

# Calendar No. 218

114TH CONGRESS  
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[Report No. 114–138]

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

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IN THE SENATE OF THE UNITED STATES

SEPTEMBER 9, 2015

Ms. MURKOWSKI, from the Committee on Energy and Natural Resources, re-  
ported the following original bill; which was read twice and placed on the  
calendar

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

### Subtitle B—Appliances

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

### Subtitle C—Manufacturing

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

### Subtitle D—Vehicles

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

## PART I—VEHICLE RESEARCH AND DEVELOPMENT

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

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

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

## PART III—ADMINISTRATION

- Sec. 1312. Repeal of existing authorities.

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

## Subtitle E—Computing

- Sec. 2401. Exascale computer research program.

## TITLE III—SUPPLY

## Subtitle A—Renewables

## PART I—HYDROELECTRIC

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

## PART II—GEOTHERMAL

## SUBPART A—GEOTHERMAL ENERGY

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

## SUBPART B—GEOTHERMAL EXPLORATION

- Sec. 3012. Geothermal exploration test projects.

## PART III—MARINE HYDROKINETIC

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

## PART IV—BIOMASS

- Sec. 3017. Bio-power.

## Subtitle B—Oil and Gas

- Sec. 3101. Amendments to the Methane Hydrate Research and Development Act of 2000.
- Sec. 3102. Liquefied natural gas study.
- Sec. 3103. FERC process coordination with respect to regulatory approval of gas projects.
- Sec. 3104. Pilot program.

## Subtitle C—Helium

- Sec. 3201. Rights to helium.

## Subtitle D—Critical Minerals

- Sec. 3301. Definitions.
- Sec. 3302. Policy.

- Sec. 3303. Critical mineral designations.
- Sec. 3304. Resource assessment.
- Sec. 3305. Permitting.
- Sec. 3306. Federal Register process.
- Sec. 3307. Recycling, efficiency, and alternatives.
- Sec. 3308. Analysis and forecasting.
- Sec. 3309. Education and workforce.
- Sec. 3310. National geological and geophysical data preservation program.
- Sec. 3311. Administration.
- Sec. 3312. Authorization of appropriations.

#### Subtitle E—Coal

- Sec. 3401. Fossil energy.
- Sec. 3402. Establishment of coal technology program.

#### Subtitle F—Nuclear

- Sec. 3501. Report on fusion and fission reactor prototypes.
- Sec. 3502. Next generation nuclear plant project.

#### Subtitle G—Workforce Development

- Sec. 3601. 21st Century Energy Workforce Advisory Board.
- Sec. 3602. Energy workforce pilot grant program.

#### Subtitle H—Recycling

- Sec. 3701. Recycled carbon fiber.
- Sec. 3702. Energy generation and regulatory relief study regarding recovery and conversion of nonrecycled mixed plastics.
- Sec. 3703. Eligible projects.

### TITLE IV—ACCOUNTABILITY

#### Subtitle A—Loan Programs

- Sec. 4001. Terms and conditions for incentives for innovative technologies.
- Sec. 4002. State loan eligibility.
- Sec. 4003. GAO Study on fossil loan guarantee incentive program.
- Sec. 4004. Program eligibility for vessels.
- Sec. 4005. Additional reforms.
- Sec. 4006. Department of Energy Indian energy education planning and management assistance program.

#### Subtitle B—Energy-Water Nexus

- Sec. 4101. Nexus of energy and water for sustainability.
- Sec. 4102. Smart energy and water efficiency pilot program.

#### Subtitle C—Innovation

- Sec. 4201. America COMPETES programs.
- Sec. 4202. Inclusion of early stage technology demonstration in authorized technology transfer activities.
- Sec. 4203. Supporting access of small business concerns to National Laboratories.
- Sec. 4204. Microlab technology commercialization.

#### Subtitle D—Grid Reliability

- Sec. 4301. Bulk-power system reliability impact statement.
- Sec. 4302. Report by transmission organizations on diversity of supply.
- 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 report by General Services Administration.
- Sec. 4708. Repeal of intergovernmental energy management planning and coordination workshops.
- Sec. 4709. Repeal of Inspector General audit survey and President's Council on Integrity and Efficiency report to Congress.
- Sec. 4710. Repeal of procurement and identification of energy efficient products program.
- Sec. 4711. Repeal of national action plan for demand response.
- Sec. 4712. Repeal of national coal policy study.
- Sec. 4713. Repeal of study on compliance problem of small electric utility systems.
- Sec. 4714. Repeal of study of socioeconomic impacts of increased coal production and other energy development.
- Sec. 4715. Repeal of study of the use of petroleum and natural gas in combustors.
- Sec. 4716. Repeal of submission of reports.
- Sec. 4717. Repeal of electric utility conservation plan.
- Sec. 4718. Emergency Energy Conservation repeals.
- Sec. 4719. Energy Security Act repeals.
- Sec. 4720. Nuclear Safety Research, Development, and Demonstration Act of 1980 repeals.
- Sec. 4721. Elimination and consolidation of certain America COMPETES programs.
- Sec. 4722. Repeal of state utility regulatory assistance.
- Sec. 4723. Repeal of survey of energy saving potential.

Sec. 4724. Repeal of photovoltaic energy program.  
 Sec. 4725. Repeal of energy auditor training and certification.  
 Sec. 4726. Repeal of authorization of appropriations.

#### 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-  
 20 ested persons, such as the IECC or the code used  
 21 by—





1 exceed the model building energy codes, or achieve  
2 equivalent or greater energy savings; and

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

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

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

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

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

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

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

6           “(D) SPECIFIC YEARS.—

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

16           “(C) building demonstrations;

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

21           “(E) performance-based standards;

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



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

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

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

16           “(d) DETERMINATION.—

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

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

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

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

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

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

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

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

24           “(B) INCORPORATION OF CHANGES.—

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

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

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

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

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

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

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

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

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

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

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

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

8           (b) REQUIREMENTS.—

9           (1) PAYMENTS CONTINGENT ON SAVINGS.—

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

18           (B) PAYMENT METHODOLOGY.—

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

9                   (c) PLAN AND REPORTS.—

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

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

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

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

25                         (A).



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10 (D) to promote—

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

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

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

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

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

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

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

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

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

18 (a) DEFINITIONS.—In this section:

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

22 (2) ENERGY-EFFICIENCY IMPROVEMENT.—

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

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

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

9 (i) repairing, replacing, or installing—

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

13 (II) a window;

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

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

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

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

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

7 (3) NONPROFIT BUILDING.—

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

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

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

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

1 (c) GRANTS.—

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

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

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

14 (A) the energy savings achieved;

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

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

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

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

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



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

3 (B) \$200,000.

4 (5) COST SHARING.—

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

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

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

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

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

19 “(f) UTILITY ENERGY SERVICE CONTRACTS.—

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

16 (b) COORDINATION AND NONDUPLICATION.—

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

4                   “(A) advanced metering infrastructure;

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

8                   “(C) advanced power management tools;

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

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

13          “(4) PERFORMANCE GOALS.—

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

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

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

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

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

8 “(5) REPORTS.—

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

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

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

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

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

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

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

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

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

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

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

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

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

12 (1) in subsection (b)—

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

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

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

19 “(c) STAKEHOLDER INVOLVEMENT.—

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

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

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

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

19                  “(C) follow—

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

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

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

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

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

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

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

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

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

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

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

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

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



1        ticable using certified practitioners employed by the  
2        agency.

3        “(g) OPEN DATA INITIATIVE.—

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

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

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

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

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

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

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

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

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

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

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

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

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

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

24 “(b) DEFINITIONS.—In this section:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10          “(6) regional diversity;

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

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

14          “(e) APPLICATIONS.—

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

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

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

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

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

9           “(2) energy efficiency materials and supplies;

10          “(3) organizational capacity—

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

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

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

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

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

22          “(6) quality control and improvement;

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

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

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

5           “(10) labor and training activities; and

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

8           “(g) MAXIMUM AMOUNT.—

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

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

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

17          “(2) TECHNICAL AND TRAINING ASSISTANCE.—

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

22          “(h) GUIDELINES.—

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



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

3               “(2) ADMINISTRATION.—The guidelines—

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

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

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

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

15                      “(iii) standards—

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

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

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

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

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

1                   “(iv) liability insurance requirements;

2                   and

3                   “(v) recordkeeping requirements,

4                   which shall include reporting to the Office

5                   of Weatherization and Intergovernmental

6                   Programs of the Department of Energy

7                   applicable data on each home retrofitted.

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

9 review and evaluate the performance of any covered orga-

10 nization that receives a grant under this section (which

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

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

13 Nothing in this section or any program carried out using

14 a grant provided under this section supersedes or other-

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

16 State or local law contains a requirement that is more

17 stringent than the applicable requirement of this section.

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

19 to Congress annual reports that provide—

20                   “(1) findings;

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

22                   achieved and actions taken under this section; and

23                   “(3) any recommendations for further action.

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

25 made available to carry out the Weatherization Assistance

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

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

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

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

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

15 “(f) STANDARDS PROGRAM.—

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

7 (a) DEFINITIONS.—In this section:

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

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

14 (A) is flexible and automated;

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

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

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

1 (E) is cybersecure.

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

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

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

11 (b) FEDERAL SMART BUILDING PROGRAM.—

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

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

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

20 (2) SELECTION.—

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

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

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

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

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

17 (A) the Department of the Army;

18 (B) the Department of the Navy;

19 (C) the Department of the Air Force;

20 (D) the Department;

21 (E) the Department of the Interior;

22 (F) the Department of Veterans Affairs;

23 and

24 (G) the General Services Administration.



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

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

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

14                           (i) are most cost-effective; and

15                           (ii) show the most promise for—

16                                   (I) increasing building energy  
17                                   savings;

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

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

22                                   (IV) establishing cybersecurity;

23                                   and

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

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

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

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

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

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

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

3 (i) are most cost-effective; and

4 (ii) show the most promise for—

5 (I) increasing building energy  
6 savings;

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

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

11 (IV) establishing cybersecurity;  
12 and

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

15 (d) LEVERAGING EXISTING PROGRAMS.—

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

24 (2) RESEARCH AND DEVELOPMENT.—

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

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

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

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

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

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

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

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

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

8 (viii) characterization of buildings and  
9 components;

10 (ix) consumer and utility protections;

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

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

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

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

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

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

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

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

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

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

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

19               and

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

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

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

3 (b) FEDERAL BUILDING EFFICIENCY STANDARDS.—

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

22 “(vii) EXCLUSIONS.—

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

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

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

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

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

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

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

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

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



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

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

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

24           “(xi) EFFECTIVE DATE.—

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

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

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

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

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

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

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

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

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

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

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

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

20 (3) in paragraph (2)—

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

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

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

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

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

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

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

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

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

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

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

4 (a) DEFINITIONS.—In this section:

5 (1) ADMINISTRATIVE EXPENSES.—

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

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

16 (i) costs incurred by—

17 (I) the agency; or

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

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

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

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

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

11                   (B) administered by the Secretary.

12          (3) SERVICE.—

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

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

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

24                           (ii) assistance for housing or tuition;

25                           or

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

4 (b) REPORT.—

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

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

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

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

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

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

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

1 (D) estimate—

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

### 3 **Subtitle B—Appliances**

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

6 (a) DEFINITIONS.—In this section:

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

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

13 (A) a power converter; or

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

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

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

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

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

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

4 (4) QUALIFIED EXTENDED PRODUCT SYS-  
5 TEM.—

6 (A) IN GENERAL.—The term “qualified ex-  
7 tended product system” means an extended  
8 product system that—

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

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

16 (B) INCLUSIONS.—The term “qualified ex-  
17 tended product system” includes commercial or  
18 industrial machinery or equipment that—

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

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

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

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

9           (c) QUALIFIED ENTITIES.—

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

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

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

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

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

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

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

7 and

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

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

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

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

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

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

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

13 (d) AUTHORIZED AMOUNT OF REBATE.—

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

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

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

22 (ii) the electronic control; and

23 (B) \$25.

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

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

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

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

10 (a) DEFINITIONS.—In this section:

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

11           “(4) TERMINATION.—

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

23                   “(I) is nationally recognized;

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

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

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

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

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

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

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

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

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

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

20 “(X) provides to the Secretary—

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

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

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

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

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

5 “(iv) REVISIONS.—

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

16 “(II) NONMAJOR REVISIONS.—

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

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

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

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

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



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

8                   “(C) ADMINISTRATION.—

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

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

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

19                   “(ii) LIST OF COVERED PRODUCTS.—  
20                  The Secretary or the Administrator of the  
21                  Environmental Protection Agency may  
22                  maintain a publicly available list of covered  
23                  products and equipment that distinguishes  
24                  between products that are, and are not  
25                  covered products and equipment verified

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

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

5 “(I) IN GENERAL.—The Sec-  
6 retary—

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

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

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

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

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

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

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

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

## 20 **Subtitle C—Manufacturing**

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

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

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

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

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

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

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

18 (b) FUTURE OF INDUSTRY PROGRAM.—

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

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

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

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

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

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

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

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

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

25 “(1) IN GENERAL.—The Secretary”;

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

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

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

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

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

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

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

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

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

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

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

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

22                   “(i) Federal and State efforts;

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

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

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

5                   “(4) WORKFORCE TRAINING.—

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

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

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

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



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

5 (c) SUSTAINABLE MANUFACTURING INITIATIVE.—

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

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

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

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

17 “(2) preventing pollution and minimizing waste;

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

20 “(4) conserving natural resources; and

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

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

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

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

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

“Sec. 376. Sustainable manufacturing initiative.”.

18 (d) CONFORMING AMENDMENTS.—

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

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

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

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

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

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

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

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

21 (A) receives funding from the Department;

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

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

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

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

13 (A) classified in the North American In-  
14 dustry Classification System as any of sectors  
15 31 through 33;

16 (B) with gross annual sales of less than  
17 \$100,000,000;

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

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

22 (5) SMART MANUFACTURING.—The term  
23 “smart manufacturing” means a set of advanced  
24 sensing, instrumentation, monitoring, controls, and  
25 process optimization technologies and practices that

1 merge information and communication technologies  
2 with the manufacturing environment for the real-  
3 time management of energy, productivity, and costs  
4 across factories and companies.

5 (b) EXPANSION OF TECHNICAL ASSISTANCE PRO-  
6 GRAMS.—The Secretary shall expand the scope of tech-  
7 nologies covered by the Industrial Assessment Centers of  
8 the Department—

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

11 (2) to equip the directors of the Industrial As-  
12 sessment Centers with the training and tools nec-  
13 essary to provide technical assistance in smart man-  
14 ufacturing technologies and practices, including en-  
15 ergy management systems, to manufacturers.

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

18 **SEC. 1203. LEVERAGING SMART MANUFACTURING INFRA-**

19 **STRUCTURE AT NATIONAL LABORATORIES.**

20 (a) STUDY.—

21 (1) IN GENERAL.—Not later than 180 days  
22 after the date of enactment of this Act, the Sec-  
23 retary shall conduct a study on ways in which the  
24 Department can increase access to existing high-per-  
25 formance computing resources in the National Lab-

1 oratories, particularly for small and medium manu-  
2 facturers.

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

6 (A) focus on increasing access to the com-  
7 puting facilities of the National Laboratories;  
8 and

9 (B) ensure that—

10 (i) the information from the manufac-  
11 turer is protected; and

12 (ii) the security of the National Lab-  
13 oratory facility is maintained.

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

18 (b) ACTIONS FOR INCREASED ACCESS.—The Sec-  
19 retary shall facilitate access to the National Laboratories  
20 studied under subsection (a) for small and medium manu-  
21 facturers so that small and medium manufacturers can  
22 fully use the high-performance computing resources of the  
23 National Laboratories to enhance the manufacturing com-  
24 petitiveness of the United States.

1                   **Subtitle D—Vehicles**

2   **SEC. 1301. SHORT TITLE.**

3           This subtitle may be cited as the “Vehicle Innovation  
4 Act of 2015”.

5   **SEC. 1302. OBJECTIVES.**

6           The objectives of this subtitle are—

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

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

12                           (A) improve the fuel efficiency and emis-  
13 sions of all vehicles produced in the United  
14 States; and

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

17                   (3) to support domestic research, development,  
18 engineering, demonstration, and commercial applica-  
19 tion and manufacturing of advanced vehicles, en-  
20 gines, and components;

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

24                   (5) to develop cost-effective advanced tech-  
25 nologies for wide-scale utilization throughout the

1 passenger, commercial, government, and transit ve-  
2 hicle sectors;

3 (6) to allow for greater consumer choice of vehi-  
4 cle technologies and fuels;

5 (7) shorten technology development and inte-  
6 gration cycles in the vehicle industry;

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

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

12 **SEC. 1303. COORDINATION AND NONDUPLICATION.**

13 The Secretary shall ensure, to the maximum extent  
14 practicable, that the activities authorized by this subtitle  
15 do not duplicate those of other programs within the De-  
16 partment or other relevant research agencies.

17 **SEC. 1304. AUTHORIZATION OF APPROPRIATIONS.**

18 There are authorized to be appropriated to the Sec-  
19 retary for research, development, engineering, demonstra-  
20 tion, and commercial application of vehicles and related  
21 technologies in the United States, including activities au-  
22 thorized under this subtitle—

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

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

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



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

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

3 **SEC. 1305. REPORTING.**

4 (a) TECHNOLOGIES DEVELOPED.—Not later than 18  
5 months after the date of enactment of this Act and annu-  
6 ally thereafter through 2020, the Secretary shall submit  
7 to Congress a report regarding the technologies developed  
8 as a result of the activities authorized by this subtitle, with  
9 a particular emphasis on whether the technologies were  
10 successfully adopted for commercial applications, and if  
11 so, whether products relying on those technologies are  
12 manufactured in the United States.

13 (b) ADDITIONAL MATTERS.—At the end of each fis-  
14 cal year through 2020, the Secretary shall submit to the  
15 relevant Congressional committees of jurisdiction an an-  
16 nual report describing activities undertaken in the pre-  
17 vious year under this Act, active industry participants, the  
18 status of public private partnerships, progress of the pro-  
19 gram in meeting goals and timelines, and a strategic plan  
20 for funding of activities across agencies.

21 **PART I—VEHICLE RESEARCH AND**

22 **DEVELOPMENT**

23 **SEC. 1306. PROGRAM.**

24 (a) ACTIVITIES.—The Secretary shall conduct a pro-  
25 gram of basic and applied research, development, engi-

1 neering, demonstration, and commercial application activi-  
2 ties on materials, technologies, and processes with the po-  
3 tential to substantially reduce or eliminate petroleum use  
4 and the emissions of the Nation's passenger and commer-  
5 cial vehicles, including activities in the areas of—

6 (1) electrification of vehicle systems;

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

9 (3) power electronics;

10 (4) vehicle, component, and subsystem manu-  
11 facturing technologies and processes;

12 (5) engine efficiency and combustion optimiza-  
13 tion;

14 (6) waste heat recovery;

15 (7) transmission and drivetrains;

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

21 (9) natural gas vehicle technologies;

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

- 1           (11) vehicle weight reduction, including
- 2           lightweighting materials and the development of
- 3           manufacturing processes to fabricate, assemble, and
- 4           use dissimilar materials;
- 5           (12) friction and wear reduction;
- 6           (13) engine and component durability;
- 7           (14) innovative propulsion systems;
- 8           (15) advanced boosting systems;
- 9           (16) hydraulic hybrid technologies;
- 10          (17) engine compatibility with and optimization
- 11          for a variety of transportation fuels including nat-
- 12          ural gas and other liquid and gaseous fuels;
- 13          (18) predictive engineering, modeling, and sim-
- 14          ulation of vehicle and transportation systems;
- 15          (19) refueling and charging infrastructure for
- 16          alternative fueled and electric or plug-in electric hy-
- 17          brid vehicles, including the unique challenges facing
- 18          rural areas;
- 19          (20) gaseous fuels storage systems and system
- 20          integration and optimization;
- 21          (21) sensing, communications, and actuation
- 22          technologies for vehicle, electrical grid, and infra-
- 23          structure;
- 24          (22) efficient use, substitution, and recycling of
- 25          potentially critical materials in vehicles, including

1 rare earth elements and precious metals, at risk of  
2 supply disruption;

3 (23) aftertreatment technologies;

4 (24) thermal management of battery systems;

5 (25) retrofitting advanced vehicle technologies  
6 to existing vehicles;

7 (26) development of common standards, speci-  
8 fications, and architectures for both transportation  
9 and stationary battery applications;

10 (27) advanced internal combustion engines;

11 (28) mild hybrid;

12 (29) engine down speeding;

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

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

17 (b) TRANSFORMATIONAL TECHNOLOGY.—The Sec-  
18 retary shall ensure that the Department continues to sup-  
19 port research, development, engineering, demonstration,  
20 and commercial application activities and maintains com-  
21 petency in mid- to long-term transformational vehicle tech-  
22 nologies with potential to achieve reductions in emissions,  
23 including activities in the areas of—

24 (1) hydrogen vehicle technologies, including fuel  
25 cells, hydrogen storage, infrastructure, and activities

1 in hydrogen technology validation and safety codes  
2 and standards;

3 (2) multiple battery chemistries and novel en-  
4 ergy storage devices, including nonchemical batteries  
5 and electromechanical storage technologies such as  
6 hydraulics, flywheels, and compressed air storage;

7 (3) communication and connectivity among ve-  
8 hicles, infrastructure, and the electrical grid; and

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

11 (c) INDUSTRY PARTICIPATION.—To the maximum  
12 extent practicable, activities under this Act shall be carried  
13 out in partnership or collaboration with automotive manu-  
14 facturers, heavy commercial, vocational, and transit vehi-  
15 cle manufacturers, qualified plug-in electric vehicle manu-  
16 facturers, compressed natural gas vehicle manufacturers,  
17 vehicle and engine equipment and component manufactur-  
18 ers, manufacturing equipment manufacturers, advanced  
19 vehicle service providers, fuel producers and energy sup-  
20 pliers, electric utilities, universities, national laboratories,  
21 and independent research laboratories. In carrying out  
22 this Act the Secretary shall—

23 (1) determine whether a wide range of compa-  
24 nies that manufacture or assemble vehicles or com-  
25 ponents in the United States are represented in on-

1 going public private partnership activities, including  
2 firms that have not traditionally participated in fed-  
3 erally sponsored research and development activities,  
4 and where possible, partner with such firms that  
5 conduct significant and relevant research and devel-  
6 opment activities in the United States;

7 (2) leverage the capabilities and resources of,  
8 and formalize partnerships with, industry-led stake-  
9 holder organizations, nonprofit organizations, indus-  
10 try consortia, and trade associations with expertise  
11 in the research and development of, and education  
12 and outreach activities in, advanced automotive and  
13 commercial vehicle technologies;

14 (3) develop more effective processes for trans-  
15 ferring research findings and technologies to indus-  
16 try;

17 (4) support public-private partnerships, dedi-  
18 cated to overcoming barriers in commercial applica-  
19 tion of transformational vehicle technologies, that  
20 utilize such industry-led technology development fa-  
21 cilities of entities with demonstrated expertise in  
22 successfully designing and engineering pre-commer-  
23 cial generations of such transformational technology;  
24 and

1           (5) promote efforts to ensure that technology  
2           research, development, engineering, and commercial  
3           application activities funded under this Act are car-  
4           ried out in the United States.

5           (d) INTERAGENCY AND INTRAAGENCY COORDINA-  
6           TION.—To the maximum extent practicable, the Secretary  
7           shall coordinate research, development, demonstration,  
8           and commercial application activities among—

9           (1) relevant programs within the Department,  
10          including—

11           (A) the Office of Energy Efficiency and  
12           Renewable Energy;

13           (B) the Office of Science;

14           (C) the Office of Electricity Delivery and  
15           Energy Reliability;

16           (D) the Office of Fossil Energy;

17           (E) the Advanced Research Projects Agen-  
18           cy—Energy; and

19           (F) other offices as determined by the Sec-  
20           retary; and

21           (2) relevant technology research and develop-  
22           ment programs within other Federal agencies, as de-  
23           termined by the Secretary.

24           (e) FEDERAL DEMONSTRATION OF TECH-  
25           NOLOGIES.—The Secretary shall make information avail-

1 able to procurement programs of Federal agencies regard-  
2 ing the potential to demonstrate technologies resulting  
3 from activities funded through programs under this Act.

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

9 (g) CRITERIA.—When awarding grants under this  
10 program, the Secretary shall give priority to those tech-  
11 nologies (either individually or as part of a system) that—

12 (1) provide the greatest aggregate fuel savings  
13 based on the reasonable projected sales volumes of  
14 the technology; and

15 (2) provide the greatest increase in United  
16 States employment.

17 **SEC. 1307. MANUFACTURING.**

18 The Secretary shall carry out a research, develop-  
19 ment, engineering, demonstration, and commercial appli-  
20 cation program of advanced vehicle manufacturing tech-  
21 nologies and practices, including innovative processes—

22 (1) to increase the production rate and decrease  
23 the cost of advanced battery and fuel cell manufac-  
24 turing;



- 1           (2) to vary the capability of individual manufac-  
2           turing facilities to accommodate different battery  
3           chemistries and configurations;
- 4           (3) to reduce waste streams, emissions, and en-  
5           ergy intensity of vehicle, engine, advanced battery  
6           and component manufacturing processes;
- 7           (4) to recycle and remanufacture used batteries  
8           and other vehicle components for reuse in vehicles or  
9           stationary applications;
- 10          (5) to develop manufacturing processes to effec-  
11          tively fabricate, assemble, and produce cost-effective  
12          lightweight materials such as advanced aluminum  
13          and other metal alloys, polymeric composites, and  
14          carbon fiber for use in vehicles;
- 15          (6) to produce lightweight high pressure storage  
16          systems for gaseous fuels;
- 17          (7) to design and manufacture purpose-built hy-  
18          drogen fuel cell vehicles and components;
- 19          (8) to improve the calendar life and cycle life of  
20          advanced batteries; and
- 21          (9) to produce permanent magnets for advanced  
22          vehicles.

1           **PART II—MEDIUM- AND HEAVY-DUTY**  
2           **COMMERCIAL AND TRANSIT VEHICLES**  
3   **SEC. 1308. PROGRAM.**

4           The Secretary, in partnership with relevant research  
5 and development programs in other Federal agencies, and  
6 a range of appropriate industry stakeholders, shall carry  
7 out a program of cooperative research, development, dem-  
8 onstration, and commercial application activities on ad-  
9 vanced technologies for medium- to heavy-duty commer-  
10 cial, vocational, recreational, and transit vehicles, includ-  
11 ing activities in the areas of—

- 12           (1) engine efficiency and combustion research;  
13           (2) onboard storage technologies for compressed  
14 and liquefied natural gas;  
15           (3) development and integration of engine tech-  
16 nologies designed for natural gas operation of a vari-  
17 ety of vehicle platforms;  
18           (4) waste heat recovery and conversion;  
19           (5) improved aerodynamics and tire rolling re-  
20 sistance;  
21           (6) energy and space-efficient emissions control  
22 systems;  
23           (7) mild hybrid, heavy hybrid, hybrid hydraulic,  
24 plug-in hybrid, and electric platforms, and energy  
25 storage technologies;  
26           (8) drivetrain optimization;

- 1 (9) friction and wear reduction;
- 2 (10) engine idle and parasitic energy loss reduc-
- 3 tion;
- 4 (11) electrification of accessory loads;
- 5 (12) onboard sensing and communications tech-
- 6 nologies;
- 7 (13) advanced lightweighting materials and ve-
- 8 hicle designs;
- 9 (14) increasing load capacity per vehicle;
- 10 (15) thermal management of battery systems;
- 11 (16) recharging infrastructure;
- 12 (17) compressed natural gas infrastructure;
- 13 (18) advanced internal combustion engines;
- 14 (19) complete vehicle and power pack modeling,
- 15 simulation, and testing;
- 16 (20) hydrogen vehicle technologies, including
- 17 fuel cells and internal combustion engines, and hy-
- 18 drogen infrastructure, including hydrogen energy
- 19 storage to enable renewables and provide hydrogen
- 20 for fuel and power;
- 21 (21) retrofitting advanced technologies onto ex-
- 22 isting truck fleets;
- 23 (22) advanced boosting systems;
- 24 (23) engine down speeding; and

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

3 **SEC. 1309. CLASS 8 TRUCK AND TRAILER SYSTEMS DEM-**  
4 **ONSTRATION.**

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

10          (b) APPLICANT TEAMS.—Applicant teams may be  
11 comprised of truck and trailer manufacturers, engine and  
12 component manufacturers, fleet customers, university re-  
13 searchers, and other applicants as appropriate for the de-  
14 velopment and demonstration of integrated Class 8 truck  
15 and trailer systems.

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

17          The Secretary, in coordination with the partners of  
18 the interagency research program described in section  
19 1308—

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

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

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

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

10          The Secretary shall undertake a pilot program of re-  
11          search, development, demonstration, and commercial ap-  
12          plications of technologies to improve total machine or sys-  
13          tem efficiency for nonroad mobile equipment including ag-  
14          ricultural, construction, air, and sea port equipment, and  
15          shall seek opportunities to transfer relevant research find-  
16          ings and technologies between the nonroad and on-high-  
17          way equipment and vehicle sectors.

18                           **PART III—ADMINISTRATION**

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

20          (a) **IN GENERAL.**—Sections 706, 711, 712, and 933  
21          of the Energy Policy Act of 2005 (42 U.S.C. 16051,  
22          16061, 16062, 16233) are repealed.

23          (b) **ENERGY EFFICIENCY.**—Section 911 of the En-  
24          ergy Policy Act of 2005 (42 U.S.C. 16191) is amended—

25                  (1) in subsection (a)—

1 (A) in paragraph (1)(A), by striking “vehic-  
 2 les, buildings,” and inserting “buildings”; and  
 3 (B) in paragraph (2)—  
 4 (i) by striking subparagraph (A); and  
 5 (ii) by redesignating subparagraphs  
 6 (B) through (E) as subparagraphs (A)  
 7 through (D), respectively; and  
 8 (2) in subsection (c)—  
 9 (A) by striking paragraph (3);  
 10 (B) by redesignating paragraph (4) as  
 11 paragraph (3); and  
 12 (C) in paragraph (3) (as so redesignated),  
 13 by striking “(a)(2)(D)” and inserting  
 14 “(a)(2)(C)”.

## 15 **TITLE II—INFRASTRUCTURE**

### 16 **Subtitle A—Cybersecurity**

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

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

#### 20 **“SEC. 224. CYBERSECURITY THREATS.**

21 **“(a) DEFINITIONS.—**In this section:

22 **“(1) BULK-POWER SYSTEM.—**The term ‘bulk-  
 23 power system’ has the meaning given the term in  
 24 section 215.

1           “(2) CRITICAL ELECTRIC INFRASTRUCTURE.—

2           The term ‘critical electric infrastructure’ means a  
3           system or asset of the bulk-power system, whether  
4           physical or virtual, the incapacity or destruction of  
5           which would negatively affect national security, eco-  
6           nomic security, public health or safety, or any com-  
7           bination of those matters.

8           “(3) CRITICAL ELECTRIC INFRASTRUCTURE IN-  
9           FORMATION.—

10           “(A) IN GENERAL.—The term ‘critical  
11           electric infrastructure information’ means infor-  
12           mation related to critical electric infrastructure,  
13           or proposed critical electric infrastructure, gen-  
14           erated by or provided to the Commission or  
15           other Federal agency, other than classified na-  
16           tional security information, that is designated  
17           as critical electric infrastructure information by  
18           the Commission under subsection (d)(2).

19           “(B) INCLUSIONS.—The term ‘critical elec-  
20           tric infrastructure information’ includes infor-  
21           mation that qualifies as critical energy infra-  
22           structure information under regulations promul-  
23           gated by the Commission.

24           “(4) CYBERSECURITY THREAT.—The term ‘cy-  
25           bersecurity threat’ means the imminent danger of an

1 act that severely disrupts, attempts to severely dis-  
2 rupt, or poses a significant risk of severely dis-  
3 rupting the operation of programmable electronic de-  
4 vices or communications networks (including hard-  
5 ware, software, and data) essential to the reliable  
6 operation of the bulk-power system.

7 “(5) ELECTRIC RELIABILITY ORGANIZATION.—  
8 The term ‘Electric Reliability Organization’ has the  
9 meaning given the term in section 215.

10 “(6) REGIONAL ENTITY.—The term ‘regional  
11 entity’ has the meaning given the term in section  
12 215.

13 “(7) SECRETARY.—The term ‘Secretary’ means  
14 the Secretary of Energy.

15 “(b) EMERGENCY AUTHORITY OF SECRETARY.—

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



1           “(2) WRITTEN EXPLANATION.—As soon as  
2           practicable after notifying the Secretary under para-  
3           graph (1), the President shall—

4                   “(A) provide to the Secretary, in writing,  
5                   a record of the determination and an expla-  
6                   nation of the reasons for the determination; and

7                   “(B) promptly notify, in writing, congres-  
8                   sional committees of relevant jurisdiction, in-  
9                   cluding the Committee on Energy and Com-  
10                  merce of the House of Representatives and the  
11                  Committee on Energy and Natural Resources of  
12                  the Senate, of the contents of, and justification  
13                  for, the directive or determination.

14           “(3) COORDINATION WITH CANADA AND MEX-  
15           ICO.—In exercising the authority pursuant to this  
16           subsection, the Secretary is encouraged to consult  
17           and coordinate with the appropriate officials in Can-  
18           ada and Mexico responsible for the protection of cy-  
19           bersecurity of the interconnected North American  
20           electricity grid.

21           “(4) CONSULTATION.—Before exercising au-  
22           thority pursuant to this subsection, to the maximum  
23           extent practicable, taking into consideration the na-  
24           ture of an identified cybersecurity threat and the ur-  
25           gency of need for action, the Secretary shall consult

1 regarding implementation of actions that will effec-  
2 tively address the cybersecurity threat with—

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

6 “(B) the Electric Reliability Organization;

7 “(C) the Electricity Sub-sector Coordi-  
8 nating Council (as established by the Electric  
9 Reliability Organization); and

10 “(D) officials of other Federal departments  
11 and agencies, as appropriate.

12 “(5) COST RECOVERY.—

13 “(A) IN GENERAL.—The Commission shall  
14 adopt regulations that permit entities subject to  
15 an order under paragraph (1) to seek recovery  
16 of prudently incurred costs required to imple-  
17 ment actions ordered by the Secretary under  
18 this subsection.

19 “(B) REQUIREMENTS.—Any rate or charge  
20 approved under regulations adopted pursuant to  
21 this paragraph—

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

23 “(ii) shall not be unduly discrimina-  
24 tory or preferential.

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

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

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

12       “(d) PROTECTION AND SHARING OF CRITICAL ELEC-  
13 TRIC INFRASTRUCTURE.—

14           “(1) PROTECTION OF CRITICAL ELECTRIC IN-  
15 FRASTRUCTURE.—Critical electric infrastructure in-  
16 formation—

17           “(A) shall be exempt from disclosure under  
18 section 552(b)(3) of title 5, United States Code;  
19 and

20           “(B) shall not be made available by any  
21 State, political subdivision, or tribal authority  
22 pursuant to any State, political subdivision, or  
23 tribal law requiring disclosure of information or  
24 records.

1           “(2) DESIGNATION AND SHARING OF CRITICAL  
2       ELECTRIC INFRASTRUCTURE INFORMATION.—Not  
3       later than 1 year after the date of enactment of this  
4       section, the Commission, in consultation with the  
5       Secretary of Energy, shall promulgate such regula-  
6       tions and issue such orders as necessary—

7           “(A) to designate critical electric infra-  
8       structure information;

9           “(B) to prohibit the unauthorized disclo-  
10      sure of critical electric infrastructure informa-  
11      tion; and

12          “(C) to ensure there are appropriate sanc-  
13      tions in place for Commissioners, officers, em-  
14      ployees, or agents of the Commission who  
15      knowingly and willfully disclose critical electric  
16      infrastructure information in a manner that is  
17      not authorized under this section;

18          “(3) CONSIDERATIONS.—In promulgating regu-  
19      lations and issuing orders under paragraph (2), the  
20      Commission shall take into consideration the role of  
21      State commissions in—

22          “(A) reviewing the prudence and cost of  
23      investments;

24          “(B) determining the rates and terms of  
25      conditions for electric services; and

1           “(C) ensuring the safety and reliability of  
2           the bulk-power system and distribution facilities  
3           within the respective jurisdictions of the State  
4           commissions.

5           “(4) NO REQUIRED SHARING OF INFORMA-  
6           TION.—Nothing in this section requires a person or  
7           entity in possession of critical electric infrastructure  
8           information to share the information with Federal,  
9           State, political subdivision, or tribal authorities, or  
10          any other person or entity.

11          “(5) DISCLOSURE OF NONCRITICAL ELECTRIC  
12          INFRASTRUCTURE INFORMATION.—In carrying out  
13          this section, the Commission shall segregate critical  
14          electric infrastructure information within documents  
15          and electronic communications, wherever feasible, to  
16          facilitate disclosure of information that is not des-  
17          ignated as critical electric infrastructure informa-  
18          tion.”.

