

114TH CONGRESS  
1ST SESSION

# H. R. 2177

To promote energy savings in residential buildings and industry, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

APRIL 30, 2015

Mr. MCKINLEY (for himself and Mr. WELCH) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on the Budget, Transportation and Infrastructure, Oversight and Government Reform, Financial Services, and Science, Space, and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To promote energy savings in residential buildings and industry, 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 Savings and Industrial Competitiveness Act of  
6 2015”.

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

- Sec. 1. Short title; table of contents.
- Sec. 2. Definition of Secretary.

TITLE I—BUILDINGS

Subtitle A—Building Energy Codes

- Sec. 101. Greater energy efficiency in building codes.

Subtitle B—Worker Training and Capacity Building

- Sec. 111. Building training and assessment centers.
- Sec. 112. Career skills training.

Subtitle C—School Buildings

- Sec. 121. Coordination of energy retrofitting assistance for schools.

Subtitle D—Better Buildings

- Sec. 131. Energy efficiency in Federal and other buildings.
- Sec. 132. Separate spaces with high-performance energy efficiency measures.
- Sec. 133. Tenant star program.

Subtitle E—Energy Information for Commercial Buildings

- Sec. 141. Energy information for commercial buildings.

TITLE II—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

Subtitle A—Manufacturing Energy Efficiency

- Sec. 201. Purposes.
- Sec. 202. Future of Industry program.
- Sec. 203. Sustainable manufacturing initiative.
- Sec. 204. Conforming amendments.

Subtitle B—Supply Star

- Sec. 211. Supply Star.

Subtitle C—Extended Product System Rebate Program

- Sec. 221. Extended product system rebate program.

Subtitle D—Transformer Rebate Program

- Sec. 231. Energy efficient transformer rebate program.

TITLE III—FEDERAL AGENCY ENERGY EFFICIENCY

- Sec. 301. Energy-efficient and energy-saving information technologies.
- Sec. 302. Availability of funds for design updates.
- Sec. 303. Energy efficient data centers.
- Sec. 304. Budget-neutral demonstration program for energy and water conservation improvements at multifamily residential units.

TITLE IV—REGULATORY PROVISIONS

Subtitle A—Third-Party Certification Under Energy Star Program

Sec. 401. Third-Party Certification Under Energy Star Program.

Subtitle B—Federal Green Buildings

Sec. 411. High-performance green Federal buildings.

Subtitle C—Water Heaters

Sec. 421. Grid-enabled water heaters.

Subtitle D—Energy Performance Requirement for Federal Buildings

Sec. 431. Energy performance requirement for Federal buildings.

Sec. 432. Federal building energy efficiency performance standards; certification system and level for green buildings.

Sec. 433. Enhanced energy efficiency underwriting.

Subtitle E—Voluntary Verification Programs for Air Conditioning, Furnace, Boiler, Heat Pump, and Water Heater Products

Sec. 441. Voluntary verification programs for air conditioning, furnace, boiler, heat pump, and water heater products.

TITLE V—MISCELLANEOUS

Sec. 501. Budgetary effects.

Sec. 502. Advance appropriations required.

1 **SEC. 2. DEFINITION OF SECRETARY.**

2 In this Act, the term “Secretary” means the Sec-  
3 retary of Energy.

4 **TITLE I—BUILDINGS**

5 **Subtitle A—Building Energy Codes**

6 **SEC. 101. GREATER ENERGY EFFICIENCY IN BUILDING**

7 **CODES.**

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

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

13 “(14) MODEL BUILDING ENERGY CODE.—The  
14 term ‘model building energy code’ means a voluntary

1 building energy code and standards developed and  
2 updated through a consensus process among inter-  
3 ested persons, such as the IECC or the code used  
4 by—

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

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

10 “(C) other appropriate organizations.”;

11 and

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

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

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

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

23 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-  
24 CIENCY CODES.**

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

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

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

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

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

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

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

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

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

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

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

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

20                         “(B) if the determination is positive, vali-  
21                         date the certification.

22                  “(c) IMPROVEMENTS IN COMPLIANCE WITH BUILD-  
23                  ING ENERGY CODES.—

24                         “(1) REQUIREMENT.—

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

18          “(4) ANNUAL REPORTS BY SECRETARY.—

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

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

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

1 “(iii) implementation of this section;

2 and

3 “(iv) improvements in energy savings

4 over time as 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, tribal, and local  
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 local, tribal, or State 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 are 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 State, Indian tribes, local govern-  
16 ments, nationally recognized code and stand-  
17 ards developers, and other interested parties to  
18 support the updating of model building energy  
19 codes by establishing one or more aggregate en-  
20 ergy savings targets to achieve the purposes of  
21 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 **Subtitle B—Worker Training and** 5 **Capacity Building**

### 6 **SEC. 111. BUILDING TRAINING AND ASSESSMENT CENTERS.**

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

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

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

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

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



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

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

10 (b) COORDINATION AND NONDUPLICATION.—

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

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

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

22 **SEC. 112. CAREER SKILLS TRAINING.**

23           (a) IN GENERAL.—The Secretary shall pay grants to  
24 eligible entities described in subsection (b) to pay the Fed-  
25 eral share of associated career skills training programs

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

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

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

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

## 18 **Subtitle C—School Buildings**

### 19 **SEC. 121. COORDINATION OF ENERGY RETROFITTING AS-** 20 **SISTANCE FOR SCHOOLS.**

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

23 (1) an elementary school or secondary school  
24 (as defined in section 9101 of the Elementary and

1 Secondary Education Act of 1965 (20 U.S.C.  
2 7801));

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

6 (3) a school of the defense dependents' edu-  
7 cation system under the Defense Dependents' Edu-  
8 cation Act of 1978 (20 U.S.C. 921 et seq.) or estab-  
9 lished under section 2164 of title 10, United States  
10 Code;

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

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

16 (6) a Tribal College or University (as defined in  
17 section 316(b) of the Higher Education Act of 1965  
18 (20 U.S.C. 1059c(b))).

19 (b) DESIGNATION OF LEAD AGENCY.—The Sec-  
20 retary, acting through the Office of Energy Efficiency and  
21 Renewable Energy, shall act as the lead Federal agency  
22 for coordinating and disseminating information on exist-  
23 ing Federal programs and assistance that may be used  
24 to help initiate, develop, and finance energy efficiency, re-

1 newable energy, and energy retrofitting projects for  
2 schools.

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

5 (1) in consultation and coordination with the  
6 appropriate Federal agencies, carry out a review of  
7 existing programs and financing mechanisms (in-  
8 cluding revolving loan funds and loan guarantees)  
9 available in or from the Department of Agriculture,  
10 the Department of Energy, the Department of Edu-  
11 cation, the Department of the Treasury, the Internal  
12 Revenue Service, the Environmental Protection  
13 Agency, and other appropriate Federal agencies with  
14 jurisdiction over energy financing and facilitation  
15 that are currently used or may be used to help ini-  
16 tiate, develop, and finance energy efficiency, renew-  
17 able energy, and energy retrofitting projects for  
18 schools;

19 (2) establish a Federal cross-departmental col-  
20 laborative coordination, education, and outreach ef-  
21 fort to streamline communication and promote avail-  
22 able Federal opportunities and assistance described  
23 in paragraph (1), for energy efficiency, renewable  
24 energy, and energy retrofitting projects that enables  
25 States, local educational agencies, and schools—

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

3 (B) to form partnerships with Governors,  
4 State energy programs, local educational, finan-  
5 cial, and energy officials, State and local gov-  
6 ernment officials, nonprofit organizations, and  
7 other appropriate entities, to support the initi-  
8 ation of the projects;

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

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

15 (B) to install systems that individually  
16 generate energy from renewable energy re-  
17 sources;

18 (C) to establish partnerships to leverage  
19 economies of scale and additional financing  
20 mechanisms available to larger clean energy ini-  
21 tiatives; or

22 (D) to promote—

23 (i) the maintenance of health, environ-  
24 mental quality, and safety in schools, in-  
25 cluding the ambient air quality, through

1 energy efficiency, renewable energy, and  
2 energy retrofit projects; and

3 (ii) the achievement of expected en-  
4 ergy savings and renewable energy produc-  
5 tion through proper operations and main-  
6 tenance practices;

7 (4) develop and maintain a single online re-  
8 source website with contact information for relevant  
9 technical assistance and support staff in the Office  
10 of Energy Efficiency and Renewable Energy for  
11 States, local educational agencies, and schools to ef-  
12 fectively access and use Federal opportunities and  
13 assistance described in paragraph (1) to develop en-  
14 ergy efficiency, renewable energy, and energy retro-  
15 fitting projects; and

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

18 (A) have successfully implemented energy  
19 efficiency, renewable energy, and energy retro-  
20 fitting projects; and

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

24 (d) REPORT.—Not later than 180 days after the date  
25 of enactment of this Act, the Secretary shall submit to

1 Congress a report describing the implementation of this  
2 section.

### 3 **Subtitle D—Better Buildings**

#### 4 **SEC. 131. ENERGY EFFICIENCY IN FEDERAL AND OTHER** 5 **BUILDINGS.**

6 (a) DEFINITIONS.—In this section:

7 (1) ADMINISTRATOR.—The term “Adminis-  
8 trator” means the Administrator of General Serv-  
9 ices.

10 (2) COST-EFFECTIVE ENERGY EFFICIENCY  
11 MEASURE.—The terms “cost-effective energy effi-  
12 ciency measure” and “measure” mean any building  
13 product, material, equipment, or service and the in-  
14 stalling, implementing, or operating thereof, that  
15 provides energy savings in an amount that is not  
16 less than the cost of such installing, implementing,  
17 or operating.

18 (b) MODEL PROVISIONS, POLICIES, AND BEST PRAC-  
19 TICES.—

20 (1) IN GENERAL.—Not later than 180 days  
21 after the date of enactment of this Act, the Adminis-  
22 trator, in consultation with the Secretary and after  
23 providing the public with an opportunity for notice  
24 and comment, shall develop model leasing provisions

1 and best practices in accordance with this sub-  
2 section.

