 or
7 5011 of that Act.”.

8 (B) DEPARTMENT OF ENERGY EARLY CA-
9 REER AWARDS FOR SCIENCE, ENGINEERING,
10 AND MATHEMATICS RESEARCHERS.—Section
11 5006 of the America COMPETES Act (42
12 U.S.C. 16534) is amended—

13 (i) in subsection (b)(1)—

14 (I) in the matter preceding sub-
15 paragraph (A)—

16 (aa) by inserting “average”
17 before “amount”; and

18 (bb) by inserting “for each
19 year” before “shall”;

20 (II) in subparagraph (A), by
21 striking “\$80,000” and inserting
22 “\$190,000”; and

23 (III) in subparagraph (B), by
24 striking “\$125,000” and inserting
25 “\$490,000”;

- 1 (ii) in subsection (c)(1)(C)—
- 2 (I) in clause (i)—
- 3 (aa) by striking “assistant
- 4 professor or equivalent title” and
- 5 inserting “ untenured assistant or
- 6 associate professor”; and
- 7 (bb) by inserting “or” after
- 8 the semicolon at the end;
- 9 (II) by striking clause (ii); and
- 10 (III) by redesignating clause (iii)
- 11 as clause (ii);
- 12 (iii) in subsection (d), by striking “on
- 13 a competitive, merit-reviewed basis” and
- 14 inserting “through a competitive process
- 15 using merit-based peer review.”;
- 16 (iv) in subsection (e)—
- 17 (I) by striking “(e)” and all that
- 18 follows through “To be eligible” and
- 19 inserting the following:
- 20 “(e) SELECTION PROCESS AND CRITERIA.—To be eli-
- 21 gible”; and
- 22 (II) by striking paragraph (2);
- 23 and
- 24 (v) in subsection (f)(1), by striking
- 25 “nonprofit, nondegree-granting research

1 organizations” and inserting “National
2 Laboratories”.

3 (3) SCIENCE EDUCATION PROGRAMS.—Section
4 3164 of the Department of Energy Science Edu-
5 cation Enhancement Act (42 U.S.C. 7381a) is
6 amended—

7 (A) in subsection (b)—

8 (i) by striking paragraphs (1) and (2)
9 and inserting the following:

10 “(1) IN GENERAL.—The Director of the Office
11 of Science (referred to in this subsection as the ‘Di-
12 rector’) shall provide for appropriate coordination of
13 science, technology, engineering, and mathematics
14 education programs across all functions of the De-
15 partment.

16 “(2) ADMINISTRATION.—In carrying out para-
17 graph (1), the Director shall—

18 “(A) consult with—

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

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

1 “(B) seek to increase the participation and
2 advancement of women and underrepresented
3 minorities at every level of science, technology,
4 engineering, and mathematics education.”; and

5 (ii) in paragraph (3)—

6 (I) in subparagraph (D), by
7 striking “and” at the end;

8 (II) by redesignating subpara-
9 graph (E) as subparagraph (F); and

10 (III) by inserting after subpara-
11 graph (D) the following:

12 “(E) represent the Department as the
13 principal interagency liaison for all coordination
14 activities under the President for science, tech-
15 nology, engineering, and mathematics education
16 programs; and”;

17 (B) in subsection (d)—

18 (i) by striking “The Secretary” and
19 inserting the following:

20 “(1) IN GENERAL.—The Secretary”; and

21 (ii) by adding at the end the fol-
22 lowing:

23 “(2) REPORT.—Not later than 180 days after
24 the date of enactment of this subparagraph, the Di-
25 rector shall submit a report describing the impact of

1 the activities assisted with the Fund established
2 under paragraph (1) to—

3 “(A) the Committee on Science, Space,
4 and Technology of the House of Representa-
5 tives; and

6 “(B) the Committee on Energy and Nat-
7 ural Resources of the Senate.”.

8 (4) PROTECTING AMERICA’S COMPETITIVE
9 EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.—
10 Section 5009 of the America COMPETES Act (42
11 U.S.C. 16536) is amended—

12 (A) in subsection (c)—

13 (i) in paragraph (1) by striking “, in-
14 volving” and all that follows through “Sec-
15 retary”; and

16 (ii) in paragraph (2), by striking sub-
17 paragraph (B) and inserting the following:

18 “(B) to demonstrate excellent academic
19 performance and understanding of scientific or
20 technical subjects; and”;

21 (B) in subsection (d)(1)(B)(i), by inserting
22 “full or partial” before “graduate tuition”; and

23 (C) in subsection (e), in the matter pre-
24 ceding paragraph (1), by striking “Director of
25 Science, Engineering, and Mathematics Edu-

1 cation” and inserting “Director of the Office of
2 Science.”.