19 **SEC. 2002. ENHANCED GRID SECURITY.**

20          (a) DEFINITIONS.—In this section:

21                  (1) ELECTRIC UTILITY.—The term “electric  
22                  utility” has the meaning given the term in section  
23                  3 of the Federal Power Act (16 U.S.C. 796).

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

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

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

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

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

18               (2) DUTIES.—As the designated Sector-Specific  
19               Agency for cybersecurity, the duties of the Depart-  
20               ment shall include—

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

24                       (B) collaborating with—

- 1 (i) critical infrastructure owners and  
2 operators; and
- 3 (ii) as appropriate—
- 4 (I) independent regulatory agen-  
5 cies; and
- 6 (II) State, local, tribal and terri-  
7 torial entities;
- 8 (C) serving as a day-to-day Federal inter-  
9 face for the dynamic prioritization and coordi-  
10 nation of sector-specific activities;
- 11 (D) carrying out incident management re-  
12 sponsibilities consistent with applicable law (in-  
13 cluding regulations) and other appropriate poli-  
14 cies or directives;
- 15 (E) providing, supporting, or facilitating  
16 technical assistance and consultations for the  
17 energy sector to identify vulnerabilities and help  
18 mitigate incidents, as appropriate; and
- 19 (F) supporting the reporting requirements  
20 of the Department of Homeland Security under  
21 applicable law by providing, on an annual basis,  
22 sector-specific critical infrastructure informa-  
23 tion.

1 (c) CYBERSECURITY FOR THE ENERGY SECTOR RE-  
2 SEARCH, DEVELOPMENT, AND DEMONSTRATION PRO-  
3 GRAM.—

4 (1) IN GENERAL.—The Secretary, in consulta-  
5 tion with appropriate Federal agencies, the energy  
6 sector, the States, and other stakeholders, shall  
7 carry out a program—

8 (A) to develop advanced cybersecurity ap-  
9 plications and technologies for the energy sec-  
10 tor—

11 (i) to identify and mitigate  
12 vulnerabilities, including—

13 (I) dependencies on other critical  
14 infrastructure; and

15 (II) impacts from weather and  
16 fuel supply; and

17 (ii) to advance the security of field de-  
18 vices and third-party control systems, in-  
19 cluding—

20 (I) systems for generation, trans-  
21 mission, distribution, end use, and  
22 market functions;

23 (II) specific electric grid elements  
24 including advanced metering, demand



1 response, distributed generation, and  
2 electricity storage;

3 (III) forensic analysis of infected  
4 systems; and

5 (IV) secure communications;

6 (B) to leverage electric grid architecture as  
7 a means to assess risks to the energy sector, in-  
8 cluding by implementing an all-hazards ap-  
9 proach to communications infrastructure, con-  
10 trol systems architecture, and power systems  
11 architecture;

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

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

17 (2) AUTHORIZATION OF APPROPRIATIONS.—

18 There is authorized to be appropriated to carry out  
19 this subsection \$65,000,000 for each of fiscal years  
20 2017 through 2025.

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

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

1 (A) to establish a cybertesting and mitiga-  
2 tion program to identify vulnerabilities of en-  
3 ergy sector supply chain products to known  
4 threats;

5 (B) to oversee third-party cybertesting;  
6 and

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

9 (2) AUTHORIZATION OF APPROPRIATIONS.—

10 There is authorized to be appropriated to carry out  
11 this subsection \$15,000,000 for each of fiscal years  
12 2017 through 2025.

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

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

17 (A) to enhance and periodically test—

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

20 (ii) the coordination of the Depart-  
21 ment with other agencies, the National  
22 Laboratories, and private industry;

23 (B) to expand cooperation of the Depart-  
24 ment with the intelligence communities for en-

1           energy sector-related threat collection and anal-  
2           ysis;

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

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

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

11          (2) AUTHORIZATION OF APPROPRIATIONS.—

12          There is authorized to be appropriated to carry out  
13          this subsection \$10,000,000 for each of fiscal years  
14          2017 through 2025.

15          (f) MODELING AND ASSESSING ENERGY INFRA-  
16          STRUCTURE RISK.—

17           (1) IN GENERAL.—The Secretary shall develop  
18           an advanced energy security program to secure en-  
19           ergy networks, including electric, natural gas, and  
20           oil exploration, transmission, and delivery.

21           (2) SECURITY AND RESILIENCY OBJECTIVE.—

22           The objective of the program developed under para-  
23           graph (1) is to increase the functional preservation  
24           of the electric grid operations or natural gas and oil  
25           operations in the face of natural and human-made

1 threats and hazards, including electric magnetic  
2 pulse and geomagnetic disturbances.

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

6 (A) develop capabilities to identify  
7 vulnerabilities and critical components that pose  
8 major risks to grid security if destroyed or im-  
9 paired;

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

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

15 (D) conduct exercises and assessments to  
16 identify and mitigate vulnerabilities to the elec-  
17 tric grid, including providing mitigation rec-  
18 ommendations;

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

21 (F) conduct research mitigation and recov-  
22 ery solutions for critical components of the elec-  
23 tric grid; and

1           (G) provide technical assistance to States  
2           and other entities for standards and risk anal-  
3           ysis.

4           (4) AUTHORIZATION OF APPROPRIATIONS.—  
5           There is authorized to be appropriated to carry out  
6           this subsection \$10,000,000 for each of fiscal years  
7           2017 through 2025.

8           (g) LEVERAGING EXISTING PROGRAMS.—The pro-  
9           grams established under this section shall be carried out  
10          consistent with—

11          (1) the report of the Department entitled  
12          “Roadmap to Achieve Energy Delivery Systems Cy-  
13          bersecurity” and dated 2011;

14          (2) existing programs of the Department; and

15          (3) any associated strategic framework that  
16          links together academic and National Laboratory re-  
17          searchers, electric utilities, manufacturers, and any  
18          other relevant private industry organizations, includ-  
19          ing the Electricity Sub-sector Coordinating Council.

20          (h) STUDY.—

21          (1) IN GENERAL.—Not later than 180 days  
22          after the date of enactment of this Act, the Sec-  
23          retary, in consultation with the Federal Energy Reg-  
24          ulatory Commission and the North American Elec-  
25          tric Reliability Corporation, shall conduct a study to

1 explore alternative management structures and fund-  
 2 ing mechanisms to expand industry membership and  
 3 participation in ES–ISAC.

4 (2) REPORT.—The Secretary shall submit to  
 5 the appropriate committees of Congress a report de-  
 6 scribing the results of the study conducted under  
 7 paragraph (1).

## 8 **Subtitle B—Strategic Petroleum** 9 **Reserve**

### 10 **SEC. 2101. STRATEGIC PETROLEUM RESERVE TEST DRAW-** 11 **DOWN AND SALE NOTIFICATION AND DEFINI-** 12 **TION CHANGE.**

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

17 “(8) NOTICE TO CONGRESS.—

18 “(A) PRIOR NOTICE.—Not less than 14  
 19 days before the date on which a test is carried  
 20 out under this subsection, the Secretary shall  
 21 notify both Houses of Congress of the test.

22 “(B) EMERGENCY.—The prior notice re-  
 23 quirement in subparagraph (A) shall not apply  
 24 if the Secretary determines that an emergency  
 25 exists which requires a test to be carried out,

1 in which case the Secretary shall notify both  
2 Houses of Congress of the test as soon as pos-  
3 sible.

4 “(C) DETAILED DESCRIPTION.—

5 “(i) IN GENERAL.—Not later than  
6 180 days after the date on which a test is  
7 completed under this subsection, the Sec-  
8 retary shall submit to both Houses of Con-  
9 gress a detailed description of the test.

10 “(ii) REPORT.—A detailed description  
11 submitted under clause (i) may be included  
12 as part of a report made to the President  
13 and Congress under section 165.”.

14 (b) DEFINITION CHANGE.—Section 3(8)(C)(iii) of  
15 the Energy Policy and Conservation Act (42 U.S.C.  
16 6202(8)(C)(iii)) is amended by striking “sabotage or an  
17 act of God” and inserting “sabotage, an act of terrorism,  
18 or an act of God”.

19 **SEC. 2102. STRATEGIC PETROLEUM RESERVE MISSION**  
20 **READINESS OPTIMIZATION.**

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

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

1           (2) develop and submit to Congress a proposed  
2           action plan, including a proposed implementation  
3           schedule, that—

4                   (A) specifies near- and long-term roles of  
5                   the Strategic Petroleum Reserve relative to the  
6                   energy and economic security goals and objec-  
7                   tives of the United States;

8                   (B) describes whether existing legal au-  
9                   thorities that govern the policies, configuration,  
10                  and capabilities of the Strategic Petroleum Re-  
11                  serve are adequate to ensure that the Strategic  
12                  Petroleum Reserve can meet the current and  
13                  future energy and economic security goals and  
14                  objectives of the United States;

15                  (C) identifies the configuration and per-  
16                  formance capabilities of the Strategic Petro-  
17                  leum Reserve and recommends an action plan  
18                  to achieve the optimal —

19                           (i) capacity, location, and composition  
20                           of petroleum products in the Strategic Pe-  
21                           troleum Reserve; and

22                           (ii) storage and distributional capabili-  
23                           ties; and

24                  (D) estimates the resources required to at-  
25                  tain and maintain the long-term sustainability



1 and operational effectiveness of the Strategic  
2 Petroleum Reserve.

3 **SEC. 2103. STRATEGIC PETROLEUM RESERVE MODERNIZA-**  
4 **TION.**

5 (a) REAFFIRMATION OF POLICY.—Congress reaf-  
6 firms the continuing strategic importance and need for the  
7 Strategic Petroleum Reserve as found and declared in sec-  
8 tion 151 of the Energy Policy and Conservation Act (42  
9 U.S.C. 6231).

10 (b) SPR PETROLEUM ACCOUNT.—Section 167(b) of  
11 the Energy Policy and Conservation Act (42 U.S.C.  
12 6247(b)) is amended to read as follows:

13 “(b) OBLIGATION OF FUNDS FOR THE ACQUISITION,  
14 TRANSPORTATION, AND INJECTION OF PETROLEUM  
15 PRODUCTS INTO SPR AND FOR OTHER PURPOSES.—

16 “(1) PURPOSES.—Amounts in the Account may  
17 be obligated by the Secretary of Energy for—

18 “(A) the acquisition, transportation, and  
19 injection of petroleum products into the Re-  
20 serve;

21 “(B) test sales of petroleum products from  
22 the Reserve;

23 “(C) the drawdown, sale, and delivery of  
24 petroleum products from the Reserve;

1           “(D) the construction, maintenance, re-  
2           pair, and replacement of storage facilities and  
3           related facilities; and

4           “(E) carrying out non-Reserve projects  
5           needed to enhance the energy security of the  
6           United States by increasing the resilience, reli-  
7           ability, safety, and security of energy supply,  
8           transmission, storage, or distribution infrastruc-  
9           ture.

10          “(2) AMOUNTS.—Amounts in the Account may  
11          be obligated by the Secretary of Energy for purposes  
12          of paragraph (1), in the case of any fiscal year—

13                 “(A) subject to section 660 of the Depart-  
14                 ment of Energy Organization Act (42 U.S.C.  
15                 7270), in such aggregate amounts as may be  
16                 appropriated in advance in appropriations Acts;  
17                 and

18                 “(B) notwithstanding section 660 of the  
19                 Department of Energy Organization Act (42  
20                 U.S.C. 7270), in an aggregate amount equal to  
21                 the aggregate amount of the receipts to the  
22                 United States from the sale of petroleum prod-  
23                 ucts in any drawdown and a distribution of the  
24                 Reserve under section 161, including—

1 “(i) a drawdown and distribution car-  
 2 ried out under subsection (g) of that sec-  
 3 tion; or

4 “(ii) from the sale of petroleum prod-  
 5 ucts under section 160(f).

6 “(3) AVAILABILITY OF FUNDS.—Funds avail-  
 7 able to the Secretary of Energy for obligation under  
 8 this subsection may remain available without fiscal  
 9 year limitation.”.

10 (c) DEFINITION OF RELATED FACILITY.—Section  
 11 152(8) of the Energy Policy and Conservation Act (42  
 12 U.S.C. 6232(8)) is amended by inserting “terminals,”  
 13 after “reservoirs,”.

## 14 **Subtitle C—Trade**

### 15 **SEC. 2201. ACTION ON APPLICATIONS TO EXPORT LIQUE-** 16 **FIED NATURAL GAS.**

17 (a) DECISION DEADLINE.—For proposals that must  
 18 also obtain authorization from the Federal Energy Regu-  
 19 latory Commission or the Maritime Administration to site,  
 20 construct, expand, or operate liquefied natural gas export  
 21 facilities, the Secretary shall issue a final decision on any  
 22 application for the authorization to export natural gas  
 23 under section 3(a) of the Natural Gas Act (15 U.S.C.  
 24 717b(a)) not later than 45 days after the later of—

1           (1) the conclusion of the review to site, con-  
2           struct, expand, or operate the liquefied natural gas  
3           export facilities required by the National Environ-  
4           mental Policy Act of 1969 (42 U.S.C. 4321 et seq.);  
5           or

6           (2) the date of enactment of this Act.

7           (b) CONCLUSION OF REVIEW.—For purposes of sub-  
8           section (a), review required by the National Environ-  
9           mental Policy Act of 1969 (42 U.S.C. 4321 et seq.) shall  
10          be considered concluded when the lead agency—

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

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

17           (3) determines that an application is eligible for  
18           a categorical exclusion pursuant to National Envi-  
19           ronmental Policy Act of 1969 (42 U.S.C. 4321 et  
20           seq.) implementing regulations.

21          (c) JUDICIAL REVIEW.—

22           (1) IN GENERAL.—Except for review in the Su-  
23           preme Court, the United States Court of Appeals for  
24           the District of Columbia Circuit or the circuit in  
25           which the liquefied natural gas export facility will be

1 located pursuant to an application described in sub-  
2 section (a) shall have original and exclusive jurisdic-  
3 tion over any civil action for the review of—

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

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

8 (2) ORDER.—If the Court in a civil action de-  
9 scribed in paragraph (1) finds that the Secretary  
10 has failed to issue a final decision on the application  
11 as required under subsection (a), the Court shall  
12 order the Secretary to issue the final decision not  
13 later than 30 days after the order of the Court.

14 (3) EXPEDITED CONSIDERATION.—The Court  
15 shall—

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

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

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

24 (A) upon motion by an applicant, the mat-  
25 ter shall be transferred to the United States

1 Court of Appeals for the District of Columbia  
2 Circuit or the circuit in which a liquefied nat-  
3 ural gas export facility will be located pursuant  
4 to an application described in section 3(a) of  
5 the Natural Gas Act (15 U.S.C. 717b(a)); and  
6 (B) the provisions of this section shall  
7 apply.

8 **SEC. 2202. PUBLIC DISCLOSURE OF LIQUEFIED NATURAL**  
9 **GAS EXPORT DESTINATIONS.**

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

12 “(g) PUBLIC DISCLOSURE OF LNG EXPORT DES-  
13 TINATIONS.—

14 “(1) IN GENERAL.—In the case of any author-  
15 ization to export liquefied natural gas, the Secretary  
16 of Energy shall require the applicant to report to the  
17 Secretary of Energy the names of the 1 or more  
18 countries of destination to which the exported lique-  
19 fied natural gas is delivered.

20 “(2) TIMING.—The applicant shall file the re-  
21 port required under paragraph (1) not later than—

22 “(A) in the case of the first export, the  
23 last day of the month following the month of  
24 the first export; and

1           “(B) in the case of subsequent exports, the  
2           date that is 30 days after the last day of the  
3           applicable month concerning the activity of the  
4           previous month.

5           “(3) DISCLOSURE.—The Secretary of Energy  
6           shall publish the information reported under this  
7           subsection on the website of the Department of En-  
8           ergy and otherwise make the information available  
9           to the public.”.

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

11           (a) IN GENERAL.—The Administrator of the Energy  
12           Information Administration (referred to in this section as  
13           the “Administrator”) shall collaborate with the appro-  
14           priate officials in Canada and Mexico, as determined by  
15           the Administrator, to improve—

16           (1) the quality and transparency of energy data  
17           in North America through reconciliation of data on  
18           energy trade flows among the United States, Can-  
19           ada, and Mexico;

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

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

1 (b) PERIODIC UPDATES.—The Administrator shall  
2 periodically submit to the Committee on Energy and Nat-  
3 ural Resources of the Senate and the Committee on En-  
4 ergy and Commerce of the House of Representatives an  
5 update on—

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

8 (2) whether forward-looking projections for re-  
9 gional energy flows are improving in accuracy as a  
10 result of the energy data sharing under that sub-  
11 section.

## 12 **Subtitle D—Electricity and Energy** 13 **Storage**

### 14 **SEC. 2301. GRID STORAGE PROGRAM.**

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

20 (b) AREAS OF FOCUS.—The program under this sec-  
21 tion shall focus on—

22 (1) materials and electrochemical systems re-  
23 search;

24 (2) power conversion technologies research;

25 (3) developing—



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

5 (B) validation and testing techniques;

6 (4) other fundamental and applied research  
7 critical to widespread deployment of electricity stor-  
8 age;

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

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

16 (7) cost-benefit analyses that inform capital ex-  
17 penditure planning for regulators and owners and  
18 operators of components of the electric grid;

19 (8) electricity storage device safety and reli-  
20 ability, including potential failure modes, mitigation  
21 measures, and operational guidelines;

22 (9) standards for storage device performance,  
23 control interface, grid interconnection, and inter-  
24 operability; and

1           (10) maintaining a public database of energy  
2           storage projects, policies, codes, standards, and reg-  
3           ulations.

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

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

13          (e) NO EFFECT ON OTHER PROVISIONS OF LAW.—  
14          Nothing in this subtitle or an amendment made by this  
15          subtitle authorizes regulatory actions that would duplicate  
16          or conflict with regulatory requirements, mandatory  
17          standards, or related processes under section 215 of the  
18          Federal Power Act (16 U.S.C. 824o).

19           **SEC. 2302. ELECTRIC SYSTEM GRID ARCHITECTURE, SCE-**  
20           **NARIO DEVELOPMENT, AND MODELING.**

21          (a) GRID ARCHITECTURE AND SCENARIO DEVELOP-  
22          MENT.—

23           (1) IN GENERAL.—Subject to paragraph (2),  
24          the Secretary shall establish and facilitate a collabo-  
25          rative process to develop model grid architecture and

1 a set of future scenarios for the electric system to  
2 examine the impacts of different combinations of re-  
3 sources (including different quantities of distributed  
4 energy resources and large-scale, central generation)  
5 on the electric grid.

6 (2) MARKET STRUCTURE.—The grid architec-  
7 ture and scenarios developed under paragraph (1)  
8 shall account for differences in market structure, in-  
9 cluding an examination of the potential for stranded  
10 costs in each type of market structure.

11 (3) FINDINGS.—Based on the findings of grid  
12 architecture developed under paragraph (1), the Sec-  
13 retary shall—

14 (A) determine whether any additional  
15 standards are necessary to ensure the interoper-  
16 ability of grid systems and associated commu-  
17 nications networks; and

18 (B) if the Secretary makes a determination  
19 that additional standards are necessary under  
20 subparagraph (A), make recommendations for  
21 additional standards, including, as may be ap-  
22 propriate, to the Electric Reliability Organiza-  
23 tion under section 215 of the Federal Power  
24 Act (16 U.S.C. 824o).

1 (b) MODELING.—Subject to subsection (c), the Sec-  
2 retary shall—

3 (1) conduct modeling based on the scenarios de-  
4 veloped under subsection (a); and

5 (2) analyze and evaluate the technical and fi-  
6 nancial impacts of the models to assist States, utili-  
7 ties, and other stakeholders in—

8 (A) enhancing strategic planning efforts;

9 (B) avoiding stranded costs; and

10 (C) maximizing the cost-effectiveness of fu-  
11 ture grid-related investments.

12 (c) INPUT.—The Secretary shall develop the sce-  
13 narios and conduct the modeling and analysis under sub-  
14 sections (a) and (b) with participation or input, as appro-  
15 priate, from—

16 (1) the National Laboratories;

17 (2) States;

18 (3) State regulatory authorities;

19 (4) transmission organizations;

20 (5) representatives of the electric industry;

21 (6) academic institutions;

22 (7) independent research institutes; and

23 (8) other entities.

1 **SEC. 2303. TECHNOLOGY DEMONSTRATION ON THE DIS-**  
2 **TRIBUTION SYSTEM.**

3 (a) IN GENERAL.—The Secretary shall establish a  
4 grant program to carry out eligible projects related to the  
5 modernization of the electric grid, including the applica-  
6 tion of technologies to improve observability, advanced  
7 controls, and prediction of system performance on the dis-  
8 tribution system.

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

11 (1) be designed to improve the performance and  
12 efficiency of the future electric grid, while ensuring  
13 the continued provision of safe, secure, reliable, and  
14 affordable power; and

15 (2) demonstrate—

16 (A) secure integration and management of  
17 2 or more energy resources, including distrib-  
18 uted energy generation, combined heat and  
19 power, micro-grids, energy storage, electric ve-  
20 hicles, energy efficiency, demand response, and  
21 intelligent loads; and

22 (B) secure integration and interoperability  
23 of communications and information tech-  
24 nologies.

1 (c) PARTICIPATION.—Projects conducted under sub-  
2 section (b) shall include the participation of a partnership  
3 consisting of 2 or more entities that—

4 (1) may include

5 (A) any institution of higher education;

6 (B) a National Laboratory;

7 (C) a representative of a State or local  
8 government;

9 (D) a representative of an Indian tribe; or

10 (E) a Federal power marketing adminis-  
11 tration; and

12 (2) shall include at least 1 of any of—

13 (A) an investor-owned electric utility;

14 (B) a publicly owned utility;

15 (C) a technology provider;

16 (D) a rural electric cooperative;

17 (E) a regional transmission organization;

18 or

19 (F) an independent system operator

20 (d) CYBERSECURITY PLAN.—Each demonstration  
21 project conducted under subsection (a) shall include the  
22 development of a cybersecurity plan approved by the Sec-  
23 retary.

24 (e) PRIVACY RISK ANALYSIS.—Each demonstration  
25 project conducted under subsection (a) shall include a pri-

1 vacy impact assessment that evaluates the project against  
2 the 5 core concepts in the Voluntary Code of Conduct of  
3 the Department, commonly known as the “DataGuard  
4 Energy Data Privacy Program”, or the most recent revi-  
5 sions to the privacy program of the Department.

6 **SEC. 2304. HYBRID MICRO-GRID SYSTEMS FOR ISOLATED**  
7 **AND RESILIENT COMMUNITIES.**

8 (a) DEFINITIONS.—In this section:

9 (1) HYBRID MICRO-GRID SYSTEM.—The term  
10 “hybrid micro-grid system” means a stand-alone  
11 electrical system that—

12 (A) is comprised of conventional generation  
13 and at least 1 alternative energy resource; and

14 (B) may use grid-scale energy storage.

15 (2) ISOLATED COMMUNITY.—The term “iso-  
16 lated community” means a community that is pow-  
17 ered by a stand-alone electric generation and dis-  
18 tribution system without the economic and reliability  
19 benefits of connection to a regional electric grid.

20 (3) MICRO-GRID SYSTEM.—The term “micro-  
21 grid system” means a standalone electrical system  
22 that uses grid-scale energy storage.

23 (4) STRATEGY.—The term “strategy” means  
24 the strategy developed pursuant to subsection  
25 (b)(2)(B).

1 (b) PROGRAM.—

2 (1) ESTABLISHMENT.—The Secretary shall es-  
3 tablish a program to promote the development of—

4 (A) hybrid micro-grid systems for isolated  
5 communities; and

6 (B) micro-grid systems to increase the re-  
7 silience of critical infrastructure.

8 (2) PHASES.—The program established under  
9 paragraph (1) shall be divided into the following  
10 phases:

11 (A) Phase I, which shall consist of the de-  
12 velopment of a feasibility assessment for—

13 (i) hybrid micro-grid systems in iso-  
14 lated communities; and

15 (ii) micro-grid systems to enhance the  
16 resilience of critical infrastructure.

17 (B) Phase II, which shall consist of the de-  
18 velopment of an implementation strategy, in ac-  
19 cordance with paragraph (3), to promote the  
20 development of hybrid micro-grid systems for  
21 isolated communities, particularly for those  
22 communities exposed to extreme weather condi-  
23 tions and high energy costs, including elec-  
24 tricity, space heating and cooling, and transpor-  
25 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;

24                (G) transactive energy systems; and

1 (H) advanced demand management sys-  
2 tems; and

3 (4) with respect to States, the role of the grid  
4 operator in enabling a robust future electric system  
5 to ensure that—

6 (A) electric utilities remain financially via-  
7 ble;

8 (B) electric utilities make the needed in-  
9 vestments that ensure a reliable, secure, and re-  
10 siliant grid; and

11 (C) costs incurred to transform to an inte-  
12 grated grid are allocated and recovered respon-  
13 sibly, efficiently, and equitably.

14 **SEC. 2307. STATE AND REGIONAL ELECTRICITY DISTRIBU-**  
15 **TION PLANNING.**

16 (a) IN GENERAL.—Upon the request of a State or  
17 regional organization, the Secretary shall partner with  
18 States and regional organizations to facilitate the develop-  
19 ment of State and regional electricity distribution plans  
20 by—

21 (1) conducting a resource assessment and anal-  
22 ysis of future demand and distribution requirements;  
23 and

24 (2) developing open source tools for State and  
25 regional planning and operations.



1 (b) RISK AND SECURITY ANALYSIS.—The assessment  
2 under subsection (a)(1) shall include—

3 (1) the evaluation of the physical and cyberse-  
4 curity needs of an advanced distribution manage-  
5 ment system and the integration of distributed en-  
6 ergy resources; and

7 (2) advanced use of grid architecture to analyze  
8 risks in an all-hazards approach that includes com-  
9 munications infrastructure, control systems architec-  
10 ture, and power systems architecture.

11 (c) TECHNICAL ASSISTANCE.—For the purpose of de-  
12 veloping State and regional electricity distribution plans,  
13 the Secretary shall provide technical assistance to—

14 (1) States;

15 (2) regional reliability entities; and

16 (3) other distribution asset owners and opera-  
17 tors.

18 **SEC. 2308. AUTHORIZATION OF APPROPRIATIONS.**

19 There is authorized to be appropriated to the Sec-  
20 retary to carry out sections 2302 through 2307  
21 \$200,000,000 for each of fiscal years 2017 through 2026.

22 **SEC. 2309. ELECTRIC TRANSMISSION INFRASTRUCTURE**  
23 **PERMITTING.**

24 (a) INTERAGENCY RAPID RESPONSE TEAM FOR  
25 TRANSMISSION.—

1           (1) ESTABLISHMENT.—There is established an  
2 interagency rapid response team, to be known as the  
3 “Interagency Rapid Response Team for Trans-  
4 mission” (referred to in this subsection as the  
5 “Team”), to expedite and improve the permitting  
6 process for electric transmission infrastructure on  
7 Federal land and non-Federal land.

8           (2) MISSION.—The mission of the Team shall  
9 be—

10                   (A) to improve the timeliness and effi-  
11 ciency of electric transmission infrastructure  
12 permitting; and

13                   (B) to facilitate the performance of main-  
14 tenance and upgrades to electric transmission  
15 lines on Federal land and non-Federal land.

16           (3) MEMBERSHIP.—The Team shall be com-  
17 prised of representatives of—

18                   (A) the Federal Energy Regulatory Com-  
19 mission;

20                   (B) the Department;

21                   (C) the Department of the Interior;

22                   (D) the Department of Defense;

23                   (E) the Department of Agriculture;

24                   (F) the Council on Environmental Quality;

25                   (G) the Department of Commerce;

1 (H) the Advisory Council on Historic Pres-  
2 ervation; and

3 (I) the Environmental Protection Agency.

4 (4) DUTIES.—The Team shall—

5 (A) facilitate coordination and unified envi-  
6 ronmental documentation among electric trans-  
7 mission infrastructure project applicants, Fed-  
8 eral agencies, States, and Indian tribes involved  
9 in the siting and permitting process;

10 (B) establish clear timelines for the review  
11 and coordination of electric transmission infra-  
12 structure projects by the applicable agencies;

13 (C) ensure that each electric transmission  
14 infrastructure project is posted on the Federal  
15 permitting transmission tracking system known  
16 as “e-Trans”, including information on the sta-  
17 tus and anticipated completion date of each  
18 project; and

19 (D) regularly notify all participating mem-  
20 bers of the Team involved in any specific permit  
21 of—

22 (i) any outstanding agency action that  
23 is required with respect to the permit; and

24 (ii) any approval or required comment  
25 that has exceeded statutory or agency

1                   timelines for completion, including an iden-  
2                   tification of any Federal agency, depart-  
3                   ment, or field office that has not met the  
4                   applicable timeline.

5                   (5) ANNUAL REPORTS.—Annually, the Team  
6                   shall submit to the Committee on Energy and Nat-  
7                   ural Resources of the Senate and the Committee on  
8                   Energy and Commerce of the House of Representa-  
9                   tives a report that describes the average completion  
10                  time for specific categories of regionally and nation-  
11                  ally significant transmission projects, based on infor-  
12                  mation obtained from the applicable Federal agen-  
13                  cies.

14                  (6) USE OF DATA BY OMB.—Using data pro-  
15                  vided by the Team, the Director of the Office of  
16                  Management and Budget shall prioritize inclusion of  
17                  individual electric transmission infrastructure  
18                  projects on the website operated by the Office of  
19                  Management and Budget in accordance with section  
20                  1122 of title 31, United States Code.

21                  (b) TRANSMISSION OMBUDSPERSON.—

22                  (1) ESTABLISHMENT.—To enhance and ensure  
23                  the reliability of the electric grid, there is established  
24                  within the Council on Environmental Quality the po-  
25                  sition of Transmission Ombudsperson (referred to in

1 this subsection as the “Ombudsperson”), to provide  
2 a unified point of contact for—

3 (A) resolving interagency or intra-agency  
4 issues or delays with respect to electric trans-  
5 mission infrastructure permits; and

6 (B) receiving and resolving complaints  
7 from parties with outstanding or in-process ap-  
8 plications relating to electric transmission infra-  
9 structure.

10 (2) DUTIES.—The Ombudsperson shall—

11 (A) establish a process for—

12 (i) facilitating the permitting process  
13 for performance of maintenance and up-  
14 grades to electric transmission lines on  
15 Federal land and non-Federal land, with a  
16 special emphasis on facilitating access for  
17 immediate maintenance, repair, and vege-  
18 tation management needs;

19 (ii) resolving complaints filed with the  
20 Ombudsperson with respect to in-process  
21 electric transmission infrastructure per-  
22 mits; and

23 (iii) issuing recommended resolutions  
24 to address the complaints filed with the  
25 Ombudsperson; and

1           (B) hear, compile, and share any com-  
2           plaints filed with Ombudsperson relating to in-  
3           process electric transmission infrastructure per-  
4           mits.

5           (c) AGREEMENTS.—

6           (1) IN GENERAL.—The Secretary of the Inte-  
7           rior, with respect to public lands (as defined in sec-  
8           tion 103(e) of the Federal Land Policy and Manage-  
9           ment Act (43 U.S.C. 1702(e)), and the Secretary of  
10          Agriculture, with respect to National Forest System  
11          land, shall provide for continuity of the existing use  
12          and occupancy for the transmission of electric en-  
13          ergy by any Federal department or agency granted  
14          across public lands or National Forest System land.

15          (2) AGREEMENTS.—The Secretary of the Inte-  
16          rior or the Secretary of Agriculture, as applicable,  
17          within 30 days after receiving a request from the  
18          Federal department or agency administering the  
19          electric energy transmission facilities, shall, in con-  
20          sultation with that department or agency, initiate  
21          agreements regarding the use and occupancy or  
22          right-of-way (including vegetation management  
23          agreements, where applicable).

1 **SEC. 2310. REPORT BY TRANSMISSION ORGANIZATIONS ON**  
2 **DISTRIBUTED ENERGY RESOURCES AND**  
3 **MICRO-GRID SYSTEMS.**

4 (a) DEFINITIONS.—In this section:

5 (1) DISTRIBUTED ENERGY RESOURCE.—The  
6 term “distributed energy resource” means an elec-  
7 tricity supply resource that, as permitted by State  
8 law—

9 (A)(i) is interconnected to the electric sys-  
10 tem operated by a transmission organization at  
11 or below 69kV; and

12 (ii) is subject to dispatch by the trans-  
13 mission organization; and

14 (B)(i) generates electricity using any pri-  
15 mary energy source, including solar energy and  
16 other renewable resources; or

17 (ii) stores energy and is capable of sup-  
18 plying electricity to the electric system operated  
19 by the transmission organization from the stor-  
20 age reservoir.

21 (2) ELECTRIC GENERATING CAPACITY RE-  
22 SOURCE.—The term “electric generating capacity re-  
23 source” means an electric generating resource, as  
24 measured by the maximum load-carrying ability of  
25 the resource, exclusive of station use and planned,  
26 unplanned, or other outage or derating, that is sub-

1       ject to dispatch by a transmission organization to  
2       meet the resource adequacy needs of the systems op-  
3       erated by the transmission organization.

4           (3) MICRO-GRID SYSTEM.—The term “micro-  
5       grid system” means an electrically distinct system  
6       under common control that—

7           (A) serves an electric load at or below  
8       69kV from a distributed energy resource or  
9       electric generating capacity resource; and

10          (B) is subject to dispatch by a trans-  
11       mission organization.

12          (4) TRANSMISSION ORGANIZATION.—The term  
13       “transmission organization” has the meaning given  
14       the term in section 3 of the Federal Power Act (16  
15       U.S.C. 796).

16       (b) REPORT.—

17           (1) NOTICE.—Not later than 14 days after the  
18       date of enactment of this section, the Commission  
19       shall submit to each transmission organization no-  
20       tice that the transmission organization is required to  
21       file with the Commission a report in accordance with  
22       paragraph (2).

23           (2) REPORT.—Not later than 180 days after  
24       the date on which a transmission organization re-  
25       ceives a notice under paragraph (1), the trans-



1 mission organization shall submit to the Commission  
2 a report that—

3 (A)(i) identifies distributed energy re-  
4 sources and micro-grid systems that are subject  
5 to dispatch by the transmission organization as  
6 of the date of the report; and

7 (ii) describes the fuel sources and oper-  
8 ational characteristics of such distributed en-  
9 ergy resources and micro-grid systems, includ-  
10 ing, to the extent practicable, a discussion of  
11 the benefits and costs associated with the dis-  
12 tributed energy resources and micro-grid sys-  
13 tems identified under clause (i);

14 (B) evaluates, with due regard for oper-  
15 ational and economic benefits and costs, the po-  
16 tential for distributed energy resources and  
17 micro-grid systems to be deployed to the trans-  
18 mission organization over the short- and long-  
19 term periods in the planning cycle of the trans-  
20 mission organization; and

21 (C) identifies—

22 (i) over the short- and long-term peri-  
23 ods in the planning cycle of the trans-  
24 mission organization, barriers to the de-  
25 ployment to the transmission organization

1 of distributed energy resources and micro-  
2 grid systems; and

3 (ii) potential changes to the oper-  
4 ational requirements for, or charges associ-  
5 ated with, the interconnection of distrib-  
6 uted energy resources and micro-grid sys-  
7 tems to the transmission organization that  
8 would reduce the barriers identified under  
9 clause (i).

10 **SEC. 2311. NET METERING STUDY GUIDANCE.**

11 Title XVIII of Energy Policy Act of 2005 (Public  
12 Law 109–58; 119 Stat. 1122) is amended by adding at  
13 the end the following:

14 **“SEC. 1841. NET ENERGY METERING STUDY.**

15 “(a) IN GENERAL.—Not later than 180 days after  
16 the date of enactment of this Act, the Secretary shall—

17 “(1) issue guidance on criteria required to be  
18 included in studies of net metering conducted by the  
19 Department; and

20 “(2) undertake a study of net energy metering.

21 “(b) REQUIREMENTS AND CONTENTS.—The model  
22 guidance issued under subsection (a) shall clarify without  
23 prejudice to other study criteria that any study of net en-  
24 ergy metering, including the study conducted by the De-  
25 partment under subsection (a) shall—

1 “(1) be publicly available; and

2 “(2) assess benefits and costs of net energy me-  
3 tering, including—

4 “(A) load data, including hourly profiles;

5 “(B) distributed generation production  
6 data;

7 “(C) best available technology, including  
8 inverter capability; and

9 “(D) benefits and costs of distributed en-  
10 ergy deployment, including—

11 “(i) environmental benefits;

12 “(ii) changes in electric system reli-  
13 ability;

14 “(iii) changes in peak power require-  
15 ments;

16 “(iv) provision of ancillary services,  
17 including reactive power;

18 “(v) changes in power quality;

19 “(vi) changes in land-use effects;

20 “(vii) changes in right-of-way acquisi-  
21 tion costs;

22 “(viii) changes in vulnerability to ter-  
23 rorism; and

24 “(ix) changes in infrastructure resil-  
25 ience.”.