3 (2) COMMERCIAL LEASING.—

4 (A) IN GENERAL.—The model commercial  
5 leasing provisions developed under this sub-  
6 section shall, at a minimum, align the interests  
7 of building owners and tenants with regard to  
8 investments in cost-effective energy efficiency  
9 measures to encourage building owners and ten-  
10 ants to collaborate to invest in such measures.

11 (B) USE OF MODEL PROVISIONS.—The  
12 Administrator may use the model provisions de-  
13 veloped under this subsection in any standard  
14 leasing document that designates a Federal  
15 agency (or other client of the Administrator) as  
16 a landlord or tenant.

17 (C) PUBLICATION.—The Administrator  
18 shall periodically publish the model leasing pro-  
19 visions developed under this subsection, along  
20 with explanatory materials, to encourage build-  
21 ing owners and tenants in the private sector to  
22 use such provisions and materials.

23 (3) REALTY SERVICES.—The Administrator  
24 shall develop policies and practices to implement  
25 cost-effective energy efficiency measures for the real-



1 ty services provided by the Administrator to Federal  
2 agencies (or other clients of the Administrator), in-  
3 cluding periodic training of appropriate Federal em-  
4 ployees and contractors on how to identify and  
5 evaluate those measures.

6 (4) STATE AND LOCAL ASSISTANCE.—The Ad-  
7 ministrator, in consultation with the Secretary, shall  
8 make available model leasing provisions and best  
9 practices developed under this subsection to State,  
10 county, and municipal governments to manage  
11 owned and leased building space in accordance with  
12 the goal of encouraging investment in all cost-effec-  
13 tive energy efficiency measures.

14 **SEC. 132. SEPARATE SPACES WITH HIGH-PERFORMANCE**  
15 **ENERGY EFFICIENCY MEASURES.**

16 Subtitle B of title IV of the Energy Independence and  
17 Security Act of 2007 (42 U.S.C. 17081 et seq.) is amend-  
18 ed by adding at the end the following:

19 **“SEC. 424. SEPARATE SPACES WITH HIGH-PERFORMANCE**  
20 **ENERGY EFFICIENCY MEASURES.**

21 “(a) DEFINITIONS.—In this section:

22 “(1) HIGH-PERFORMANCE ENERGY EFFICIENCY  
23 MEASURE.—The term ‘high-performance energy effi-  
24 ciency measure’ means a technology, product, or  
25 practice that will result in substantial operational

1 cost savings by reducing energy consumption and  
2 utility costs.

3 “(2) SEPARATE SPACES.—The term ‘separate  
4 spaces’ means areas within a commercial building  
5 that are leased or otherwise occupied by a tenant or  
6 other occupant for a period of time pursuant to the  
7 terms of a written agreement.

8 “(b) STUDY.—

9 “(1) IN GENERAL.—Not later than 1 year after  
10 the date of enactment of this section, the Secretary,  
11 acting through the Assistant Secretary of Energy  
12 Efficiency and Renewable Energy, shall complete a  
13 study on the feasibility of—

14 “(A) significantly improving energy effi-  
15 ciency in commercial buildings through the de-  
16 sign and construction, by owners and tenants,  
17 of separate spaces with high-performance en-  
18 ergy efficiency measures; and

19 “(B) encouraging owners and tenants to  
20 implement high-performance energy efficiency  
21 measures in separate spaces.

22 “(2) SCOPE.—The study shall, at a minimum,  
23 include—

24 “(A) descriptions of—

1           “(i) high-performance energy effi-  
2           ciency measures that should be considered  
3           as part of the initial design and construc-  
4           tion of separate spaces;

5           “(ii) processes that owners, tenants,  
6           architects, and engineers may replicate  
7           when designing and constructing separate  
8           spaces with high-performance energy effi-  
9           ciency measures;

10          “(iii) policies and best practices to  
11          achieve reductions in energy intensities for  
12          lighting, plug loads, heating, cooling, cook-  
13          ing, laundry, and other systems to satisfy  
14          the needs of the commercial building ten-  
15          ant;

16          “(iv) return on investment and pay-  
17          back analyses of the incremental cost and  
18          projected energy savings of the proposed  
19          set of high-performance energy efficiency  
20          measures, including consideration of avail-  
21          able incentives;

22          “(v) models and simulation methods  
23          that predict the quantity of energy used by  
24          separate spaces with high-performance en-  
25          ergy efficiency measures and that compare

1 that predicted quantity to the quantity of  
2 energy used by separate spaces without  
3 high-performance energy efficiency meas-  
4 ures but that otherwise comply with appli-  
5 cable building code requirements;

6 “(vi) measurement and verification  
7 platforms demonstrating actual energy use  
8 of high-performance energy efficiency  
9 measures installed in separate spaces, and  
10 whether such measures generate the sav-  
11 ings intended in the initial design and con-  
12 struction of the separate spaces;

13 “(vii) best practices that encourage an  
14 integrated approach to designing and con-  
15 structing separate spaces to perform at op-  
16 timum energy efficiency in conjunction  
17 with the central systems of a commercial  
18 building; and

19 “(viii) any impact on employment re-  
20 sulting from the design and construction of  
21 separate spaces with high-performance en-  
22 ergy efficiency measures; and

23 “(B) case studies reporting economic and  
24 energy saving returns in the design and con-

1 construction of separate spaces with high-perform-  
2 ance energy efficiency measures.

3 “(3) PUBLIC PARTICIPATION.—Not later than  
4 90 days after the date of the enactment of this sec-  
5 tion, the Secretary shall publish a notice in the Fed-  
6 eral Register requesting public comments regarding  
7 effective methods, measures, and practices for the  
8 design and construction of separate spaces with  
9 high-performance energy efficiency measures.

10 “(4) PUBLICATION.—The Secretary shall pub-  
11 lish the study on the website of the Department of  
12 Energy.”.

13 **SEC. 133. TENANT STAR PROGRAM.**

14 Subtitle B of title IV of the Energy Independence and  
15 Security Act of 2007 (42 U.S.C. 17081 et seq.) (as  
16 amended by section 132) is amended by adding at the end  
17 the following:

18 **“SEC. 425. TENANT STAR PROGRAM.**

19 “(a) DEFINITIONS.—In this section:

20 “(1) HIGH-PERFORMANCE ENERGY EFFICIENCY  
21 MEASURE.—The term ‘high-performance energy effi-  
22 ciency measure’ has the meaning given the term in  
23 section 424.

1           “(2) SEPARATE SPACES.—The term ‘separate  
2           spaces’ has the meaning given the term in section  
3           424.

4           “(b) TENANT STAR.—The Administrator of the Envi-  
5           ronmental Protection Agency, in consultation with the  
6           Secretary of Energy, shall develop a voluntary program  
7           within the Energy Star program established by section  
8           324A of the Energy Policy and Conservation Act (42  
9           U.S.C. 6294a), which may be known as Tenant Star, to  
10          promote energy efficiency in separate spaces leased by ten-  
11          ants or otherwise occupied within commercial buildings.

12          “(c) EXPANDING SURVEY DATA.—The Secretary of  
13          Energy, acting through the Administrator of the Energy  
14          Information Administration, shall—

15                 “(1) collect, through each Commercial Build-  
16                 ings Energy Consumption Survey of the Energy In-  
17                 formation Administration that is conducted after the  
18                 date of enactment of this section, data on—

19                         “(A) categories of building occupancy that  
20                         are known to consume significant quantities of  
21                         energy, such as occupancy by data centers,  
22                         trading floors, and restaurants; and

23                         “(B) other aspects of the property, build-  
24                         ing operation, or building occupancy determined  
25                         by the Administrator of the Energy Information

1 Administration, in consultation with the Admin-  
2 istrator of the Environmental Protection Agen-  
3 cy, to be relevant in lowering energy consump-  
4 tion;

5 “(2) with respect to the first Commercial Build-  
6 ings Energy Consumption Survey conducted after  
7 the date of enactment of this section, to the extent  
8 full compliance with the requirements of paragraph  
9 (1) is not feasible, conduct activities to develop the  
10 capability to collect such data and begin to collect  
11 such data; and

12 “(3) make data collected under paragraphs (1)  
13 and (2) available to the public in aggregated form  
14 and provide such data, and any associated results, to  
15 the Administrator of the Environmental Protection  
16 Agency for use in accordance with subsection (d).

17 “(d) RECOGNITION OF OWNERS AND TENANTS.—

18 “(1) OCCUPANCY-BASED RECOGNITION.—Not  
19 later than 1 year after the date on which sufficient  
20 data is received pursuant to subsection (c), the Ad-  
21 ministrator of the Environmental Protection Agency  
22 shall, following an opportunity for public notice and  
23 comment—

24 “(A) in a manner similar to the Energy  
25 Star rating system for commercial buildings,

1 develop policies and procedures to recognize  
2 tenants in commercial buildings that voluntarily  
3 achieve high levels of energy efficiency in separate  
4 spaces;

5 “(B) establish building occupancy categories  
6 eligible for Tenant Star recognition  
7 based on the data collected under subsection (c)  
8 and any other appropriate data sources; and

9 “(C) consider other forms of recognition  
10 for commercial building tenants or other occupants  
11 that lower energy consumption in separate  
12 spaces.

13 “(2) DESIGN- AND CONSTRUCTION-BASED RECOGNITION.—After the study required by section  
14 424(b) is completed, the Administrator of the Environmental Protection Agency, in consultation with  
15 the Secretary and following an opportunity for public notice and comment, may develop a voluntary  
16 program to recognize commercial building owners  
17 and tenants that use high-performance energy efficiency measures in the design and construction of  
18 separate spaces.”.