3 **TITLE V—CONSERVATION**
4 **REAUTHORIZATION**

5 **SEC. 5001. NATIONAL PARK SERVICE MAINTENANCE AND**
6 **REVITALIZATION CONSERVATION FUND.**

7 (a) IN GENERAL.—Chapter 1049 of title 54, United
8 States Code, is amended by adding at the end the fol-
9 lowing:

10 **“§ 104908. National Park Service Maintenance and**
11 **Revitalization Conservation Fund**

12 “(a) IN GENERAL.—There is established in the
13 Treasury a fund, to be known as the ‘National Park Serv-
14 ice Critical Maintenance and Revitalization Conservation
15 Fund’ (referred to in this section as the ‘Fund’).

16 “(b) DEPOSITS TO FUND.—Notwithstanding any
17 provision of law providing that the proceeds shall be cred-
18 ited to miscellaneous receipts of the Treasury, for each
19 fiscal year, there shall be deposited in the Fund, from rev-
20 enues due and payable to the United States under section
21 9 of the Outer Continental Shelf Lands Act (43 U.S.C.
22 1338) \$150,000,000.

23 “(c) USE AND AVAILABILITY.—

24 “(1) IN GENERAL.—Amounts deposited in the
25 Fund shall—

1 “(A) be used only for the purposes de-
2 scribed in subsection (d); and

3 “(B) be available for expenditure only after
4 the amounts are appropriated for those pur-
5 poses.

6 “(2) AVAILABILITY.—Any amounts in the Fund
7 not appropriated shall remain available in the Fund
8 until appropriated.

9 “(3) NO LIMITATION.—Appropriations from the
10 Fund pursuant to this section may be made without
11 fiscal year limitation.

12 “(d) NATIONAL PARK SYSTEM CRITICAL DEFERRED
13 MAINTENANCE.—The Secretary shall use amounts appro-
14 priated from the Fund for high-priority deferred mainte-
15 nance needs of the Service that support critical infrastruc-
16 ture and visitor services.

17 “(e) LAND ACQUISITION PROHIBITION.—Amounts in
18 the Fund shall not be used for land acquisition.”.

19 (b) CLERICAL AMENDMENT.—The table of sections
20 for chapter 1049 of title 54, United States Code, is
21 amended by inserting after the item relating to section
22 104907 the following:

 “§104908. National Park Service Maintenance and Revitalization Conservation
 Fund.”.

1 **SEC. 5002. LAND AND WATER CONSERVATION FUND.**

2 (a) REAUTHORIZATION.—Section 200302 of title 54,
3 United States Code, is amended—

4 (1) in subsection (b), in the matter preceding
5 paragraph (1), by striking “During the period end-
6 ing September 30, 2015, there” and inserting
7 “There”; and

8 (2) in subsection (c)(1), by striking “through
9 September 30, 2015”.

10 (b) ALLOCATION OF FUNDS.—Section 200304 of title
11 54, United States Code, is amended—

12 (1) by striking “There” and inserting “(a) In
13 General.—There”; and

14 (2) by striking the second sentence and insert-
15 ing the following:

16 “(b) ALLOCATION.—Of the appropriations from the
17 Fund—

18 “(1) not less than 40 percent shall be used col-
19 lectively for Federal purposes under section 200306;

20 “(2) not less than 40 percent shall be used col-
21 lectively—

22 “(A) to provide financial assistance to
23 States under section 200305;

24 “(B) for the Forest Legacy Program es-
25 tablished under section 7 of the Cooperative

1 Forestry Assistance Act of 1978 (16 U.S.C.
2 2103e);

3 “(C) for cooperative endangered species
4 grants authorized under section 6 of the En-
5 dangered Species Act of 1973 (16 U.S.C.
6 1535); and

7 “(D) for the American Battlefield Protec-
8 tion Program established under chapter 3081;
9 and

10 “(3) not less than 1.5 percent or \$10,000,000,
11 whichever is greater, shall be used for projects that
12 secure recreational public access to Federal public
13 land for hunting, fishing, or other recreational pur-
14 poses.”.

15 (c) CONSERVATION EASEMENTS.—Section 200306 of
16 title 54, United States Code, is amended by adding at the
17 end the following:

18 “(c) CONSERVATION EASEMENTS.—The Secretary
19 and the Secretary of Agriculture shall consider the acqui-
20 sition of conservation easements and other similar inter-
21 ests in land where appropriate and feasible.”.

22 (d) ACQUISITION CONSIDERATIONS.—Section
23 200306 of title 54, United States Code (as amended by
24 subsection (c)), is amended by adding at the end of the
25 following:

1 “(d) ACQUISITION CONSIDERATIONS.—The Secretary
2 and the Secretary of Agriculture shall take into account
3 the following in determining the land or interests in land
4 to acquire:

5 “(1) Management efficiencies.

6 “(2) Management cost savings.

7 “(3) Geographic distribution.

8 “(4) Significance of the acquisition.

9 “(5) Urgency of the acquisition.

10 “(6) Threats to the integrity of the land to be
11 acquired.

12 “(7) The recreational value of the land.”.

13 **SEC. 5003. HISTORIC PRESERVATION FUND.**

14 Section 303102 of title 54, United States Code, is
15 amended by striking “of fiscal years 2012 to 2015” and
16 inserting “fiscal year”.