## Subtitle E—Computing

### SEC. 2401. EXASCALE COMPUTER RESEARCH PROGRAM.

#### (a) RENAMING OF ACT.—

(1) IN GENERAL.—Section 1 of the Department of Energy High-End Computing Revitalization Act of 2004 (15 U.S.C. 5501 note; Public Law 108–423) is amended by striking “Department of Energy High-End Computing Revitalization Act of 2004” and inserting “Exascale Computing Act of 2015”.

(2) CONFORMING AMENDMENT.—Section 976(a)(1) of the Energy Policy Act of 2005 (42 U.S.C. 16316(1)) is amended by striking “Department of Energy High-End Computing Revitalization Act of 2004” and inserting “Exascale Computing Act of 2015”.

(b) DEFINITIONS.—Section 2 of the Exascale Computing Act of 2015 (15 U.S.C. 5541) is amended—

(1) by redesignating paragraphs (2) through (5) as paragraphs (3) through (6), respectively;

(2) by striking paragraph (1) and inserting the following:

“(1) DEPARTMENT.—The term ‘Department’ means the Department of Energy.

“(2) EXASCALE COMPUTING.—The term ‘exascale computing’ means computing through the

1 use of a computing machine that performs near or  
2 above 10 to the 18th power floating point operations  
3 per second.”; and

4 (3) in paragraph (6) (as redesignated by para-  
5 graph (1)), by striking “, acting through the Direc-  
6 tor of the Office of Science of the Department of  
7 Energy”.

8 (c) DEPARTMENT OF ENERGY HIGH-END COM-  
9 PUTING RESEARCH AND DEVELOPMENT PROGRAM.—Sec-  
10 tion 3 of the Exascale Computing Act of 2015 (15 U.S.C.  
11 5542) is amended—

12 (1) in subsection (a)(1), by striking “program”  
13 and inserting “coordinated program across the De-  
14 partment”;

15 (2) in subsection (b)(2), by striking “, which  
16 may” and all that follows through “architectures”;  
17 and

18 (3) by striking subsection (d) and inserting the  
19 following:

20 “(d) EXASCALE COMPUTING PROGRAM.—

21 “(1) IN GENERAL.—The Secretary shall con-  
22 duct a research program (referred to in this sub-  
23 section as the ‘Program’) to develop 2 or more  
24 exascale computing machine architectures to pro-  
25 mote the missions of the Department.

1 “(2) IMPLEMENTATION.—

2 “(A) IN GENERAL.—In carrying out the  
3 Program, the Secretary shall—

4 “(i) establish 2 or more National Lab-  
5 oratory partnerships with industry part-  
6 ners and institutions of higher education  
7 for the research and development of 2 or  
8 more exascale computing architectures  
9 across all applicable organizations of the  
10 Department; and

11 “(ii) provide, as appropriate, on a  
12 competitive, merit-reviewed basis, access  
13 for researchers in industries in the United  
14 States, institutions of higher education,  
15 National Laboratories, and other Federal  
16 agencies to the exascale computing systems  
17 developed pursuant to clause (i).

18 “(B) SELECTION OF PARTNERS.—The Sec-  
19 retary shall select members for the partnerships  
20 with the computing facilities of the Department  
21 under subparagraph (A) through a competitive,  
22 peer-review process.

23 “(3) CODESIGN AND APPLICATION DEVELOP-  
24 MENT.—

1           “(A) IN GENERAL.—The Secretary shall  
2 carry out the Program through an integration  
3 of applications, computer science, applied math-  
4 ematics, and computer hardware architecture  
5 using the partnerships established pursuant to  
6 paragraph (2) to ensure that, to the maximum  
7 extent practicable, 2 or more exascale com-  
8 puting machine architectures are capable of  
9 solving Department target applications and  
10 broader scientific problems.

11           “(B) REPORT.—The Secretary shall sub-  
12 mit to Congress a report on how the integration  
13 under subparagraph (A) is furthering applica-  
14 tion science data and computational workloads  
15 across application interests, including national  
16 security, material science, physical science, cy-  
17 bersecurity, biological science, the Materials Ge-  
18 nome and BRAIN Initiatives of the President,  
19 advanced manufacturing, and the national elec-  
20 tric grid.

21           “(4) PROJECT REVIEW.—

22           “(A) IN GENERAL.—The exascale architec-  
23 tures developed pursuant to partnerships estab-  
24 lished pursuant to paragraph (2) shall be re-  
25 viewed through a project review process.

1           “(B) REPORT.—Not later than 90 days  
2           after the date of enactment of this subsection,  
3           the Secretary shall submit to Congress a report  
4           on—

5                   “(i) the results of the review con-  
6                   ducted under subparagraph (A); and

7                   “(ii) the coordination and manage-  
8                   ment of the Program to ensure an inte-  
9                   grated research program across the De-  
10                  partment.

11           “(5) ANNUAL REPORTS.—At the time of the  
12           budget submission of the Department for each fiscal  
13           year, the Secretary, in consultation with the mem-  
14           bers of the partnerships established pursuant to  
15           paragraph (2), shall submit to Congress a report  
16           that describes funding for the Program as a whole  
17           by functional element of the Department and critical  
18           milestones.”.

19           (d) AUTHORIZATION OF APPROPRIATIONS.—Section  
20           4 of the Exascale Computing Act of 2015 (15 U.S.C.  
21           5543) is amended—

22                   (1) by striking “this Act” and inserting “sec-  
23                   tion 3(d)”; and

24                   (2) by striking paragraphs (1) through (3) and  
25                   inserting the following:



- 1 “(1) \$272,000,000 for fiscal year 2016;  
2 “(2) \$340,000,000 for fiscal year 2017; and  
3 “(3) \$360,000,000 for fiscal year 2018.”.

4 **TITLE III—SUPPLY**  
5 **Subtitle A—Renewables**

6 **PART I—HYDROELECTRIC**

7 **SEC. 3001. HYDROPOWER REGULATORY IMPROVEMENTS.**

8 (a) SENSE OF CONGRESS ON THE USE OF HYDRO-  
9 POWER RENEWABLE RESOURCES.—It is the sense of Con-  
10 gress that—

11 (1) hydropower is a renewable resource for pur-  
12 poses of all Federal programs and is an essential  
13 source of energy in the United States; and

14 (2) the United States should increase substan-  
15 tially the capacity and generation of clean, renewable  
16 hydropower resources that would improve environ-  
17 mental quality in the United States.

18 (b) MODIFYING THE DEFINITION OF RENEWABLE  
19 ENERGY TO INCLUDE HYDROPOWER.—Section 203 of the  
20 Energy Policy Act of 2005 (42 U.S.C. 15852) is amend-  
21 ed—

22 (1) in subsection (a), by striking “the following  
23 amounts” and all that follows through paragraph (3)  
24 and inserting “not less than 15 percent in fiscal year

1 2016 and each fiscal year thereafter shall be renew-  
2 able energy.” ; and

3 (2) in subsection (b), by striking paragraph (2)  
4 and inserting the following:

5 “(2) RENEWABLE ENERGY.—The term ‘renew-  
6 able energy’ means energy produced from solar,  
7 wind, biomass, landfill gas, ocean (including tidal,  
8 wave, current, and thermal), geothermal, municipal  
9 solid waste, or hydropower.”.

10 (c) LICENSES FOR CONSTRUCTION.—Section 4(e) of  
11 the Federal Power Act (16 U.S.C. 797(e)) is amended,  
12 in the first proviso, by striking “deem” and inserting “de-  
13 termine to be”.

14 (d) PRELIMINARY PERMITS.—Section 5 of the Fed-  
15 eral Power Act (16 U.S.C. 798) is amended—

16 (1) in subsection (a), by striking “three” and  
17 inserting “4”; and

18 (2) in subsection (b)—

19 (A) by striking “Commission may extend  
20 the period of a preliminary permit once for not  
21 more than 2 additional years beyond the 3  
22 years” and inserting the following: “Commis-  
23 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 by striking the second, third, and fourth sen-  
11 tences.

12 (h) ALTERNATIVE CONDITIONS AND PRESCRIP-  
13 TIONS.—Section 33 of the Federal Power Act (16 U.S.C.  
14 823d) is amended—

15 (1) in subsection (a)—

16 (A) in paragraph (1), by striking “deems”  
17 and inserting “determines”;

18 (B) in paragraph (2)(B), in the matter  
19 preceding clause (i), by inserting “determined  
20 to be necessary” before “by the Secretary”;

21 (C) by striking paragraph (4); and

22 (D) by striking paragraph (5);

23 (2) in subsection (b)—

24 (A) by striking paragraph (4); and

25 (B) by striking paragraph (5); and

1 (3) by adding at the end the following:

2 “(c) FURTHER CONDITIONS.—This section applies to  
3 any further conditions or prescriptions proposed or im-  
4 posed pursuant to section 4(e), 6, or 18.”.

5 (i) LICENSING PROCESS IMPROVEMENTS AND CO-  
6 ORDINATION.—Part I of the Federal Power Act (16  
7 U.S.C. 792 et seq.) is amended by adding at the end the  
8 following:

9 **“SEC. 34. LICENSING PROCESS IMPROVEMENTS.**

10 “(a) LICENSE STUDIES.—

11 “(1) IN GENERAL.—To facilitate the timely and  
12 efficient completion of the license proceedings under  
13 this part, the Commission shall—

14 “(A) conduct an investigation of best prac-  
15 tices in performing licensing studies, including  
16 methodologies and the design of studies to as-  
17 sess the full range of environmental impacts of  
18 a project;

19 “(B) compile a comprehensive collection of  
20 studies and data accessible to the public that  
21 could be used to inform license proceedings  
22 under this paragraph; and

23 “(C) encourage license applicants and co-  
24 operating agencies to develop and use, for the  
25 purpose of fostering timely and efficient consid-

1           eration of license applications, a limited number  
2           of open-source methodologies and tools applica-  
3           ble across a wide array of projects, including  
4           water balance models and streamflow analyses.

5           “(2) USE OF EXISTING STUDIES.—To the max-  
6           imum extent practicable, the Commission shall use  
7           existing studies and data in individual licensing pro-  
8           ceedings under this part in accordance with para-  
9           graph (1).

10           “(3) NONDUPLICATION REQUIREMENT.—To the  
11           maximum extent practicable, the Commission shall  
12           ensure that studies and data required for any Fed-  
13           eral authorization (as defined in section 35(a)) ap-  
14           plicable to a particular project or facility are not du-  
15           plicated in other licensing proceedings under this  
16           part.

17           “(4) BIOLOGICAL OPINIONS.—To the maximum  
18           extent practicable, the Secretary of Commerce shall  
19           ensure that relevant offices within the National Ma-  
20           rine Fisheries Service prepare any biological opinion  
21           under section 7 of the Endangered Species Act of  
22           1973 (16 U.S.C. 1536) that forms the basis for a  
23           prescription under section 18 on a concurrent rather  
24           than sequential basis.

1           “(5) WATER QUALITY CERTIFICATION DEAD-  
2           LINE.—

3           “(A) IN GENERAL.—For purposes of  
4           issuing a license under this part, the deadline  
5           for a certifying agency to act under section  
6           401(a) of the Federal Water Pollution Control  
7           Act (33 U.S.C. 1341(a)) shall take effect only  
8           on the submission of a request for certification  
9           determined to be complete by the certifying  
10          agency.

11          “(B) NOTICE OF COMPLETE REQUEST.—  
12          The certifying agency shall inform the Commis-  
13          sion when a request for certification is deter-  
14          mined to be complete.

15   **“SEC. 35. LICENSING PROCESS COORDINATION.**

16          “(a) DEFINITION OF FEDERAL AUTHORIZATION.—In  
17          this section, the term ‘Federal authorization’ means any  
18          authorization required under Federal law (including any  
19          license, permit, special use authorization, certification,  
20          opinion, consultation, determination, or other approval)  
21          with respect to—

22                 “(1) a project licensed under section 4 or 15;

23                 or

24                 “(2) a facility exempted under—

25                         “(A) section 30; or

1           “(B) section 405(d) of the Public Utility  
2           Regulatory Policies Act of 1978 (16 U.S.C.  
3           2705(d)).

4           “(b) DESIGNATION AS LEAD AGENCY.—

5           “(1) IN GENERAL.—The Commission shall act  
6           as the lead agency for the purposes of coordinating  
7           all applicable Federal authorizations.

8           “(2) OTHER AGENCIES.—Each Federal and  
9           State agency considering an aspect of an application  
10          for Federal authorization shall cooperate with the  
11          Commission.

12          “(c) SCHEDULE.—

13          “(1) TIMING FOR ISSUANCE.—It is the sense of  
14          Congress that all Federal authorizations required for  
15          a project or facility, including a license or exemption  
16          order of the Commission, should be issued by the  
17          date that is 3 years after the date on which an ap-  
18          plication is considered to be complete by the Com-  
19          mission.

20          “(2) COMMISSION SCHEDULE.—

21          “(A) IN GENERAL.—The Commission shall  
22          establish a schedule for the issuance of all Fed-  
23          eral authorizations.



1           “(B) REQUIREMENTS.—In establishing the  
2           schedule under subparagraph (A), the Commis-  
3           sion shall—

4                   “(i) consult and cooperate with the  
5                   Federal and State agencies responsible for  
6                   a Federal authorization;

7                   “(ii) ensure the expeditious comple-  
8                   tion of all proceedings relating to a Fed-  
9                   eral authorization; and

10                   “(iii) comply with applicable schedules  
11                   established by Federal law with respect to  
12                   a Federal authorization.

13           “(3) RESOLUTION OF INTERAGENCY DIS-  
14           PUTES.—If the Federal agency fails to adhere to the  
15           schedule established by the Commission under para-  
16           graph (2), or if the final condition of the Secretary  
17           under section 4(e) or prescription under section 18  
18           has been unreasonably delayed in derogation of the  
19           schedule established under paragraph (2), or if a  
20           proposed alternative condition or prescription has  
21           been unreasonably denied, or if a final condition or  
22           prescription would be inconsistent with the purposes  
23           of this part or other applicable law, the Commission  
24           may refer the matter to the Chairman of the Council  
25           on Environmental Quality—

1           “(A) to ensure timely participation;

2           “(B) to ensure a timely decision;

3           “(C) to mediate the dispute; or

4           “(D) to refer the matter to the President.

5           “(d) CONSOLIDATED RECORD.—

6           “(1) IN GENERAL.—The Commission shall  
7 maintain official consolidated records of all license  
8 proceedings under this part.

9           “(2) SUBMISSION OF RECOMMENDATIONS.—

10 Any Federal or State agency that is providing rec-  
11 ommendations with respect to a license proceeding  
12 under this part shall submit to the Commission for  
13 inclusion in the consolidated record relating to the li-  
14 cense proceeding maintained under paragraph (1)—

15           “(A) the recommendations;

16           “(B) the rationale for the recommenda-  
17 tions; and

18           “(C) any supporting materials relating to  
19 the recommendations.

20           “(3) WRITTEN STATEMENT.—In a case in  
21 which a Federal agency is making a determination  
22 with respect to a covered measure (as defined in sec-  
23 tion 36(a)), the head of the Federal agency shall in-  
24 clude in the consolidated record a written statement  
25 demonstrating that the Federal agency gave equal

1 consideration to the effects of the covered measure  
2 on—

3 “(A) energy supply, distribution, cost, and  
4 use;

5 “(B) flood control;

6 “(C) navigation;

7 “(D) water supply; and

8 “(E) air quality and the preservation of  
9 other aspects of environmental quality.

10 **“SEC. 36. TRIAL-TYPE HEARINGS.**

11 “(a) DEFINITION OF COVERED MEASURE.—In this  
12 section, the term ‘covered measure’ means—

13 “(1) a condition prescribed under section 4(e),  
14 including an alternative condition proposed under  
15 section 33(a);

16 “(2) fishways prescribed under section 18, in-  
17 cluding an alternative prescription proposed under  
18 section 33(b); or

19 “(3) any further condition pursuant to section  
20 4(e), 6, or 18.

21 “(b) AUTHORIZATION OF TRIAL-TYPE HEARING.—

22 The license applicant (including an applicant for a license  
23 under section 15) and any party to the proceeding shall  
24 be entitled to a determination on the record, after oppor-  
25 tunity for a trial-type hearing of not more than 120 days,

1 on any disputed issues of material fact with respect to an  
2 applicable covered measure.

3 “(c) DEADLINE FOR REQUEST.—A request for a  
4 trial-type hearing under this section shall be submitted not  
5 later than 60 days after the date on which, as applicable—

6 “(1) the Secretary submits the condition under  
7 section 4(e) or prescription under section 18; or

8 “(2)(A) the Commission publishes notice of the  
9 intention to use the reserved authority of the Com-  
10 mission to order a further condition under section 6;  
11 or

12 “(B) the Secretary exercises reserved authority  
13 under the license to prescribe, submit, or revise any  
14 condition to a license under the first proviso of sec-  
15 tion 4(e) or fishway prescribed under section 18, as  
16 appropriate.

17 “(d) NO REQUIREMENT TO EXHAUST.—By electing  
18 not to request a trial-type hearing under subsection (d),  
19 a license applicant and any other party to a license pro-  
20 ceeding shall not be considered to have waived the right  
21 of the applicant or other party to raise any issue of fact  
22 or law in a non-trial-type proceeding, but no issue may  
23 be raised for the first time on rehearing or judicial review  
24 of the license decision of the Commission.

1       “(e) ADMINISTRATIVE LAW JUDGE.—All disputed  
2 issues of material fact raised by a party in a request for  
3 a trial-type hearing submitted under subsection (d) shall  
4 be determined in a single trial-type hearing to be con-  
5 ducted by an Administrative Law Judge within the Office  
6 of Administrative Law Judges and Dispute Resolution of  
7 the Commission, in accordance with the Commission rules  
8 of practice and procedure under part 385 of title 18, Code  
9 of Federal Regulations (or successor regulations), and  
10 within the timeframe established by the Commission for  
11 each license proceeding (including a proceeding for a li-  
12 cense under section 15) under section 35(e).

13       “(f) STAY.—The Administrative Law Judge may im-  
14 pose a stay of a trial-type hearing under this section for  
15 a period of not more than 120 days to facilitate settlement  
16 negotiations relating to resolving the disputed issues of  
17 material fact with respect to the covered measure.

18       “(g) DECISION OF THE ADMINISTRATIVE LAW  
19 JUDGE.—

20               “(1) CONTENTS.—The decision of the Adminis-  
21 trative Law Judge shall contain—

22                       “(A) findings of fact on all disputed issues  
23                       of material fact;

1           “(B) conclusions of law necessary to make  
2           the findings of fact, including rulings on mate-  
3           riality and the admissibility of evidence; and

4           “(C) reasons for the findings and conclu-  
5           sions.

6           “(2) LIMITATION.—The decision of the Admin-  
7           istrative Law Judge shall not contain conclusions as  
8           to whether—

9           “(A) any condition or prescription should  
10          be adopted, modified, or rejected; or

11          “(B) any alternative condition or prescrip-  
12          tion should be adopted, modified, or rejected.

13          “(3) FINALITY.—A decision of an Administra-  
14          tive Law Judge under this section with respect to a  
15          disputed issue of material fact shall not be subject  
16          to further administrative review.

17          “(4) SERVICE.—The Administrative Law Judge  
18          shall serve the decision on each party to the hearing  
19          and forward the complete record of the hearing to  
20          the Commission and the Secretary that proposed the  
21          original condition or prescription.

22          “(h) SECRETARIAL DETERMINATION.—

23          “(1) IN GENERAL.—Not later than 60 days  
24          after the date on which the Administrative Law  
25          Judge issues the decision under subsection (g) and

1 in accordance with the schedule established by the  
2 Commission under section 35(c), the Secretary pro-  
3 posing a condition under section 4(e) or a prescrip-  
4 tion under section 18 shall file with the Commission  
5 a final determination to adopt, modify, or withdraw  
6 any condition or prescription that was the subject of  
7 a hearing under this section, based on the decision  
8 of the Administrative Law Judge.

9 “(2) RECORD OF DETERMINATION.—The final  
10 determination of the Secretary filed with the Com-  
11 mission shall identify the reasons for the decision  
12 and any considerations taken into account that were  
13 not part of, or inconsistent with, the findings of the  
14 Administrative Law Judge and shall be included in  
15 the consolidated record in section 35(d).

16 “(i) LICENSING DECISION OF THE COMMISSION.—  
17 Notwithstanding sections 4(e) and 18, if the Commission  
18 finds that the final condition or prescription of the Sec-  
19 retary is inconsistent with the purposes of this part or  
20 other applicable law, the Commission may refer the matter  
21 to the Chairman of the Council on Environmental Quality  
22 under section 35(c).

23 “(j) JUDICIAL REVIEW.—The decision of the Admin-  
24 istrative Law Judge and the record of determination of  
25 the Secretary shall be included in the record of the appli-

1 cable licensing proceeding and subject to judicial review  
2 of the final licensing decision of the Commission under  
3 section 313(b).

4 **“SEC. 37. PUMPED STORAGE PROJECTS.**

5 “In carrying out section 6(a) of the Hydropower Reg-  
6 ulatory Efficiency Act of 2013 (16 U.S.C. 797 note; Pub-  
7 lic Law 113–23), the Commission shall consider a closed  
8 loop pumped storage project to include a project—

9 “(1) in which the upper and lower reservoirs do  
10 not impound or directly withdraw water from a navi-  
11 gable stream; or

12 “(2) that is not continuously connected to a  
13 naturally flowing water feature.

14 **“SEC. 38. ANNUAL REPORTS.**

15 “(a) COMMISSION ANNUAL REPORT.—

16 “(1) IN GENERAL.—The Commission shall sub-  
17 mit to the Committee on Energy and Natural Re-  
18 sources of the Senate and the Committee on Energy  
19 and Commerce of the House of Representatives an  
20 annual report that—

21 “(A) describes and quantifies, for each li-  
22 censed, exempted, or proposed project under  
23 this part or section 405(d) of the Public Utility  
24 Regulatory Policies Act of 1978 (16 U.S.C.  
25 2705(d)) (referred to in this subsection as the



1 ‘covered project’), the quantity of energy and  
2 capacity authorized for new development and  
3 reauthorized for continued operation during the  
4 reporting year, including an assessment of the  
5 economic, climactic, air quality, and other envi-  
6 ronmental benefits achieved by the new and re-  
7 authorized energy and capacity;

8 “(B) describes and quantifies the loss of  
9 energy, capacity, or ancillary services as a re-  
10 sult of any licensing action under this part or  
11 other requirement under Federal law during the  
12 reporting year;

13 “(C) identifies any application to license,  
14 relicense, or expand a covered project pending  
15 as of the date of the annual report, including  
16 a quantification of the new energy and capacity  
17 with the potential to be gained or lost by action  
18 relating to the covered project; and

19 “(D) lists all proposed covered projects  
20 that, as of the date of the annual report, are  
21 subject to a preliminary permit issued under  
22 section 4(f), including a description of the  
23 quantity of new energy and capacity that would  
24 be achieved through the development of each  
25 proposed covered project.

1           “(2) AVAILABILITY.—The Commission shall es-  
2           tablish and maintain a publicly available website or  
3           comparable resource that tracks all information re-  
4           quired for the annual report under paragraph (1).

5           “(b) RESOURCE AGENCY ANNUAL REPORT.—

6           “(1) IN GENERAL.—Any Federal or State re-  
7           source agency that is participating in any Commis-  
8           sion proceeding under this part or that has respon-  
9           sibilities for any Federal authorization shall submit  
10          to the Committee on Energy and Natural Resources  
11          of the Senate and the Committee on Energy and  
12          Commerce of the House of Representatives a report  
13          that—

14                 “(A) describes each term, condition, or  
15                 other requirement prepared by the resource  
16                 agency during the reporting year with respect  
17                 to a Commission proceeding under this part, in-  
18                 cluding—

19                         “(i) an assessment of whether imple-  
20                         mentation of the term, condition, or other  
21                         requirement would result in the loss of en-  
22                         ergy, capacity, or ancillary services at the  
23                         project, including a quantification of the  
24                         losses;

1           “(ii) an analysis of economic, air qual-  
2           ity, climactic and other environmental ef-  
3           fects associated with implementation of the  
4           term, condition, or other requirement;

5           “(iii) a demonstration, based on evi-  
6           dence in the record of the Commission,  
7           that the resource agency prepared the  
8           term, condition, or other requirement in a  
9           manner that meets the policy established  
10          by this part while discharging the respon-  
11          sibilities of the resource agency under this  
12          part or any other applicable requirement  
13          under Federal law; and

14          “(iv) a statement of whether the head  
15          of the applicable Federal agency has ren-  
16          dered final approval of the term, condition,  
17          or other requirement, or whether the term,  
18          condition, or other requirement remains a  
19          preliminary recommendation of staff of the  
20          resource agency; and

21          “(B) identifies all pending, scheduled, and  
22          anticipated proceedings under this part that, as  
23          of the date of the annual report, the resource  
24          agency expects to participate in, or has any ap-

1           proval or participatory responsibilities for under  
2           Federal law, including—

3                   “(i) an accounting of whether the re-  
4                   source agency met all deadlines or other  
5                   milestones established by the resource  
6                   agency or the Commission during the re-  
7                   porting year; and

8                   “(ii) the specific plans of the resource  
9                   agency for allocating sufficient resources  
10                  for each project during the upcoming year.

11               “(2) AVAILABILITY.—Any resource agency pre-  
12               paring an annual report to Congress under para-  
13               graph (1) shall establish and maintain a publicly  
14               available website or comparable resource that tracks  
15               all information required for the annual report.”.

16               (j) PILOT PROGRAM.—

17                   (1) IN GENERAL.—The Commission (as the  
18                   term is defined in section 3 of the Federal Power  
19                   Act (16 U.S.C. 796)) shall establish a voluntary  
20                   pilot program covering at least 1 region in which the  
21                   Commission, in consultation with the heads of co-  
22                   operating agencies, shall direct a set of region-wide  
23                   studies to inform subsequent project-level studies  
24                   within each region.

1           (2) DESIGNATION.—Not later than 2 years  
2 after the date of enactment of this Act, if the condi-  
3 tions under paragraph (3) are met, the Commission,  
4 in consultation with the heads of cooperating agen-  
5 cies, shall designate 1 or more regions to be studied  
6 under this subsection.

7           (3) VOLUNTARY BASIS.—The Commission may  
8 only designate regions under paragraph (2) in which  
9 every licensee, on a voluntary basis and in writing,  
10 agrees—

11                   (A) to be included in the pilot program;

12                   and

13                   (B) to any cost-sharing arrangement with  
14 other licensees and applicable Federal and  
15 State agencies with respect to conducting basin-  
16 wide studies.

17           (4) SCALE.—The regions designated under  
18 paragraph (2) shall—

19                   (A) be at an adequately large scale to  
20 cover at least 5 existing projects that—

21                           (i) are licensed under this part; and

22                           (ii) the licenses of which shall expire  
23 not later than 15 years after the date of  
24 enactment of this section; and

1 (B) be likely to yield region-wide studies  
2 and information that will significantly reduce  
3 the need for and scope of subsequent project-  
4 level studies and information.

5 (5) PROJECT LICENSE TERMS.—The Commis-  
6 sion may extend the term of any existing license  
7 within a region designated under paragraph (2) by  
8 up to 8 years to provide sufficient time for relevant  
9 region-wide studies to inform subsequent project-  
10 level studies.

11 **SEC. 3002. HYDROELECTRIC PRODUCTION INCENTIVES**  
12 **AND EFFICIENCY IMPROVEMENTS.**

13 (a) HYDROELECTRIC PRODUCTION INCENTIVES.—  
14 Section 242 of the Energy Policy Act of 2005 (42 U.S.C.  
15 15881) is amended—

16 (1) in subsection (c), by striking “10” and in-  
17 serting “20”;

18 (2) in subsection (f), by striking “20” and in-  
19 serting “30”; and

20 (3) in subsection (g), by striking “each of the  
21 fiscal years 2006 through 2015” and inserting “each  
22 of fiscal years 2016 through 2025”.

23 (b) HYDROELECTRIC EFFICIENCY IMPROVEMENT.—  
24 Section 243(c) of the Energy Policy Act of 2005 (42  
25 U.S.C. 15882(c)) is amended by striking “each of the fis-

1 cal years 2006 through 2015” and inserting “each of fis-  
2 cal years 2016 through 2025”.

3 **SEC. 3003. EXTENSION OF TIME FOR A FEDERAL ENERGY**  
4 **REGULATORY COMMISSION PROJECT IN-**  
5 **VOLVING CLARK CANYON DAM.**

6 Notwithstanding the time period described in section  
7 13 of the Federal Power Act (16 U.S.C. 806) that would  
8 otherwise apply to the Federal Energy Regulatory Com-  
9 mission project numbered 12429, the Federal Energy  
10 Regulatory Commission (referred to in this section as the  
11 “Commission”) shall, at the request of the licensee for the  
12 project, and after reasonable notice and in accordance  
13 with the procedures of the Commission under that section,  
14 reinstate the license and extend the time period during  
15 which the licensee is required to commence construction  
16 of project works for the 3-year period beginning on the  
17 date of enactment of this Act.

18 **SEC. 3004. EXTENSION OF TIME FOR A FEDERAL ENERGY**  
19 **REGULATORY COMMISSION PROJECT IN-**  
20 **VOLVING GIBSON DAM.**

21 (a) IN GENERAL.—Notwithstanding the require-  
22 ments of section 13 of the Federal Power Act (16 U.S.C.  
23 806) that would otherwise apply to the Federal Energy  
24 Regulatory Commission project numbered 12478–003, the  
25 Federal Energy Regulatory Commission (referred to in

1 this section as the “Commission”) may, at the request of  
2 the licensee for the project, and after reasonable notice  
3 and in accordance with the procedures of the Commission  
4 under that section, extend the time period during which  
5 the licensee is required to commence construction of the  
6 project for a 6-year period that begins on the date de-  
7 scribed in subsection (b).

8 (b) DATE DESCRIBED.—The date described in this  
9 subsection is the date of the expiration of the extension  
10 of the period required for commencement of construction  
11 for the project described in subsection (a) that was issued  
12 by the Commission prior to the date of enactment of this  
13 Act under section 13 of the Federal Power Act (16 U.S.C.  
14 806).

## 15 **PART II—GEOTHERMAL**

### 16 **Subpart A—Geothermal Energy**

#### 17 **SEC. 3005. NATIONAL GOALS FOR PRODUCTION AND SITE** 18 **IDENTIFICATION.**

19 It is the sense of Congress that, not later than 10  
20 years after the date of enactment of this Act—

21 (1) the Secretary of the Interior shall seek to  
22 approve a significant increase in new geothermal en-  
23 ergy capacity on public land across a geographically  
24 diverse set of States using the full range of available  
25 technologies; and



1           (2) the Director of the Geological Survey and  
2           the Secretary should identify sites capable of pro-  
3           ducing a total of 50,000 megawatts of geothermal  
4           power, using the full range of available technologies.

5   **SEC. 3006. PRIORITY AREAS FOR DEVELOPMENT ON FED-**  
6                                   **ERAL LAND.**

7           The Director of the Bureau of Land Management,  
8           in consultation with other appropriate Federal agencies,  
9           shall—

10           (1) identify high priority areas for new geo-  
11           thermal development; and

12           (2) take any actions the Director determines  
13           necessary to facilitate that development, consistent  
14           with applicable laws.

15   **SEC. 3007. FACILITATION OF COPRODUCTION OF GEO-**  
16                                   **THERMAL ENERGY ON OIL AND GAS LEASES.**

17           Section 4(b) of the Geothermal Steam Act of 1970  
18           (30 U.S.C. 1003(b)) is amended by adding at the end the  
19           following:

20           “(4) LAND SUBJECT TO OIL AND GAS LEASE.—

21           Land under an oil and gas lease issued pursuant to  
22           the Mineral Leasing Act (30 U.S.C. 181 et seq.) or  
23           the Mineral Leasing Act for Acquired Lands (30  
24           U.S.C. 351 et seq.) that is subject to an approved  
25           application for permit to drill and from which oil

1 and gas production is occurring may be available for  
 2 noncompetitive leasing under this section to the  
 3 holder of the oil and gas lease—

4 “(A) on a determination that—

5 “(i) geothermal energy will be pro-  
 6 duced from a well producing or capable of  
 7 producing oil and gas; and

8 “(ii) national energy security will be  
 9 improved by the issuance of such a lease;  
 10 and

11 “(B) to provide for the coproduction of  
 12 geothermal energy with oil and gas.”.

13 **SEC. 3008. NONCOMPETITIVE LEASING OF ADJOINING**  
 14 **AREAS FOR DEVELOPMENT OF GEOTHERMAL**  
 15 **RESOURCES.**

16 Section 4(b) of the Geothermal Steam Act of 1970  
 17 (30 U.S.C. 1003(b)) (as amended by section 3007) is  
 18 amended by adding at the end the following:

19 “(5) ADJOINING LAND.—

20 “(A) DEFINITIONS.—In this paragraph:

21 “(i) FAIR MARKET VALUE PER  
 22 ACRE.—The term ‘fair market value per  
 23 acre’ means a dollar amount per acre  
 24 that—

1           “(I) except as provided in this  
2           clause, shall be equal to the market  
3           value per acre (taking into account  
4           the determination under subparagraph  
5           (B)(iii) regarding a valid discovery on  
6           the adjoining land), as determined by  
7           the Secretary under regulations issued  
8           under this paragraph;

9           “(II) shall be determined by the  
10          Secretary with respect to a lease  
11          under this paragraph, by not later  
12          than the end of the 180-day period  
13          beginning on the date the Secretary  
14          receives an application for the lease;  
15          and

16          “(III) shall be not less than the  
17          greater of—

18                  “(aa) 4 times the median  
19                  amount paid per acre for all land  
20                  leased under this Act during the  
21                  preceding year; or

22                  “(bb) \$50.

23          “(ii) INDUSTRY STANDARDS.—The  
24          term ‘industry standards’ means the stand-  
25          ards by which a qualified geothermal pro-

1           fessional assesses whether downhole or  
2           flowing temperature measurements with  
3           indications of permeability are sufficient to  
4           produce energy from geothermal resources,  
5           as determined through flow or injection  
6           testing or measurement of lost circulation  
7           while drilling.

8           “(iii) QUALIFIED FEDERAL LAND.—  
9           The term ‘qualified Federal land’ means  
10          land that is otherwise available for leasing  
11          under this Act.

12          “(iv) QUALIFIED GEOTHERMAL PRO-  
13          FESSIONAL.—The term ‘qualified geo-  
14          thermal professional’ means an individual  
15          who is an engineer or geoscientist in good  
16          professional standing with at least 5 years  
17          of experience in geothermal exploration,  
18          development, or project assessment.

19          “(v) QUALIFIED LESSEE.—The term  
20          ‘qualified lessee’ means a person that is el-  
21          igible to hold a geothermal lease under this  
22          Act (including applicable regulations).

23          “(vi) VALID DISCOVERY.—The term  
24          ‘valid discovery’ means a discovery of a  
25          geothermal resource by a new or existing

1 slim hole or production well, that exhibits  
2 downhole or flowing temperature measure-  
3 ments with indications of permeability that  
4 are sufficient to meet industry standards.

5 “(B) AUTHORITY.—An area of qualified  
6 Federal land that adjoins other land for which  
7 a qualified lessee holds a legal right to develop  
8 geothermal resources may be available for a  
9 noncompetitive lease under this section to the  
10 qualified lessee at the fair market value per  
11 acre, if—

12 “(i) the area of qualified Federal  
13 land—

14 “(I) consists of not less than 1  
15 acre and not more than 640 acres;  
16 and

17 “(II) is not already leased under  
18 this Act or nominated to be leased  
19 under subsection (a);

20 “(ii) the qualified lessee has not pre-  
21 viously received a noncompetitive lease  
22 under this paragraph in connection with  
23 the valid discovery for which data has been  
24 submitted under clause (iii)(I); and

1           “(iii) sufficient geological and other  
2           technical data prepared by a qualified geo-  
3           thermal professional has been submitted by  
4           the qualified lessee to the applicable Fed-  
5           eral land management agency that would  
6           lead individuals who are experienced in the  
7           subject matter to believe that—

8                   “(I) there is a valid discovery of  
9                   geothermal resources on the land for  
10                  which the qualified lessee holds the  
11                  legal right to develop geothermal re-  
12                  sources; and

13                  “(II) that thermal feature ex-  
14                  tends into the adjoining areas.

15           “(C) DETERMINATION OF FAIR MARKET  
16           VALUE.—

17                   “(i) IN GENERAL.—The Secretary  
18                   shall—

19                          “(I) publish a notice of any re-  
20                          quest to lease land under this para-  
21                          graph;

22                          “(II) determine fair market value  
23                          for purposes of this paragraph in ac-  
24                          cordance with procedures for making  
25                          those determinations that are estab-

1           lished by regulations issued by the  
2           Secretary;

3           “(III) provide to a qualified les-  
4           see and publish, with an opportunity  
5           for public comment for a period of 30  
6           days, any proposed determination  
7           under this subparagraph of the fair  
8           market value of an area that the  
9           qualified lessee seeks to lease under  
10          this paragraph; and

11          “(IV) provide to the qualified les-  
12          see and any adversely affected party  
13          the opportunity to appeal the final de-  
14          termination of fair market value in an  
15          administrative proceeding before the  
16          applicable Federal land management  
17          agency, in accordance with applicable  
18          law (including regulations).