1 **Subtitle E—Energy Information for**  
2 **Commercial Buildings**

3 **SEC. 141. ENERGY INFORMATION FOR COMMERCIAL BUILD-**  
4 **INGS.**

5 (a) REQUIREMENT OF BENCHMARKING AND DISCLO-  
6 SURE FOR LEASING BUILDINGS WITHOUT ENERGY STAR  
7 LABELS.—Section 435(b)(2) of the Energy Independence  
8 and Security Act of 2007 (42 U.S.C. 17091(b)(2)) is  
9 amended—

10 (1) by striking “paragraph (2)” and inserting  
11 “paragraph (1)”; and

12 (2) by striking “signing the contract,” and all  
13 that follows through the period at the end and in-  
14 serting the following: “signing the contract, the fol-  
15 lowing requirements are met:

16 “(A) The space is renovated for all energy  
17 efficiency and conservation improvements that  
18 would be cost effective over the life of the lease,  
19 including improvements in lighting, windows,  
20 and heating, ventilation, and air conditioning  
21 systems.

22 “(B)(i) Subject to clause (ii), the space is  
23 benchmarked under a nationally recognized, on-  
24 line, free benchmarking program, with public  
25 disclosure, unless the space is a space for which

1 owners cannot access whole building utility con-  
2 sumption data, including spaces—

3 “(I) that are located in States with  
4 privacy laws that provide that utilities shall  
5 not provide such aggregated information to  
6 multitenant building owners; and

7 “(II) for which tenants do not provide  
8 energy consumption information to the  
9 commercial building owner in response to a  
10 request from the building owner.

11 “(ii) A Federal agency that is a tenant of  
12 the space shall provide to the building owner, or  
13 authorize the owner to obtain from the utility,  
14 the energy consumption information of the  
15 space for the benchmarking and disclosure re-  
16 quired by this subparagraph.”.

17 (b) DEPARTMENT OF ENERGY STUDY.—

18 (1) IN GENERAL.—Not later than 2 years after  
19 the date of enactment of this Act, the Secretary  
20 shall complete a study, with opportunity for public  
21 comment—

22 (A) on the impact of—

23 (i) State and local performance  
24 benchmarking and disclosure policies, and  
25 any associated building efficiency policies,

1 for commercial and multifamily buildings;  
2 and

3 (ii) programs and systems in which  
4 utilities provide aggregated information re-  
5 garding whole building energy consumption  
6 and usage information to owners of multi-  
7 tenant commercial, residential, and mixed-  
8 use buildings;

9 (B) that identifies best practice policy ap-  
10 proaches studied under subparagraph (A) that  
11 have resulted in the greatest improvements in  
12 building energy efficiency; and

13 (C) that considers—

14 (i) compliance rates and the benefits  
15 and costs of the policies and programs on  
16 building owners, utilities, tenants, and  
17 other parties;

18 (ii) utility practices, programs, and  
19 systems that provide aggregated energy  
20 consumption information to multitenant  
21 building owners, and the impact of public  
22 utility commissions and State privacy laws  
23 on those practices, programs, and systems;

24 (iii) exceptions to compliance in exist-  
25 ing laws where building owners are not

1 able to gather or access whole building en-  
2 ergy information from tenants or utilities;  
3 (iv) the treatment of buildings with—  
4 (I) multiple uses;  
5 (II) uses for which baseline infor-  
6 mation is not available; and  
7 (III) uses that require high levels  
8 of energy intensities, such as data  
9 centers, trading floors, and televisions  
10 studios;  
11 (v) implementation practices, includ-  
12 ing disclosure methods and phase-in of  
13 compliance;  
14 (vi) the safety and security of  
15 benchmarking tools offered by government  
16 agencies, and the resiliency of those tools  
17 against cyber attacks; and  
18 (vii) international experiences with re-  
19 gard to building benchmarking and disclo-  
20 sure laws and data aggregation for multi-  
21 tenant buildings.

22 (2) SUBMISSION TO CONGRESS.—At the conclu-  
23 sion of the study, the Secretary shall submit to Con-  
24 gress a report on the results of the study.

25 (c) CREATION AND MAINTENANCE OF DATABASES.—

1           (1) IN GENERAL.—Not later than 18 months  
2 after the date of enactment of this Act and following  
3 opportunity for public notice and comment, the Sec-  
4 retary, in coordination with other relevant agencies  
5 shall, to carry out the purpose described in para-  
6 graph (2)—

7                   (A) assess existing databases; and

8                   (B) as necessary—

9                           (i) modify and maintain existing data-  
10 bases; or

11                           (ii) create and maintain a new data-  
12 base platform.

13           (2) PURPOSE.—The maintenance of existing  
14 databases or creation of a new database platform  
15 under paragraph (1) shall be for the purpose of stor-  
16 ing and making available public energy-related infor-  
17 mation on commercial and multifamily buildings, in-  
18 cluding—

19                   (A) data provided under Federal, State,  
20 local, and other laws or programs regarding  
21 building benchmarking and energy information  
22 disclosure;

23                   (B) buildings that have received energy  
24 ratings and certifications; and

1           (C) energy-related information on buildings  
2           provided voluntarily by the owners of the build-  
3           ings, in an anonymous form, unless the owner  
4           provides otherwise.

5           (d) COMPETITIVE AWARDS.—Based on the results of  
6 the research for the portion of the study described in sub-  
7 section (b)(1)(A)(ii), and with criteria developed following  
8 public notice and comment, the Secretary may make com-  
9 petitive awards to utilities, utility regulators, and utility  
10 partners to develop and implement effective and promising  
11 programs to provide aggregated whole building energy  
12 consumption information to multitenant building owners.

13          (e) INPUT FROM STAKEHOLDERS.—The Secretary  
14 shall seek input from stakeholders to maximize the effec-  
15 tiveness of the actions taken under this section.

16          (f) REPORT.—Not later than 2 years after the date  
17 of enactment of this Act, and every 2 years thereafter,  
18 the Secretary shall submit to Congress a report on the  
19 progress made in complying with this section.

20          (g) AUTHORIZATION OF APPROPRIATIONS.—There is  
21 authorized to be appropriated to carry out subsection (b)  
22 \$2,500,000 for each of fiscal years 2015 through 2019,  
23 to remain available until expended.

1 **TITLE II—INDUSTRIAL EFFI-**  
2 **CIENCY AND COMPETITIVE-**  
3 **NESS**

4 **Subtitle A—Manufacturing Energy**  
5 **Efficiency**

6 **SEC. 201. PURPOSES.**

7 The purposes of this subtitle are—

8 (1) to reform and reorient the industrial effi-  
9 ciency programs of the Department of Energy;

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

13 (3) to accelerate the deployment of technologies  
14 and practices that will increase industrial energy ef-  
15 ficiency and improve productivity;

16 (4) to accelerate the development and dem-  
17 onstration of technologies that will assist the deploy-  
18 ment goals of the industrial efficiency programs of  
19 the Department and increase manufacturing effi-  
20 ciency;

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

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

4 **SEC. 202. FUTURE OF INDUSTRY PROGRAM.**

5           (a) IN GENERAL.—Section 452 of the Energy Inde-  
6           pendence and Security Act of 2007 (42 U.S.C. 17111) is  
7           amended by striking the section heading and inserting the  
8           following: “**FUTURE OF INDUSTRY PROGRAM**”.

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

12                 (1) by redesignating paragraphs (3) through  
13                 (5) as paragraphs (4) through (6), respectively; and  
14                 (2) by inserting after paragraph (2):

15                 “(3) ENERGY SERVICE PROVIDER.—The term  
16                 ‘energy service provider’ means any business pro-  
17                 viding technology or services to improve the energy  
18                 efficiency, water efficiency, power factor, or load  
19                 management of a manufacturing site or other indus-  
20                 trial process in an energy-intensive industry, or any  
21                 utility operating under a utility energy service  
22                 project.”.

23           (c) INDUSTRIAL RESEARCH AND ASSESSMENT CEN-  
24          TERS.—Section 452(e) of the Energy Independence and  
25          Security Act of 2007 (42 U.S.C. 17111(e)) is amended—



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

4           (2) by striking “The Secretary” and inserting  
5           the following:

6           “(1) IN GENERAL.—The Secretary”;

7           (3) in subparagraph (A) (as redesignated by  
8           paragraph (1)), by inserting before the semicolon at  
9           the end the following: “, including assessments of  
10          sustainable manufacturing goals and the implemen-  
11          tation of information technology advancements for  
12          supply chain analysis, logistics, system monitoring,  
13          industrial and manufacturing processes, and other  
14          purposes”; and

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

16          “(2) COORDINATION.—

17                 “(A) IN GENERAL.—To increase the value  
18                 and capabilities of the industrial research and  
19                 assessment centers, the centers shall—

20                         “(i) coordinate with Manufacturing  
21                         Extension Partnership Centers of the Na-  
22                         tional Institute of Standards and Tech-  
23                         nology;

24                         “(ii) coordinate with the Building  
25                         Technologies Office of the Department of

1 Energy to provide building assessment  
2 services to manufacturers;

3 “(iii) increase partnerships with the  
4 National Laboratories of the Department  
5 of Energy to leverage the expertise and  
6 technologies of the National Laboratories  
7 for national industrial and manufacturing  
8 needs;

9 “(iv) increase partnerships with en-  
10 ergy service providers and technology pro-  
11 viders to leverage private sector expertise  
12 and accelerate deployment of new and ex-  
13 isting technologies and processes for en-  
14 ergy efficiency, power factor, and load  
15 management;

16 “(v) identify opportunities for reduc-  
17 ing greenhouse gas emissions; and

18 “(vi) promote sustainable manufac-  
19 turing practices for small- and medium-  
20 sized manufacturers.

21 “(3) OUTREACH.—The Secretary shall provide  
22 funding for—

23 “(A) outreach activities by the industrial  
24 research and assessment centers to inform  
25 small- and medium-sized manufacturers of the

1 information, technologies, and services avail-  
2 able; and

3 “(B) coordination activities by each indus-  
4 trial research and assessment center to leverage  
5 efforts with—

6 “(i) Federal and State efforts;

7 “(ii) the efforts of utilities and energy  
8 service providers;

9 “(iii) the efforts of regional energy ef-  
10 ficiency organizations; and

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

13 “(4) WORKFORCE TRAINING.—

14 “(A) IN GENERAL.—The Secretary shall  
15 pay the Federal share of associated internship  
16 programs under which students work with or  
17 for industries, manufacturers, and energy serv-  
18 ice providers to implement the recommendations  
19 of industrial research and assessment centers.

20 “(B) FEDERAL SHARE.—The Federal  
21 share of the cost of carrying out internship pro-  
22 grams described in subparagraph (A) shall be  
23 50 percent.

24 “(5) SMALL BUSINESS LOANS.—The Adminis-  
25 trator of the Small Business Administration shall, to

1 the maximum extent practicable, expedite consider-  
2 ation of applications from eligible small business  
3 concerns for loans under the Small Business Act (15  
4 U.S.C. 631 et seq.) to implement recommendations  
5 of industrial research and assessment centers estab-  
6 lished under paragraph (1).”.

7 **SEC. 203. SUSTAINABLE MANUFACTURING INITIATIVE.**

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

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

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

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

18 “(2) preventing pollution and minimizing waste;

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

21 “(4) conserving natural resources; and

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

24 “(b) COORDINATION.—The Secretary shall carry out  
25 the initiative in coordination with the private sector and

1 appropriate agencies, including the National Institute of  
2 Standards and Technology, to accelerate adoption of new  
3 and existing technologies and processes that improve en-  
4 ergy efficiency.

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

14       (b) TABLE OF CONTENTS.—The table of contents of  
15 the Energy Policy and Conservation Act (42 U.S.C. prec.  
16 6201) is amended by adding at the end of the items relat-  
17 ing to part E of title III the following:

“Sec. 376. Sustainable manufacturing initiative.”.

18 **SEC. 204. CONFORMING AMENDMENTS.**

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

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

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

1 by striking “sections 2102, 2103, 2104, 2105, 2106,  
2 2107, and 2108” and inserting “sections 2102, 2104,  
3 2105, 2106, and 2108 of this Act and section 376 of the  
4 Energy Policy and Conservation Act,”.

## 5 **Subtitle B—Supply Star**

### 6 **SEC. 211. SUPPLY STAR.**

7 The Energy Policy and Conservation Act is amended  
8 by inserting after section 324A (42 U.S.C. 6294a) the fol-  
9 lowing:

#### 10 **“SEC. 324B. SUPPLY STAR PROGRAM.**

11 “(a) IN GENERAL.—There is established within the  
12 Department of Energy a Supply Star program to identify  
13 and promote practices, recognize companies, and, as ap-  
14 propriate, recognize products that use highly efficient sup-  
15 ply chains in a manner that conserves energy, water, and  
16 other resources.

17 “(b) COORDINATION.—In carrying out the program  
18 described in subsection (a), the Secretary shall—

19 “(1) consult with other appropriate agencies;  
20 and

21 “(2) coordinate efforts with the Energy Star  
22 program established under section 324A.

23 “(c) DUTIES.—In carrying out the Supply Star pro-  
24 gram described in subsection (a), the Secretary shall—

1           “(1) promote practices, recognize companies,  
2           and, as appropriate, recognize products that comply  
3           with the Supply Star program as the preferred prac-  
4           tices, companies, and products in the marketplace  
5           for maximizing supply chain efficiency;

6           “(2) work to enhance industry and public  
7           awareness of the Supply Star program;

8           “(3) collect and disseminate data on supply  
9           chain energy resource consumption;

10          “(4) develop and disseminate metrics, proc-  
11          esses, and analytical tools (including software) for  
12          evaluating supply chain energy resource use;

13          “(5) develop guidance at the sector level for im-  
14          proving supply chain efficiency;

15          “(6) work with domestic and international orga-  
16          nizations to harmonize approaches to analyzing sup-  
17          ply chain efficiency, including the development of a  
18          consistent set of tools, templates, calculators, and  
19          databases; and

20          “(7) work with industry, including small busi-  
21          nesses, to improve supply chain efficiency through  
22          activities that include—

23                  “(A) developing and sharing best practices;

24                  and

1                   “(B) providing opportunities to benchmark  
2                   supply chain efficiency.

3           “(d) EVALUATION.—In any evaluation of supply  
4 chain efficiency carried out by the Secretary with respect  
5 to a specific product, the Secretary shall consider energy  
6 consumption and resource use throughout the entire  
7 lifecycle of a product, including production, transport,  
8 packaging, use, and disposal.

9           “(e) GRANTS AND INCENTIVES.—

10                   “(1) IN GENERAL.—The Secretary may award  
11 grants or other forms of incentives on a competitive  
12 basis to eligible entities, as determined by the Sec-  
13 retary, for the purposes of—

14                           “(A) studying supply chain energy resource  
15 efficiency; and

16                           “(B) demonstrating and achieving reduc-  
17 tions in the energy resource consumption of  
18 commercial products through changes and im-  
19 provements to the production supply and dis-  
20 tribution chain of the products.

21                   “(2) USE OF INFORMATION.—Any information  
22 or data generated as a result of the grants or incen-  
23 tives described in paragraph (1) shall be used to in-  
24 form the development of the Supply Star Program.



1 “(f) TRAINING.—The Secretary shall use funds to  
2 support professional training programs to develop and  
3 communicate methods, practices, and tools for improving  
4 supply chain efficiency.

5 “(g) EFFECT OF OUTSOURCING OF AMERICAN  
6 JOBS.—For purposes of this section, the outsourcing of  
7 American jobs in the production of a product shall not  
8 count as a positive factor in determining supply chain effi-  
9 ciency.

10 “(h) AUTHORIZATION OF APPROPRIATIONS.—There  
11 is authorized to be appropriated to carry out this section  
12 \$10,000,000 for the period of fiscal years 2015 through  
13 2024.”.

## 14 **Subtitle C—Extended Product** 15 **System Rebate Program**

### 16 **SEC. 221. EXTENDED PRODUCT SYSTEM REBATE PROGRAM.**

17 (a) DEFINITIONS.—In this section:

18 (1) ELECTRIC MOTOR.—The term “electric  
19 motor” has the meaning given the term in section  
20 431.12 of title 10, Code of Federal Regulations (as  
21 in effect on the date of enactment of this Act).

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

24 (A) a power converter; or

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

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

7 (A) offers variable speed or multispeed op-  
8 eration;

9 (B) offers partial load control that reduces  
10 input energy requirements (as measured in kilo-  
11 watt-hours) as compared to identified base lev-  
12 els set by the Secretary; and

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

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

16 (4) QUALIFIED EXTENDED PRODUCT SYS-  
17 TEM.—

18 (A) IN GENERAL.—The term “qualified ex-  
19 tended product system” means an extended  
20 product system that—

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

23 (ii) reduces the input energy (as  
24 measured in kilowatt-hours) required to  
25 operate the extended product system by

1 not less than 5 percent, as compared to  
2 identified base levels set by the Secretary.

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

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

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

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

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

21 (c) QUALIFIED ENTITIES.—

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

24 (A) in the case of a qualified extended  
25 product system described in subsection

1 (a)(4)(A), the purchaser of the qualified ex-  
2 tended product that is installed; and

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

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

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

15 (B) a certification that includes dem-  
16 onstrated evidence—

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

18 and

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

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

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

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

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

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

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

22 (d) AUTHORIZED AMOUNT OF REBATE.—

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

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

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

6 (ii) the electronic control; and

7 (B) \$25.

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

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

## 17 **Subtitle D—Transformer Rebate** 18 **Program**

### 19 **SEC. 231. ENERGY EFFICIENT TRANSFORMER REBATE PRO-** 20 **GRAM.**

21 (a) DEFINITIONS.—In this section:

22 (1) QUALIFIED ENERGY EFFICIENT TRANS-  
23 FORMER.—The term “qualified energy efficient  
24 transformer” means a transformer that meets or ex-  
25 ceeds the applicable energy conservation standards

1 described in the tables in subsection (b)(2) and  
2 paragraphs (1) and (2) of subsection (c) of section  
3 431.196 of title 10, Code of Federal Regulations (as  
4 in effect on the date of enactment of this Act).

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

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

17 (B)(i) was manufactured between January  
18 1, 1985, and December 31, 2006, for a trans-  
19 former with an equal number of phases and ca-  
20 pacity as a transformer described in the table  
21 in subsection (b)(2) of section 431.196 of title  
22 10, Code of Federal Regulations (as in effect on  
23 the date of enactment of this Act); or

24 (ii) was manufactured between January 1,  
25 1990, and December 31, 2009, for a trans-

1           former with an equal number of phases and ca-  
2           capacity as a transformer described in the table  
3           in paragraph (1) or (2) of subsection (c) of that  
4           section (as in effect on the date of enactment  
5           of this Act).

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

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

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

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



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

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

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

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

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

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

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

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

1 (A) the qualified energy inefficient trans-  
2 former; and

3 (B) the qualified energy efficient trans-  
4 former; or

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

11 (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
12 authorized to be appropriated to carry out this section  
13 \$5,000,000 for each of fiscal years 2016 and 2017, to re-  
14 main available until expended.

15 (f) TERMINATION OF EFFECTIVENESS.—The author-  
16 ity provided by this section terminates on December 31,  
17 2017.

## 18 **TITLE III—FEDERAL AGENCY**

## 19 **ENERGY EFFICIENCY**

### 20 **SEC. 301. ENERGY-EFFICIENT AND ENERGY-SAVING INFOR-** 21 **MATION TECHNOLOGIES.**

22 Section 543 of the National Energy Conservation  
23 Policy Act (42 U.S.C. 8253) is amended—

1           (1) by redesignating the second subsection (f)  
2           (relating to large capital energy investments) as sub-  
3           section (g); and

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

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

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

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

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

16           “(2) DEVELOPMENT OF IMPLEMENTATION  
17           STRATEGY.—Not later than 1 year after the date of  
18           enactment of this subsection, each Federal agency  
19           shall collaborate with the Director to develop an im-  
20           plementation strategy (including best-practices and  
21           measurement and verification techniques) for the  
22           maintenance, purchase, and use by the Federal  
23           agency of energy-efficient and energy-saving infor-  
24           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 Savings and Industrial  
7           Competitiveness Act of 2015.”.