19          “(ii) LIMITATION ON NOMINATION.—  
20          After publication of a notice of request to  
21          lease land under this paragraph, the Sec-  
22          retary may not accept under subsection (a)  
23          any nomination of the land for leasing un-  
24          less the request has been denied or with-  
25          drawn.

1                   “(iii) ANNUAL RENTAL.—For pur-  
2                   poses of section 5(a)(3), a lease awarded  
3                   under this paragraph shall be considered a  
4                   lease awarded in a competitive lease sale.

5                   “(D) REGULATIONS.—Not later than 270  
6                   days after the date of enactment of the Energy  
7                   Policy Modernization Act of 2015, the Sec-  
8                   retary shall issue regulations to carry out this  
9                   paragraph.”.

10 **SEC. 3009. LARGE-SCALE GEOTHERMAL ENERGY.**

11           Title VI of the Energy Independence and Security  
12 Act of 2007 is amended by inserting after section 616 (42  
13 U.S.C. 17195) the following:

14 **“SEC. 616A. LARGE-SCALE GEOTHERMAL ENERGY.**

15           “(a) PURPOSES.—The purposes of this section are—

16                   “(1) to improve the components, processes, and  
17                   systems used for geothermal heat pumps and the di-  
18                   rect use of geothermal energy; and

19                   “(2) to increase the energy efficiency, lower the  
20                   cost, increase the use, and improve and demonstrate  
21                   the applicability of geothermal heat pumps to, and  
22                   the direct use of geothermal energy in, large build-  
23                   ings, commercial districts, residential communities,  
24                   and large municipal, agricultural, or industrial  
25                   projects.



1 “(b) DEFINITIONS.—In this section:

2 “(1) DIRECT USE OF GEOTHERMAL ENERGY.—

3 The term ‘direct use of geothermal energy’ means  
4 systems that use water that is at a temperature be-  
5 tween approximately 38 degrees Celsius and 149 de-  
6 grees Celsius directly or through a heat exchanger to  
7 provide—

8 “(A) heating to buildings; or

9 “(B) heat required for industrial processes,  
10 agriculture, aquaculture, and other facilities.

11 “(2) GEOTHERMAL HEAT PUMP.—The term  
12 ‘geothermal heat pump’ means a system that pro-  
13 vides heating and cooling by exchanging heat from  
14 shallow ground or surface water using—

15 “(A) a closed loop system, which transfers  
16 heat by way of buried or immersed pipes that  
17 contain a mix of water and working fluid; or

18 “(B) an open loop system, which circulates  
19 ground or surface water directly into the build-  
20 ing and returns the water to the same aquifer  
21 or surface water source.

22 “(3) LARGE-SCALE APPLICATION.—The term  
23 ‘large-scale application’ means an application for  
24 space or process heating or cooling for large entities  
25 with a name-plate capacity, expected resource, or

1 rating of 10 or more megawatts, such as a large  
2 building, commercial district, residential community,  
3 or a large municipal, agricultural, or industrial  
4 project.

5 “(c) PROGRAM.—

6 “(1) IN GENERAL.—The Secretary shall estab-  
7 lish a program of research, development, and dem-  
8 onstration for geothermal heat pumps and the direct  
9 use of geothermal energy.

10 “(2) AREAS.—The program may include re-  
11 search, development, demonstration, and commercial  
12 application of—

13 “(A) geothermal ground loop efficiency im-  
14 provements through more efficient heat transfer  
15 fluids;

16 “(B) geothermal ground loop efficiency im-  
17 provements through more efficient thermal  
18 grouts for wells and trenches;

19 “(C) geothermal ground loop installation  
20 cost reduction through—

21 “(i) improved drilling methods;

22 “(ii) improvements in drilling equip-  
23 ment;

24 “(iii) improvements in design method-  
25 ology and energy analysis procedures; and

1                   “(iv) improved methods for deter-  
2                   mination of ground thermal properties and  
3                   ground temperatures;

4                   “(D) installing geothermal ground loops  
5                   near the foundation walls of new construction  
6                   to take advantage of existing structures;

7                   “(E) using gray or black wastewater as a  
8                   method of heat exchange;

9                   “(F) improving geothermal heat pump sys-  
10                  tem economics through integration of geo-  
11                  thermal systems with other building systems,  
12                  including providing hot and cold water and re-  
13                  jecting or circulating industrial process heat  
14                  through refrigeration heat rejection and waste  
15                  heat recovery;

16                  “(G) advanced geothermal systems using  
17                  variable pumping rates to increase efficiency;

18                  “(H) geothermal heat pump efficiency im-  
19                  provements;

20                  “(I) use of hot water found in mines and  
21                  mine shafts and other surface waters as the  
22                  heat exchange medium;

23                  “(J) heating of districts, neighborhoods,  
24                  communities, large commercial or public build-  
25                  ings (including office, retail, educational, gov-

1           ernment, and institutional buildings and multi-  
2           family residential buildings and campuses), and  
3           industrial and manufacturing facilities;

4           “(K) geothermal system integration with  
5           solar thermal water heating or cool roofs and  
6           solar-regenerated desiccants to balance loads  
7           and use building hot water to store geothermal  
8           energy;

9           “(L) use of hot water coproduced from oil  
10          and gas recovery;

11          “(M) use of water sources at a tempera-  
12          ture of less than 150 degrees Celsius for direct  
13          use;

14          “(N) system integration of direct use with  
15          geothermal electricity production; and

16          “(O) coproduction of heat and power, in-  
17          cluding on-site use.

18          “(3) ENVIRONMENTAL IMPACTS.—In carrying  
19          out the program, the Secretary shall identify and  
20          mitigate potential environmental impacts in accord-  
21          ance with section 614(c).

22          “(d) GRANTS.—

23                 “(1) IN GENERAL.—The Secretary shall make  
24                 grants available to State and local governments, in-  
25                 stitutions of higher education, nonprofit entities,

1 utilities, and for-profit companies (including manu-  
2 facturers of heat-pump and direct-use components  
3 and systems) to promote the development of geo-  
4 thermal heat pumps and the direct use of geo-  
5 thermal energy.

6 “(2) PRIORITY.—In making grants under this  
7 subsection, the Secretary shall give priority to pro-  
8 posals that apply to large buildings (including office,  
9 retail, educational, government, institutional, and  
10 multifamily residential buildings and campuses and  
11 industrial and manufacturing facilities), commercial  
12 districts, and residential communities.

13 “(3) NATIONAL SOLICITATION.—Not later than  
14 180 days after the date of enactment of this section,  
15 the Secretary shall conduct a national solicitation for  
16 applications for grants under this section.

17 “(e) REPORTS.—

18 “(1) IN GENERAL.—Not later than 2 years  
19 after the date of enactment of this section and annu-  
20 ally thereafter, the Secretary shall submit to the  
21 Committee on Energy and Natural Resources of the  
22 Senate and the Committee on Science, Space, and  
23 Technology of the House of Representatives a report  
24 on progress made and results obtained under this

1 section to develop geothermal heat pumps and direct  
2 use of geothermal energy.

3 “(2) AREAS.—Each of the reports required  
4 under this subsection shall include—

5 “(A) an analysis of progress made in each  
6 of the areas described in subsection (c)(2); and

7 “(B)(i) a description of any relevant rec-  
8 ommendations made during a review of the pro-  
9 gram; and

10 “(ii) any plans to address the rec-  
11 ommendations under clause (i).”.

12 **SEC. 3010. REPORT TO CONGRESS.**

13 Not later than 3 years after the date of enactment  
14 of this Act and not less frequently than once every 5 years  
15 thereafter, the Secretary of the Interior and the Secretary  
16 shall submit to Congress a report describing the progress  
17 made towards achieving the goals described in section  
18 3005.

19 **SEC. 3011. AUTHORIZATION OF APPROPRIATIONS.**

20 There are authorized to be appropriated to carry out  
21 this subpart—

22 (1) \$65,000,000 for fiscal year 2017; and

23 (2) \$75,000,000 for each of fiscal years 2018  
24 through 2021.

1                   **Subpart B—Geothermal Exploration**

2   **SEC. 3012. GEOTHERMAL EXPLORATION TEST PROJECTS.**

3           The Geothermal Steam Act of 1970 (30 U.S.C. 1001  
4 et seq.) is amended by adding at the end the following:

5   **“SEC. 30. GEOTHERMAL EXPLORATION TEST PROJECTS.**

6           “(a) DEFINITIONS.—In this section:

7                   “(1) COVERED LAND.—The term ‘covered land’  
8 means land that is—

9                           “(A) subject to geothermal leasing in ac-  
10 cordance with section 3; and

11                           “(B) not excluded from the development of  
12 geothermal energy under—

13                                   “(i) a final land use plan established  
14 under the Federal Land Policy and Man-  
15 agement Act of 1976 (43 U.S.C. 1701 et  
16 seq.);

17                                   “(ii) a final land and resource man-  
18 agement plan established under the Na-  
19 tional Forest Management Act of 1976 (16  
20 U.S.C. 1600 et seq.); or

21                                   “(iii) any other applicable law.

22                   “(2) SECRETARY CONCERNED.—The term ‘Sec-  
23 retary concerned’ means—

24                           “(A) the Secretary of Agriculture (acting  
25 through the Chief of the Forest Service), with  
26 respect to National Forest System land; and

1           “(B) the Secretary, with respect to land  
2           managed by the Bureau of Land Management  
3           (including land held for the benefit of an Indian  
4           tribe).

5           “(b) NEPA REVIEW OF GEOTHERMAL EXPLORATION  
6 TEST PROJECTS.—

7           “(1) IN GENERAL.—An eligible activity de-  
8           scribed in paragraph (2) carried out on covered land  
9           shall be considered an action categorically excluded  
10          from the requirements for an environmental assess-  
11          ment or an environmental impact statement under  
12          the National Environmental Policy Act of 1969 (42  
13          U.S.C. 4321 et seq.) or section 1508.4 of title 40,  
14          Code of Federal Regulations (or a successor regula-  
15          tion) if—

16                  “(A) the action is for the purpose of geo-  
17                  thermal resource exploration operations; and

18                  “(B) the action is conducted pursuant to  
19                  this Act.

20           “(2) ELIGIBLE ACTIVITY.—An eligible activity  
21          referred to in paragraph (1) is—

22                  “(A) a geophysical exploration activity that  
23                  does not require drilling, including a seismic  
24                  survey;



1           “(B) the drilling of a well to test or ex-  
2           plore for geothermal resources on land leased  
3           by the Secretary concerned for the development  
4           and production of geothermal resources that—

5                   “(i) is carried out by the holder of the  
6           lease;

7                   “(ii) causes—

8                           “(I) fewer than 5 acres of soil or  
9                           vegetation disruption at the location  
10                          of each geothermal exploration well;  
11                          and

12                           “(II) not more than an additional  
13                          5 acres of soil or vegetation disruption  
14                          during access or egress to the project  
15                          site;

16                   “(iii) is completed in fewer than 90  
17           days, including the removal of any surface  
18           infrastructure from the project site; and

19                   “(iv) requires the restoration of the  
20           project site not later than 3 years after the  
21           date of completion of the project to ap-  
22           proximately the condition that existed at  
23           the time the project began, unless—

1           “(I) the project site is subse-  
2           quently used as part of energy devel-  
3           opment on the lease; or

4           “(II) the project—

5                 “(aa) yields geothermal re-  
6                 sources; and

7                 “(bb) the use of the geo-  
8                 thermal resources will be carried  
9                 out under another geothermal  
10                generation project in existence at  
11                the time of the discovery of the  
12                geothermal resources; or

13           “(C) the drilling of a well to test or explore  
14           for geothermal resources on land leased by the  
15           Secretary concerned for the development and  
16           production of geothermal resources that—

17                 “(i) causes an individual surface dis-  
18                 turbance of fewer than 5 acres if—

19                 “(I) the total surface disturbance  
20                 on the leased land is not more than  
21                 150 acres; and

22                 “(II) a site-specific analysis has  
23                 been prepared under the National En-  
24                 vironmental Policy Act of 1969 (42  
25                 U.S.C. 4321 et seq.);

1           “(ii) involves the drilling of a geo-  
2           thermal well at a location or well pad site  
3           at which drilling has occurred within 5  
4           years before the date of spudding the well;  
5           or

6           “(iii) involves the drilling of a geo-  
7           thermal well in a developed field for  
8           which—

9                   “(I) an approved land use plan  
10                   or any environmental document pre-  
11                   pared under the National Environ-  
12                   mental Policy Act of 1969 (42 U.S.C.  
13                   4321 et seq.) analyzed the drilling as  
14                   a reasonably foreseeable activity; and

15                   “(II) the land use plan or envi-  
16                   ronmental document was approved  
17                   within 10 years before the date of  
18                   spudding the well.

19           “(3) LIMITATION BASED ON EXTRAORDINARY  
20           CIRCUMSTANCES.—The categorical exclusion estab-  
21           lished under paragraph (1) shall be subject to ex-  
22           traordinary circumstances in accordance with the  
23           Departmental Manual, 516 DM 2.3A(3) and 516  
24           DM 2, Appendix 2 (or successor provisions).

1       “(c) NOTICE OF INTENT; REVIEW AND DETERMINA-  
2 TION.—

3               “(1) REQUIREMENT TO PROVIDE NOTICE.—Not  
4 later than 30 days before the date on which drilling  
5 begins, a leaseholder intending to carry out an eligi-  
6 ble activity shall provide notice to the Secretary con-  
7 cerned.

8               “(2) REVIEW OF PROJECT.—Not later than 10  
9 days after receipt of a notice of intent provided  
10 under paragraph (1), the Secretary concerned  
11 shall—

12                       “(A) review the project described in the  
13 notice and determine whether the project is an  
14 eligible activity; and

15                       “(B)(i) if the project is an eligible activity,  
16 notify the leaseholder that under subsection (b),  
17 the project is considered a categorical exclusion  
18 under the National Environmental Policy Act of  
19 1969 (42 U.S.C. 4321 et seq.) and section  
20 1508.4 of title 40, Code of Federal Regulations  
21 (or a successor regulation); or

22                       “(ii) if the project is not an eligi-  
23 ble activity—

24                               “(I) notify the leaseholder that section  
25 102(2)(C) of the National Environmental

1 Policy Act of 1969 (42 U.S.C. 4332(2)(C))  
2 applies to the project;

3 “(II) include in that notification clear  
4 and detailed findings on any deficiencies in  
5 the project that prevent the application of  
6 subsection (b) to the project; and

7 “(III) provide an opportunity to the  
8 leaseholder to remedy the deficiencies de-  
9 scribed in the notification before the date  
10 on which the leaseholder plans to begin the  
11 project under paragraph (1).”.

12 **PART III—MARINE HYDROKINETIC**

13 **SEC. 3013. DEFINITION OF MARINE AND HYDROKINETIC RE-**  
14 **NEWABLE ENERGY.**

15 Section 632 of the Energy Independence and Security  
16 Act of 2007 (42 U.S.C. 17211) is amended in the matter  
17 preceding paragraph (1) by striking “electrical”.

18 **SEC. 3014. MARINE AND HYDROKINETIC RENEWABLE EN-**  
19 **ERGY RESEARCH AND DEVELOPMENT.**

20 Section 633 of the Energy Independence and Security  
21 Act of 2007 (42 U.S.C. 17212) is amended to read as  
22 follows:

1 **“SEC. 633. MARINE AND HYDROKINETIC RENEWABLE EN-**  
2 **ERGY RESEARCH AND DEVELOPMENT.**

3 “The Secretary, in consultation with the Secretary of  
4 the Interior, the Secretary of Commerce, and the Federal  
5 Energy Regulatory Commission, shall carry out a program  
6 of research, development, demonstration, and commercial  
7 application to accelerate the introduction of marine and  
8 hydrokinetic renewable energy production into the United  
9 States energy supply, giving priority to fostering acceler-  
10 ated research, development, and commercialization of  
11 technology, including programs—

12 “(1) to assist technology development to im-  
13 prove the components, processes, and systems used  
14 for power generation from marine and hydrokinetic  
15 renewable energy resources;

16 “(2) to establish critical testing infrastructure  
17 necessary—

18 “(A) to cost effectively and efficiently test  
19 and prove marine and hydrokinetic renewable  
20 energy devices; and

21 “(B) to accelerate the technological readi-  
22 ness and commercialization of those devices;

23 “(3) to support efforts to increase the efficiency  
24 of energy conversion, lower the cost, increase the  
25 use, improve the reliability, and demonstrate the ap-  
26 plicability of marine and hydrokinetic renewable en-

1       energy technologies by participating in demonstration  
2       projects;

3             “(4) to investigate variability issues and the ef-  
4       ficient and reliable integration of marine and  
5       hydrokinetic renewable energy with the utility grid;

6             “(5) to identify and study critical short- and  
7       long-term needs to create a sustainable marine and  
8       hydrokinetic renewable energy supply chain based in  
9       the United States;

10            “(6) to increase the reliability and survivability  
11       of marine and hydrokinetic renewable energy tech-  
12       nologies;

13            “(7) to verify the performance, reliability, main-  
14       tainability, and cost of new marine and hydrokinetic  
15       renewable energy device designs and system compo-  
16       nents in an operating environment, and consider the  
17       protection of critical infrastructure, such as ade-  
18       quate separation between marine and hydrokinetic  
19       devices and projects and submarine telecommuni-  
20       cations cables, including consideration of established  
21       industry standards;

22            “(8) to coordinate and avoid duplication of ac-  
23       tivities across programs of the Department and  
24       other applicable Federal agencies, including National

1        Laboratories and to coordinate public-private col-  
2        laboration in all programs under this section;

3            “(9) to identify opportunities for joint research  
4        and development programs and development of  
5        economies of scale between—

6            “(A) marine and hydrokinetic renewable  
7        energy technologies; and

8            “(B) other renewable energy and fossil en-  
9        ergy programs, offshore oil and gas production  
10       activities, and activities of the Department of  
11       Defense; and

12           “(10) to support in-water technology develop-  
13       ment with international partners using existing co-  
14       operative procedures (including memoranda of un-  
15       derstanding)—

16           “(A) to allow cooperative funding and  
17       other support of value to be exchanged and le-  
18       veraged; and

19           “(B) to encourage the participation of  
20       international research centers and companies  
21       within the United States and the participation  
22       of United States research centers and compa-  
23       nies in international projects.”.



1 **SEC. 3015. NATIONAL MARINE RENEWABLE ENERGY RE-**  
2 **SEARCH, DEVELOPMENT, AND DEMONSTRA-**  
3 **TION CENTERS.**

4 Section 634 of the Energy Independence and Security  
5 Act of 2007 (42 U.S.C. 17213) is amended by striking  
6 subsection (b) and inserting the following:

7 “(b) PURPOSES.—A Center (in coordination with the  
8 Department and National Laboratories) shall—

9 “(1) advance research, development, demonstra-  
10 tion, and commercial application of marine and  
11 hydrokinetic renewable energy technologies;

12 “(2) support in-water testing and demonstra-  
13 tion of marine and hydrokinetic renewable energy  
14 technologies, including facilities capable of testing—

15 “(A) marine and hydrokinetic renewable  
16 energy systems of various technology readiness  
17 levels and scales;

18 “(B) a variety of technologies in multiple  
19 test berths at a single location; and

20 “(C) arrays of technology devices; and

21 “(3) serve as information clearinghouses for the  
22 marine and hydrokinetic renewable energy industry  
23 by collecting and disseminating information on best  
24 practices in all areas relating to developing and  
25 managing marine and hydrokinetic renewable energy  
26 resources and energy systems.”.

1 **SEC. 3016. AUTHORIZATION OF APPROPRIATIONS.**

2 Section 636 of the Energy Independence and Security  
3 Act of 2007 (42 U.S.C. 17215) is amended by striking  
4 “\$50,000,000 for each of the fiscal years 2008 through  
5 2012” and inserting “\$55,000,000 for each of fiscal years  
6 2017 and 2018 and \$60,000,000 for each of fiscal years  
7 2019 through 2021”.

8 **PART IV—BIOMASS**

9 **SEC. 3017. BIO-POWER.**

10 (a) WOODY BIOMASS HEAT AND BIO-POWER INITIA-  
11 TIVE.—

12 (1) DEFINITIONS OF WOODY BIOMASS HEAT  
13 AND BIO-POWER.—Section 9008(a) of the Farm Se-  
14 curity and Rural Investment Act of 2002 (7 U.S.C.  
15 8108(a)) is amended—

16 (A) by redesignating paragraphs (2) and  
17 (3) as paragraphs (4) and (5), respectively;

18 (B) by inserting after paragraph (1) the  
19 following:

20 “(2) BIO-POWER.—The term ‘bio-power’ means  
21 the use of woody biomass to generate electricity.

22 “(3) BOARD.—The term ‘Board’ means the  
23 Biomass Research and Development Board.”; and

24 (C) by adding at the end the following:

1           “(6) WOODY BIOMASS HEAT.—The term ‘woody  
2 biomass heat’ means the use of woody biomass to  
3 generate heat.”.

4           (2) BIOMASS RESEARCH AND DEVELOPMENT  
5 BOARD.—Section 9008(c)(3)(A) of the Farm Secu-  
6 rity and Rural Investment Act of 2002 (7 U.S.C.  
7 8108(c)(3)(A)) is amended by striking “biofuels and  
8 biobased products” and inserting “biofuels, biobased  
9 products, bio-power, and woody biomass heat  
10 projects”.

11           (3) WOODY BIOMASS HEAT AND BIO-POWER  
12 GRANTS.—Section 9008 of the Farm Security and  
13 Rural Investment Act of 2002 (7 U.S.C. 8108) is  
14 amended—

15           (A) by redesignating subsections (f), (g),  
16 and (h) as subsections (g), (h), and (i), respec-  
17 tively; and

18           (B) by inserting after subsection (e) the  
19 following:

20           “(f) WOODY BIOMASS HEAT AND BIO-POWER  
21 GRANTS.—

22           “(1) ESTABLISHMENT.—The Secretary of Agri-  
23 culture and the Secretary of Energy, in consultation  
24 with the Board, shall establish a program under  
25 which the Secretary of Agriculture and the Secretary

1 of Energy shall provide grants to relevant projects  
2 to support innovation and market development in  
3 woody biomass heat and bio-power.

4 “(2) APPLICATIONS.—To be eligible to receive a  
5 grant under this subsection, the owner or operator  
6 of a relevant project shall submit to the Secretary of  
7 Agriculture and the Secretary of Energy an applica-  
8 tion at such time, in such manner, and containing  
9 such information as the Secretary of Agriculture and  
10 the Secretary of Energy may require.

11 “(3) ALLOCATION.—Of the amounts appro-  
12 priated to carry out this subsection, the Secretary of  
13 Agriculture and the Secretary of Energy shall not  
14 provide more than—

15 “(A) \$15,000,000 for projects that develop  
16 innovative techniques for preprocessing biomass  
17 for woody biomass heat and bio-power, with the  
18 goals of lowering the costs of—

19 “(i) distributed preprocessing tech-  
20 nologies, including technologies designed to  
21 promote densification, torrefaction, and the  
22 broader commoditization of bioenergy feed-  
23 stocks; and

24 “(ii) transportation; and

1           “(B) \$15,000,000 for innovative woody  
2 biomass heat and bio-power demonstration  
3 projects, including—

4                   “(i) district energy projects;

5                   “(ii) innovation in transportation; and

6                   “(iii) projects addressing the chal-  
7 lenges of retrofitting existing coal-fired  
8 electricity generation facilities to use bio-  
9 mass.

10           “(4) REGIONAL DISTRIBUTION.—In selecting  
11 projects to receive grants under this subsection, the  
12 Secretary of Agriculture and the Secretary of En-  
13 ergy shall ensure, to the maximum extent prac-  
14 ticable, diverse geographical distribution among the  
15 projects.

16           “(5) COST SHARE.—The Federal share of the  
17 cost of a project carried out using a grant under this  
18 subsection shall be 50 percent.

19           “(6) DUTIES OF RECIPIENTS.—As a condition  
20 of receiving a grant under this subsection, the owner  
21 or operator of a project shall—

22                   “(A) participate in the applicable working  
23 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 (9); 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) INCLUSION OF OILSEED CROPS.—A grant  
25 may be provided under this subsection to relevant

1 projects to support innovation and market develop-  
2 ment in oilseed crops.

3 “(9) REPORTS.—Not later than 5 years after  
4 the date of enactment of this Act, the Secretary of  
5 Agriculture and the Secretary of Energy shall sub-  
6 mit to Congress a report describing—

7 “(A) each project for which a grant has  
8 been provided under this subsection;

9 “(B) any findings as a result of those  
10 projects; and

11 “(C) the state of market and technology  
12 development, including market barriers and op-  
13 portunities.”.

14 (b) LOAN PROGRAMS; STRATEGIC ANALYSIS AND RE-  
15 SEARCH.—

16 (1) LOW-INTEREST LOANS.—

17 (A) ESTABLISHMENT.—The Secretary of  
18 Agriculture shall establish, within the Rural  
19 Development Office, a low-interest loan pro-  
20 gram to support construction of residential,  
21 commercial or institutional, and industrial  
22 woody biomass heat and bio-power systems.

23 (B) REQUIREMENTS.—The program under  
24 this subsection shall be carried out in accord-  
25 ance with such requirements as the Secretary of

1 Agriculture may establish, by regulation, in tak-  
 2 ing into consideration best practices.

3 (C) AUTHORIZATION OF APPROPRIA-  
 4 TIONS.—There is authorized to be appropriated  
 5 to the Secretary of Agriculture to carry out this  
 6 subsection \$50,000,000.

7 (2) ENERGY EFFICIENCY AND CONSERVATION  
 8 LOAN PROGRAM.—In addition to loans under para-  
 9 graph (1), woody biomass heat residential, commer-  
 10 cial or institutional, and industrial wood energy sys-  
 11 tems shall be eligible to receive loans under the en-  
 12 ergy efficiency and conservation loan program of the  
 13 Department of Agriculture under section 2 of the  
 14 Rural Electrification Act of 1936 (7 U.S.C. 902).

## 15 **Subtitle B—Oil and Gas**

### 16 **SEC. 3101. AMENDMENTS TO THE METHANE HYDRATE RE-** 17 **SEARCH AND DEVELOPMENT ACT OF 2000.**

18 (a) METHANE HYDRATE RESEARCH AND DEVELOP-  
 19 MENT PROGRAM.—

20 (1) IN GENERAL.—Section 4 of the Methane  
 21 Hydrate Research and Development Act of 2000 (30  
 22 U.S.C. 2003) is amended by striking subsection (b)  
 23 and inserting the following:



1       “(b) GRANTS, CONTRACTS, COOPERATIVE AGREE-  
2 MENTS, INTERAGENCY FUNDS TRANSFER AGREEMENTS,  
3 AND FIELD WORK PROPOSALS.—

4           “(1) ASSISTANCE AND COORDINATION.—In car-  
5 rying out the program of methane hydrate research  
6 and development authorized by this section, the Sec-  
7 retary may award grants to, or enter into contracts  
8 or cooperative agreements with, institutions—

9           “(A) to conduct basic and applied re-  
10 search—

11           “(i) to identify, explore, assess, and  
12 develop methane hydrate as a commercially  
13 viable source of energy; and

14           “(ii) to identify the environmental,  
15 health, and safety impacts of methane hy-  
16 drate development;

17           “(B) to identify and characterize methane  
18 hydrate resources using remote sensing and  
19 seismic data, including the characterization of  
20 hydrate concentrations in marine reservoirs in  
21 the Gulf of Mexico or the Atlantic Ocean Basin  
22 by the date that is 4 years after the date of en-  
23 actment of the Energy Policy Modernization  
24 Act of 2015;

1           “(C) to develop technologies required for  
2 efficient and environmentally sound develop-  
3 ment of methane hydrate resources;

4           “(D) to conduct basic and applied research  
5 to assess and mitigate the environmental im-  
6 pact of hydrate degassing (including natural  
7 degassing and degassing associated with com-  
8 mercial development);

9           “(E) to develop technologies to reduce the  
10 risks of drilling through methane hydrates;

11           “(F) to conduct exploratory drilling, well  
12 testing, and production testing operations on  
13 permafrost and nonpermafrost gas hydrates in  
14 support of the activities authorized by this  
15 paragraph, including—

16           “(i) drilling of a test well and per-  
17 forming a long-term hydrate production  
18 test on land in the United States Arctic re-  
19 gion by the date that is 4 years after the  
20 date of enactment of the Energy Policy  
21 Modernization Act of 2015;

22           “(ii) drilling of a test well and per-  
23 forming a long-term hydrate production  
24 test in a marine environment by the date  
25 that is 10 years after the date of enact-

1                   ment of the Energy Policy Modernization  
2                   Act of 2015; and

3                   “(iii) drilling a full-scale production  
4                   test well at a location to be determined by  
5                   the Secretary; or

6                   “(G) to expand education and training pro-  
7                   grams in methane hydrate resource research  
8                   and resource development through fellowships  
9                   or other means for graduate education and  
10                  training.

11                  “(2) ENVIRONMENTAL MONITORING AND RE-  
12                  SEARCH.—The Secretary shall conduct a long-term  
13                  environmental monitoring and research program to  
14                  study the effects of production from methane hy-  
15                  drate reservoirs.

16                  “(3) COMPETITIVE PEER REVIEW.—Funds  
17                  made available under paragraphs (1) and (2) shall  
18                  be made available based on a competitive process  
19                  using external scientific peer review of proposed re-  
20                  search.”.

21                  (2) CONFORMING AMENDMENT.—Section 4(e)  
22                  of the Methane Hydrate Research and Development  
23                  Act of 2000 (30 U.S.C. 2003(e)) is amended in the  
24                  matter preceding paragraph (1) by striking “sub-

1 section (b)(1)” and inserting “paragraphs (1) and  
2 (2) of subsection (b)”.

3 (b) AUTHORIZATION OF APPROPRIATIONS.—The  
4 Methane Hydrate Research and Development Act of 2000  
5 is amended by striking section 7 (30 U.S.C. 2006) and  
6 inserting the following:

7 **“SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

8 “There is authorized to be appropriated to carry out  
9 this Act \$35,000,000 for each of fiscal years 2017 through  
10 2021.”.

11 **SEC. 3102. LIQUEFIED NATURAL GAS STUDY.**

12 (a) STUDY.—

13 (1) IN GENERAL.—Not later than 1 year after  
14 the date of enactment of this Act, the Secretary, in  
15 consultation with the National Association of Regu-  
16 latory Utility Commissioners and the National Asso-  
17 ciation of State Energy Officials, shall conduct a  
18 study of the State, regional, and national implica-  
19 tions of exporting liquefied natural gas with respect  
20 to consumers and the economy.

21 (2) CONTENTS.—The study conducted under  
22 paragraph (1) shall include an analysis of—

23 (A) the economic impact that exporting liq-  
24 uefied natural gas will have in regions that cur-  
25 rently import liquefied natural gas;

1 (B) job creation in the manufacturing sec-  
2 tors; and

3 (C) such other issues as the Secretary con-  
4 siders appropriate.

5 (b) REPORT TO CONGRESS.—Not later than 1 year  
6 after the date of enactment of this Act, the Administrator  
7 shall submit to Congress a report on the results of the  
8 study conducted under subsection (a).

9 **SEC. 3103. FERC PROCESS COORDINATION WITH RESPECT**  
10 **TO REGULATORY APPROVAL OF GAS**  
11 **PROJECTS.**

12 (a) DEFINITIONS.—In this section:

13 (1) COMMISSION.—The term “Commission”  
14 means the Federal Energy Regulatory Commission.

15 (2) FEDERAL AUTHORIZATION.—

16 (A) IN GENERAL.—The term “Federal au-  
17 thorization” means any authorization required  
18 under Federal law with respect to an applica-  
19 tion for authorization or a certificate of public  
20 convenience and necessity relating to gas trans-  
21 portation subject to the jurisdiction of the Com-  
22 mission.

23 (B) INCLUSIONS.—The term “Federal au-  
24 thorization” includes any permits, special use  
25 authorizations, certifications, opinions, or other

1           approvals as may be required under Federal law  
2           with respect to an application for authorization  
3           or a certificate of public convenience and neces-  
4           sity relating to gas transportation subject to the  
5           jurisdiction of the Commission.

6           (b) DESIGNATION AS LEAD AGENCY.—

7           (1) IN GENERAL.—The Commission shall act as  
8           the lead agency for the purposes of—

9                   (A) coordinating all applicable Federal au-  
10                  thorizations; and

11                   (B) compliance with the National Environ-  
12                  mental Policy Act of 1969 (42 U.S.C. 4321 et  
13                  seq.).

14           (2) OTHER AGENCIES.—Each Federal and  
15           State agency considering an aspect of an application  
16           for Federal authorization shall cooperate with the  
17           Commission.

18           (c) SCHEDULE.—

19           (1) TIMING FOR ISSUANCE.—It is the sense of  
20           Congress that all Federal authorizations required for  
21           a project or facility should be issued by not later  
22           than the date that is 90 days after the date on  
23           which an application is considered to be complete by  
24           the Commission.

25           (2) COMMISSION SCHEDULE.—

1 (A) IN GENERAL.—The Commission shall  
2 establish a schedule for the issuance of all Fed-  
3 eral authorizations.

4 (B) REQUIREMENTS.—In establishing the  
5 schedule under subparagraph (A), the Commis-  
6 sion shall—

7 (i) consult and cooperate with the  
8 Federal and State agencies responsible for  
9 a Federal authorization;

10 (ii) ensure the expeditious completion  
11 of all proceedings relating to a Federal au-  
12 thorization; and

13 (iii) comply with applicable schedules  
14 established under Federal law with respect  
15 to a Federal authorization.

16 (3) RESOLUTION OF INTERAGENCY DIS-  
17 PUTES.—If the Federal agency with responsibility  
18 fails to adhere to the schedule established by the  
19 Commission under paragraph (2), or if a Federal  
20 authorization has been unreasonably denied, or if a  
21 Federal authorization would be inconsistent with the  
22 purposes of this section or other applicable law, the  
23 Commission shall refer the matter to the Chairman  
24 of the Council on Environmental Quality—

25 (A) to ensure timely participation;

1 (B) to ensure a timely decision;

2 (C) to mediate the dispute; or

3 (D) to refer the matter to the President.

4 (d) CONSOLIDATED RECORD.—The Commission shall  
5 maintain official consolidated records of all license pro-  
6 ceedings under this section.

7 (e) DEFERENCE TO COMMISSION.—In making a deci-  
8 sion with respect to a Federal authorization, each agency  
9 shall give deference, to the maximum extent authorized  
10 by law, to the scope of environmental review that the Com-  
11 mission determines to be appropriate.

12 (f) CONCURRENT REVIEWS.—Pursuant to the sched-  
13 ule established under subsection (c)(2), each agency con-  
14 sidering an aspect of an application for Federal authoriza-  
15 tion shall—

16 (1) to the maximum extent authorized by law,  
17 carry out the obligations of that agency under appli-  
18 cable law concurrently and in conjunction with the  
19 review required by the National Environmental Pol-  
20 icy Act of 1969 (42 U.S.C. 4321 et seq.), unless  
21 doing so would impair the ability of the agency to  
22 conduct needed analysis or otherwise carry out those  
23 obligations;

24 (2) formulate and implement administrative,  
25 policy, and procedural mechanisms to enable the



1 agency to complete the required Federal authoriza-  
2 tions in accordance with the schedule described in  
3 subsection (c); and

4 (3) transmit to the Commission a statement—

5 (A) acknowledging notice of the schedule  
6 described in subsection (c); and

7 (B) describing the plan formulated under  
8 paragraph (2).

9 (g) FAILURE TO MEET DEADLINE.—If an agency  
10 does not complete a proceeding for an approval that is  
11 required for a Federal authorization in accordance with  
12 the schedule described in subsection (c), the head of the  
13 relevant Federal agency (including, in the case of a failure  
14 by the State agency or unit of local government, the Fed-  
15 eral agency overseeing the delegated authority) shall—

16 (1) notify Congress and the Commission of the  
17 failure; and

18 (2) describe in that notification an implementa-  
19 tion plan to ensure completion.

20 (h) ACCOUNTABILITY; TRANSPARENCY; EFFI-  
21 CIENCY.—

22 (1) IN GENERAL.—For applications requiring  
23 multiple Federal authorizations, the Commission, in  
24 consultation with any agency considering an aspect  
25 of the application, shall track and make available to

1 the public on the website of the Commission infor-  
2 mation relating to the actions required to complete  
3 permitting, reviews, and other requirements.

4 (2) INCLUSIONS.—Information tracked under  
5 paragraph (1) shall include the following:

6 (A) The schedule described in subsection  
7 (c).

8 (B) A list of all the actions required by  
9 each applicable agency to complete permitting,  
10 reviews, and other requirements necessary to  
11 obtain a final decision on the Federal author-  
12 ization.

13 (C) The expected completion date for each  
14 action listed under subparagraph (B).

15 (D) A point of contact at the agency ac-  
16 countable for each action listed under subpara-  
17 graph (B).

18 (E) In the event that an action is still  
19 pending as of the expected date of completion,  
20 a brief explanation of the reason for the delay.

21 **SEC. 3104. PILOT PROGRAM.**

22 (a) ESTABLISHMENT.—The Secretary of the Interior,  
23 acting through the Director of the Bureau of Land Man-  
24 agement (referred to in this section as the “Director”),  
25 shall establish a pilot program in 1 State with at least

1 2,000 oil and gas drilling spacing units (as defined under  
2 State law), in which—

3 (1) 25 percent or less of the minerals are owned  
4 or held in trust by the Federal Government; and

5 (2) there is no surface land owned or held in  
6 trust by the Federal Government.

7 (b) ACTIVITIES.—In carrying out the pilot program,  
8 the Director shall identify and implement ways to stream-  
9 line the review and approval of Applications for Permits  
10 to Drill for oil and gas drilling spacing units of the State  
11 in order to achieve a processing time for those oil and gas  
12 drilling spacing units similar to that of spacing units that  
13 require an Application for Permit to Drill and are not part  
14 of the pilot program in the same State.

15 (c) FUNDING.—Beginning in fiscal year 2016, and  
16 for a period of 3 years thereafter, to carry out the pilot  
17 program efficiently, the Director may fund up to 10 full-  
18 time equivalents at appropriate field offices using fees col-  
19 lected under section 35(d) of the Mineral Leasing Act (30  
20 U.S.C. 191(d)) and not otherwise expended.

21 (d) REPORT.—Not later than 4 years after the date  
22 of enactment of this Act, the Director shall submit to Con-  
23 gress a report on the results of the pilot program.

24 (e) WAIVER.—The Secretary of the Interior may  
25 waive the requirement for an Application for Permit to

1 Drill if the Director determines that the mineral interest  
2 of the United States in the spacing units in land covered  
3 by this section is adequately protected, if otherwise in ac-  
4 cordance with applicable laws, regulations, and lease  
5 terms.

## 6 **Subtitle C—Helium**

### 7 **SEC. 3201. RIGHTS TO HELIUM.**

#### 8 (a) DEFINITION OF HELIUM-RELATED PROJECT.—

9 The term “helium-related project” means a project—

10 (1) to explore or produce crude helium; and

11 (2) to sell crude or refined helium.

#### 12 (b) EXPEDITED COMPLETION.—Notwithstanding any

13 other provision of law, applicable environmental reviews

14 under the National Environmental Policy Act of 1969 (42

15 U.S.C. 4321 et seq.) for helium-related projects shall be

16 completed on an expeditious basis and the shortest exist-

17 ing applicable process under that Act shall be used for

18 such projects.

#### 19 (c) REPEAL OF RESERVATION OF HELIUM

20 RIGHTS.—The first section of the Mineral Leasing Act

21 (30 U.S.C. 181) is amended by striking the flush text that

22 follows the last undesignated subsection.

#### 23 (d) RIGHTS TO HELIUM UNDER LEASES UNDER

24 MINERAL LEASING ACT FOR ACQUIRED LANDS.—The

1 Mineral Leasing Act for Acquired Lands (30 U.S.C. 351  
2 et seq.) is amended by adding at the end the following:

3 **“SEC. 12. RIGHTS TO HELIUM.**

4 “Any lease issued under this Act that authorizes ex-  
5 ploration for, or development or production of, gas shall  
6 be considered to grant to the lessee a right of first refusal  
7 to engage in exploration for, and development and produc-  
8 tion of, helium on land that is subject to the lease in ac-  
9 cordance with regulations issued by the Secretary.”.

10 **Subtitle D—Critical Minerals**

11 **SEC. 3301. DEFINITIONS.**

12 In this subtitle:

13 (1) **CRITICAL MINERAL.**—

14 (A) **IN GENERAL.**—The term “critical min-  
15 eral” means any mineral, element, substance, or  
16 material designated as critical pursuant to sec-  
17 tion 3303.

18 (B) **EXCLUSIONS.**—The term “critical  
19 mineral” does not include—

20 (i) fuel minerals, including oil, natural  
21 gas, or any other fossil fuels; or

22 (ii) water, ice, or snow.

23 (2) **CRITICAL MINERAL MANUFACTURING.**—The  
24 term “critical mineral manufacturing” means—

1           (A) the production, processing, refining,  
2 alloying, separation, concentration, magnetic  
3 sintering, melting, or beneficiation of critical  
4 minerals within the United States;

5           (B) the fabrication, assembly, or produc-  
6 tion, within the United States, of equipment,  
7 components, or other goods with energy tech-  
8 nology-, defense-, agriculture-, consumer elec-  
9 tronics-, or health care-related applications; or

10          (C) any other value-added, manufacturing-  
11 related use of critical minerals undertaken with-  
12 in the United States.

13          (3) INDIAN TRIBE.—The term “Indian tribe”  
14 has the meaning given the term in section 4 of the  
15 Indian Self-Determination and Education Assistance  
16 Act (25 U.S.C. 450b).

17          (4) STATE.—The term “State” means—

18           (A) a State;

19           (B) the District of Columbia;

20           (C) the Commonwealth of Puerto Rico;

21           (D) Guam;

22           (E) American Samoa;

23           (F) the Commonwealth of the Northern  
24 Mariana Islands; and

25           (G) the United States Virgin Islands.

1 **SEC. 3302. POLICY.**

2 (a) IN GENERAL.—Section 3 of the National Mate-  
3 rials and Minerals Policy, Research and Development Act  
4 of 1980 (30 U.S.C. 1602) is amended in the second sen-  
5 tence—

6 (1) by striking paragraph (3) and inserting the  
7 following:

8 “(3) establish an analytical and forecasting ca-  
9 pability for identifying critical mineral demand, sup-  
10 ply, and other factors to allow informed actions to  
11 be taken to avoid supply shortages, mitigate price  
12 volatility, and prepare for demand growth and other  
13 market shifts;”;

14 (2) in paragraph (6), by striking “and” after  
15 the semicolon at the end; and

16 (3) by striking paragraph (7) and inserting the  
17 following:

18 “(7) encourage Federal agencies to facilitate  
19 the availability, development, and environmentally  
20 responsible production of domestic resources to meet  
21 national material or critical mineral needs;

22 “(8) avoid duplication of effort, prevent unnec-  
23 essary paperwork, and minimize delays in the ad-  
24 ministration of applicable laws (including regula-  
25 tions) and the issuance of permits and authoriza-  
26 tions necessary to explore for, develop, and produce

1 critical minerals and to construct critical mineral  
2 manufacturing facilities in accordance with applica-  
3 ble environmental and land management laws;

4 “(9) strengthen educational and research capa-  
5 bilities and workforce training;

6 “(10) bolster international cooperation through  
7 technology transfer, information sharing, and other  
8 means;

9 “(11) promote the efficient production, use, and  
10 recycling of critical minerals;

11 “(12) develop alternatives to critical minerals;  
12 and

13 “(13) establish contingencies for the production  
14 of, or access to, critical minerals for which viable  
15 sources do not exist within the United States.”.

16 (b) CONFORMING AMENDMENT.—Section 2(b) of the  
17 National Materials and Minerals Policy, Research and De-  
18 velopment Act of 1980 (30 U.S.C. 1601(b)) is amended  
19 by striking “(b) As used in this Act, the term” and insert-  
20 ing the following:

21 “(b) DEFINITIONS.—In this Act:

22 “(1) CRITICAL MINERAL.—The term ‘critical  
23 mineral’ means any mineral or element designated  
24 as a critical mineral pursuant to section 3303 of the  
25 Energy Policy Modernization Act of 2015.



1           “(2) MATERIALS.—The term”.

2   **SEC. 3303. CRITICAL MINERAL DESIGNATIONS.**

3           (a) DRAFT METHODOLOGY.—Not later than 90 days  
4 after the date of enactment of this Act, the Secretary of  
5 the Interior (acting through the Director of the United  
6 States Geological Survey) (referred to in this subtitle as  
7 the “Secretary”), in consultation with relevant Federal  
8 agencies and entities, shall publish in the Federal Register  
9 for public comment a draft methodology for determining  
10 which minerals qualify as critical minerals based on an  
11 assessment of whether the minerals are—

12           (1) subject to potential supply restrictions (in-  
13 cluding restrictions associated with foreign political  
14 risk, abrupt demand growth, military conflict, violent  
15 unrest, anti-competitive or protectionist behaviors,  
16 and other risks throughout the supply chain); and

17           (2) important in use (including energy tech-  
18 nology-, defense-, currency-, agriculture-, consumer  
19 electronics-, and health care-related applications).

20           (b) AVAILABILITY OF DATA.—If available data is in-  
21 sufficient to provide a quantitative basis for the method-  
22 ology developed under this section, qualitative evidence  
23 may be used to the extent necessary.

24           (c) FINAL METHODOLOGY.—After reviewing public  
25 comments on the draft methodology under subsection (a)

1 and updating the draft methodology as appropriate, not  
2 later than 270 days after the date of enactment of this  
3 Act, the Secretary shall publish in the Federal Register  
4 a description of the final methodology for determining  
5 which minerals qualify as critical minerals.

6 (d) DESIGNATIONS.—

7 (1) IN GENERAL.—For purposes of carrying out  
8 this subtitle, the Secretary shall maintain a list of  
9 minerals and elements designated as critical, pursu-  
10 ant to the methodology under subsection (c).

11 (2) INITIAL LIST.—Subject to paragraph (1),  
12 not later than 1 year after the date of enactment of  
13 this Act, the Secretary shall publish in the Federal  
14 Register an initial list of minerals designated as crit-  
15 ical pursuant to the final methodology under sub-  
16 section (c) for the purpose of carrying out this sub-  
17 title.

18 (3) INCLUSIONS.—Notwithstanding the criteria  
19 under subsection (c), the Secretary may designate  
20 and include on the list any mineral or element deter-  
21 mined by another Federal agency to be strategic and  
22 critical to the defense or national security of the  
23 United States.

24 (e) SUBSEQUENT REVIEW.—

1           (1) IN GENERAL.—The Secretary shall review  
2           the methodology and designations under subsections  
3           (c) and (d) at least every 3 years, or more frequently  
4           as the Secretary considers to be appropriate.

5           (2) REVISIONS.—Subject to subsection (d)(1),  
6           the Secretary may—

7                   (A) revise the methodology described in  
8                   this section;

9                   (B) determine that minerals or elements  
10                  previously determined to be critical minerals are  
11                  no longer critical minerals; and

12                  (C) designate additional minerals or ele-  
13                  ments as critical minerals.

14          (f) NOTICE.—On finalization of the methodology  
15          under subsection (c), the list under subsection (d), or any  
16          revision to the methodology or list under subsection (e),  
17          the Secretary shall submit to Congress written notice of  
18          the action.

19   **SEC. 3304. RESOURCE ASSESSMENT.**

20          (a) IN GENERAL.—Not later than 4 years after the  
21          date of enactment of this Act, in consultation with applica-  
22          ble State (including geological surveys), local, academic,  
23          industry, and other entities, the Secretary shall complete  
24          a comprehensive national assessment of each critical min-  
25          eral that—

1           (1) identifies and quantifies known critical min-  
2           eral resources, using all available public and private  
3           information and datasets, including exploration his-  
4           tories; and

5           (2) provides a quantitative and qualitative as-  
6           sessment of undiscovered critical mineral resources  
7           throughout the United States, including probability  
8           estimates of tonnage and grade, using all available  
9           public and private information and datasets, includ-  
10          ing exploration histories.

11          (b) SUPPLEMENTARY INFORMATION.—In carrying  
12          out this section, the Secretary may carry out surveys and  
13          field work (including drilling, remote sensing, geophysical  
14          surveys, geological mapping, and geochemical sampling  
15          and analysis) to supplement existing information and  
16          datasets available for determining the existence of critical  
17          minerals in the United States.

18          (c) TECHNICAL ASSISTANCE.—At the request of the  
19          Governor of a State or the head of an Indian tribe, the  
20          Secretary may provide technical assistance to State gov-  
21          ernments and Indian tribes conducting critical mineral re-  
22          source assessments on non-Federal land.

23          (d) PRIORITIZATION.—

24                 (1) IN GENERAL.—The Secretary may sequence  
25                 the completion of resource assessments for each crit-

1 ical mineral such that critical minerals considered to  
2 be most critical under the methodology established  
3 under section 3303 are completed first.

4 (2) REPORTING.—During the period beginning  
5 not later than 1 year after the date of enactment of  
6 this Act and ending on the date of completion of all  
7 of the assessments required under this section, the  
8 Secretary shall submit to Congress on an annual  
9 basis an interim report that—

10 (A) identifies the sequence and schedule  
11 for completion of the assessments if the Sec-  
12 retary sequences the assessments; or

13 (B) describes the progress of the assess-  
14 ments if the Secretary does not sequence the  
15 assessments.

16 (e) UPDATES.—The Secretary may periodically up-  
17 date the assessments conducted under this section based  
18 on—

19 (1) the generation of new information or  
20 datasets by the Federal Government; or

21 (2) the receipt of new information or datasets  
22 from critical mineral producers, State geological sur-  
23 veys, academic institutions, trade associations, or  
24 other persons.

1           (f) **ADDITIONAL SURVEYS.**—The Secretary shall com-  
2 plete a resource assessment for each additional mineral  
3 or element subsequently designated as a critical mineral  
4 under section 3303(e)(2) not later than 2 years after the  
5 designation of the mineral or element.

6           (g) **REPORT.**—Not later than 2 years after the date  
7 of enactment of this Act, the Secretary shall submit to  
8 Congress a report describing the status of geological sur-  
9 veying of Federal land for any mineral commodity—

10               (1) for which the United States was dependent  
11           on a foreign country for more than 25 percent of the  
12           United States supply, as depicted in the report  
13           issued by the United States Geological Survey enti-  
14           tled “Mineral Commodity Summaries 2015”; but

15               (2) that is not designated as a critical mineral  
16           under section 3303.

17 **SEC. 3305. PERMITTING.**

18           (a) **PERFORMANCE IMPROVEMENTS.**—To improve  
19 the quality and timeliness of decisions, the Secretary (act-  
20 ing through the Director of the Bureau of Land Manage-  
21 ment) and the Secretary of Agriculture (acting through  
22 the Chief of the Forest Service) (referred to in this section  
23 as the “Secretaries”) shall, to the maximum extent prac-  
24 ticable, with respect to critical mineral production on Fed-  
25 eral land, complete Federal permitting and review proc-

1 esses with maximum efficiency and effectiveness, while  
2 supporting vital economic growth, by—

3 (1) establishing and adhering to timelines and  
4 schedules for the consideration of, and final deci-  
5 sions regarding, applications, operating plans, leases,  
6 licenses, permits, and other use authorizations for  
7 mineral-related activities on Federal land;

8 (2) establishing clear, quantifiable, and tem-  
9 poral permitting performance goals and tracking  
10 progress against those goals;

11 (3) engaging in early collaboration among agen-  
12 cies, project sponsors, and affected stakeholders—

13 (A) to incorporate and address the inter-  
14 ests of those parties; and

15 (B) to minimize delays;

16 (4) ensuring transparency and accountability by  
17 using cost-effective information technology to collect  
18 and disseminate information regarding individual  
19 projects and agency performance;

20 (5) engaging in early and active consultation  
21 with State, local, and Indian tribal governments to  
22 avoid conflicts or duplication of effort, resolve con-  
23 cerns, and allow for concurrent, rather than sequen-  
24 tial, reviews;

1           (6) providing demonstrable improvements in the  
2 performance of Federal permitting and review pro-  
3 cesses, including lower costs and more timely deci-  
4 sions;

5           (7) expanding and institutionalizing permitting  
6 and review process improvements that have proven  
7 effective;

8           (8) developing mechanisms to better commu-  
9 nicate priorities and resolve disputes among agencies  
10 at the national, regional, State, and local levels; and

11           (9) developing other practices, such as  
12 preapplication procedures.

13       (b) REVIEW AND REPORT.—Not later than 1 year  
14 after the date of enactment of this Act, the Secretaries  
15 shall submit to Congress a report that—

16           (1) identifies additional measures (including  
17 regulatory and legislative proposals, as appropriate)  
18 that would increase the timeliness of permitting ac-  
19 tivities for the exploration and development of do-  
20 mestic critical minerals;

21           (2) identifies options (including cost recovery  
22 paid by permit applicants) for ensuring adequate  
23 staffing and training of Federal entities and per-  
24 sonnel responsible for the consideration of applica-  
25 tions, operating plans, leases, licenses, permits, and



1 other use authorizations for critical mineral-related  
2 activities on Federal land;

3 (3) quantifies the amount of time typically re-  
4 quired (including range derived from minimum and  
5 maximum durations, mean, median, variance, and  
6 other statistical measures or representations) to  
7 complete each step (including those aspects outside  
8 the control of the executive branch, such as judicial  
9 review, applicant decisions, or State and local gov-  
10 ernment involvement) associated with the develop-  
11 ment and processing of applications, operating  
12 plans, leases, licenses, permits, and other use au-  
13 thorizations for critical mineral-related activities on  
14 Federal land, which shall serve as a baseline for the  
15 performance metric under subsection (c); and

16 (4) describes actions carried out pursuant to  
17 subsection (a).

18 (c) PERFORMANCE METRIC.—Not later than 90 days  
19 after the date of submission of the report under subsection  
20 (b), the Secretaries, after providing public notice and an  
21 opportunity to comment, shall develop and publish a per-  
22 formance metric for evaluating the progress made by the  
23 executive branch to expedite the permitting of activities  
24 that will increase exploration for, and development of, do-

1 mestic critical minerals, while maintaining environmental  
2 standards.

3 (d) ANNUAL REPORTS.—Beginning with the first  
4 budget submission by the President under section 1105  
5 of title 31, United States Code, after publication of the  
6 performance metric required under subsection (c), and an-  
7 nually thereafter, the Secretaries shall submit to Congress  
8 a report that—

9 (1) summarizes the implementation of rec-  
10 ommendations, measures, and options identified in  
11 paragraphs (1) and (2) of subsection (b);

12 (2) using the performance metric under sub-  
13 section (c), describes progress made by the executive  
14 branch, as compared to the baseline established pur-  
15 suant to subsection (b)(3), on expediting the permit-  
16 ting of activities that will increase exploration for,  
17 and development of, domestic critical minerals; and

18 (3) compares the United States to other coun-  
19 tries in terms of permitting efficiency and any other  
20 criteria relevant to the globally competitive critical  
21 minerals industry.

22 (e) INDIVIDUAL PROJECTS.—Using data from the  
23 Secretaries generated under subsection (d), the Director  
24 of the Office of Management and Budget shall prioritize  
25 inclusion of individual critical mineral projects on the

1 website operated by the Office of Management and Budget  
2 in accordance with section 1122 of title 31, United States  
3 Code.

4 (f) REPORT OF SMALL BUSINESS ADMINISTRA-  
5 TION.—Not later than 1 year and 300 days after the date  
6 of enactment of this Act, the Administrator of the Small  
7 Business Administration shall submit to the applicable  
8 committees of Congress a report that assesses the per-  
9 formance of Federal agencies with respect to—

10 (1) complying with chapter 6 of title 5, United  
11 States Code (commonly known as the “Regulatory  
12 Flexibility Act”), in promulgating regulations appli-  
13 cable to the critical minerals industry; and

14 (2) performing an analysis of regulations appli-  
15 cable to the critical minerals industry that may be  
16 outmoded, inefficient, duplicative, or excessively bur-  
17 densome.

18 **SEC. 3306. FEDERAL REGISTER PROCESS.**

19 (a) DEPARTMENTAL REVIEW.—Absent any extraor-  
20 dinary circumstance, and except as otherwise required by  
21 law, the Secretary and the Secretary of Agriculture shall  
22 ensure that each Federal Register notice described in sub-  
23 section (b) shall be—

1           (1) subject to any required reviews within the  
2           Department of the Interior or the Department of  
3           Agriculture; and

4           (2) published in final form in the Federal Reg-  
5           ister not later than 45 days after the date of initial  
6           preparation of the notice.

7           (b) PREPARATION.—The preparation of Federal Reg-  
8           ister notices required by law associated with the issuance  
9           of a critical mineral exploration or mine permit shall be  
10          delegated to the organizational level within the agency re-  
11          sponsible for issuing the critical mineral exploration or  
12          mine permit.

13          (c) TRANSMISSION.—All Federal Register notices re-  
14          garding official document availability, announcements of  
15          meetings, or notices of intent to undertake an action shall  
16          be originated in, and transmitted to the Federal Register  
17          from, the office in which, as applicable—

18                 (1) the documents or meetings are held; or

19                 (2) the activity is initiated.

20   **SEC. 3307. RECYCLING, EFFICIENCY, AND ALTERNATIVES.**

21          (a) ESTABLISHMENT.—The Secretary of Energy (re-  
22          ferred to in this section as the “Secretary”) shall conduct  
23          a program of research and development—

1           (1) to promote the efficient production, use,  
2           and recycling of critical minerals throughout the  
3           supply chain; and

4           (2) to develop alternatives to critical minerals  
5           that do not occur in significant abundance in the  
6           United States.

7           (b) COOPERATION.—In carrying out the program, the  
8           Secretary shall cooperate with appropriate—

- 9           (1) Federal agencies and National Laboratories;
- 10          (2) critical mineral producers;
- 11          (3) critical mineral processors;
- 12          (4) critical mineral manufacturers;
- 13          (5) trade associations;
- 14          (6) academic institutions;
- 15          (7) small businesses; and
- 16          (8) other relevant entities or individuals.

17          (c) ACTIVITIES.—Under the program, the Secretary  
18          shall carry out activities that include the identification and  
19          development of—

- 20          (1) advanced critical mineral extraction, pro-  
21          duction, separation, alloying, or processing tech-  
22          nologies that decrease the energy consumption, envi-  
23          ronmental impact, and costs of those activities, in-  
24          cluding—

1 (A) efficient water and wastewater man-  
2 agement strategies;

3 (B) technologies and management strate-  
4 gies to control the environmental impacts of  
5 radionuclides in ore tailings; and

6 (C) technologies for separation and proc-  
7 essing;

8 (2) technologies or process improvements that  
9 minimize the use, or lead to more efficient use, of  
10 critical minerals across the full supply chain;

11 (3) technologies, process improvements, or de-  
12 sign optimizations that facilitate the recycling of  
13 critical minerals, and options for improving the rates  
14 of collection of products and scrap containing critical  
15 minerals from post-consumer, industrial, or other  
16 waste streams;

17 (4) commercial markets, advanced storage  
18 methods, energy applications, and other beneficial  
19 uses of critical minerals processing byproducts;

20 (5) alternative minerals, metals, and materials,  
21 particularly those available in abundance within the  
22 United States and not subject to potential supply re-  
23 strictions, that lessen the need for critical minerals;  
24 and

1           (6) alternative energy technologies or alter-  
2           native designs of existing energy technologies, par-  
3           ticularly those that use minerals that—

4                   (A) occur in abundance in the United  
5           States; and

6                   (B) are not subject to potential supply re-  
7           strictions.

8           (d) REPORTS.—Not later than 2 years after the date  
9           of enactment of this Act, and annually thereafter, the Sec-  
10          retary shall submit to Congress a report summarizing the  
11          activities, findings, and progress of the program.

12          **SEC. 3308. ANALYSIS AND FORECASTING.**

13          (a) CAPABILITIES.—In order to evaluate existing crit-  
14          ical mineral policies and inform future actions that may  
15          be taken to avoid supply shortages, mitigate price vola-  
16          tility, and prepare for demand growth and other market  
17          shifts, the Secretary, in consultation with the Energy In-  
18          formation Administration, academic institutions, and oth-  
19          ers in order to maximize the application of existing com-  
20          petencies related to developing and maintaining computer-  
21          models and similar analytical tools, shall conduct and pub-  
22          lish the results of an annual report that includes—

23                   (1) as part of the annually published Mineral  
24          Commodity Summaries from the United States Geo-  
25          logical Survey, a comprehensive review of critical

1 mineral production, consumption, and recycling pat-  
2 terns, including—

3 (A) the quantity of each critical mineral  
4 domestically produced during the preceding  
5 year;

6 (B) the quantity of each critical mineral  
7 domestically consumed during the preceding  
8 year;

9 (C) market price data or other price data  
10 for each critical mineral;

11 (D) an assessment of—

12 (i) critical mineral requirements to  
13 meet the national security, energy, eco-  
14 nomic, industrial, technological, and other  
15 needs of the United States during the pre-  
16 ceding year;

17 (ii) the reliance of the United States  
18 on foreign sources to meet those needs  
19 during the preceding year; and

20 (iii) the implications of any supply  
21 shortages, restrictions, or disruptions dur-  
22 ing the preceding year;

23 (E) the quantity of each critical mineral  
24 domestically recycled during the preceding year;



1 (F) the market penetration during the pre-  
2 ceding year of alternatives to each critical min-  
3 eral;

4 (G) a discussion of international trends as-  
5 sociated with the discovery, production, con-  
6 sumption, use, costs of production, prices, and  
7 recycling of each critical mineral as well as the  
8 development of alternatives to critical minerals;  
9 and

10 (H) such other data, analyses, and evalua-  
11 tions as the Secretary finds are necessary to  
12 achieve the purposes of this section; and

13 (2) a comprehensive forecast, entitled the “An-  
14 nual Critical Minerals Outlook”, of projected critical  
15 mineral production, consumption, and recycling pat-  
16 terns, including—

17 (A) the quantity of each critical mineral  
18 projected to be domestically produced over the  
19 subsequent 1-year, 5-year, and 10-year periods;

20 (B) the quantity of each critical mineral  
21 projected to be domestically consumed over the  
22 subsequent 1-year, 5-year, and 10-year periods;

23 (C) an assessment of—

24 (i) critical mineral requirements to  
25 meet projected national security, energy,

1 economic, industrial, technological, and  
2 other needs of the United States;

3 (ii) the projected reliance of the  
4 United States on foreign sources to meet  
5 those needs; and

6 (iii) the projected implications of po-  
7 tential supply shortages, restrictions, or  
8 disruptions;

9 (D) the quantity of each critical mineral  
10 projected to be domestically recycled over the  
11 subsequent 1-year, 5-year, and 10-year periods;

12 (E) the market penetration of alternatives  
13 to each critical mineral projected to take place  
14 over the subsequent 1-year, 5-year, and 10-year  
15 periods;

16 (F) a discussion of reasonably foreseeable  
17 international trends associated with the dis-  
18 covery, production, consumption, use, costs of  
19 production, and recycling of each critical min-  
20 eral as well as the development of alternatives  
21 to critical minerals; and

22 (G) such other projections relating to each  
23 critical mineral as the Secretary determines to  
24 be necessary to achieve the purposes of this sec-  
25 tion.

1 (b) PROPRIETARY INFORMATION.—In preparing a re-  
2 port described in subsection (a), the Secretary shall en-  
3 sure, consistent with section 5(f) of the National Materials  
4 and Minerals Policy, Research and Development Act of  
5 1980 (30 U.S.C. 1604(f)), that—

6 (1) no person uses the information and data  
7 collected for the report for a purpose other than the  
8 development of or reporting of aggregate data in a  
9 manner such that the identity of the person or firm  
10 who supplied the information is not discernible and  
11 is not material to the intended uses of the informa-  
12 tion;

13 (2) no person discloses any information or data  
14 collected for the report unless the information or  
15 data has been transformed into a statistical or ag-  
16 gregate form that does not allow the identification of  
17 the person or firm who supplied particular informa-  
18 tion; and

19 (3) procedures are established to require the  
20 withholding of any information or data collected for  
21 the report if the Secretary determines that with-  
22 holding is necessary to protect proprietary informa-  
23 tion, including any trade secrets or other confiden-  
24 tial information.

1 **SEC. 3309. EDUCATION AND WORKFORCE.**

2 (a) WORKFORCE ASSESSMENT.—Not later than 1  
3 year and 300 days after the date of enactment of this Act,  
4 the Secretary of Labor (in consultation with the Secretary,  
5 the Director of the National Science Foundation, institu-  
6 tions of higher education with substantial expertise in  
7 mining, institutions of higher education with significant  
8 expertise in minerals research, including fundamental re-  
9 search into alternatives, and employers in the critical min-  
10 erals sector) shall submit to Congress an assessment of  
11 the domestic availability of technically trained personnel  
12 necessary for critical mineral exploration, development, as-  
13 sessment, production, manufacturing, recycling, analysis,  
14 forecasting, education, and research, including an analysis  
15 of—

16 (1) skills that are in the shortest supply as of  
17 the date of the assessment;

18 (2) skills that are projected to be in short sup-  
19 ply in the future;

20 (3) the demographics of the critical minerals in-  
21 dustry and how the demographics will evolve under  
22 the influence of factors such as an aging workforce;

23 (4) the effectiveness of training and education  
24 programs in addressing skills shortages;

25 (5) opportunities to hire locally for new and ex-  
26 isting critical mineral activities;

1           (6) the sufficiency of personnel within relevant  
2 areas of the Federal Government for achieving the  
3 policies described in section 3 of the National Mate-  
4 rials and Minerals Policy, Research and Develop-  
5 ment Act of 1980 (30 U.S.C. 1602); and

6           (7) the potential need for new training pro-  
7 grams to have a measurable effect on the supply of  
8 trained workers in the critical minerals industry.

9 (b) CURRICULUM STUDY.—

10           (1) IN GENERAL.—The Secretary and the Sec-  
11 retary of Labor shall jointly enter into an arrange-  
12 ment with the National Academy of Sciences and the  
13 National Academy of Engineering under which the  
14 Academies shall coordinate with the National  
15 Science Foundation on conducting a study—

16           (A) to design an interdisciplinary program  
17 on critical minerals that will support the critical  
18 mineral supply chain and improve the ability of  
19 the United States to increase domestic, critical  
20 mineral exploration, development, production,  
21 manufacturing, research, including fundamental  
22 research into alternatives, and recycling;

23           (B) to address undergraduate and grad-  
24 uate education, especially to assist in the devel-  
25 opment of graduate level programs of research

1 and instruction that lead to advanced degrees  
2 with an emphasis on the critical mineral supply  
3 chain or other positions that will increase do-  
4 mestic, critical mineral exploration, develop-  
5 ment, production, manufacturing, research, in-  
6 cluding fundamental research into alternatives,  
7 and recycling;

8 (C) to develop guidelines for proposals  
9 from institutions of higher education with sub-  
10 stantial capabilities in the required disciplines  
11 for activities to improve the critical mineral  
12 supply chain and advance the capacity of the  
13 United States to increase domestic, critical min-  
14 eral exploration, research, development, produc-  
15 tion, manufacturing, and recycling; and

16 (D) to outline criteria for evaluating per-  
17 formance and recommendations for the amount  
18 of funding that will be necessary to establish  
19 and carry out the program described in sub-  
20 section (c).

21 (2) REPORT.—Not later than 2 years after the  
22 date of enactment of this Act, the Secretary shall  
23 submit to Congress a description of the results of  
24 the study required under paragraph (1).

25 (c) PROGRAM.—

1           (1) ESTABLISHMENT.—The Secretary and the  
2 Secretary of Labor shall jointly conduct a competi-  
3 tive grant program under which institutions of high-  
4 er education may apply for and receive 4-year grants  
5 for—

6           (A) startup costs for newly designated fac-  
7 ulty positions in integrated critical mineral edu-  
8 cation, research, innovation, training, and work-  
9 force development programs consistent with  
10 subsection (b);

11           (B) internships, scholarships, and fellow-  
12 ships for students enrolled in programs related  
13 to critical minerals;

14           (C) equipment necessary for integrated  
15 critical mineral innovation, training, and work-  
16 force development programs; and

17           (D) research of critical minerals and their  
18 applications, particularly concerning the manu-  
19 facture of critical components vital to national  
20 security.

21           (2) RENEWAL.—A grant under this subsection  
22 shall be renewable for up to 2 additional 3-year  
23 terms based on performance criteria outlined under  
24 subsection (b)(1)(D).

1 **SEC. 3310. NATIONAL GEOLOGICAL AND GEOPHYSICAL**  
2 **DATA PRESERVATION PROGRAM.**

3 Section 351(k) of the Energy Policy Act of 2005 (42  
4 U.S.C. 15908(k)) is amended by striking “\$30,000,000  
5 for each of fiscal years 2006 through 2010” and inserting  
6 “\$5,000,000 for each of fiscal years 2017 through 2026,  
7 to remain available until expended”.

8 **SEC. 3311. ADMINISTRATION.**

9 (a) **IN GENERAL.**—The National Critical Materials  
10 Act of 1984 (30 U.S.C. 1801 et seq.) is repealed.

11 (b) **CONFORMING AMENDMENT.**—Section 3(d) of the  
12 National Superconductivity and Competitiveness Act of  
13 1988 (15 U.S.C. 5202(d)) is amended in the first sentence  
14 by striking “, with the assistance of the National Critical  
15 Materials Council as specified in the National Critical Ma-  
16 terials Act of 1984 (30 U.S.C. 1801 et seq.),”.

17 (c) **SAVINGS CLAUSES.**—

18 (1) **IN GENERAL.**—Nothing in this subtitle or  
19 an amendment made by this subtitle modifies any  
20 requirement or authority provided by—

21 (A) the matter under the heading “**GEO-**  
22 **LOGICAL SURVEY**” of the first section of the  
23 Act of March 3, 1879 (43 U.S.C. 31(a)); or

24 (B) the first section of Public Law 87–626  
25 (43 U.S.C. 31(b)).





1           (2) SAVINGS CLAUSE.—Notwithstanding the  
2 amendments made by paragraph (1), the Secretary  
3 shall continue to manage any program activities that  
4 are outstanding as of the date of enactment of this  
5 Act under the terms and conditions of sections 962  
6 and 963 of the Energy Policy Act of 2005 (42  
7 U.S.C. 16292, 16293) or subtitle A of title IV of the  
8 Energy Policy Act of 2005 (42 U.S.C. 15961 et  
9 seq.) (as in effect on the day before the date of en-  
10 actment of this Act), as applicable.

11           (3) CONFORMING AMENDMENTS.—

12           (A) Section 703(a)(3) of the Energy Inde-  
13 pendence and Security Act of 2007 (42 U.S.C.  
14 17251(a)(3)) is amended—

15           (i) in the matter preceding subpara-  
16 graph (A), by striking the first and second  
17 sentences; and

18           (ii) in subparagraph (B), by striking  
19 “including” in the matter preceding clause  
20 (i) and all that follows through the period  
21 at the end and inserting “, including such  
22 geologic sequestration projects as are ap-  
23 proved by the Secretary”.

24           (B) Section 704 of the Energy Independ-  
25 ence and Security Act of 2007 (42 U.S.C.

1           17252) is amended in the first sentence by  
2           striking “under section 963(c)(3) of the Energy  
3           Policy Act of 2005 (42 U.S.C. 16293(c)(3)), as  
4           added by section 702 of this subtitle, and”.

5           (b) ESTABLISHMENT OF COAL TECHNOLOGY PRO-  
6           GRAM.—

7           (1) IN GENERAL.—The Energy Policy Act of  
8           2005 (as amended by subsection (a)) is amended by  
9           inserting after section 961 (42 U.S.C. 16291) the  
10          following:

11       **“SEC. 962. COAL TECHNOLOGY PROGRAM.**

12       “(a) DEFINITIONS.—In this section:

13           “(1) LARGE-SCALE PILOT PROJECT.—The term  
14           ‘large-scale pilot project’ means a pilot project  
15           that—

16                   “(A) represents the scale of technology de-  
17                   velopment beyond laboratory development and  
18                   bench scale testing, but not yet advanced to the  
19                   point of being tested under real operational con-  
20                   ditions at commercial scale;

21                   “(B) represents the scale of technology  
22                   necessary to gain the operational data needed  
23                   to understand the technical and performance  
24                   risks of the technology before the application of

1 that technology at commercial scale or in com-  
2 mercial-scale demonstration; and

3 “(C) is large enough—

4 “(i) to validate scaling factors; and

5 “(ii) to demonstrate the interaction  
6 between major components so that control  
7 philosophies for a new process can be de-  
8 veloped and enable the technology to ad-  
9 vance from large-scale pilot plant applica-  
10 tion to commercial scale demonstration or  
11 application.

12 “(2) PROGRAM.—The term ‘program’ means  
13 the program established under subsection (b).

14 “(3) TRANSFORMATIONAL TECHNOLOGY.—

15 “(A) IN GENERAL.—The term ‘trans-  
16 formational technology’ means a power genera-  
17 tion technology that represents an entirely new  
18 way to convert energy that will enable a step  
19 change in performance, efficiency, and cost of  
20 electricity as compared to the technology in ex-  
21 istence on the date of enactment of this Act.

22 “(B) INCLUSIONS.—The term ‘trans-  
23 formational technology’ includes a broad range  
24 of technology improvements, including—

1                   “(i) thermodynamic improvements in  
2                   energy conversion and heat transfer, in-  
3                   cluding—

4                               “(I) oxygen combustion;

5                               “(II) chemical looping; and

6                               “(III) the replacement of steam  
7                   cycles with supercritical carbon diox-  
8                   ide cycles;

9                               “(ii) improvements in turbine tech-  
10                   nology;

11                              “(iii) improvements in carbon capture  
12                   systems technology; and

13                              “(iv) any other technology the Sec-  
14                   retary recognizes as transformational tech-  
15                   nology.