8 **SEC. 302. 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. 303. 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 Savings and Industrial Com-  
14 petitiveness Act of 2015, shall make available to the public  
15 an update to the report submitted to Congress pursuant  
16 to section 1 of the Act of December 20, 2006 (Public Law  
17 109–431; 120 Stat. 2920), entitled ‘Report to Congress  
18 on Server and Data Center Energy Efficiency’ and dated  
19 August 2, 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           and

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

10          “(f) DATA CENTER ENERGY PRACTITIONER PRO-  
11          GRAM.—

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

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

25          “(g) OPEN DATA INITIATIVE.—

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

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

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

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

22          “(j) PROTECTION OF PROPRIETARY INFORMATION.—  
23 The Secretary and the Administrator shall not disclose  
24 any proprietary information or trade secrets provided by  
25 any individual or company for the purposes of carrying

1 out this section or the programs and initiatives established  
2 under this section.”.

3 **SEC. 304. BUDGET-NEUTRAL DEMONSTRATION PROGRAM**  
4 **FOR ENERGY AND WATER CONSERVATION IM-**  
5 **PROVEMENTS AT MULTIFAMILY RESIDEN-**  
6 **TIAL UNITS.**

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

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

23 (2) the supportive housing for the elderly pro-  
24 gram under section 202 of the Housing Act of 1959  
25 (12 U.S.C. 1701q); or

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

5           (b) REQUIREMENTS.—

6           (1) PAYMENTS CONTINGENT ON SAVINGS.—

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

15          (B) PAYMENT METHODOLOGY.—

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

19                  (I) that will serve as a payment  
20                  threshold for the term of the agree-  
21                  ment; and

22                  (II) pursuant to which the De-  
23                  partment of Housing and Urban De-  
24                  velopment shall share a percentage of  
25                  the savings at a level determined by

1 the Secretary that is sufficient to  
2 cover the administrative costs of car-  
3 rying out this section.

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

7 (I) be contingent on documented  
8 utility savings; and

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

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

18 (i) establishment of a weather-normal-  
19 ized and occupancy-normalized utility con-  
20 sumption baseline established preretrofit;

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

24 (iii) annual third-party validation of  
25 the tenant utility allowances in effect dur-

1           ing the applicable year and vacancy rates  
2           for each unit type; and

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

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

7           (3) ENTITY ELIGIBILITY.—The Secretary  
8           shall—

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

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

14                           (i) financing and operating properties  
15                           receiving assistance under a program de-  
16                           scribed in subsection (a);

17                           (ii) oversight of energy and water con-  
18                           servation programs, including oversight of  
19                           contractors; and

20                           (iii) raising capital for energy and  
21                           water conservation improvements from  
22                           charitable organizations or private inves-  
23                           tors.

24           (4) GEOGRAPHICAL DIVERSITY.—Each agree-  
25           ment entered into under this section shall provide

1 for the inclusion of properties with the greatest fea-  
2 sible regional and State variance.

3 (c) PLAN AND REPORTS.—

4 (1) PLAN.—Not later than 90 days after the  
5 date of enactment of this Act, the Secretary shall  
6 submit to the Committees on Appropriations of the  
7 House of Representatives and the Senate a detailed  
8 plan for the implementation of this section.

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

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

14 (B) submit to Congress a report describing  
15 each evaluation conducted under subparagraph

16 (A).

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



1           **TITLE IV—REGULATORY**  
2                   **PROVISIONS**  
3   **Subtitle   A—Third-Party    Certifi-**  
4           **cation Under Energy Star Pro-**  
5           **gram**

6   **SEC. 401. THIRD-PARTY CERTIFICATION UNDER ENERGY**  
7                   **STAR PROGRAM.**

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

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

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

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

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

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

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

9           “(4) TERMINATION.—

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

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

1                   **Subtitle B—Federal Green**  
2                   **Buildings**

3 **SEC. 411. 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                   **Subtitle C—Water Heaters**

### 2   **SEC. 421. GRID-ENABLED WATER HEATERS.**

3           Part B of title III of the Energy Policy and Conserva-  
4   tion Act is amended—

5                   (1) in section 325(e) (42 U.S.C. 6295(e)), by  
6   adding at the end the following:

7                   “(6) **ADDITIONAL STANDARDS FOR GRID-EN-**  
8   **ABLED WATER HEATERS.—**

9                   “(A) **DEFINITIONS.—**In this paragraph:

10                   “(i) **ACTIVATION LOCK.—**The term  
11                   ‘activation lock’ means a control mecha-  
12                   nism (either a physical device directly on  
13                   the water heater or a control system inte-  
14                   grated into the water heater) that is locked  
15                   by default and contains a physical, soft-  
16                   ware, or digital communication that must  
17                   be activated with an activation key to en-  
18                   able the product to operate at its designed  
19                   specifications and capabilities and without  
20                   which activation the product will provide  
21                   not greater than 50 percent of the rated  
22                   first hour delivery of hot water certified by  
23                   the manufacturer.

24                   “(ii) **GRID-ENABLED WATER HEAT-**  
25                   **ER.—**The term ‘grid-enabled water heater’

1 means an electric resistance water heater  
2 that—

3 “(I) has a rated storage tank vol-  
4 ume of more than 75 gallons;

5 “(II) is manufactured on or after  
6 April 16, 2015;

7 “(III) has—

8 “(aa) an energy factor of  
9 not less than 1.061 minus the  
10 product obtained by multi-  
11 plying—

12 “(AA) the rated storage  
13 volume of the tank, ex-  
14 pressed in gallons; and

15 “(BB) 0.00168; or

16 “(bb) an equivalent alter-  
17 native standard prescribed by the  
18 Secretary and developed pursu-  
19 ant to paragraph (5)(E);

20 “(IV) is equipped at the point of  
21 manufacture with an activation lock;  
22 and

23 “(V) bears a permanent label ap-  
24 plied by the manufacturer that—

1                   “(aa) is made of material  
2 not adversely affected by water;

3                   “(bb) is attached by means  
4 of non-water-soluble adhesive;  
5 and

6                   “(cc) advises purchasers and  
7 end-users of the intended and ap-  
8 propriate use of the product with  
9 the following notice printed in  
10 16.5 point Arial Narrow Bold  
11 font:

12 “‘IMPORTANT INFORMATION: This water heater is  
13 intended only for use as part of an electric thermal storage  
14 or demand response program. It will not provide adequate  
15 hot water unless enrolled in such a program and activated  
16 by your utility company or another program operator.  
17 Confirm the availability of a program in your local area  
18 before purchasing or installing this product.’.

19                   “(B) REQUIREMENT.—The manufacturer  
20 or private labeler shall provide the activation  
21 key for a grid-enabled water heater only to a  
22 utility or other company that operates an elec-  
23 tric thermal storage or demand response pro-  
24 gram that uses such a grid-enabled water heat-  
25 er.

1 “(C) REPORTS.—

2 “(i) MANUFACTURERS.—The Sec-  
3 retary shall require each manufacturer of  
4 grid-enabled water heaters to report to the  
5 Secretary annually the quantity of grid-en-  
6 abled water heaters that the manufacturer  
7 ships each year.

8 “(ii) OPERATORS.—The Secretary  
9 shall require utilities and other demand re-  
10 sponse and thermal storage program oper-  
11 ators to report annually the quantity of  
12 grid-enabled water heaters activated for  
13 their programs using forms of the Energy  
14 Information Agency or using such other  
15 mechanism that the Secretary determines  
16 appropriate after an opportunity for notice  
17 and comment.

18 “(iii) CONFIDENTIALITY REQUIRE-  
19 MENTS.—The Secretary shall treat ship-  
20 ment data reported by manufacturers as  
21 confidential business information.

22 “(D) PUBLICATION OF INFORMATION.—

23 “(i) IN GENERAL.—In 2017 and  
24 2019, the Secretary shall publish an anal-  
25 ysis of the data collected under subpara-



1 graph (C) to assess the extent to which  
2 shipped products are put into use in de-  
3 mand response and thermal storage pro-  
4 grams.

5 “(ii) PREVENTION OF PRODUCT DI-  
6 VERSION.—If the Secretary determines  
7 that sales of grid-enabled water heaters ex-  
8 ceed by 15 percent or greater the quantity  
9 of such products activated for use in de-  
10 mand response and thermal storage pro-  
11 grams annually, the Secretary shall, after  
12 opportunity for notice and comment, estab-  
13 lish procedures to prevent product diver-  
14 sion for non-program purposes.

15 “(E) COMPLIANCE.—

16 “(i) IN GENERAL.—Subparagraphs  
17 (A) through (D) shall remain in effect  
18 until the Secretary determines under this  
19 section that—

20 “(I) grid-enabled water heaters  
21 do not require a separate efficiency  
22 requirement; or

23 “(II) sales of grid-enabled water  
24 heaters exceed by 15 percent or great-  
25 er the quantity of such products acti-

1 vated for use in demand response and  
2 thermal storage programs annually  
3 and procedures to prevent product di-  
4 version for non-program purposes  
5 would not be adequate to prevent such  
6 product diversion.

7 “(ii) EFFECTIVE DATE.—If the Sec-  
8 retary exercises the authority described in  
9 clause (i) or amends the efficiency require-  
10 ment for grid-enabled water heaters, that  
11 action will take effect on the date de-  
12 scribed in subsection (m)(4)(A)(ii).

13 “(iii) CONSIDERATION.—In carrying  
14 out this section with respect to electric  
15 water heaters, the Secretary shall consider  
16 the impact on thermal storage and demand  
17 response programs, including any impact  
18 on energy savings, electric bills, peak load  
19 reduction, electric reliability, integration of  
20 renewable resources, and the environment.