16                   “(b) COAL TECHNOLOGY PROGRAM.—

17                              “(1) IN GENERAL.—The Secretary shall estab-  
18                   lish a coal technology program to ensure the contin-  
19                   ued use of the abundant, domestic coal resources of  
20                   the United States through the development of tech-  
21                   nologies that will significantly improve the efficiency,  
22                   effectiveness, costs, and environmental performance  
23                   of coal use.

24                              “(2) REQUIREMENTS.—The program shall in-  
25                   clude—

1           “(A) a research and development program;

2           “(B) large-scale pilot projects; and

3           “(C) demonstration projects.

4           “(3) PROGRAM GOALS AND OBJECTIVES.—In  
5           consultation with the interested entities described in  
6           paragraph (4)(C), the Secretary shall develop goals  
7           and objectives for the program to be applied to the  
8           technologies developed within the program, taking  
9           into consideration the following objectives:

10           “(A) Ensure reliable, low cost power from  
11           new and existing coal plants.

12           “(B) Achieve high conversion efficiencies.

13           “(C) Address emissions of carbon dioxide  
14           through high efficiency platforms and carbon  
15           capture from new and existing coal plants.

16           “(D) Support small-scale and modular  
17           technologies to enable incremental capacity ad-  
18           ditions and load growth and large-scale genera-  
19           tion technologies.

20           “(E) Support flexible baseload operations  
21           for new and existing applications of coal gen-  
22           eration.

23           “(F) Further reduce emissions of criteria  
24           pollutants and reduce the use and manage the  
25           discharge of water in power plant operations.

1           “(G) Accelerate the development of tech-  
2 nologies that have transformational energy con-  
3 version characteristics.

4           “(H) Validate geologic storage of large vol-  
5 umes of anthropogenic sources of carbon diox-  
6 ide and support the development of the infra-  
7 structure needed to support a carbon dioxide  
8 use and storage industry.

9           “(I) Examine methods of converting coal  
10 to other valuable products and commodities in  
11 addition to electricity.

12           “(4) CONSULTATIONS REQUIRED.—In carrying  
13 out the program, the Secretary shall—

14           “(A) undertake international collabora-  
15 tions, as recommended by the National Coal  
16 Council;

17           “(B) use existing authorities to encourage  
18 international cooperation; and

19           “(C) consult with interested entities, in-  
20 cluding —

21           “(i) coal producers;

22           “(ii) industries that use coal;

23           “(iii) organizations that promote coal  
24 and advanced coal technologies;

25           “(iv) environmental organizations;

1                   “(v) organizations representing work-  
2                   ers; and

3                   “(vi) organizations representing con-  
4                   sumers.

5           “(c) REPORT.—

6                   “(1) IN GENERAL.—Not later than 18 months  
7                   after the date of enactment of this Act, the Sec-  
8                   retary shall submit to Congress a report describing  
9                   the performance standards adopted under subsection  
10                  (b)(3).

11                  “(2) UPDATE.—Once every 2 years after the  
12                  initial report is submitted under paragraph (1), the  
13                  Secretary shall submit to Congress a report describ-  
14                  ing the progress made towards achieving the objec-  
15                  tives and performance standards adopted under sub-  
16                  section (b)(3).

17           “(d) FUNDING.—

18                   “(1) AUTHORIZATION OF APPROPRIATIONS.—  
19                   There are authorized to be appropriated to the Sec-  
20                   retary to carry out this Act, to remain available until  
21                   expended—

22                           “(A) \$610,000,000 for each of fiscal years  
23                           2017 through 2020; and

24                           “(B) \$560,000,000 for fiscal year 2021.



1           “(2) ALLOCATIONS.—The amounts made avail-  
2           able under paragraph (1) shall be allocated as fol-  
3           lows:

4                   “(A) For activities under the research and  
5                   development program component described in  
6                   subsection (b)(2)(A)—

7                           “(i) \$275,000,000 for each of fiscal  
8                           years 2017 through 2020; and

9                           “(ii) \$200,000,000 for fiscal year  
10                          2021.

11                   “(B) For activities under the demonstra-  
12                   tion projects program component described in  
13                   subsection (b)(2)(C)—

14                           “(i) \$50,000,000 for each of fiscal  
15                           years 2017 through 2020; and

16                           “(ii) \$75,000,000 for fiscal year 2021.

17                   “(C) For activities under the large-scale  
18                   pilot projects program component described in  
19                   subsection (b)(2)(B), \$285,000,000 for each of  
20                   fiscal years 2017 through 2021.”.

21           (2) COST SHARING FOR LARGE-SCALE PILOT  
22           PROJECTS.—Activities under subsection (b)(2)(B)  
23           shall be subject to the cost-sharing requirements of  
24           section 988(b) of the Energy Policy Act of 2005 (42  
25           U.S.C. 16352(b)).

## **Subtitle F—Nuclear**

### **2 SEC. 3501. REPORT ON FUSION AND FISSION REACTOR 3 PROTOTYPES.**

4 (a) IN GENERAL.—Not later than 180 days after the  
5 date of enactment of this Act, the Secretary, in consulta-  
6 tion with the National Laboratories, relevant Federal  
7 agencies, and other stakeholders, shall submit to the Com-  
8 mittees on Energy and Natural Resources and Environ-  
9 ment and Public Works of the Senate and the Committee  
10 on Science, Space, and Technology of the House of Rep-  
11 resentatives a report assessing the capability of the De-  
12 partment to host privately funded fusion and fission reac-  
13 tor prototypes up to 20 megawatts thermal output and  
14 related demonstration facilities at sites owned by the De-  
15 partment.

16 (b) CONTENT.—The report submitted under sub-  
17 section (a) shall describe the results of an assessment of—

18 (1) the safety review, oversight capabilities, and  
19 potential liability of the Department;

20 (2) potential sites capable of hosting research,  
21 development, and demonstration of prototype reac-  
22 tors and related facilities for the purpose of reducing  
23 technical risk;

24 (3) the existing physical and technical capabili-  
25 ties of the Department and the National Labora-

1       tories relevant to research, development, and over-  
2       sight;

3           (4) the efficacy of the available contractual  
4       mechanisms of the Department, including—

5           (A) cooperative research and development  
6       agreements;

7           (B) work for others agreements; and

8           (C) agreements for commercializing tech-  
9       nology;

10       (5) potential cost structures relating to physical  
11       security, decommissioning, liability, and other long-  
12       term project costs;

13       (6) the feasibility of the Department providing  
14       technical assistance to developers of privately funded  
15       fusion and advanced fission reactors in connection  
16       with obtaining a license from the Nuclear Regu-  
17       latory Commission for demonstration reactors or  
18       commercial reactors of varying size and readiness  
19       levels up to 2 gigawatts of thermal output; and

20       (7) other challenges or considerations identified  
21       by the Secretary, including issues relating to poten-  
22       tial cases of demonstration reactors up to 2  
23       gigawatts of thermal output.

1 **SEC. 3502. NEXT GENERATION NUCLEAR PLANT PROJECT.**

2 Section 642(b) of the Energy Policy Act of 2005 (42  
3 U.S.C. 16022(b)) is amended—

4 (1) by striking paragraph (3); and

5 (2) by redesignating paragraphs (4) and (5) as  
6 paragraphs (3) and (4), respectively.

7 **Subtitle G—Workforce**  
8 **Development**

9 **SEC. 3601. 21ST CENTURY ENERGY WORKFORCE ADVISORY**  
10 **BOARD.**

11 (a) ESTABLISHMENT.—The Secretary shall establish  
12 the 21st Century Energy Workforce Advisory Board (re-  
13 ferred to in this section as the “Board”), to develop a  
14 strategy for the support and development of a skilled en-  
15 ergy workforce that—

16 (1) meets the current and future industry and  
17 labor needs of the energy sector;

18 (2) provides opportunities for students to be-  
19 come qualified for placement in traditional energy  
20 sector and clean energy sector jobs;

21 (3) aligns apprenticeship programs and work-  
22 force development programs to provide industry rec-  
23 ognized certifications and credentials;

24 (4) encourages leaders in the education system  
25 of the United States to equip students with the  
26 skills, mentorships, training, and technical expertise

1 necessary to fill the employment opportunities vital  
2 to managing and operating the energy- and manu-  
3 facturing-related industries of the United States;

4 (5) appropriately supports other Federal agen-  
5 cies;

6 (6) strengthens and more fully engages work-  
7 force training programs of the Department and the  
8 National Laboratories in carrying out the Minorities  
9 in Energy Initiative of the Department and other  
10 Department workforce priorities;

11 (7) supports the design and replication of exist-  
12 ing model energy curricula, particularly in new and  
13 emerging technologies, that leads to industry-wide  
14 credentials;

15 (8) develops plans to support and retrain dis-  
16 placed and unemployed energy sector workers; and

17 (9) makes a Department priority to provide  
18 education and job training to underrepresented  
19 groups, including ethnic minorities, Indian tribes (as  
20 defined in section 4 of the Indian Self-Determination  
21 and Education Assistance Act (25 U.S.C. 450b)),  
22 women, veterans, and socioeconomically disadvan-  
23 taged individuals.

24 (b) MEMBERSHIP.—

1           (1) IN GENERAL.—The Board shall be com-  
2           posed of 9 members, with the initial members of the  
3           Board to be appointed by the Secretary not later  
4           than 1 year after the date of enactment of this Act.

5           (2) NOMINATIONS.—Not later than 1 year after  
6           the date of enactment of this Act, the President’s  
7           Council of Advisors on Science and Technology shall  
8           nominate for appointment to the Board under para-  
9           graph (1) not less than 18 individuals who meet the  
10          qualifications described in paragraph (3).

11          (3) QUALIFICATIONS.—Each individual nomi-  
12          nated for appointment to the Board under para-  
13          graph (1) shall—

14                 (A) be eminent in the field of economics or  
15                 workforce development;

16                 (B) have expertise in relevant traditional  
17                 energy industries and clean energy industries;

18                 (C) have expertise in secondary and post-  
19                 secondary education;

20                 (D) have expertise in energy workforce de-  
21                 velopment or apprentice programs of States and  
22                 units of local government;

23                 (E) have expertise in relevant organized  
24                 labor organizations; or

1 (F) have expertise in bringing underrep-  
2 resented groups, including ethnic minorities,  
3 women, veterans, and socioeconomically dis-  
4 advantaged individuals, into the workforce.

5 (4) REPRESENTATION.—The membership of the  
6 Board shall be representative of the broad range of  
7 the energy industry, labor organizations, workforce  
8 development, education, minority participation, and  
9 economics disciplines related to activities carried out  
10 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;

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           (C) identify ways in which the Department  
5           and National Laboratories can—

6                 (i) increase outreach to minority-serv-  
7                 ing institutions; and

8                 (ii) make resources available to in-  
9                 crease the number of skilled minorities and  
10                women trained to go into the energy- and  
11                manufacturing-related sectors;

12           (D) identify ways in which the Department  
13           and National Laboratories can —

14                 (i) increase outreach to displaced and  
15                 unemployed energy sector workers; and

16                 (ii) make resources available to pro-  
17                 vide training to displaced and unemployed  
18                 energy sector workers to reenter the en-  
19                 ergy workforce; and

20           (E) identify the energy sectors in greatest  
21           need of workforce training and develop guide-  
22           lines for the skills necessary to develop a work-  
23           force trained to work in those energy sectors.



1           (2) REQUIRED ANALYSIS.—In developing the  
2 strategy required under subsection (a), the Board  
3 shall analyze the effectiveness of—

4           (A) existing Department directed support;

5           and

6           (B) developing energy workforce training  
7 programs.

8           (3) REPORT.—Not later than 1 year after the  
9 date on which the Board is established under this  
10 section, and each year thereafter, the Board shall  
11 submit to the Secretary and Congress, and make  
12 public, a report containing the findings of the Board  
13 and model energy curricula with respect to the strat-  
14 egy required to be developed under subsection (a).

15          (d) REPORT BY SECRETARY.—Not later than 18  
16 months after the date on which the Board is established  
17 under this section, the Secretary shall submit to the Com-  
18 mittees on Appropriations of Senate and the House of  
19 Representatives, the Committee on Energy and Natural  
20 Resources of the Senate, and the Committee on Energy  
21 and Commerce of the House of Representatives a report  
22 that—

23           (1) describes whether the Secretary approves or  
24 disapproves the recommendations of the Board  
25 under subsection (c)(3); and

1           (2) provides an implementation plan for rec-  
2           ommendations approved by the Board under para-  
3           graph (1).

4           (e) CLEARINGHOUSE.—Based on the recommenda-  
5           tions of the Board, the Secretary shall establish a clearing-  
6           house—

7           (1) to maintain and update information and re-  
8           sources on training and workforce development pro-  
9           grams for energy- and manufacturing-related jobs;  
10          and

11          (2) to act as a resource, and provide guidance,  
12          for secondary schools, institutions of higher edu-  
13          cation (including community colleges and minority-  
14          serving institutions), workforce development organi-  
15          zations, labor management organizations, and indus-  
16          try organizations that would like to develop and im-  
17          plement energy- and manufacturing-related training  
18          programs.

19          (f) SUNSET.—The Board established under this sec-  
20          tion shall remain in effect until September 30, 2020.

21       **SEC. 3602. ENERGY WORKFORCE PILOT GRANT PROGRAM.**

22          (a) IN GENERAL.—Not later than 1 year after the  
23          date of enactment of this Act, the Secretary, in consulta-  
24          tion with the Secretary of Labor and the Secretary of  
25          Education, shall establish a pilot program to award grants

1 on a competitive basis to eligible entities for job training  
2 programs that lead to an industry-recognized credential.

3 (b) ELIGIBILITY.—To be eligible to receive a grant  
4 under this section, an entity shall be a public or nonprofit  
5 organization or a consortium of public or nonprofit organi-  
6 zations that—

7 (1) includes an advisory board of proportional  
8 participation, as determined by the Secretary, of rel-  
9 evant organizations, including—

10 (A) relevant energy industry organizations,

11 including public and private employers;

12 (B) labor organizations;

13 (C) postsecondary education organizations;

14 and

15 (D) workforce development boards;

16 (2) demonstrates experience in implementing  
17 and operating job training and education programs;

18 (3) demonstrates the ability to recruit and sup-  
19 port individuals who plan to work in the energy in-  
20 dustry in the successful completion of relevant job  
21 training and education programs; and

22 (4) provides students who complete the job  
23 training and education program with an industry-  
24 recognized credential.

1 (c) APPLICATIONS.—Eligible entities desiring a grant  
2 under this section shall submit to the Secretary an appli-  
3 cation at such time, in such manner, and containing such  
4 information as the Secretary may require.

5 (d) PRIORITY.—In selecting eligible entities to receive  
6 grants under this section, the Secretary shall prioritize ap-  
7 plicants that—

8 (1) house the job training and education pro-  
9 grams in—

10 (A) a community college or institution of  
11 higher education that includes basic science and  
12 math education in the curriculum of the com-  
13 munity college, institution of higher education;  
14 or

15 (B) an apprenticeship program registered  
16 with the Department of Labor or a State;

17 (2) work with the Secretary of Defense or vet-  
18 erans organizations to transition members of the  
19 Armed Forces and veterans to careers in the energy  
20 sector;

21 (3) work with Indian tribes (as defined in sec-  
22 tion 4 of the Indian Self-Determination and Edu-  
23 cation Assistance Act (25 U.S.C. 450b));

24 (4) apply as a State or regional consortia to le-  
25 verage best practices already available in the State

1 or region in which the community college or institu-  
2 tion of higher education is located;

3 (5) have a State-supported entity included in  
4 the consortium applying for the grant;

5 (6) include an apprenticeship program reg-  
6 istered with the Department of Labor or a State as  
7 part of the job training and education program;

8 (7) provide support services and career coach-  
9 ing;

10 (8) provide introductory energy workforce devel-  
11 opment training;

12 (9) work with minority-serving institutions to  
13 provide job training to increase the number of  
14 skilled minorities and women in the energy sector; or

15 (10) provide job training for displaced and un-  
16 employed workers in the energy sector.

17 (e) **ADDITIONAL CONSIDERATION.**—In making  
18 grants under this section, the Secretary shall consider re-  
19 gional diversity.

20 (f) **LIMITATION ON APPLICATIONS.**—An eligible enti-  
21 ty may not submit, either individually or as part of a joint  
22 application, more than 1 application for a grant under this  
23 section during any 1 fiscal year.

1 (g) LIMITATIONS ON AMOUNT OF GRANT.—The  
2 amount of an individual grant for any 1 year shall not  
3 exceed \$1,000,000.

4 (h) COST SHARING.—

5 (1) FEDERAL SHARE.—The Federal share of  
6 the cost of a job training and education program  
7 carried out using a grant under this section shall be  
8 not greater than 65 percent.

9 (2) NON-FEDERAL SHARE.—

10 (A) IN GENERAL.—The non-Federal share  
11 of the cost of a job training and education pro-  
12 gram carried out using a grant under this sec-  
13 tion shall consist of not less than 50 percent  
14 cash.

15 (B) LIMITATION.—Not greater than 50  
16 percent of the non-Federal contribution of the  
17 total cost of a job training and education pro-  
18 gram carried out using a grant under this sec-  
19 tion shall be in the form of in-kind contribu-  
20 tions of goods or services fairly valued.

21 (i) REDUCTION OF DUPLICATION.—Prior to submit-  
22 ting an application for a grant under this section, each  
23 applicant shall consult with the appropriate agencies of  
24 the Federal Government and coordinate the proposed ac-

1 tivities of the applicant with existing State and local pro-  
2 grams.

3 (j) TECHNICAL ASSISTANCE.—The Secretary shall  
4 provide technical assistance and capacity building to na-  
5 tional and State energy partnerships, including the enti-  
6 ties described in subsection (b)(1), to leverage the existing  
7 job training and education programs of the Department.

8 (k) REPORT.—The Secretary shall submit to Con-  
9 gress and make publicly available on the website of the  
10 Department an annual report on the program established  
11 under this section, including a description of—

12 (1) the entities receiving grants;

13 (2) the activities carried out using the grants;

14 (3) best practices used to leverage the invest-  
15 ment of the Federal Government;

16 (4) the rate of employment for participants  
17 after completing a job training and education pro-  
18 gram carried out using a grant; and

19 (5) an assessment of the results achieved by the  
20 program.

21 (l) AUTHORIZATION OF APPROPRIATIONS.—There is  
22 authorized to be appropriated to carry out this section  
23 \$20,000,000 for each of fiscal years 2017 through 2020.

## Subtitle H—Recycling

### 2 SEC. 3701. RECYCLED CARBON FIBER.

3 (a) STUDY.—

4 (1) IN GENERAL.—The Secretary shall conduct  
5 a study on—

6 (A) the technology of recycled carbon fiber  
7 and production waste carbon fiber; and

8 (B) the potential lifecycle energy savings  
9 and economic impact of recycled carbon fiber.

10 (2) FACTORS FOR CONSIDERATION.—In con-  
11 ducting the study under paragraph (1), the Sec-  
12 retary shall consider—

13 (A) the quantity of recycled carbon fiber or  
14 production waste carbon fiber that would make  
15 the use of recycled carbon fiber or production  
16 waste carbon fiber economically viable;

17 (B) any existing or potential barriers to re-  
18 cycling carbon fiber or using recycled carbon  
19 fiber;

20 (C) any financial incentives that may be  
21 necessary for the development of recycled car-  
22 bon fiber or production waste carbon fiber;

23 (D) the potential lifecycle savings in energy  
24 from producing recycled carbon fiber, as com-  
25 pared to producing new carbon fiber;



1 (E) the best and highest use for recycled  
2 carbon fiber;

3 (F) the potential reduction in carbon diox-  
4 ide emissions from producing recycled carbon  
5 fiber, as compared to producing new carbon  
6 fiber;

7 (G) any economic benefits gained from  
8 using recycled carbon fiber or production waste  
9 carbon fiber;

10 (H) workforce training and skills needed to  
11 address labor demands in the development of  
12 recycled carbon fiber or production waste car-  
13 bon fiber; and

14 (I) how the Department can leverage exist-  
15 ing efforts in the industry on the use of produc-  
16 tion waste carbon fiber.

17 (3) REPORT.—Not later than 1 year after the  
18 date of enactment of this Act, the Secretary shall  
19 submit to Congress a report describing the results of  
20 the study conducted under paragraph (1).

21 (b) RECYCLED CARBON FIBER DEMONSTRATION  
22 PROJECT.—On completion of the study required under  
23 subsection (a)(1), the Secretary shall consult with the  
24 aviation and automotive industries and existing programs

1 of the Advanced Manufacturing Office of the Department  
2 to develop a carbon fiber recycling demonstration project.

3 (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
4 authorized to be appropriated to the Secretary to carry  
5 out this section \$10,000,000, to remain available until ex-  
6 pended.

7 **SEC. 3702. ENERGY GENERATION AND REGULATORY RE-**  
8 **LIEF STUDY REGARDING RECOVERY AND**  
9 **CONVERSION OF NONRECYCLED MIXED**  
10 **PLASTICS.**

11 (a) DEFINITIONS.—In this section:

12 (1) ENGINEERED FUEL.—The term “engi-  
13 neered fuel” means a solid fuel that is manufactured  
14 from nonrecycled constituents of municipal solid  
15 waste or other secondary materials.

16 (2) GASIFICATION.—The term “gasification”  
17 means a process through which nonrecycled waste is  
18 heated and converted to synthesis gas in an oxygen-  
19 deficient atmosphere, which can be converted into  
20 fuels such as ethanol or other chemical feedstocks.

21 (3) PYROLYSIS.—The term “pyrolysis” means a  
22 process through which nonrecycled plastics are heat-  
23 ed in the absence of oxygen until melted and ther-  
24 mally decomposed, and are then cooled, condensed,  
25 and converted into synthetic crude oil or refined into

1 synthetic fuels and feedstocks such as diesel or  
2 naphtha.

3 (b) STUDY.—With respect to nonrecycled mixed plas-  
4 ties that are part of municipal solid waste or other sec-  
5 ondary materials in the United States (and are often de-  
6 posited in landfills), the Secretary shall conduct a study  
7 to determine the manner in which the United States can  
8 make progress toward a cost-effective system (including  
9 with respect to environmental issues) through which pyrol-  
10 ysis, gasification, and other innovative technologies such  
11 as engineered fuels are used to convert such plastics, alone  
12 or in combination with other municipal solid waste or sec-  
13 ondary materials, into materials that can be used to gen-  
14 erate electric energy or fuels or as chemical feedstocks.

15 (c) COMPLETION OF STUDY.—Not later than 2 years  
16 after the date of enactment of this Act, the Secretary shall  
17 complete the study described in subsection (b) and submit  
18 to the appropriate committees of Congress reports pro-  
19 viding findings and recommendations developed through  
20 the study.

21 (d) FUNDING.—The Secretary may use unobligated  
22 funds of the Department to carry out this section.

23 **SEC. 3703. ELIGIBLE PROJECTS.**

24 Section 1703(b)(1) of the Energy Policy Act of 2005  
25 (42 U.S.C. 16513(b)(1)) is amended by inserting “(ex-

1 cluding the burning of commonly recycled paper that has  
2 been segregated from solid waste to generate electricity)”  
3 after “systems”.

## 4 **TITLE IV—ACCOUNTABILITY**

### 5 **Subtitle A—Loan Programs**

#### 6 **SEC. 4001. TERMS AND CONDITIONS FOR INCENTIVES FOR**

#### 7 **INNOVATIVE TECHNOLOGIES.**

8 (a) BORROWER PAYMENT OF SUBSIDY COST.—

9 (1) IN GENERAL.—Section 1702 of the Energy  
10 Policy Act of 2005 (42 U.S.C. 16512) is amended  
11 by adding at the end the following:

12 “(1) BORROWER PAYMENT OF SUBSIDY COST.—

13 “(1) IN GENERAL.—In addition to the require-  
14 ment in subsection (b)(1), no guarantee shall be  
15 made unless the Secretary has received from the  
16 borrower not less than 25 percent of the cost of the  
17 guarantee.

18 “(2) ESTIMATE.—The Secretary shall provide  
19 to the borrower, as soon as practicable, an estimate  
20 or range of the cost of the guarantee under para-  
21 graph (1).”.

22 (2) CONFORMING AMENDMENT.—Section  
23 1702(b) of the Energy Policy Act of 2005 (42  
24 U.S.C. 16512(b)) is amended—

1 (A) by striking “(1) IN GENERAL.—No  
2 guarantee” and inserting the following: “Sub-  
3 ject to subsection (l), no guarantee”;

4 (B) by redesignating subparagraphs (A),  
5 (B), and (C) as paragraphs (1), (2), and (3),  
6 respectively, and indenting appropriately; and

7 (C) in paragraph (3) (as so redesign-  
8 dated)—

9 (i) by striking “subparagraph (A)”  
10 and inserting “paragraph (1)”; and

11 (ii) by striking “subparagraph (B)”  
12 and inserting “paragraph (2)”.

13 (b) PROHIBITION ON SUBORDINATION OF DEBT.—  
14 Section 1702(d)(3) of the Energy Policy Act of 2005 (42  
15 U.S.C. 16512(d)(3)) is amended by striking “is not subor-  
16 dinate” and inserting “(including any reorganization, re-  
17 structuring, or termination of the obligation) shall not at  
18 any time be subordinate”.

19 (c) LOAN PROGRAM TRANSPARENCY.—Section 1703  
20 of the Energy Policy Act of 2005 (42 U.S.C. 16513) is  
21 amended by adding at the end the following:

22 “(f) LOAN STATUS.—

23 “(1) REQUEST.—If the Secretary does not  
24 make a final decision on an application for a loan  
25 guarantee under this section by the date that is 270

1 days after receipt of the application by the Sec-  
2 retary, on that date and every 90 days thereafter  
3 until the final decision is made, the applicant may  
4 request that the Secretary provide to the applicant  
5 a description of the status of the application.

6 “(2) RESPONSE.—Not later than 10 days after  
7 receiving a request from an applicant under para-  
8 graph (1), the Secretary shall provide to the appli-  
9 cant a response that includes—

10 “(A) a summary of any factors that are  
11 delaying a final decision on the application; and

12 “(B) an estimate of when review of the ap-  
13 plication will be completed.”

14 (d) TEMPORARY PROGRAM FOR RAPID DEPLOYMENT  
15 OF RENEWABLE ENERGY AND ELECTRIC POWER TRANS-  
16 MISSION PROJECTS.—

17 (1) REPEAL.—Section 1705 of the Energy Pol-  
18 icy Act of 2005 (42 U.S.C. 16516) is repealed.

19 (2) RESCISSION.—There is rescinded the unob-  
20 ligated balance of amounts made available to carry  
21 out the loan guarantee program established under  
22 section 1705 of the Energy Policy Act of 2005 (42  
23 U.S.C. 16516) (before the amendment made by  
24 paragraph (1)).

1           (3) MANAGEMENT.—The Secretary shall ensure  
2 rigorous continued management and oversight of all  
3 outstanding loans guaranteed under the program de-  
4 scribed in subsection (b) until those loans have been  
5 repaid in full.

6 **SEC. 4002. STATE LOAN ELIGIBILITY.**

7           (a) DEFINITIONS.—Section 1701 of the Energy Pol-  
8 icy Act of 2005 (42 U.S.C. 16511) is amended by adding  
9 at the end the following:

10           “(6) STATE.—The term ‘State’ has the mean-  
11 ing given the term in section 202 of the Energy  
12 Conservation and Production Act (42 U.S.C. 6802).

13           “(7) STATE ENERGY FINANCING INSTITU-  
14 TION.—

15           “(A) IN GENERAL.—The term ‘State en-  
16 ergy financing institution’ means a quasi-inde-  
17 pendent entity or an entity within a State agen-  
18 cy or financing authority established by a  
19 State—

20           “(i) to provide financing support or  
21 credit enhancements, including loan guar-  
22 antees and loan loss reserves, for eligible  
23 projects; and

24           “(ii) to create liquid markets for eligi-  
25 ble projects, including warehousing and

1 securitization, or take other steps to reduce  
2 financial barriers to the deployment of ex-  
3 isting and new eligible projects.

4 “(B) INCLUSION.—The term ‘State energy  
5 financing institution’ includes an entity or orga-  
6 nization established to achieve the purposes de-  
7 scribed in clauses (i) and (ii) of subparagraph  
8 (A) by an Indian tribal entity or an Alaska Na-  
9 tive Corporation.”.

10 (b) TERMS AND CONDITIONS.—Section 1702 of the  
11 Energy Policy Act of 2005 (42 U.S.C. 16512) (as amend-  
12 ed by section 4001(a)(1)) is amended—

13 (1) in subsection (a), by inserting “or to a  
14 State energy financing institution” after “for  
15 projects”; and

16 (2) by adding at the end the following:

17 “(m) STATE ENERGY FINANCING INSTITUTIONS.—

18 “(1) ELIGIBILITY.—To be eligible for a guar-  
19 antee under this title, a State energy financing insti-  
20 tution—

21 “(A) shall meet the requirements of section  
22 1703(a)(1); and

23 “(B) shall not be required to meet the re-  
24 quirements of section 1703(a)(2).





1 determine the adequacy and effectiveness of the  
2 combined Federal incentives in advancing carbon  
3 capture and storage and advanced fossil energy tech-  
4 nologies;

5 (4) assess whether combinations of the incentive  
6 programs in existence as of the date of enactment of  
7 this Act could be effective to advance carbon capture  
8 and storage and advanced fossil energy technologies;  
9 and

10 (5) evaluate the impact and costs of imple-  
11 menting the recommendations described in the Jan-  
12 uary 2015 National Coal Council report entitled  
13 “Fossil Forward: Revitalizing CCS, Bringing Scale  
14 and Speed to CCS Deployment” on the effectiveness  
15 of the advanced fossil loan guarantee program.

16 **SEC. 4004. PROGRAM ELIGIBILITY FOR VESSELS.**

17 Subtitle B of title I of the Energy Independence and  
18 Security Act of 2007 (42 U.S.C. 17011 et seq.) is amend-  
19 ed by adding at the end the following:

20 **“SEC. 137. ADVANCED TECHNOLOGY VEHICLES MANUFAC-  
21 TURING INCENTIVE PROGRAM ELIGIBILITY  
22 FOR VESSELS.**

23 “(a) DEFINITION OF VESSEL.—In this section, the  
24 term ‘vessel’ means a vessel (as defined in section 3 of  
25 title 1, United States Code), whether in existence or under

1 construction, that has been issued a certificate of docu-  
2 mentation as a United States flagged vessel under chapter  
3 121 of title 46, United States Code and that meets the  
4 standards established under section 4005(a) of the Energy  
5 Policy Modernization Act of 2015.

6 “(b) ELIGIBILITY.—Subject to the terms and condi-  
7 tions of subsections (d) and (f) of section 136, projects  
8 for the reequipping, expanding, or establishing of a manu-  
9 facturing facility in the United States to produce vessels  
10 shall be considered eligible for direct loans under section  
11 136(d).

12 “(c) FUNDING.—

13 “(1) PROHIBITION ON USE OF EXISTING CRED-  
14 IT SUBSIDY.—None of the projects made eligible  
15 under this section shall be eligible to receive any  
16 credit subsidy provided under section 136 before the  
17 date of enactment of this section.

18 “(2) SPECIFIC APPROPRIATION OR CONTRIBU-  
19 TION.—The authority under this section to incur in-  
20 debtedness, or enter into contracts, obligating  
21 amounts to be expended by the Federal Government  
22 shall be effective for any fiscal year only—

23 “(A)(i) to such extent or in such amounts  
24 as are provided in advance by appropriation  
25 Acts; and

1           “(ii) if the borrower has agreed to pay a  
2           reasonable percentage of the cost of the obliga-  
3           tion; or

4           “(B) if the Secretary has received from the  
5           borrower a payment in full for the cost of the  
6           obligation and deposited the payment into the  
7           Treasury.”.

8   **SEC. 4005. ADDITIONAL REFORMS.**

9           (a) **ISSUANCE OF RULE.**—Not later than 180 days  
10 after the date of enactment of this Act and after consulta-  
11 tion with, and taking into account comments from, the  
12 vessel industry, the Secretary shall issue a rule that speci-  
13 fies which energy efficiency improvement standards shall  
14 apply to applicants for loans under section 137 of the En-  
15 ergy Independence and Security Act of 2007 (as added  
16 by section 4004) for the manufacturing, retrofitting, or  
17 repowering vessels that have been issued certificates of  
18 documentation as United States flagged vessels under  
19 chapter 121 of title 46, United States Code.

20           (b) **FEEES.**—Section 136 of the Energy Independence  
21 and Security Act of 2007 (42 U.S.C. 17013) is amended  
22 by striking subsection (f) and inserting the following:

23           “(f) **FEEES.**—

24           “(1) **IN GENERAL.**—The Secretary shall charge  
25           and collect fees for loans provided under this section

1 in amounts that the Secretary determines are suffi-  
 2 cient to cover applicable administrative expenses as-  
 3 sociated with the loans, including reasonable closing  
 4 fees on the loans.

5 “(2) AVAILABILITY.—Fees collected under  
 6 paragraph (1) shall—

7 “(A) be deposited by the Secretary into the  
 8 Treasury; and

9 “(B) remain available until expended, sub-  
 10 ject to such other conditions as are contained in  
 11 annual appropriations Acts.”.

12 **SEC. 4006. DEPARTMENT OF ENERGY INDIAN ENERGY EDU-**  
 13 **CATION PLANNING AND MANAGEMENT AS-**  
 14 **SISTANCE PROGRAM.**

15 Section 2602(b)(6) of the Energy Policy Act of 1992  
 16 (25 U.S.C. 3502(b)(6)) is amended by striking “2016”  
 17 and inserting “2026”.

18 **Subtitle B—Energy-Water Nexus**

19 **SEC. 4101. NEXUS OF ENERGY AND WATER FOR SUSTAIN-**  
 20 **ABILITY.**

21 (a) DEFINITIONS.—In this section:

22 (1) ENERGY-WATER NEXUS.—The term “en-  
 23 ergy-water nexus” means the links between—

24 (A) the water needed to produce fuels,  
 25 electricity, and other forms of energy; and

1 (B) the energy needed to transport, re-  
2 claim, and treat water and wastewater.

3 (2) INTERAGENCY COORDINATION COM-  
4 MITTEE.—The term “Interagency Coordination  
5 Committee” means the Committee on the Nexus of  
6 Energy and Water for Sustainability (or the  
7 “NEWS Committee”) established under subsection  
8 (b)(1).

9 (3) NEXUS OF ENERGY AND WATER SUSTAIN-  
10 ABILITY OFFICE; NEWS OFFICE.—The term “Nexus  
11 of Energy and Water Sustainability Office” or the  
12 “NEWS Office” means an office located at the De-  
13 partment and managed in cooperation with the De-  
14 partment of the Interior pursuant to an agreement  
15 between the 2 agencies to carry out leadership and  
16 administrative functions for the Interagency Coordi-  
17 nation Committee.

18 (4) RD&D ACTIVITIES.—The term “RD&D ac-  
19 tivities” means research, development, and dem-  
20 onstration activities.

21 (b) INTERAGENCY COORDINATION COMMITTEE.—

22 (1) ESTABLISHMENT.—Not later than 180 days  
23 after the date of enactment of this Act, the Sec-  
24 retary and the Secretary of the Interior shall estab-  
25 lish the joint NEWS Office and Interagency Coordi-

1 nation Committee on the Nexus of Energy and  
2 Water for Sustainability (or the “NEWS Com-  
3 mittee”) to carry out the duties described in para-  
4 graph (3).

5 (2) ADMINISTRATION.—

6 (A) CHAIRS.—The Secretary and the Sec-  
7 retary of the Interior shall jointly manage the  
8 NEWS Office and serve as co-chairs of the  
9 Interagency Coordination Committee.

10 (B) MEMBERSHIP; STAFFING.—Member-  
11 ship and staffing shall be determined by the co-  
12 chairs.

13 (3) DUTIES.—The Interagency Coordination  
14 Committee shall—

15 (A) serve as a forum for developing com-  
16 mon Federal goals and plans on energy-water  
17 nexus RD&D activities in coordination with the  
18 National Science and Technology Council;

19 (B) not later than 1 year after the date of  
20 enactment of this Act, and biannually there-  
21 after, issue a strategic plan on energy-water  
22 nexus RD&D activities priorities and objectives;

23 (C) convene and promote coordination of  
24 the activities of Federal departments and agen-

- 1           cies on energy-water nexus RD&D activities, in-  
2           cluding the activities of—
- 3                   (i) the Department;
  - 4                   (ii) the Department of the Interior;
  - 5                   (iii) the Corps of Engineers;
  - 6                   (iv) the Department of Agriculture;
  - 7                   (v) the Department of Defense;
  - 8                   (vi) the Department of State;
  - 9                   (vii) the Environmental Protection  
10           Agency;
  - 11                   (viii) the Council on Environmental  
12           Quality;
  - 13                   (ix) the National Institute of Stand-  
14           ards and Technology;
  - 15                   (x) the National Oceanic and Atmos-  
16           pheric Administration;
  - 17                   (xi) the National Science Foundation;
  - 18                   (xii) the Office of Management and  
19           Budget;
  - 20                   (xiii) the Office of Science and Tech-  
21           nology Policy;
  - 22                   (xiv) the National Aeronautics and  
23           Space Administration; and



1 (xv) such other Federal departments  
2 and agencies as the Interagency Coordina-  
3 tion Committee considers appropriate;

4 (D)(i) coordinate and develop capabilities  
5 and methodologies for data collection, manage-  
6 ment, and dissemination of information related  
7 to energy-water nexus RD&D activities from  
8 and to other Federal departments and agencies;  
9 and

10 (ii) promote information exchange between  
11 Federal departments and agencies—

12 (I) to identify and document Federal  
13 and non-Federal programs and funding op-  
14 portunities that support basic and applied  
15 research, development, and demonstration  
16 proposals to advance energy-water nexus  
17 related science and technologies;

18 (II) to leverage existing programs by  
19 encouraging joint solicitations, block  
20 grants, and matching programs with non-  
21 Federal entities; and

22 (III) to identify opportunities for do-  
23 mestic and international public-private  
24 partnerships, innovative financing mecha-  
25 nisms, information and data exchange;

1           (E) promote the integration of energy-  
2 water nexus considerations into existing Federal  
3 water, energy, and other natural resource, in-  
4 frastructure, and science programs at the na-  
5 tional and regional levels and with programs  
6 administered in partnership with non-Federal  
7 entities; and

8           (F) not later than 1 year after the date of  
9 enactment of this Act, issue a report on the po-  
10 tential benefits and feasibility of establishing an  
11 energy-water center of excellence within the Na-  
12 tional Laboratories (as that term is defined in  
13 section 2 of the Energy Policy Act of 2005 (42  
14 U.S.C. 15801)).

15           (4) NO REGULATION.—Nothing in this sub-  
16 section grants to the Interagency Coordination Com-  
17 mittee the authority to promulgate regulations or set  
18 standards.

19           (5) REVIEW; REPORT.—At the end of the 5-  
20 year period beginning on the date on which the  
21 Interagency Coordination Committee and NEWS Of-  
22 fice are established, the NEWS Office shall—

23           (A) review the activities, relevance, and ef-  
24 fectiveness of the Interagency Coordination  
25 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           “(J) \$340,600,000 for fiscal year 2020 .”;

2           and

3           (B) in paragraph (4)(B), by striking

4           “(c)(2)(D)” and inserting “(c)(2)(C)”.

5 **SEC. 4202. INCLUSION OF EARLY STAGE TECHNOLOGY**  
6           **DEMONSTRATION IN AUTHORIZED TECH-**  
7           **NOLOGY TRANSFER ACTIVITIES.**

8           Section 1001 of the Energy Policy Act of 2005 (42  
9 U.S.C. 16391) is amended—

10           (1) by redesignating subsection (g) as sub-  
11           section (h); and

12           (2) by inserting after subsection (f) the fol-  
13           lowing:

14           “(g) **EARLY STAGE TECHNOLOGY DEMONSTRA-**  
15           **TION.**—The Secretary shall permit the directors of the Na-  
16           tional Laboratories to use funds authorized to support  
17           technology transfer within the Department to carry out  
18           early stage and precommercial technology demonstration  
19           activities to remove technology barriers that limit private  
20           sector interest and demonstrate potential commercial ap-  
21           plications of any research and technologies arising from  
22           National Laboratory activities.”.

23 **SEC. 4203. SUPPORTING ACCESS OF SMALL BUSINESS CON-**  
24           **CERNS TO NATIONAL LABORATORIES.**

25           (a) **DEFINITIONS.**—In this section:

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 **SEC. 4204. MICROLAB TECHNOLOGY COMMERCIALIZATION.**

21 (a) DEFINITIONS.—In this section:

22 (1) MICROLAB.—The term “microlab” means a  
23 small laboratory established by the Secretary under  
24 subsection (b).

1           (2) NATIONAL LABORATORY.—The term “na-  
2 tional laboratory” means—

3           (A) a National Laboratory, as defined in  
4 section 2 of the Energy Policy Act of 2005 (42  
5 U.S.C. 15801); and

6           (B) a national security laboratory, as de-  
7 fined in section 3281 of the National Nuclear  
8 Security Administration Act (50 U.S.C. 2471).

9 (b) ESTABLISHMENT OF MICROLAB PROGRAM.—

10          (1) IN GENERAL.—The Secretary, in collabora-  
11 tion with the directors of national laboratories, may  
12 establish a microlab program under which the Sec-  
13 retary establishes microlabs that are located in close  
14 proximity to national laboratories and that are ac-  
15 cessible to the public for the purposes of—

16          (A) enhancing collaboration with regional  
17 research groups, such as institutions of higher  
18 education and industry groups;

19          (B) accelerating technology transfer from  
20 national laboratories to the marketplace; and

21          (C) promoting regional workforce develop-  
22 ment through science, technology, engineering,  
23 and mathematics (“STEM”) instruction and  
24 training.

1           (2) CRITERIA.—In determining the placement  
2 of microlabs under paragraph (1), the Secretary  
3 shall consider—

4           (A) the commitment of a national labora-  
5 tory to establishing a microlab;

6           (B) the existence of a joint research insti-  
7 tute or a new facility that—

8           (i) is not on the main site of a na-  
9 tional laboratory;

10           (ii) is in close proximity to a national  
11 laboratory; and

12           (iii) has the capability to house a  
13 microlab;

14           (C) whether employees of a national lab-  
15 oratory and persons from academia, industry,  
16 and government are available to be assigned to  
17 the microlab; and

18           (D) cost-sharing or in-kind contributions  
19 from State and local governments and private  
20 industry.

21           (3) TIMING.—If the Secretary, in collaboration  
22 with the directors of national laboratories, elects to  
23 establish a microlab program under this subsection,  
24 the Secretary, in collaboration with the directors of  
25 national laboratories, shall—

1           (A) not later than 60 days after the date  
2 of enactment of this Act, begin the process of  
3 determining the placement of microlabs under  
4 paragraph (1); and

5           (B) not later than 180 days after the date  
6 of enactment of this Act, implement the  
7 microlab program under this subsection.

8 (c) REPORTS.—

9           (1) INITIAL REPORT.—Not later than 60 days  
10 after the date of implementation of the microlab pro-  
11 gram under subsection (b), the Secretary shall sub-  
12 mit to the Committee on Armed Services of the Sen-  
13 ate, the Committee on Armed Services of the House  
14 of Representatives, the Committee on Energy and  
15 Natural Resources of the Senate, and the Committee  
16 on Science, Space, and Technology of the House of  
17 Representatives a report that provides an update on  
18 the implementation of the microlab program under  
19 subsection (b).

20           (2) PROGRESS REPORT.—Not later than 1 year  
21 after the date of implementation of the microlab pro-  
22 gram under subsection (b), the Secretary shall sub-  
23 mit to the Committee on Armed Services of the Sen-  
24 ate, the Committee on Armed Services of the House  
25 of Representatives, the Committee on Energy and

1 Natural Resources of the Senate, and the Committee  
2 on Science, Space, and Technology of the House of  
3 Representatives a report on the microlab program  
4 under subsection (b), including findings and rec-  
5 ommendations of the Secretary.

6 (d) AUTHORIZATION OF APPROPRIATIONS.—

7 There is authorized to be appropriated to carry out  
8 this Act \$50,000,000 for fiscal year 2016.

## 9 **Subtitle D—Grid Reliability**

### 10 **SEC. 4301. BULK-POWER SYSTEM RELIABILITY IMPACT**

#### 11 **STATEMENT.**

12 (a) RELIABILITY REPORTS.—Section 215(g) of the  
13 Federal Power Act (16 U.S.C. 824o(g)) is amended—

14 (1) by striking “The ERO” and inserting the  
15 following:

16 “(1) IN GENERAL.—The ERO”; and

17 (2) by adding at the end the following:

18 “(2) REGIONAL ENTITIES.—Not later than 180  
19 days after the date of enactment of this paragraph  
20 and not less than every 3 years thereafter, each re-  
21 gional entity shall submit to the appropriate commit-  
22 tees of Congress and the Commission a report that  
23 describes, as of the date of the report—

1           “(A) the state of and prospects for the re-  
2           liability of electricity within the geographic area  
3           covered by the regional entity; and

4           “(B) the most significant risks to the reli-  
5           ability of the bulk-power system that might  
6           arise or need to be monitored within the geo-  
7           graphic area covered by the regional entity, in-  
8           cluding risks from proposed or final Federal  
9           regulations.”.

10          (b) RELIABILITY IMPACT STATEMENT.—Section 215  
11 of the Federal Power Act (16 U.S.C. 824o) is amended  
12 by adding at the end the following:

13          “(1) RELIABILITY IMPACT STATEMENT.—

14                 “(1) SOLICITATION BY COMMISSION.—Not later  
15                 than 15 days after the date on which the head of a  
16                 Federal agency proposes a major rule (as defined in  
17                 section 804 of title 5, United States Code) that may  
18                 significantly affect the reliable operation of the bulk-  
19                 power system, the Commission shall solicit from any  
20                 applicable regional entity affected by the proposed  
21                 rule a reliability impact statement with respect to  
22                 the proposed rule.

23                 “(2) VOLUNTARY SUBMISSION BY REGIONAL  
24                 ENTITY.—A regional entity may prepare, on the ini-  
25                 tiative of the regional entity, a reliability impact

1 statement for any proposed major Federal rule that  
2 the regional entity determines would significantly af-  
3 fect the reliable operation of the bulk-power system  
4 within the area covered by the regional entity.

5 “(3) MULTIJURISDICTIONAL COORDINATION.—

6 If a proposed rule subject to a reliability impact  
7 statement under paragraph (1) or (2) affects an  
8 area broader than the area covered by a single re-  
9 gional entity, the ERO shall convene a committee of  
10 the affected regional entities to produce a single reli-  
11 ability impact statement that demonstrates for each  
12 affected area the reliability impact of the proposed  
13 rule.

14 “(4) REQUIREMENTS.—A reliability impact

15 statement under paragraph (1) or (2) shall include  
16 a detailed statement on—

17 “(A) the impact of the proposed rule on  
18 the reliable operation of the bulk-power system;

19 “(B) any adverse effects on the reliable op-  
20 eration of the bulk-power system if the pro-  
21 posed rule was implemented; and

22 “(C) alternatives to cure the identified ad-  
23 verse reliability impacts, including, at the dis-  
24 cretion of the regional entity, a no-action alter-  
25 native.

1           “(5) SUBMISSION TO COMMISSION.—On comple-  
2           tion of a reliability impact statement under para-  
3           graph (1) or (2), the regional entity or a committee  
4           of affected regional entities convened under para-  
5           graph (3) shall submit to the Commission the reli-  
6           ability impact statement.

7           “(6) TRANSMITTAL TO HEAD OF FEDERAL  
8           AGENCY.—On receipt of a reliability impact state-  
9           ment submitted to the Commission under paragraph  
10          (5), the Commission shall transmit to the head of  
11          the applicable Federal agency the reliability impact  
12          statement prepared under this subsection for inclu-  
13          sion in the public record.

14          “(7) INCLUSION OF DETAILED RESPONSE IN  
15          FINAL RULE.—With respect to a final major rule  
16          subject to a reliability impact statement prepared  
17          under paragraph (1) or (2), the head of the Federal  
18          agency shall—

19                 “(A) consider the reliability impact state-  
20                 ment;

21                 “(B) give due weight to the technical ex-  
22                 pertise of the regional entity with respect to  
23                 matters that are the subject of the reliability  
24                 impact statement; and



1           “(C) include in the final rule a detailed re-  
2           sponse to the reliability impact statement that  
3           reasonably addresses the detailed statements re-  
4           quired under paragraph (4).”.

5 **SEC. 4302. REPORT BY TRANSMISSION ORGANIZATIONS ON**  
6 **DIVERSITY OF SUPPLY.**

7           (a) DEFINITIONS.—In this section:

8           (1) ELECTRIC GENERATING CAPACITY RE-  
9           SOURCE.—

10           (A) IN GENERAL.—The term “electric gen-  
11           erating capacity resource” means an electric  
12           generating resource, as measured by the max-  
13           imum load-carrying ability of the resource, ex-  
14           clusive of station use and planned, unplanned,  
15           or other outage or derating subject to dispatch  
16           by the transmission organization to meet the re-  
17           source adequacy needs of the systems operated  
18           by the transmission organization.

19           (B) EFFECT.—The term “electric gener-  
20           ating capacity resource” does not address non-  
21           electric generating resources that are qualified  
22           as capacity resources in the tariffs of various  
23           transmission organizations as of the date of en-  
24           actment of this Act.

1           (2) TRANSMISSION ORGANIZATION.—The term  
2           “transmission organization” has the meaning given  
3           the term in section 3 of the Federal Power Act (16  
4           U.S.C. 796).

5           (b) REPORT.—

6           (1) NOTICE.—Not later than 14 days after the  
7           date of enactment of this Act, the Commission (as  
8           the term is defined in section 3 of the Federal  
9           Power Act (16 U.S.C. 796)) shall submit to each  
10          transmission organization that has a tariff on file  
11          with the Commission that includes provisions ad-  
12          dressing the procurement of electric generating ca-  
13          pacity resources, a notice that the transmission or-  
14          ganization is required to file with the Commission a  
15          report in accordance with paragraph (2).

16          (2) REPORT.—Not later than 180 days after  
17          the date on which a transmission organization re-  
18          ceives a notice under paragraph (1), the trans-  
19          mission organization shall submit to the Commission  
20          a report that, to the maximum extent practicable—

21                  (A)(i) identifies electric generating capac-  
22                  ity resources that are available to the trans-  
23                  mission organization as of the date of the re-  
24                  port; and

1 (ii) describes the primary energy sources  
2 and operational characteristics of electric capac-  
3 ity resources available, in the aggregate, to the  
4 transmission organization;

5 (B) evaluates, using generally accepted  
6 metrics, the current operational performance, in  
7 the aggregate, of electric capacity resources;

8 (C) identifies, for the aggregate of electric  
9 generating capacity resources available to the  
10 transmission organization—

11 (i) over the short- and long-term peri-  
12 ods in the planning cycle of the trans-  
13 mission organization, reasonable projec-  
14 tions concerning the operational and eco-  
15 nomic risk profile of electric generating ca-  
16 pacity resources;

17 (ii) the projected future needs of the  
18 transmission organization for electric gen-  
19 erating capacity resources; and

20 (iii) the availability of transmission fa-  
21 cilities and transmission support services  
22 necessary to provide for the transmission  
23 organization reasonable assurances of es-  
24 sential reliability services, including ade-  
25 quate voltage support; and

1 (D) assesses whether and to what extent  
2 the market rules of the transmission organiza-  
3 tion—

4 (i) yield capacity auction clearing  
5 prices that promote necessary and prudent  
6 investment;

7 (ii) yield energy market clearing  
8 prices that reflect the marginal cost of  
9 supply, taking into account transmission  
10 constraints and other factors needed to en-  
11 sure reliable grid operation;

12 (iii) produce meaningful price signals  
13 that clearly indicate where new supply and  
14 investment are needed;

15 (iv) reduce uncertainty or instability  
16 resulting from changes to market rules,  
17 processes, or protocols;

18 (v) promote transparency and commu-  
19 nication by the market operator to market  
20 participants;

21 (vi) support a diverse generation port-  
22 folio and the availability of transmission  
23 facilities and transmission support services  
24 on a short- and long-term basis necessary  
25 to provide reasonable assurances of a con-

1           tinuous supply of electricity for customers  
2           of the transmission organization at the  
3           proper voltage and frequency; and

4                   (vii) provide an enhanced opportunity  
5           for self-supply of electric generating capac-  
6           ity resources by electric cooperatives, Fed-  
7           eral power marketing agencies, and State  
8           utilities with a service obligation (as those  
9           terms are defined in section 217(a)) of the  
10          Federal Power Act (16 U.S.C. 824q(a)) in  
11          a manner that is consistent with tradi-  
12          tional utility business models and does not  
13          unduly affect wholesale market prices.

14 **SEC. 4303. ACTIVITIES CARRIED OUT DURING AN AUTHOR-**  
15 **IZATION DURING WAR OR EMERGENCY.**

16          Section 202(c) of the Federal Power Act (16 U.S.C.  
17 824a(c)) is amended—

18                   (1) in the first sentence, by striking “(c) Dur-  
19           ing” and inserting the following:

20           “(c) AUTHORIZATION DURING WAR OR EMER-  
21 GENCY.—

22                   “(1) IN GENERAL.—During”; and

23                   (2) by adding at the end the following:

24                   “(2) NO LIABILITY.—Subject to paragraph (3),  
25           any party subject to an order issued under this sub-

1 section or under subsection 224(b)(1) shall not be  
2 liable for actions carried out in compliance with the  
3 order.

4 “(3) EXCEPTIONS.—The waiver of liability  
5 under paragraph (2) shall not apply in a case of  
6 gross negligence or willful misconduct.”.

## 7 **Subtitle E—Management**

### 8 **SEC. 4401. FEDERAL LAND MANAGEMENT.**

9 (a) DEFINITIONS.—In this section:

10 (1) CADASTRE.—The term “cadastre” means  
11 an inventory of buildings and other real property  
12 (including associated infrastructure such as roads  
13 and utility transmission lines and pipelines) located  
14 on land administered by the Secretary, which is de-  
15 veloped through collecting, storing, retrieving, or dis-  
16 seminating graphical or digital data and any infor-  
17 mation related to the data, including surveys, maps,  
18 charts, images, and services.

19 (2) SECRETARY.—The term “Secretary” means  
20 the Secretary of the Interior.

21 (b) CADASTRE OF FEDERAL REAL PROPERTY.—

22 (1) IN GENERAL.—The Secretary is author-  
23 ized—

24 (A) to develop and maintain a current and  
25 accurate multipurpose cadastre to support Fed-

1           eral land management activities for the Depart-  
2           ment of the Interior;

3           (B) to incorporate any related inventories  
4           of Federal real property, including any inven-  
5           tories prepared under applicable land or re-  
6           source management plans; and

7           (C) to enter into discussions with other  
8           Federal agencies to make the cadastre available  
9           for use by the agency to support agency man-  
10          agement activities.

11         (2) COST-SHARING AGREEMENTS.—

12           (A) IN GENERAL.—The Secretary may  
13           enter into cost-sharing agreements with other  
14           Federal agencies, and with States, Indian  
15           tribes, and local governments, to include any  
16           non-Federal land in a State in the cadastre.

17           (B) COST SHARE.—The Federal share of  
18           any cost agreement described in subparagraph  
19           (A) shall not exceed 50 percent of the total cost  
20           to a State, Indian tribe, or local government for  
21           the development of the cadastre of non-Federal  
22           land.

23         (3) CONSOLIDATION AND REPORT.—Not later  
24         than 180 days after the date of enactment of this  
25         Act, the Secretary shall submit to the Committee on

1 Energy and Natural Resources of the Senate and  
2 the Committee on Natural Resources of the House  
3 of Representatives a report on the real property in-  
4 ventories or any components of any cadastre or re-  
5 lated inventories that—

6 (A) exist as of the date of enactment of  
7 this Act;

8 (B) are authorized by law or conducted by  
9 the Secretary; and

10 (C) are of sufficient accuracy to be in-  
11 cluded in the cadastre authorized under para-  
12 graph (1).

13 (4) COORDINATION.—In carrying out this sub-  
14 section, the Secretary shall—

15 (A) participate (in accordance with section  
16 216 of the E-Government Act of 2002 (44  
17 U.S.C. 3501 note; Public Law 107-347)) in the  
18 establishment of such standards and common  
19 protocols as are necessary to ensure the inter-  
20 operability of geospatial information pertaining  
21 to the cadastre for all users of the information;

22 (B) coordinate with, seek assistance and  
23 cooperation of, and provide liaison to the Fed-  
24 eral Geographic Data Committee pursuant to  
25 Office of Management and Budget Circular A-



1           16 and Executive Order 12906 (43 U.S.C.  
2           1457 note; relating to coordinating geographic  
3           data acquisition and access: the National Spa-  
4           tial Data Infrastructure) for the implementa-  
5           tion of and compliance with such standards as  
6           may be applicable to the cadastre;

7           (C) make the cadastre interoperable with  
8           the Federal Real Property Profile established  
9           pursuant to Executive Order 13327 (40 U.S.C.  
10          121 note; relating to Federal real property  
11          asset management);

12          (D) integrate with and leverage, to the  
13          maximum extent practicable, cadastre activities  
14          of units of State and local government; and

15          (E) use contracts with the private sector,  
16          if practicable, to provide such products and  
17          services as are necessary to develop the cadas-  
18          tre.

19          (c) **TRANSPARENCY AND PUBLIC ACCESS.**—The Sec-  
20          retary shall—

21               (1) make the cadastre required under this sec-  
22               tion publically available on the Internet in a graphi-  
23               cally geoenabled and searchable format; and

24               (2) in consultation with the Secretary of De-  
25               fense and the Secretary of Homeland Security, pre-

1 vent the disclosure of the identity of any buildings  
2 or facilities, or information related to the buildings  
3 or facilities, if the disclosure would impair or jeop-  
4 ardize the national security or homeland defense of  
5 the United States.

6 (d) EFFECT.—Nothing in this section—

7 (1) creates any substantive or procedural right  
8 or benefit;

9 (2) authorizes any new surveying or mapping of  
10 Federal real property, except that a Federal agency  
11 may conduct a new survey to update the accuracy of  
12 the inventory data of the agency before storage on  
13 a cadaster; or

14 (3) authorizes—

15 (A) the evaluation of any real property  
16 owned by the United States for disposal; or

17 (B) new appraisals or assessments of the  
18 value of—

19 (i) real property; or

20 (ii) cultural or archaeological re-  
21 sources on any parcel of Federal land or  
22 other real property.

1 **SEC. 4402. QUADRENNIAL ENERGY REVIEW.**

2 (a) IN GENERAL.—Section 801 of the Department of  
3 Energy Organization Act (42 U.S.C. 7321) is amended  
4 to read as follows:

5 **“SEC. 801. QUADRENNIAL ENERGY REVIEW.**

6 “(a) QUADRENNIAL ENERGY REVIEW TASK  
7 FORCE.—

8 “(1) ESTABLISHMENT.—The President shall es-  
9 tablish a Quadrennial Energy Review Task Force  
10 (referred to in this section as the ‘Task Force’) to  
11 coordinate the Quadrennial Energy Review.

12 “(2) COCHAIRPERSONS.—The President shall  
13 designate appropriate senior Federal Government of-  
14 ficials to be cochairpersons of the Task Force.

15 “(3) MEMBERSHIP.—The Task Force may be  
16 comprised of representatives at level I or II of the  
17 Executive Schedule of—

18 “(A) the Department of Energy;

19 “(B) the Department of Commerce;

20 “(C) the Department of Defense;

21 “(D) the Department of State;

22 “(E) the Department of the Interior;

23 “(F) the Department of Agriculture;

24 “(G) the Department of the Treasury;

25 “(H) the Department of Transportation;

1           “(I) the Department of Homeland Secu-  
2 rity;

3           “(J) the Office of Management and Budg-  
4 et;

5           “(K) the National Science Foundation;

6           “(L) the Environmental Protection Agen-  
7 cy; and

8           “(M) such other Federal agencies, and en-  
9 tities within the Executive Office of the Presi-  
10 dent, as the President considers to be appro-  
11 priate.

12       “(b) CONDUCT OF REVIEW.—

13           “(1) IN GENERAL.—Each Quadrennial Energy  
14 Review shall be conducted to—

15           “(A) provide an integrated view of impor-  
16 tant national energy objectives and Federal en-  
17 ergy policy; and

18           “(B) identify the maximum practicable  
19 alignment of research programs, incentives, reg-  
20 ulations, and partnerships.

21           “(2) ELEMENTS.—A Quadrennial Energy Re-  
22 view shall—

23           “(A) establish integrated, governmentwide  
24 national energy objectives in the context of eco-  
25 nomic, environmental, and security priorities;

1           “(B) recommend coordinated actions  
2 across Federal agencies;

3           “(C) assess and recommend priorities for  
4 research, development, and demonstration;

5           “(D) provide a strong analytical base for  
6 Federal energy policy decisions;

7           “(E) consider reasonable estimates of fu-  
8 ture Federal budgetary resources when making  
9 recommendations; and

10           “(F) be conducted with substantial input  
11 from—

12                   “(i) Congress;

13                   “(ii) the energy industry;

14                   “(iii) academia;

15                   “(iv) State, local, and tribal govern-  
16 ments;

17                   “(v) nongovernmental organizations;

18                   and

19                   “(vi) the public.

20           “(c) SUBMISSION OF QUADRENNIAL ENERGY RE-  
21 VIEW TO CONGRESS.—

22                   “(1) IN GENERAL.—The President—

23                           “(A) shall publish and submit to Congress  
24 a report on the Quadrennial Energy Review  
25 once every 4 years; and

1           “(B) more frequently than once every 4  
2 years, as the President determines to be appro-  
3 priate, may prepare and publish interim reports  
4 as part of the Quadrennial Energy Review.

5           “(2) INCLUSIONS.—The reports described in  
6 paragraph (1) shall address or consider, as appro-  
7 priate—

8           “(A) an integrated view of short-term, in-  
9 termediate-term, and long-term objectives for  
10 Federal energy policy in the context of eco-  
11 nomic, environmental, and security priorities;

12           “(B) potential executive actions (including  
13 programmatic, regulatory, and fiscal actions)  
14 and resource requirements—

15           “(i) to achieve the objectives described  
16 in subparagraph (A); and

17           “(ii) to be coordinated across multiple  
18 agencies;

19           “(C) analysis of the existing and prospec-  
20 tive roles of parties (including academia, indus-  
21 try, consumers, the public, and Federal agen-  
22 cies) in achieving the objectives described in  
23 subparagraph (A), including—

24           “(i) an analysis by energy use sector,  
25 including—

- 1                   “(I) commercial and residential  
2                   buildings;  
3                   “(II) the industrial sector;  
4                   “(III) transportation; and  
5                   “(IV) electric power;  
6                   “(ii) requirements for invention, adop-  
7                   tion, development, and diffusion of energy  
8                   technologies as they relate to each of the  
9                   energy use sectors; and  
10                  “(iii) other research that informs  
11                  strategies to incentivize desired actions;  
12                  “(D) assessment of policy options to in-  
13                  crease domestic energy supplies and energy effi-  
14                  ciency;  
15                  “(E) evaluation of national and regional  
16                  energy storage, transmission, and distribution  
17                  requirements, including requirements for renew-  
18                  able energy;  
19                  “(F) portfolio assessments that describe  
20                  the optimal deployment of resources, including  
21                  prioritizing financial resources for energy-rel-  
22                  evant programs;  
23                  “(G) mapping of the linkages among basic  
24                  research and applied programs, demonstration

1 programs, and other innovation mechanisms  
2 across the Federal agencies;

3 “(H) identification of demonstration  
4 projects;

5 “(I) identification of public and private  
6 funding needs for various energy technologies,  
7 systems, and infrastructure, including consider-  
8 ation of public-private partnerships, loans, and  
9 loan guarantees;

10 “(J) assessment of global competitors and  
11 an identification of programs that can be en-  
12 hanced with international cooperation;

13 “(K) identification of policy gaps that need  
14 to be filled to accelerate the adoption and diffu-  
15 sion of energy technologies, including consider-  
16 ation of—

17 “(i) Federal tax policies; and

18 “(ii) the role of Federal agencies as  
19 early adopters and purchasers of new en-  
20 ergy technologies;

21 “(L) priority listing for implementation of  
22 objectives and actions taking into account esti-  
23 mated Federal budgetary resources;

24 “(M) analysis of—



1                   “(i) points of maximum leverage for  
2                   policy intervention to achieve outcomes;  
3                   and

4                   “(ii) areas of energy policy that can  
5                   be most effective in meeting national goals  
6                   for the energy sector; and

7                   “(N) recommendations for executive  
8                   branch organization changes to facilitate the  
9                   development and implementation of Federal en-  
10                  ergy policies.

11               “(d) REPORT DEVELOPMENT.—The Secretary of En-  
12               ergy shall provide such support for the Quadrennial En-  
13               ergy Review with the necessary analytical, financial, and  
14               administrative support for the conduct of each Quadren-  
15               nial Energy Review required under this section as may  
16               be requested by the cochairpersons designated under sub-  
17               section (a)(2).

18               “(e) COOPERATION.—The heads of applicable Fed-  
19               eral agencies shall cooperate with the Secretary and pro-  
20               vide such assistance, information, and resources as the  
21               Secretary may require to assist in carrying out this sec-  
22               tion.”.

23               (b) TABLE OF CONTENTS AMENDMENT.—The item  
24               relating to section 801 in the table of contents of such  
25               Act is amended to read as follows:

“Sec. 801. Quadrennial Energy Review.”.

1 (c) ADMINISTRATION.—Nothing in this section or an  
2 amendment made by this section supersedes, modifies,  
3 amends, or repeals any provision of Federal law not ex-  
4 pressly superseded, modified, amended, or repealed by this  
5 section.

6 **SEC. 4403. STATE OVERSIGHT OF OIL AND GAS PROGRAMS.**

7 On request of the Governor of a State, the Secretary  
8 of the Interior shall establish a program under which the  
9 Director of the Bureau of Land Management shall enter  
10 into a memorandum of understanding with the State to  
11 consider the costs and benefits of consistent rules and  
12 processes for the measurement of oil and gas production  
13 activities, inspection of meters or other measurement  
14 methodologies, and other operational activities, as deter-  
15 mined by the Secretary of the Interior.

16 **SEC. 4404. UNDER SECRETARY FOR SCIENCE AND ENERGY.**

17 (a) IN GENERAL.—Section 202(b) of the Department  
18 of Energy Organization Act (42 U.S.C. 7132(b)) is  
19 amended—

20 (1) in paragraph (1), by striking “for Science”  
21 and inserting “for Science and Energy (referred to  
22 in this subsection as the ‘Under Secretary’)”;

23 (2) in paragraph (3), in the matter preceding  
24 subparagraph (A), by striking “for Science”; and

25 (3) in paragraph (4)—

1 (A) in the matter preceding subparagraph  
2 (A), by striking “for Science”;

3 (B) in subparagraph (F), by striking  
4 “and” at the end;

5 (C) in subparagraph (G), by striking the  
6 period at the end and inserting a semicolon;  
7 and

8 (D) by inserting after subparagraph (G)  
9 the following:

10 “(H) establish appropriate linkages be-  
11 tween offices under the jurisdiction of the  
12 Under Secretary; and

13 “(I) perform such functions and duties as  
14 the Secretary shall prescribe, consistent with  
15 this section.”.

16 (b) CONFORMING AMENDMENT.—Section 641(h)(2)  
17 of the United States Energy Storage Competitiveness Act  
18 of 2007 (42 U.S.C. 17231(h)(2)) is amended by striking  
19 “Under Secretary for Science” and inserting “Under Sec-  
20 retary for Science and Energy”.

## 1                                   **Subtitle F—Markets**

### 2   **SEC. 4501. ENHANCED INFORMATION ON CRITICAL ENERGY** 3                                   **SUPPLIES.**

4           (a) IN GENERAL.—Section 205 of the Department of  
5 Energy Organization Act (42 U.S.C. 7135) is amended  
6 by adding at the end the following:

7           “(n) COLLECTION OF INFORMATION ON CRITICAL  
8 ENERGY SUPPLIES.—

9                   “(1) IN GENERAL.—To ensure transparency of  
10 information relating to energy infrastructure and  
11 product ownership in the United States and improve  
12 the ability to evaluate the energy security of the  
13 United States, the Administrator, in consultation  
14 with other Federal agencies (as necessary), shall—

15                           “(A) not later than 120 days after the date  
16 of enactment of this subsection, develop and  
17 provide notice of a plan to collect, in coopera-  
18 tion with the Commodity Futures Trade Com-  
19 mission, information identifying all oil inven-  
20 tories, and other physical oil assets (including  
21 all petroleum-based products and the storage of  
22 such products in off-shore tankers), that are  
23 owned by the 50 largest traders of oil contracts  
24 (including derivative contracts), as determined

1 by the Commodity Futures Trade Commission;  
2 and

3 “(B) not later than 90 days after the date  
4 on which notice is provided under subparagraph  
5 (A), implement the plan described in that sub-  
6 paragraph.

7 “(2) INFORMATION.—The plan required under  
8 paragraph (1) shall include a description of the plan  
9 of the Administrator for collecting company-specific  
10 data, including—

11 “(A) volumes of product under ownership;  
12 and

13 “(B) storage and transportation capacity  
14 (including owned and leased capacity).

15 “(3) PROTECTION OF PROPRIETARY INFORMA-  
16 TION.—Section 12(f) of the Federal Energy Admin-  
17 istration Act of 1974 (15 U.S.C. 771(f)) shall apply  
18 to information collected under this subsection.

19 “(o) COLLECTION OF INFORMATION ON STORAGE  
20 CAPACITY FOR OIL AND NATURAL GAS.—

21 “(1) IN GENERAL.—Not later than 90 days  
22 after the date of enactment of this subsection, the  
23 Administrator of the Energy Information Adminis-  
24 tration shall collect information quantifying the com-

1       merchial storage capacity for oil and natural gas in  
2       the United States.

3               “(2) UPDATES.—The Administrator shall up-  
4       date annually the information required under para-  
5       graph (1).

6               “(3) PROTECTION OF PROPRIETARY INFORMA-  
7       TION.—Section 12(f) of the Federal Energy Admin-  
8       istration Act of 1974 (15 U.S.C. 771(f)) shall apply  
9       to information collected under this subsection.

10              “(p) FINANCIAL MARKET ANALYSIS OFFICE.—

11               “(1) ESTABLISHMENT.—There shall be within  
12       the Energy Information Administration a Financial  
13       Market Analysis Office.

14               “(2) DUTIES.—The Office shall—

15                   “(A) be responsible for analysis of the fi-  
16       nancial aspects of energy markets;

17                   “(B) review the reports required by section  
18       4503(c) of the Energy Policy Modernization Act  
19       of 2015 in advance of the submission of the re-  
20       ports to Congress; and

21                   “(C) not later than 1 year after the date  
22       of enactment of this subsection—

23                           “(i) make recommendations to the  
24       Administrator of the Energy Information  
25       Administration that identify and quantify

1 any additional resources that are required  
2 to improve the ability of the Energy Infor-  
3 mation Administration to more fully inte-  
4 grate financial market information into the  
5 analyses and forecasts of the Energy Infor-  
6 mation Administration, including the role  
7 of energy futures contracts, energy com-  
8 modity swaps, and derivatives in price for-  
9 mation for oil;

10 “(ii) conduct a review of implications  
11 of policy changes (including changes in ex-  
12 port or import policies) and changes in  
13 how crude oil and refined petroleum prod-  
14 ucts are transported with respect to price  
15 formation of crude oil and refined petro-  
16 leum products; and

17 “(iii) notify the Committee on Energy  
18 and Natural Resources, and the Committee  
19 on Appropriations, of the Senate and the  
20 Committee on Energy and Commerce, and  
21 the Committee on Appropriations, of the  
22 House of Representatives of the rec-  
23 ommendations described in clause (i).

24 “(3) ANALYSES.—The Administrator of the En-  
25 ergy Information Administration shall take analyses

1 by the Office into account in conducting analyses  
2 and forecasting of energy prices.”.

3 (b) CONFORMING AMENDMENT.—Section 645 of the  
4 Department of Energy Organization Act (42 U.S.C. 7255)  
5 is amended by inserting “(15 U.S.C. 3301 et seq.) and  
6 the Natural Gas Act (15 U.S.C. 717 et seq.)” after “Nat-  
7 ural Gas Policy Act of 1978”.

8 **SEC. 4502. WORKING GROUP ON ENERGY MARKETS.**

9 (a) ESTABLISHMENT.—There is established a Work-  
10 ing Group on Energy Markets (referred to in this section  
11 as the “Working Group”).

12 (b) COMPOSITION.—The Working Group shall be  
13 composed of—

14 (1) the Secretary;

15 (2) the Secretary of the Treasury;

16 (3) the Chairman of the Federal Energy Regu-  
17 latory Commission;

18 (4) the Chairman of Federal Trade Commis-  
19 sion;

20 (5) the Chairman of the Securities and Ex-  
21 change Commission;

22 (6) the Chairman of the Commodity Futures  
23 Trading Commission; and

24 (7) the Administrator of the Energy Informa-  
25 tion Administration.



1 (c) CHAIRPERSON.—The Secretary shall serve as the  
2 Chairperson of the Working Group.

3 (d) COMPENSATION.—A member of the Working  
4 Group shall serve without additional compensation for the  
5 work of the member of the Working Group.

6 (e) PURPOSE AND FUNCTION.—The Working Group  
7 shall—

8 (1) investigate the effect of increased financial  
9 investment in energy commodities on energy prices  
10 and the energy security of the United States;

11 (2) recommend to the President and Congress  
12 laws (including regulations) that may be needed to  
13 prevent excessive speculation in energy commodity  
14 markets in order to prevent or minimize the adverse  
15 impact of excessive speculation on energy prices on  
16 consumers and the economy of the United States;  
17 and

18 (3) review energy security implications of devel-  
19 opments in international energy markets.