21 “(iv) REQUIREMENTS.—In carrying  
22 out this paragraph, the Secretary shall re-  
23 quire that grid-enabled water heaters be  
24 equipped with communication capability to  
25 enable the grid-enabled water heaters to

1           participate in ancillary services programs if  
2           the Secretary determines that the tech-  
3           nology is available, practical, and cost-ef-  
4           fective.”;

5           (2) in section 332(a) (42 U.S.C. 6302(a))—

6           (A) in paragraph (5), by striking “or” at  
7           the end;

8           (B) in the first paragraph (6), by striking  
9           the period at the end and inserting a semicolon;

10          (C) by redesignating the second paragraph  
11          (6) as paragraph (7);

12          (D) in subparagraph (B) of paragraph (7)  
13          (as so redesignated), by striking the period at  
14          the end and inserting “; or”; and

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

16          “(8) for any person—

17               “(A) to activate an activation lock for a  
18               grid-enabled water heater with knowledge that  
19               such water heater is not used as part of an  
20               electric thermal storage or demand response  
21               program;

22               “(B) to distribute an activation key for a  
23               grid-enabled water heater with knowledge that  
24               such activation key will be used to activate a  
25               grid-enabled water heater that is not used as

1 part of an electric thermal storage or demand  
2 response program;

3 “(C) to otherwise enable a grid-enabled  
4 water heater to operate at its designed speci-  
5 fication and capabilities with knowledge that  
6 such water heater is not used as part of an  
7 electric thermal storage or demand response  
8 program; or

9 “(D) to knowingly remove or render illegi-  
10 ble the label of a grid-enabled water heater de-  
11 scribed in section 325(e)(6)(A)(ii)(V).”;

12 (3) in section 333(a) (42 U.S.C. 6303(a))—

13 (A) by striking “section 332(a)(5)” and in-  
14 serting “paragraph (5), (6), (7), or (8) of sec-  
15 tion 332(a)”;

16 (B) by striking “paragraph (1), (2), or (5)  
17 of section 332(a)” and inserting “paragraph  
18 (1), (2), (5), (6), (7), or (8) of section 332(a)”;

19 and  
20 (4) in section 334 (42 U.S.C. 6304)—

21 (A) by striking “section 332(a)(5)” and in-  
22 serting “paragraph (5), (6), (7), or (8) of sec-  
23 tion 332(a)”;

24 (B) by striking “section 332(a)(6)” and in-  
25 serting “section 332(a)(7)”.

1     **Subtitle D—Energy Performance**  
 2     **Requirement for Federal Buildings**

3     **SEC. 431. ENERGY PERFORMANCE REQUIREMENT FOR FED-**  
 4                     **ERAL BUILDINGS.**

5             Section 543 of the National Energy Conservation  
 6 Policy Act (42 U.S.C. 8253) is amended—

7                     (1) by striking subsection (a) and inserting the  
 8 following:

9             “(a) ENERGY PERFORMANCE REQUIREMENT FOR  
 10 FEDERAL BUILDINGS.—

11                     “(1) REQUIREMENT.—Subject to paragraph  
 12 (2), each agency shall apply energy conservation  
 13 measures to, and shall improve the design for the  
 14 construction of, the Federal buildings of the agency  
 15 (including each industrial or laboratory facility) so  
 16 that the energy consumption per gross square foot  
 17 of the Federal buildings of the agency in fiscal years  
 18 2006 through 2017 is reduced, as compared with the  
 19 energy consumption per gross square foot of the  
 20 Federal buildings of the agency in fiscal year 2003,  
 21 by the percentage specified in the following table:

<b>“Fiscal Year</b>	<b>Percentage Reduction</b>
2006 .....	2
2007 .....	4
2008 .....	9
2009 .....	12
2010 .....	15
2011 .....	18
2012 .....	21

<b>“Fiscal Year</b>	<b>Percentage Reduction</b>
2013 .....	24
2014 .....	27
2015 .....	30
2016 .....	33
2017 .....	36.

1           “(2) EXCLUSION FOR BUILDINGS WITH ENERGY  
2           INTENSIVE ACTIVITIES.—

3           “(A) IN GENERAL.—An agency may ex-  
4           clude from the requirements of paragraph (1)  
5           any building (including the associated energy  
6           consumption and gross square footage) in which  
7           energy intensive activities are carried out.

8           “(B) REPORTS.—Each agency shall iden-  
9           tify and list in each report made under section  
10          548(a) the buildings designated by the agency  
11          for exclusion under subparagraph (A).

12          “(3) REVIEW.—Not later than December 31,  
13          2017, the Secretary shall—

14          “(A) review the results of the implementa-  
15          tion of the energy performance requirements es-  
16          tablished under paragraph (1); and

17          “(B) based on the review conducted under  
18          subparagraph (A), submit to Congress a report  
19          that addresses the feasibility of requiring each  
20          agency to apply energy conservation measures  
21          to, and improve the design for the construction  
22          of, the Federal buildings of the agency (includ-

1 ing each industrial or laboratory facility) so  
2 that the energy consumption per gross square  
3 foot of the Federal buildings of the agency in  
4 each of fiscal years 2018 through 2030 is re-  
5 duced, as compared with the energy consump-  
6 tion per gross square foot of the Federal build-  
7 ings of the agency in the prior fiscal year, by  
8 3 percent.”; and

9 (2) in subsection (f)—

10 (A) in paragraph (1)—

11 (i) by redesignating subparagraphs  
12 (E), (F), and (G) as subparagraphs (F),  
13 (G), and (H), respectively; and

14 (ii) by inserting after subparagraph  
15 (D) the following:

16 “(E) ONGOING COMMISSIONING.—The  
17 term ‘ongoing commissioning’ means an ongo-  
18 ing process of commissioning using monitored  
19 data, the primary goal of which is to ensure  
20 continuous optimum performance of a facility,  
21 in accordance with design or operating needs,  
22 over the useful life of the facility, while meeting  
23 facility occupancy requirements.”;

24 (B) in paragraph (2), by adding at the end  
25 the following:

1           “(C) ENERGY MANAGEMENT SYSTEM.—An  
2 energy manager designated under subparagraph  
3 (A) shall consider use of a system to manage  
4 energy use at the facility and certification of  
5 the facility in accordance with the International  
6 Organization for Standardization standard  
7 numbered 50001 and entitled ‘Energy Manage-  
8 ment Systems.’”;

9           (C) by striking paragraphs (3) and (4) and  
10 inserting the following:

11           “(3) ENERGY AND WATER EVALUATIONS AND  
12 COMMISSIONING.—

13           “(A) EVALUATIONS.—Except as provided  
14 in subparagraph (B), effective beginning on the  
15 date that is 180 days after the date of enact-  
16 ment of the Energy Savings and Industrial  
17 Competitiveness Act of 2015, and annually  
18 thereafter, each energy manager shall complete,  
19 for each calendar year, a comprehensive energy  
20 and water evaluation and recommissioning or  
21 retrocommissioning for approximately 25 per-  
22 cent of the facilities of each agency that meet  
23 the criteria under paragraph (2)(B) in a man-  
24 ner that ensures that an evaluation of each fa-  
25 cility is completed at least once every 4 years.



1           “(B) EXCEPTIONS.—An evaluation and re-  
2           commissioning shall not be required under sub-  
3           paragraph (A) with respect to a facility that—

4                   “(i) has had a comprehensive energy  
5                   and water evaluation during the 8-year pe-  
6                   riod preceding the date of the evaluation;

7                   “(ii)(I) has been commissioned, re-  
8                   commissioned, or retrocommissioned dur-  
9                   ing the 10-year period preceding the date  
10                  of the evaluation; or

11                  “(II) is under ongoing commissioning;

12                  “(iii) has not had a major change in  
13                  function or use since the previous evalua-  
14                  tion and commissioning;

15                  “(iv) has been benchmarked with pub-  
16                  lic disclosure under paragraph (8) within  
17                  the year preceding the evaluation; and

18                  “(v)(I) based on the benchmarking,  
19                  has achieved at a facility level the most re-  
20                  cent cumulative energy savings target  
21                  under subsection (a) compared to the ear-  
22                  lier of—

23                          “(aa) the date of the most recent  
24                          evaluation; or

25                          “(bb) the date—

1                   “(AA) of the most recent  
2                   commissioning, recommissioning,  
3                   or retrocommissioning; or

4                   “(BB) on which ongoing  
5                   commissioning began; or

6                   “(II) has a long-term contract in  
7                   place guaranteeing energy savings at least  
8                   as great as the energy savings target under  
9                   subclause (I).

10                   “(4) IMPLEMENTATION OF IDENTIFIED ENERGY  
11                   AND WATER EFFICIENCY MEASURES.—

12                   “(A) IN GENERAL.—Not later than 2 years  
13                   after the date of completion of each evaluation  
14                   under paragraph (3), each energy manager  
15                   may—

16                   “(i) implement any energy- or water-  
17                   saving measure that the Federal agency  
18                   identified in the evaluation conducted  
19                   under paragraph (3) that is life-cycle cost  
20                   effective; and

21                   “(ii) bundle individual measures of  
22                   varying paybacks together into combined  
23                   projects.

24                   “(B) MEASURES NOT IMPLEMENTED.—

25                   The energy manager shall, as part of the cer-

1           tification system under paragraph (7), explain  
2           the reasons why any life-cycle cost effective  
3           measures were not implemented under subpara-  
4           graph (A) using guidelines developed by the  
5           Secretary.”; and

6                   (D) in paragraph (7)(C), by adding at the  
7           end the following:

8                           “(iii) SUMMARY REPORT.—The Sec-  
9                           retary shall make available a report that  
10                           summarizes the information tracked under  
11                           subparagraph (B)(i) by each agency and,  
12                           as applicable, by each type of measure.”.

13 **SEC. 432. FEDERAL BUILDING ENERGY EFFICIENCY PER-**  
14 **FORMANCE STANDARDS; CERTIFICATION**  
15 **SYSTEM AND LEVEL FOR GREEN BUILDINGS.**

16           (a) DEFINITIONS.—Section 303 of the Energy Con-  
17           servation and Production Act (42 U.S.C. 6832) (as  
18           amended by section 101(a)) is amended—

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

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

23                           “(19) MAJOR RENOVATION.—The term ‘major  
24                           renovation’ means a modification of building energy  
25                           systems sufficiently extensive that the whole building

1 can meet energy standards for new buildings, based  
2 on criteria to be established by the Secretary  
3 through notice and comment rulemaking.”.