20 (f) ADMINISTRATION.—The Secretary shall provide  
21 the Working Group with such administrative and support  
22 services as may be necessary for the performance of the  
23 functions of the Working Group.

24 (g) COOPERATION OF OTHER AGENCIES.—The heads  
25 of Executive departments, agencies, and independent in-

1 strumentalities shall, to the extent permitted by law, pro-  
2 vide the Working Group with such information as the  
3 Working Group requires to carry out this section.

4 (h) CONSULTATION.—The Working Group shall con-  
5 sult, as appropriate, with representatives of the various  
6 exchanges, clearinghouses, self-regulatory bodies, other  
7 major market participants, consumers, and the general  
8 public.

9 **SEC. 4503. STUDY OF REGULATORY FRAMEWORK FOR EN-**  
10 **ERGY MARKETS.**

11 (a) STUDY.—The Working Group shall conduct a  
12 study—

13 (1) to identify the factors that affect the pricing  
14 of crude oil and refined petroleum products, includ-  
15 ing an examination of the effects of market specula-  
16 tion on prices; and

17 (2) to review and assess—

18 (A) existing statutory authorities relating  
19 to the oversight and regulation of markets crit-  
20 ical to the energy security of the United States;  
21 and

22 (B) the need for additional statutory au-  
23 thority for the Federal Government to effec-  
24 tively oversee and regulate markets critical to  
25 the energy security of the United States.

1 (b) ELEMENTS OF STUDY.—The study shall in-  
2 clude—

3 (1) an examination of price formation of crude  
4 oil and refined petroleum products;

5 (2) an examination of relevant international  
6 regulatory regimes; and

7 (3) an examination of the degree to which  
8 changes in energy market transparency, liquidity,  
9 and structure have influenced or driven abuse, ma-  
10 nipulation, excessive speculation, or inefficient price  
11 formation.

12 (c) REPORT AND RECOMMENDATIONS.—The Sec-  
13 retary shall submit to the Committee on Energy and Nat-  
14 ural Resources of the Senate and the Committee on En-  
15 ergy and Commerce of the House of Representatives quar-  
16 terly progress reports during the conduct of the study  
17 under this section, and a final report not later than 1 year  
18 after the date of enactment of this Act, that—

19 (1) describes the results of the study; and

20 (2) provides options and the recommendations  
21 of the Working Group for appropriate Federal co-  
22 ordination of oversight and regulatory actions to en-  
23 sure transparency of crude oil and refined petroleum  
24 product pricing and the elimination of excessive  
25 speculation, including recommendations on data col-

1       lection and analysis to be carried out by the Finan-  
 2       cial Market Analysis Office established by section  
 3       205(p) of the Department of Energy Organization  
 4       Act (42 U.S.C. 7135(p)).

## 5                   **Subtitle G—Affordability**

### 6   **SEC. 4601. E-PRIZE COMPETITION PILOT PROGRAM.**

7       Section 1008 of the Energy Policy Act of 2005 (42  
 8       U.S.C. 16396) is amended by adding at the end the fol-  
 9       lowing:

10       “(g) E-PRIZE COMPETITION PILOT PROGRAM.—

11               “(1) DEFINITIONS.—In this section:

12                   “(A) ELIGIBLE ENTITY.—The term ‘eligi-  
 13                   ble entity’ means—

14                           “(i) a private sector for-profit or non-  
 15                           profit entity;

16                           “(ii) a public-private partnership; or

17                           “(iii) a local, municipal, or tribal gov-  
 18                           ernmental entity.

19                   “(B) HIGH-COST REGION.—The term  
 20                   ‘high-cost region’ means a region in which the  
 21                   average annual unsubsidized costs of electrical  
 22                   power retail rates or household space heating  
 23                   costs per square foot exceed 150 percent of the  
 24                   national average, as determined by the Sec-  
 25                   retary.

1           “(2) E-PRIZE COMPETITION PILOT PROGRAM.—

2                   “(A) IN GENERAL.—The Secretary shall  
3           establish an e-prize competition or challenge  
4           pilot program to broadly implement sustainable  
5           community and regional energy solutions that  
6           seek to reduce energy costs through increased  
7           efficiency, conservation, and technology innova-  
8           tion in high-cost regions.

9                   “(B) SELECTION.—In carrying out the  
10           pilot program under subparagraph (A), the Sec-  
11           retary shall award a prize purse, in amounts to  
12           be determined by the Secretary, to each eligible  
13           entity selected through 1 or more of the fol-  
14           lowing competitions or challenges:

15                   “(i) A point solution competition that  
16                   rewards and spurs the development of solu-  
17                   tions for a particular, well-defined problem.

18                   “(ii) An exposition competition that  
19                   helps identify and promote a broad range  
20                   of ideas and practices that may not other-  
21                   wise attract attention, facilitating further  
22                   development of the idea or practice by  
23                   third parties.

24                   “(iii) A participation competition that  
25                   creates value during and after the competi-

1           tion by encouraging contestants to change  
2           their behavior or develop new skills that  
3           may have beneficial effects during and  
4           after the competition.

5                   “(iv) Such other types of prizes or  
6           challenges as the Secretary, in consultation  
7           with relevant heads of Federal agencies,  
8           considers appropriate to stimulate innova-  
9           tion that has the potential to advance the  
10          mission of the applicable Federal agency.

11                   “(3) AUTHORIZATION OF APPROPRIATIONS.—  
12          There is authorized to be appropriated to carry out  
13          this subsection \$10,000,000, to remain available  
14          until expended.”.

## 15           **Subtitle H—Code Maintenance**

### 16   **SEC. 4701. REPEAL OF OFF-HIGHWAY MOTOR VEHICLES** 17                   **STUDY.**

18           (a) REPEAL.—Part I of title III of the Energy Policy  
19   and Conservation Act (42 U.S.C. 6373) is repealed.

20           (b) CONFORMING AMENDMENT.—The table of con-  
21   tents for the Energy Policy and Conservation Act (Public  
22   Law 94–163; 89 Stat. 871) is amended—

23                   (1) by striking the item relating to part I of  
24           title III; and

25                   (2) by striking the item relating to section 385.

1 **SEC. 4702. REPEAL OF METHANOL STUDY.**

2 Section 400EE of the Energy Policy and Conserva-  
3 tion Act (42 U.S.C. 6374d) is amended—

4 (1) by striking subsection (a); and

5 (2) by redesignating subsections (b) and (c) as  
6 subsections (a) and (b), respectively.

7 **SEC. 4703. REPEAL OF AUTHORIZATION OF APPROPRIA-**  
8 **TIONS PROVISION.**

9 (a) REPEAL.—Section 208 of the Energy Conserva-  
10 tion and Production Act (42 U.S.C. 6808) is repealed.

11 (b) CONFORMING AMENDMENT.—The table of con-  
12 tents for the Energy Conservation and Production Act  
13 (Public Law 94–385; 90 Stat. 1126) is amended by strik-  
14 ing the item relating to section 208.

15 **SEC. 4704. REPEAL OF RESIDENTIAL ENERGY EFFICIENCY**  
16 **STANDARDS STUDY.**

17 (a) REPEAL.—Section 253 of the National Energy  
18 Conservation Policy Act (42 U.S.C. 8232) 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 253.

23 **SEC. 4705. REPEAL OF WEATHERIZATION STUDY.**

24 (a) REPEAL.—Section 254 of the National Energy  
25 Conservation Policy Act (42 U.S.C. 8233) 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) is amended by strik-  
4 ing the item relating to section 254.

5 **SEC. 4706. REPEAL OF REPORT TO CONGRESS.**

6 (a) REPEAL.—Section 273 of the National Energy  
7 Conservation Policy Act (42 U.S.C. 8236b) is repealed.

8 (b) CONFORMING AMENDMENT.—The table of con-  
9 tents for the National Energy Conservation Policy Act  
10 (Public Law 95–619; 92 Stat. 3206) is amended by strik-  
11 ing the item relating to section 273.

12 **SEC. 4707. REPEAL OF REPORT BY GENERAL SERVICES AD-**  
13 **MINISTRATION.**

14 (a) REPEAL.—Section 154 of the Energy Policy Act  
15 of 1992 (42 U.S.C. 8262a) is repealed.

16 (b) CONFORMING AMENDMENTS.—

17 (1) The table of contents for the Energy Policy  
18 Act of 1992 (Public Law 102–486; 106 Stat. 2776)  
19 is amended by striking the item relating to section  
20 154.

21 (2) Section 159 of the Energy Policy Act of  
22 1992 (42 U.S.C. 8262e) is amended by striking sub-  
23 section (c).



1 **SEC. 4708. REPEAL OF INTERGOVERNMENTAL ENERGY**  
2 **MANAGEMENT PLANNING AND COORDINA-**  
3 **TION WORKSHOPS.**

4 (a) REPEAL.—Section 156 of the Energy Policy Act  
5 of 1992 (42 U.S.C. 8262b) is repealed.

6 (b) CONFORMING AMENDMENT.—The table of con-  
7 tents for the Energy Policy Act of 1992 (Public Law 102–  
8 486; 106 Stat. 2776) is amended by striking the item re-  
9 lating to section 156.

10 **SEC. 4709. REPEAL OF INSPECTOR GENERAL AUDIT SUR-**  
11 **VEY AND PRESIDENT’S COUNCIL ON INTEG-**  
12 **RITY AND EFFICIENCY REPORT TO CON-**  
13 **GRESS.**

14 (a) REPEAL.—Section 160 of the Energy Policy Act  
15 of 1992 (42 U.S.C. 8262f) is amended by striking the sec-  
16 tion designation and heading and all that follows through  
17 “(c) INSPECTOR GENERAL REVIEW.—Each Inspector  
18 General” and inserting the following:

19 **“SEC. 160. INSPECTOR GENERAL REVIEW.**

20 “Each Inspector General”.

21 (b) CONFORMING AMENDMENT.—The table of con-  
22 tents for the Energy Policy Act of 1992 (Public Law 102–  
23 486; 106 Stat. 2776) is amended by striking the item re-  
24 lating to section 160 and inserting the following:

“Sec. 160. Inspector General review. .... ”.

1 **SEC. 4710. REPEAL OF PROCUREMENT AND IDENTIFICA-**  
2 **TION OF ENERGY EFFICIENT PRODUCTS PRO-**  
3 **GRAM.**

4 (a) REPEAL.—Section 161 of the Energy Policy Act  
5 of 1992 (42 U.S.C. 8262g) is repealed.

6 (b) CONFORMING AMENDMENT.—The table of con-  
7 tents for the Energy Policy Act of 1992 (Public Law 102–  
8 486; 106 Stat. 2776) is amended by striking the item re-  
9 lating to section 161.

10 **SEC. 4711. REPEAL OF NATIONAL ACTION PLAN FOR DE-**  
11 **MAND RESPONSE.**

12 (a) REPEAL.—Part 5 of title V of the National En-  
13 ergy Conservation Policy Act (42 U.S.C. 8279 et seq.) is  
14 repealed.

15 (b) CONFORMING AMENDMENT.—The table of con-  
16 tents for the National Energy Conservation Policy Act  
17 (Public Law 95–619; 92 Stat. 3206; 121 Stat. 1665) is  
18 amended—

19 (1) by striking the item relating to part 5 of  
20 title V; and

21 (2) by striking the item relating to section 571.

22 **SEC. 4712. REPEAL OF NATIONAL COAL POLICY STUDY.**

23 (a) REPEAL.—Section 741 of the Powerplant and In-  
24 dustrial Fuel Use Act of 1978 (42 U.S.C. 8451) is re-  
25 pealed.

1 (b) CONFORMING AMENDMENT.—The table of con-  
2 tents for the Powerplant and Industrial Fuel Use Act of  
3 1978 (Public Law 95–620; 92 Stat. 3289) is amended by  
4 striking the item relating to section 741.

5 **SEC. 4713. REPEAL OF STUDY ON COMPLIANCE PROBLEM**  
6 **OF SMALL ELECTRIC UTILITY SYSTEMS.**

7 (a) REPEAL.—Section 744 of the Powerplant and In-  
8 dustrial Fuel Use Act of 1978 (42 U.S.C. 8454) is re-  
9 pealed.

10 (b) CONFORMING AMENDMENT.—The table of con-  
11 tents for the Powerplant and Industrial Fuel Use Act of  
12 1978 (Public Law 95–620; 92 Stat. 3289) is amended by  
13 striking the item relating to section 744.

14 **SEC. 4714. REPEAL OF STUDY OF SOCIOECONOMIC IM-**  
15 **PACTS OF INCREASED COAL PRODUCTION**  
16 **AND OTHER ENERGY DEVELOPMENT.**

17 (a) REPEAL.—Section 746 of the Powerplant and In-  
18 dustrial Fuel Use Act of 1978 (42 U.S.C. 8456) is re-  
19 pealed.

20 (b) CONFORMING AMENDMENT.—The table of con-  
21 tents for the Powerplant and Industrial Fuel Use Act of  
22 1978 (Public Law 95–620; 92 Stat. 3289) is amended by  
23 striking the item relating to section 746.

1 **SEC. 4715. REPEAL OF STUDY OF THE USE OF PETROLEUM**  
2 **AND NATURAL GAS IN COMBUSTORS.**

3 (a) REPEAL.—Section 747 of the Powerplant and In-  
4 dustrial Fuel Use Act of 1978 (42 U.S.C. 8457) is re-  
5 pealed.

6 (b) CONFORMING AMENDMENT.—The table of con-  
7 tents for the Powerplant and Industrial Fuel Use Act of  
8 1978 (Public Law 95–620; 92 Stat. 3289) is amended by  
9 striking the item relating to section 747.

10 **SEC. 4716. REPEAL OF SUBMISSION OF REPORTS.**

11 (a) REPEAL.—Section 807 of the Powerplant and In-  
12 dustrial Fuel Use Act of 1978 (42 U.S.C. 8483) is re-  
13 pealed.

14 (b) CONFORMING AMENDMENT.—The table of con-  
15 tents for the Powerplant and Industrial Fuel Use Act of  
16 1978 (Public Law 95–620; 92 Stat. 3289) is amended by  
17 striking the item relating to section 807.

18 **SEC. 4717. REPEAL OF ELECTRIC UTILITY CONSERVATION**  
19 **PLAN.**

20 (a) REPEAL.—Section 808 of the Powerplant and In-  
21 dustrial Fuel Use Act of 1978 (42 U.S.C. 8484) is re-  
22 pealed.

23 (b) CONFORMING AMENDMENTS.—

24 (1) TABLE OF CONTENTS.—The table of con-  
25 tents for the Powerplant and Industrial Fuel Use  
26 Act of 1978 (Public Law 95–620; 92 Stat. 3289) is

1 amended by striking the item relating to section  
2 808.

3 (2) REPORT ON IMPLEMENTATION.—Section  
4 712 of the Powerplant and Industrial Fuel Use Act  
5 of 1978 (42 U.S.C. 8422) is amended—

6 (A) by striking “(a) GENERALLY.—”; and

7 (B) by striking subsection (b).

8 **SEC. 4718. EMERGENCY ENERGY CONSERVATION REPEALS.**

9 (a) REPEALS.—

10 (1) Section 201 of the Emergency Energy Con-  
11 servation Act of 1979 (42 U.S.C. 8501) is amend-  
12 ed—

13 (A) in the section heading, by striking  
14 “**FINDINGS AND**”; and

15 (B) by striking subsection (a).

16 (2) Section 221 of the Emergency Energy Con-  
17 servation Act of 1979 (42 U.S.C. 8521) is repealed.

18 (3) Section 222 of the Emergency Energy Con-  
19 servation Act of 1979 (42 U.S.C. 8522) is repealed.

20 (4) 241 of the Emergency Energy Conservation  
21 Act of 1979 (42 U.S.C. 8531) is repealed.

22 (b) CONFORMING AMENDMENT.—The table of con-  
23 tents for the Emergency Energy Conservation Act of 1979  
24 (Public Law 96–102; 93 Stat. 749) is amended—

1           (1) by striking the item relating to section 201  
2           and inserting the following:

“Sec. 201. Purposes.”; and

3           (2) by striking the items relating to sections  
4           221, 222, and 241.

5 **SEC. 4719. ENERGY SECURITY ACT REPEALS.**

6           (a) **BIOMASS ENERGY DEVELOPMENT PLANS.**—Sub-  
7 title A of title II of the Energy Security Act (42 U.S.C.  
8 8811 et seq.) is repealed.

9           (b) **MUNICIPAL WASTE BIOMASS ENERGY.**—Subtitle  
10 B of title II of the Energy Security Act (42 U.S.C. 8831  
11 et seq.) is repealed.

12          (c) **USE OF GASOHOL IN FEDERAL MOTOR VEHI-**  
13 **CLES.**—Section 271 of the Energy Security Act (42  
14 U.S.C. 8871) is repealed.

15          (d) **CONFORMING AMENDMENTS.**—

16               (1) The table of contents for the Energy Secu-  
17 rity Act (Public Law 96–294; 94 Stat. 611) is  
18 amended—

19                   (A) by striking the items relating to sub-  
20 title A and B of title II;

21                   (B) by striking the item relating to section  
22 204 and inserting the following:

“Sec. 204. Funding. .... ”; and

23                   (C) by striking the item relating to section  
24 271.

1           (2) Section 203 of the Biomass Energy and Al-  
2           cohol Fuels Act of 1980 (42 U.S.C. 8802) is amend-  
3           ed—

4                   (A) by striking paragraph (16); and

5                   (B) by redesignating paragraphs (17)  
6           through (19) as paragraphs (16) through (18),  
7           respectively.

8           (3) Section 204 of the Energy Security Act (42  
9           U.S.C. 8803) is amended—

10                   (A) in the section heading, by striking

11           “FOR SUBTITLES A AND B”; and

12                   (B) in subsection (a)—

13                         (i) in paragraph (1), by adding “and”  
14           after the semicolon at the end;

15                         (ii) in paragraph (2), by striking “;  
16           and” at the end and inserting a period;  
17           and

18                         (iii) by striking paragraph (3).

19   **SEC. 4720. NUCLEAR SAFETY RESEARCH, DEVELOPMENT,**  
20                   **AND DEMONSTRATION ACT OF 1980 REPEALS.**

21           Sections 5 and 6 of the Nuclear Safety Research, De-  
22           velopment, and Demonstration Act of 1980 (42 U.S.C.  
23           9704, 9705) are repealed.

1 **SEC. 4721. ELIMINATION AND CONSOLIDATION OF CERTAIN**  
2 **AMERICA COMPETES PROGRAMS.**

3 (a) **ELIMINATION OF PROGRAM AUTHORITIES.—**

4 (1) **NUCLEAR SCIENCE TALENT EXPANSION**  
5 **PROGRAM FOR INSTITUTIONS OF HIGHER EDU-**  
6 **CATION.—**Section 5004 of the America COMPETES  
7 Act (42 U.S.C. 16532) is repealed.

8 (2) **HYDROCARBON SYSTEMS SCIENCE TALENT**  
9 **EXPANSION PROGRAM FOR INSTITUTIONS OF HIGH-**  
10 **ER EDUCATION.—**

11 (A) **IN GENERAL.—**Section 5005(e) of the  
12 America COMPETES Act (42 U.S.C.  
13 16533(e)) is repealed.

14 (B) **CONFORMING AMENDMENTS.—**Section  
15 5005(f) of the America COMPETES Act (42  
16 U.S.C. 16533(f)) is amended—

17 (i) by striking paragraph (2);

18 (ii) by striking the subsection designa-  
19 tion and heading and all that follows  
20 through “There are” in paragraph (1) and  
21 inserting the following:

22 “(e) **AUTHORIZATION OF APPROPRIATIONS.—**There  
23 are”; and

24 (iii) by redesignating subparagraphs  
25 (A) through (F) as paragraphs (1) through



1           (6), respectively, and indenting appro-  
2           priately.

3           (3) DISCOVERY SCIENCE AND ENGINEERING IN-  
4           NOVATION INSTITUTES.—Section 5008 of the Amer-  
5           ica COMPETES Act (42 U.S.C. 16535) is repealed.

6           (4) ELIMINATION OF DUPLICATIVE AUTHORITY  
7           FOR EDUCATION PROGRAMS.—Sections 3181 and  
8           3185 of the Department of Energy Science Edu-  
9           cation Enhancement Act (42 U.S.C. 7381*l*, 42  
10          U.S.C. 7381*n*) are repealed.

11          (5) MENTORING PROGRAM.—Section 3195 of  
12          the Department of Energy Science Education En-  
13          hancement Act (42 U.S.C. 7381*r*) is repealed.

14          (b) REPEAL OF AUTHORIZATIONS.—

15           (1) DEPARTMENT OF ENERGY EARLY CAREER  
16           AWARDS FOR SCIENCE, ENGINEERING, AND MATHE-  
17           MATICS RESEARCHERS.—Section 5006 of the Amer-  
18           ica COMPETES Act (42 U.S.C. 16534) is amended  
19           by striking subsection (h).

20           (2) DISTINGUISHED SCIENTIST PROGRAM.—  
21           Section 5011 of the America COMPETES Act (42  
22           U.S.C. 16537) is amended by striking subsection (j).

23           (3) PROTECTING AMERICA'S COMPETITIVE  
24           EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.—

1 Section 5009 of the America COMPETES Act (42  
2 U.S.C. 16536) is amended by striking subsection (f).

3 (c) CONSOLIDATION OF DUPLICATIVE PROGRAM AU-  
4 THORITIES.—

5 (1) UNIVERSITY NUCLEAR SCIENCE AND ENGI-  
6 NEERING SUPPORT.—Section 954 of the Energy Pol-  
7 icy Act of 2005 (42 U.S.C. 16274) is amended—

8 (A) in subsection (a), by inserting “nuclear  
9 chemistry,” after “nuclear engineering,”; and

10 (B) in subsection (b)—

11 (i) by redesignating paragraphs (3)  
12 through (5) as paragraphs (4) through (6),  
13 respectively; and

14 (ii) by inserting after paragraph (2)  
15 the following:

16 “(3) award grants, not to exceed 5 years in du-  
17 ration, to institutions of higher education with exist-  
18 ing academic degree programs in nuclear sciences  
19 and related fields—

20 “(A) to increase the number of graduates  
21 in nuclear science and related fields;

22 “(B) to enhance the teaching and research  
23 of advanced nuclear technologies;

24 “(C) to undertake collaboration with indus-  
25 try and National Laboratories; and

1           “(D) to bolster or sustain nuclear infra-  
2           structure and research facilities of institutions  
3           of higher education, such as research and train-  
4           ing reactors and laboratories;”.

5           (2) CONSOLIDATION OF DEPARTMENT OF EN-  
6           ERGY EARLY CAREER AWARDS FOR SCIENCE, ENGI-  
7           NEERING, AND MATHEMATICS RESEARCHERS PRO-  
8           GRAM AND DISTINGUISHED SCIENTIST PROGRAM.—

9           (A) FUNDING.—Section 971(c) of the En-  
10           ergy Policy Act of 2005 (42 U.S.C. 16311(c))  
11           is amended by adding at the end the following:

12           “(8) For the Department of Energy early ca-  
13           reer awards for science, engineering, and mathe-  
14           matics researchers program under section 5006 of  
15           the America COMPETES Act (42 U.S.C. 16534)  
16           and the distinguished scientist program under sec-  
17           tion 5011 of that Act (42 U.S.C. 16537),  
18           \$150,000,000 for each of fiscal years 2016 through  
19           2020, of which not more than 65 percent of the  
20           amount made available for a fiscal year under this  
21           paragraph may be used to carry out section 5006 or  
22           5011 of that Act.”.

23           (B) DEPARTMENT OF ENERGY EARLY CA-  
24           REER AWARDS FOR SCIENCE, ENGINEERING,  
25           AND MATHEMATICS RESEARCHERS.—Section

1           5006 of the America COMPETES Act (42  
2           U.S.C. 16534) is amended—

3                   (i) in subsection (b)(1)—

4                           (I) in the matter preceding sub-  
5                           paragraph (A)—

6                                   (aa) by inserting “average”  
7                                   before “amount”; and

8                                   (bb) by inserting “for each  
9                                   year” before “shall”;

10                           (II) in subparagraph (A), by  
11                           striking “\$80,000” and inserting  
12                           “\$190,000”; and

13                           (III) in subparagraph (B), by  
14                           striking “\$125,000” and inserting  
15                           “\$490,000”;

16                   (ii) in subsection (c)(1)(C)—

17                           (I) in clause (i)—

18                                   (aa) by striking “assistant  
19                                   professor or equivalent title” and  
20                                   inserting “untenured assistant or  
21                                   associate professor”; and

22                                   (bb) by inserting “or” after  
23                                   the semicolon at the end;

24                           (II) by striking clause (ii); and

1 (III) by redesignating clause (iii)  
2 as clause (ii);

3 (iii) in subsection (d), by striking “on  
4 a competitive, merit-reviewed basis” and  
5 inserting “through a competitive process  
6 using merit-based peer review.”;

7 (iv) in subsection (e)—

8 (I) by striking “(e)” and all that  
9 follows through “To be eligible” and  
10 inserting the following:

11 “(e) SELECTION PROCESS AND CRITERIA.—To be eli-  
12 gible”; and

13 (II) by striking paragraph (2);

14 and

15 (v) in subsection (f)(1), by striking  
16 “nonprofit, nondegree-granting research  
17 organizations” and inserting “National  
18 Laboratories”.

19 (3) SCIENCE EDUCATION PROGRAMS.—Section  
20 3164 of the Department of Energy Science Edu-  
21 cation Enhancement Act (42 U.S.C. 7381a) is  
22 amended—

23 (A) in subsection (b)—

24 (i) by striking paragraphs (1) and (2)  
25 and inserting the following:

1           “(1) IN GENERAL.—The Director of the Office  
2 of Science (referred to in this subsection as the ‘Di-  
3 rector’) shall provide for appropriate coordination of  
4 science, technology, engineering, and mathematics  
5 education programs across all functions of the De-  
6 partment.

7           “(2) ADMINISTRATION.—In carrying out para-  
8 graph (1), the Director shall—

9           “(A) consult with—

10                   “(i) the Assistant Secretary of Energy  
11 with responsibility for energy efficiency  
12 and renewable energy programs; and

13                   “(ii) the Deputy Administrator for  
14 Defense Programs of the National Nuclear  
15 Security Administration; and

16           “(B) seek to increase the participation and  
17 advancement of women and underrepresented  
18 minorities at every level of science, technology,  
19 engineering, and mathematics education.”; and

20           (ii) in paragraph (3)—

21                   (I) in subparagraph (D), by  
22 striking “and” at the end;

23                   (II) by redesignating subpara-  
24 graph (E) as subparagraph (F); and

1 (III) by inserting after subpara-  
2 graph (D) the following:

3 “(E) represent the Department as the  
4 principal interagency liaison for all coordination  
5 activities under the President for science, tech-  
6 nology, engineering, and mathematics education  
7 programs; and”; and

8 (B) in subsection (d)—

9 (i) by striking “The Secretary” and  
10 inserting the following:

11 “(1) IN GENERAL.—The Secretary”; and

12 (ii) by adding at the end the fol-  
13 lowing:

14 “(2) REPORT.—Not later than 180 days after  
15 the date of enactment of this subparagraph, the Di-  
16 rector shall submit a report describing the impact of  
17 the activities assisted with the Fund established  
18 under paragraph (1) to—

19 “(A) the Committee on Science, Space,  
20 and Technology of the House of Representa-  
21 tives; and

22 “(B) the Committee on Energy and Nat-  
23 ural Resources of the Senate.”.

24 (4) PROTECTING AMERICA’S COMPETITIVE  
25 EDGE (PACE) GRADUATE FELLOWSHIP PROGRAM.—

1 Section 5009 of the America COMPETES Act (42  
2 U.S.C. 16536) is amended—

3 (A) in subsection (c)—

4 (i) in paragraph (1) by striking “, in-  
5 volving” and all that follows through “Sec-  
6 retary”; and

7 (ii) in paragraph (2), by striking sub-  
8 paragraph (B) and inserting the following:

9 “(B) to demonstrate excellent academic  
10 performance and understanding of scientific or  
11 technical subjects; and”;

12 (B) in subsection (d)(1)(B)(i), by inserting  
13 “full or partial” before “graduate tuition”; and

14 (C) in subsection (e), in the matter pre-  
15 ceding paragraph (1), by striking “Director of  
16 Science, Engineering, and Mathematics Edu-  
17 cation” and inserting “Director of the Office of  
18 Science.”.

19 (d) CONFORMING AMENDMENTS.—The table of con-  
20 tents for the America COMPETES ACT (Public Law  
21 110–69; 121 Stat. 573) is amended by striking the items  
22 relating to sections 5004 and 5008.



1 **SEC. 4722. REPEAL OF STATE UTILITY REGULATORY AS-**  
2 **SISTANCE.**

3 (a) REPEAL.—Section 207 of the Energy Conserva-  
4 tion and Production Act (42 U.S.C. 6807) is repealed.

5 (b) CONFORMING AMENDMENT.—The table of con-  
6 tents for the Energy Conservation and Production Act  
7 (Public Law 94–385; 90 Stat. 1126) is amended by strik-  
8 ing the item relating to section 207.

9 **SEC. 4723. REPEAL OF SURVEY OF ENERGY SAVING POTEN-**  
10 **TIAL.**

11 (a) REPEAL.—Section 550 of the National Energy  
12 Conservation Policy Act (42 U.S.C. 8258b) is repealed.

13 (b) CONFORMING AMENDMENTS.—

14 (1) The table of contents for the National En-  
15 ergy Conservation Policy Act (Public Law 95–619;  
16 92 Stat. 3206; 106 Stat. 2851) is amended by strik-  
17 ing the item relating to section 550.

18 (2) Section 543(d)(2) of the National Energy  
19 Conservation Policy Act (42 U.S.C. 8253(d)(2)) is  
20 amended by striking “, incorporating any relevant  
21 information obtained from the survey conducted pur-  
22 suant to section 550”.

23 **SEC. 4724. REPEAL OF PHOTOVOLTAIC ENERGY PROGRAM.**

24 (a) REPEAL.—Part 4 of title V of the National En-  
25 ergy Conservation Policy Act (42 U.S.C. 8271 et seq.) is  
26 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) is amended—

4 (1) by striking the item relating to part 4 of  
5 title V; and

6 (2) by striking the items relating to sections  
7 561 through 569.

8 **SEC. 4725. REPEAL OF ENERGY AUDITOR TRAINING AND**  
9 **CERTIFICATION.**

10 (a) REPEAL.—Subtitle F of title V of the Energy Se-  
11 curity Act (42 U.S.C. 8285 et seq.) is repealed.

12 (b) CONFORMING AMENDMENT.—The table of con-  
13 tents for the Energy Security Act (Public Law 96–294;  
14 94 Stat. 611) is amended by striking the items relating  
15 to subtitle F of title V.

16 **SEC. 4726. REPEAL OF AUTHORIZATION OF APPROPRIA-**  
17 **TIONS.**

18 (a) REPEAL.—Subtitle F of title VII of the Power-  
19 plant and Industrial Fuel Use Act of 1978 (42 U.S.C.  
20 8461) is repealed.

21 (b) CONFORMING AMENDMENT.—The table of con-  
22 tents for the Powerplant and Industrial Fuel Use Act of  
23 1978 (Public Law 95–620; 92 Stat. 3289) is amended by  
24 striking the item relating to subtitle F of title VII.

1           **TITLE V—CONSERVATION**  
2                           **REAUTHORIZATION**

3   **SEC. 5001. NATIONAL PARK SERVICE MAINTENANCE AND**  
4                           **REVITALIZATION CONSERVATION FUND.**

5           (a) IN GENERAL.—Chapter 1049 of title 54, United  
6 States Code, is amended by adding at the end the fol-  
7 lowing:

8   **“§ 104908. National Park Service Maintenance and**  
9                           **Revitalization Conservation Fund**

10          “(a) IN GENERAL.—There is established in the  
11 Treasury a fund, to be known as the ‘National Park Serv-  
12 ice Critical Maintenance and Revitalization Conservation  
13 Fund’ (referred to in this section as the ‘Fund’).

14          “(b) DEPOSITS TO FUND.—Notwithstanding any  
15 provision of law providing that the proceeds shall be cred-  
16 ited to miscellaneous receipts of the Treasury, for each  
17 fiscal year, there shall be deposited in the Fund, from rev-  
18 enues due and payable to the United States under section  
19 9 of the Outer Continental Shelf Lands Act (43 U.S.C.  
20 1338) \$150,000,000.

21          “(c) USE AND AVAILABILITY.—

22                  “(1) IN GENERAL.—Amounts deposited in the  
23 Fund shall—

24                          “(A) be used only for the purposes de-  
25 scribed in subsection (d); and

1           “(B) be available for expenditure only after  
2           the amounts are appropriated for those pur-  
3           poses.

4           “(2) AVAILABILITY.—Any amounts in the Fund  
5           not appropriated shall remain available in the Fund  
6           until appropriated.

7           “(3) NO LIMITATION.—Appropriations from the  
8           Fund pursuant to this section may be made without  
9           fiscal year limitation.

10          “(d) NATIONAL PARK SYSTEM CRITICAL DEFERRED  
11 MAINTENANCE.—The Secretary shall use amounts appro-  
12 priated from the Fund for high-priority deferred mainte-  
13 nance needs of the Service that support critical infrastruc-  
14 ture and visitor services.

15          “(e) LAND ACQUISITION PROHIBITION.—Amounts in  
16 the Fund shall not be used for land acquisition.”.

17          (b) CLERICAL AMENDMENT.—The table of sections  
18 for chapter 1049 of title 54, United States Code, is  
19 amended by inserting after the item relating to section  
20 104907 the following:

“§104908. National Park Service Maintenance and Revitalization Conservation  
Fund.”.

21 **SEC. 5002. LAND AND WATER CONSERVATION FUND.**

22          (a) REAUTHORIZATION.—Section 200302 of title 54,  
23 United States Code, is amended—

1           (1) in subsection (b), in the matter preceding  
2 paragraph (1), by striking “During the period end-  
3 ing September 30, 2015, there” and inserting  
4 “There”; and

5           (2) in subsection (c)(1), by striking “through  
6 September 30, 2015”.

7           (b) ALLOCATION OF FUNDS.—Section 200304 of title  
8 54, United States Code, is amended—

9           (1) by striking “There” and inserting “(a) In  
10 General.—There”; and

11           (2) by striking the second sentence and insert-  
12 ing the following:

13           “(b) ALLOCATION.—Of the appropriations from the  
14 Fund—

15           “(1) not less than 40 percent shall be used col-  
16 lectively for Federal purposes under section 200306;

17           “(2) not less than 40 percent shall be used col-  
18 lectively—

19           “(A) to provide financial assistance to  
20 States under section 200305;

21           “(B) for the Forest Legacy Program es-  
22 tablished under section 7 of the Cooperative  
23 Forestry Assistance Act of 1978 (16 U.S.C.  
24 2103c);

1           “(C) for cooperative endangered species  
2 grants authorized under section 6 of the En-  
3 dangered Species Act of 1973 (16 U.S.C.  
4 1535); and

5           “(D) for the American Battlefield Protec-  
6 tion Program established under chapter 3081;  
7 and

8           “(3) not less than 1.5 percent or \$10,000,000,  
9 whichever is greater, shall be used for projects that  
10 secure recreational public access to Federal public  
11 land for hunting, fishing, or other recreational pur-  
12 poses.”.

13       (c) CONSERVATION EASEMENTS.—Section 200306 of  
14 title 54, United States Code, is amended by adding at the  
15 end the following:

16       “(c) CONSERVATION EASEMENTS.—The Secretary  
17 and the Secretary of Agriculture shall consider the acqui-  
18 sition of conservation easements and other similar inter-  
19 ests in land where appropriate and feasible.”.

20       (d) ACQUISITION CONSIDERATIONS.—Section  
21 200306 of title 54, United States Code (as amended by  
22 subsection (c)), is amended by adding at the end of the  
23 following:

24       “(d) ACQUISITION CONSIDERATIONS.—The Secretary  
25 and the Secretary of Agriculture shall take into account

1 the following in determining the land or interests in land  
2 to acquire:

3           “(1) Management efficiencies.

4           “(2) Management cost savings.

5           “(3) Geographic distribution.

6           “(4) Significance of the acquisition.

7           “(5) Urgency of the acquisition.

8           “(6) Threats to the integrity of the land to be  
9       acquired.

10          “(7) The recreational value of the land.”.

11 **SEC. 5003. HISTORIC PRESERVATION FUND.**

12       Section 303102 of title 54, United States Code, is  
13 amended by striking “of fiscal years 2012 to 2015” and  
14 inserting “fiscal year”.

Calendar No. 218

114<sup>TH</sup> CONGRESS  
1<sup>ST</sup> Session

**S. 2012**

[Report No. 114-138]

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## **A BILL**

To provide for the modernization of the energy policy of the United States, and for other purposes.

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SEPTEMBER 9, 2015

Read twice and placed on the calendar