4 (b) FEDERAL BUILDING EFFICIENCY STANDARDS.—  
5 Section 305 of the Energy Conservation and Production  
6 Act (42 U.S.C. 6834) is amended—

7 (1) in subsection (a)(3)—

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

11 “(3) REVISED FEDERAL BUILDING ENERGY EF-  
12 FICIENCY PERFORMANCE STANDARDS; CERTIFI-  
13 CATION FOR GREEN BUILDINGS.—

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

17 “(i) IN GENERAL.—Not later than 1  
18 year after the date of enactment of the En-  
19 ergy Savings and Industrial Competitive-  
20 ness Act of 2015, the Secretary shall es-  
21 tablish, by rule, revised Federal building  
22 energy efficiency performance standards  
23 that require that—

1 “(I) new Federal buildings and  
2 alterations and additions to existing  
3 Federal buildings—

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

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

22 “(II) unless demonstrated not to  
23 be life-cycle cost effective for new  
24 Federal buildings and Federal build-  
25 ings with major renovations—

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

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

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

23           “(IV) if life-cycle cost effective,  
24          as compared to other reasonably avail-  
25          able technologies, not less than 30

1 percent of the hot water demand for  
2 each new Federal building or Federal  
3 building undergoing a major renova-  
4 tion be met through the installation  
5 and use of solar hot water heaters.

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

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

19 (B) in subparagraph (C), by striking “(C)  
20 In the budget request” and inserting the fol-  
21 lowing:

22 “(C) BUDGET REQUEST.—In the budget  
23 request”; and

24 (C) by striking subparagraph (D) and in-  
25 serting the following:

1           “(D) CERTIFICATION FOR GREEN BUILD-  
2           INGS.—

3           “(i) SUSTAINABLE DESIGN PRIN-  
4           CIPLES.—Sustainable design principles  
5           shall be applied to the siting, design, and  
6           construction of buildings covered by this  
7           subparagraph.

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

24          “(iii) BASIS FOR SELECTION.—The  
25          determination of the certification systems



1 under clause (ii) shall be based on ongoing  
2 review of the findings of the Federal Direc-  
3 tor under section 436(h) of the Energy  
4 Independence and Security Act of 2007  
5 (42 U.S.C. 17092(h)) and the criteria de-  
6 scribed in clause (v).

7 “(iv) ADMINISTRATION.—In deter-  
8 mining certification systems under this  
9 subparagraph, the Secretary shall—

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

12 “(II) confirm that the criteria  
13 used to support the selection of build-  
14 ing products, materials, brands, and  
15 technologies are fair and neutral  
16 (meaning that such criteria are based  
17 on an objective assessment of relevant  
18 technical data), do not prohibit, dis-  
19 favor, or discriminate against selec-  
20 tion based on technically inadequate  
21 information to inform human or envi-  
22 ronmental risk, and are expressed to  
23 prefer performance measures when-  
24 ever performance measures may rea-

1 sonably be used in lieu of prescriptive  
2 measures; and

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

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

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

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

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

23 “(IV) an evaluation of the  
24 robustness of the criteria for a high-

1 performance green building, which  
2 shall give credit for promoting—

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

6 “(bb) use of renewable en-  
7 ergy sources;

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

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

18 “(V) national recognition within  
19 the building industry.

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

1 building certification systems, taking into  
2 account—

3 “(I) the criteria described in  
4 clause (v); and

5 “(II) the identification made by  
6 the Federal Director under section  
7 436(h) of the Energy Independence  
8 and Security Act of 2007 (42 U.S.C.  
9 17092(h)).

10 “(vii) EXCLUSIONS.—

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

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

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

1                   “(cc) exclude all other por-  
2                   tions of the system from identi-  
3                   fication and use.

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

8                   “(aa) impedes the integrated  
9                   use of the system;

10                  “(bb) creates disparate re-  
11                  view criteria or unequal point ac-  
12                  cess for competing materials; or

13                  “(cc) increases agency costs  
14                  of the use.

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

21                  “(ix) PRIVATIZED MILITARY HOUS-  
22                  ING.—With respect to privatized military  
23                  housing, the Secretary of Defense, after  
24                  consultation with the Secretary may,  
25                  through rulemaking, develop alternative

1 certification systems and levels than the  
2 systems and levels identified under clause  
3 (ii) that achieve an equivalent result in  
4 terms of energy savings, sustainable de-  
5 sign, and green building performance.

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

13 “(xi) EFFECTIVE DATE.—

14 “(I) DETERMINATIONS MADE  
15 AFTER DECEMBER 31, 2015.—The  
16 amendments made by section  
17 432(b)(1)(C) of Energy Savings and  
18 Industrial Competitiveness Act of  
19 2015 shall apply to any determination  
20 made by a Federal agency after De-  
21 cember 31, 2015.

22 “(II) DETERMINATIONS MADE ON  
23 OR BEFORE DECEMBER 31, 2015.—  
24 This subparagraph (as in effect on the  
25 day before the date of enactment of

1 Energy Savings and Industrial Com-  
2 petitiveness Act of 2015) shall apply  
3 to any use of a certification system  
4 for green commercial and residential  
5 buildings by a Federal agency on or  
6 before December 31, 2015.”; and

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

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

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

13 “(2) on completion of a review under paragraph  
14 (1), if the Secretary determines that significant en-  
15 ergy savings would result, upgrade the standards to  
16 include all new energy efficiency and renewable en-  
17 ergy measures that are technologically feasible and  
18 economically justified.”.

19 **SEC. 433. ENHANCED ENERGY EFFICIENCY UNDER-**  
20 **WRITING.**

21 (a) DEFINITIONS.—In this section:

22 (1) COVERED AGENCY.—The term “covered  
23 agency” —

24 (A) means—

1 (i) an executive agency, as that term  
2 is defined in section 102 of title 31, United  
3 States Code; and

4 (ii) any other agency of the Federal  
5 Government; and

6 (B) includes any enterprise, as that term is  
7 defined under section 1303 of the Federal  
8 Housing Enterprises Financial Safety and  
9 Soundness Act of 1992 (12 U.S.C. 4502).

10 (2) COVERED LOAN.—The term “covered loan”  
11 means a loan secured by a home that is issued, in-  
12 sured, purchased, or securitized by a covered agency.

13 (3) HOMEOWNER.—The term “homeowner”  
14 means the mortgagor under a covered loan.

15 (4) MORTGAGEE.—The term “mortgagee”  
16 means—

17 (A) an original lender under a covered loan  
18 or the holder of a covered loan at the time at  
19 which that mortgage transaction is con-  
20 summated;

21 (B) any affiliate, agent, subsidiary, suc-  
22 cessor, or assignee of an original lender under  
23 a covered loan or the holder of a covered loan  
24 at the time at which that mortgage transaction  
25 is consummated;



1 (C) any servicer of a covered loan; and

2 (D) any subsequent purchaser, trustee, or  
3 transferee of any covered loan issued by an  
4 original lender.

5 (5) SECRETARY.—The term “Secretary” means  
6 the Secretary of Housing and Urban Development.

7 (6) SERVICER.—The term “servicer” means the  
8 person or entity responsible for the servicing of a  
9 covered loan, including the person or entity who  
10 makes or holds a covered loan if that person or enti-  
11 ty also services the covered loan.

12 (7) SERVICING.—The term “servicing” has the  
13 meaning given the term in section 6(i) of the Real  
14 Estate Settlement Procedures Act of 1974 (12  
15 U.S.C. 2605(i)).

16 (b) FINDINGS AND PURPOSES.—

17 (1) FINDINGS.—Congress finds that—

18 (A) energy costs for homeowners are a sig-  
19 nificant and increasing portion of their house-  
20 hold budgets;

21 (B) household energy use can vary sub-  
22 stantially depending on the efficiency and char-  
23 acteristics of the house;

24 (C) expected energy cost savings are im-  
25 portant to the value of the house;

1 (D) the current test for loan affordability  
2 used by most covered agencies, commonly  
3 known as the “debt-to-income” test, is inad-  
4 equate because it does not take into account the  
5 expected energy cost savings for the homeowner  
6 of an energy efficient home; and

7 (E) another loan limitation, commonly  
8 known as the “loan-to-value” test, is tied to the  
9 appraisal, which often does not adjust for effi-  
10 ciency features of houses.

11 (2) PURPOSES.—The purposes of this section  
12 are to—

13 (A) improve the accuracy of mortgage un-  
14 derwriting by Federal mortgage agencies by en-  
15 suring that energy cost savings are included in  
16 the underwriting process as described below,  
17 and thus to reduce the amount of energy con-  
18 sumed by homes and to facilitate the creation  
19 of energy efficiency retrofit and construction  
20 jobs;

21 (B) require a covered agency to include the  
22 expected energy cost savings of a homeowner as  
23 a regular expense in the tests, such as the debt-  
24 to-income test, used to determine the ability of

1 the loan applicant to afford the cost of home-  
2 ownership for all loan programs; and

3 (C) require a covered agency to include the  
4 value home buyers place on the energy effi-  
5 ciency of a house in tests used to compare the  
6 mortgage amount to home value, taking pre-  
7 cautions to avoid double-counting and to sup-  
8 port safe and sound lending.

9 (c) ENHANCED ENERGY EFFICIENCY UNDER-  
10 WRITING CRITERIA.—

11 (1) IN GENERAL.—Not later than 1 year after  
12 the date of enactment of this Act, the Secretary  
13 shall, in consultation with the advisory group estab-  
14 lished in subsection (f)(2), develop and issue guide-  
15 lines for a covered agency to implement enhanced  
16 loan eligibility requirements, for use when testing  
17 the ability of a loan applicant to repay a covered  
18 loan, that account for the expected energy cost sav-  
19 ings for a loan applicant at a subject property, in  
20 the manner set forth in paragraphs (2) and (3).

21 (2) REQUIREMENTS TO ACCOUNT FOR ENERGY  
22 COST SAVINGS.—The enhanced loan eligibility re-  
23 quirements under paragraph (1) shall require that,  
24 for all covered loans for which an energy efficiency  
25 report is voluntarily provided to the mortgagee by

1 the mortgagor, the covered agency and the mort-  
2 gagee shall take into consideration the estimated en-  
3 ergy cost savings expected for the owner of the sub-  
4 ject property in determining whether the loan appli-  
5 cant has sufficient income to service the mortgage  
6 debt plus other regular expenses. To the extent that  
7 a covered agency uses a test such as a debt-to-in-  
8 come test that includes certain regular expenses,  
9 such as hazard insurance and property taxes, the ex-  
10 pected energy cost savings shall be included as an  
11 offset to these expenses. Energy costs to be assessed  
12 include the cost of electricity, natural gas, oil, and  
13 any other fuel regularly used to supply energy to the  
14 subject property.

15 (3) DETERMINATION OF ESTIMATED ENERGY  
16 COST SAVINGS.—

17 (A) IN GENERAL.—The guidelines to be  
18 issued under paragraph (1) shall include in-  
19 structions for the covered agency to calculate  
20 estimated energy cost savings using—

- 21 (i) the energy efficiency report;
- 22 (ii) an estimate of baseline average  
23 energy costs; and
- 24 (iii) additional sources of information  
25 as determined by the Secretary.

1 (B) REPORT REQUIREMENTS.—For the  
2 purposes of subparagraph (A), an energy effi-  
3 ciency report shall—

4 (i) estimate the expected energy cost  
5 savings specific to the subject property,  
6 based on specific information about the  
7 property;

8 (ii) be prepared in accordance with  
9 the guidelines to be issued under para-  
10 graph (1); and

11 (iii) be prepared—

12 (I) in accordance with the Resi-  
13 dential Energy Service Network’s  
14 Home Energy Rating System (com-  
15 monly known as “HERS”) by an indi-  
16 vidual certified by the Residential En-  
17 ergy Service Network, unless the Sec-  
18 retary finds that the use of HERS  
19 does not further the purposes of this  
20 section; or

21 (II) by other methods approved  
22 by the Secretary, in consultation with  
23 the Secretary of Energy and the advi-  
24 sory group established in subsection  
25 (f)(2), for use under this section,

1                   which shall include a third-party qual-  
2                   ity assurance procedure.

3                   (C) USE BY APPRAISER.—If an energy ef-  
4                   ficiency report is used under paragraph (2), the  
5                   energy efficiency report shall be provided to the  
6                   appraiser to estimate the energy efficiency of  
7                   the subject property and for potential adjust-  
8                   ments for energy efficiency.

9                   (4) REQUIRED DISCLOSURE TO CONSUMER FOR  
10                  A HOME WITH AN ENERGY EFFICIENCY REPORT.—  
11                  If an energy efficiency report is used under para-  
12                  graph (2), the guidelines to be issued under para-  
13                  graph (1) shall require the mortgagee to—

14                         (A) inform the loan applicant of the ex-  
15                         pected energy costs as estimated in the energy  
16                         efficiency report, in a manner and at a time as  
17                         prescribed by the Secretary, and if practicable,  
18                         in the documents delivered at the time of loan  
19                         application; and

20                         (B) include the energy efficiency report in  
21                         the documentation for the loan provided to the  
22                         borrower.

23                   (5) REQUIRED DISCLOSURE TO CONSUMER FOR  
24                  A HOME WITHOUT AN ENERGY EFFICIENCY RE-  
25                  PORT.—If an energy efficiency report is not used

1 under paragraph (2), the guidelines to be issued  
2 under paragraph (1) shall require the mortgagee to  
3 inform the loan applicant in a manner and at a time  
4 as prescribed by the Secretary, and if practicable, in  
5 the documents delivered at the time of loan applica-  
6 tion of—

7 (A) typical energy cost savings that would  
8 be possible from a cost-effective energy upgrade  
9 of a home of the size and in the region of the  
10 subject property;

11 (B) the impact the typical energy cost sav-  
12 ings would have on monthly ownership costs of  
13 a typical home;

14 (C) the impact on the size of a mortgage  
15 that could be obtained if the typical energy cost  
16 savings were reflected in an energy efficiency  
17 report; and

18 (D) resources for improving the energy ef-  
19 ficiency of a home.

20 (6) PRICING OF LOANS.—

21 (A) IN GENERAL.—A covered agency may  
22 price covered loans originated under the en-  
23 hanced loan eligibility requirements required  
24 under this section in accordance with the esti-  
25 mated risk of the loans.

1 (B) IMPOSITION OF CERTAIN MATERIAL  
2 COSTS, IMPEDIMENTS, OR PENALTIES.—In the  
3 absence of a publicly disclosed analysis that  
4 demonstrates significant additional default risk  
5 or prepayment risk associated with the loans, a  
6 covered agency shall not impose material costs,  
7 impediments, or penalties on covered loans  
8 merely because the loan uses an energy effi-  
9 ciency report or the enhanced loan eligibility re-  
10 quirements required under this section.

11 (7) LIMITATIONS.—

12 (A) IN GENERAL.—A covered agency may  
13 price covered loans originated under the en-  
14 hanced loan eligibility requirements required  
15 under this section in accordance with the esti-  
16 mated risk of those loans.

17 (B) PROHIBITED ACTIONS.—A covered  
18 agency shall not—

19 (i) modify existing underwriting cri-  
20 teria or adopt new underwriting criteria  
21 that intentionally negate or reduce the im-  
22 pact of the requirements or resulting bene-  
23 fits that are set forth or otherwise derived  
24 from the enhanced loan eligibility require-  
25 ments required under this subsection; or



1 (ii) impose greater buy back require-  
2 ments, credit overlays, or insurance re-  
3 quirements, including private mortgage in-  
4 surance, on covered loans merely because  
5 the loan uses an energy efficiency report or  
6 the enhanced loan eligibility requirements  
7 required under this subsection.

8 (8) APPLICABILITY AND IMPLEMENTATION  
9 DATE.—Not later than 3 years after the date of en-  
10 actment of this Act, and before December 31, 2017,  
11 the enhanced loan eligibility requirements required  
12 under this subsection shall be implemented by each  
13 covered agency to—

14 (A) apply to any covered loan for the sale,  
15 or refinancing of any loan for the sale, of any  
16 home;

17 (B) be available on any residential real  
18 property (including individual units of con-  
19 dominiums and cooperatives) that qualifies for  
20 a covered loan; and

21 (C) provide prospective mortgagees with  
22 sufficient guidance and applicable tools to im-  
23 plement the required underwriting methods.

24 (d) ENHANCED ENERGY EFFICIENCY UNDER-  
25 WRITING VALUATION GUIDELINES.—

1           (1) IN GENERAL.—Not later than 1 year after  
2 the date of enactment of this Act, the Secretary  
3 shall—

4           (A) in consultation with the Federal Fi-  
5 nancial Institutions Examination Council and  
6 the advisory group established in subsection  
7 (f)(2), develop and issue guidelines for a cov-  
8 ered agency to determine the maximum per-  
9 mitted loan amount based on the value of the  
10 property for all covered loans made on prop-  
11 erties with an energy efficiency report that  
12 meets the requirements of subsection (c)(3)(B);  
13 and

14           (B) in consultation with the Secretary of  
15 Energy, issue guidelines for a covered agency to  
16 determine the estimated energy savings under  
17 paragraph (3) for properties with an energy ef-  
18 ficiency report.

19           (2) REQUIREMENTS.—The enhanced energy ef-  
20 ficiency underwriting valuation guidelines required  
21 under paragraph (1) shall include—

22           (A) a requirement that if an energy effi-  
23 ciency report that meets the requirements of  
24 subsection (c)(3)(B) is voluntarily provided to  
25 the mortgagee, such report shall be used by the

1 mortgagee or covered agency to determine the  
2 estimated energy savings of the subject prop-  
3 erty; and

4 (B) a requirement that the estimated en-  
5 ergy savings of the subject property be added to  
6 the appraised value of the subject property by  
7 a mortgagee or covered agency for the purpose  
8 of determining the loan-to-value ratio of the  
9 subject property, unless the appraisal includes  
10 the value of the overall energy efficiency of the  
11 subject property, using methods to be estab-  
12 lished under the guidelines issued under para-  
13 graph (1).

14 (3) DETERMINATION OF ESTIMATED ENERGY  
15 SAVINGS.—

16 (A) AMOUNT OF ENERGY SAVINGS.—The  
17 amount of estimated energy savings shall be de-  
18 termined by calculating the difference between  
19 the estimated energy costs for the average com-  
20 parable houses, as determined in guidelines to  
21 be issued under paragraph (1), and the esti-  
22 mated energy costs for the subject property  
23 based upon the energy efficiency report.

24 (B) DURATION OF ENERGY SAVINGS.—The  
25 duration of the estimated energy savings shall

1 be based upon the estimated life of the applica-  
2 ble equipment, consistent with the rating sys-  
3 tem used to produce the energy efficiency re-  
4 port.

5 (C) PRESENT VALUE OF ENERGY SAV-  
6 INGS.—The present value of the future savings  
7 shall be discounted using the average interest  
8 rate on conventional 30-year mortgages, in the  
9 manner directed by guidelines issued under  
10 paragraph (1).

11 (4) ENSURING CONSIDERATION OF ENERGY EF-  
12 FICIENT FEATURES.—Section 1110 of the Financial  
13 Institutions Reform, Recovery, and Enforcement Act  
14 of 1989 (12 U.S.C. 3339) is amended—

15 (A) in paragraph (2), by striking “; and”  
16 and inserting a semicolon; and

17 (B) in paragraph (3), by striking the pe-  
18 riod at the end and inserting “; and” and in-  
19 serting after paragraph (3) the following:

20 “(4) that State certified and licensed appraisers  
21 have timely access, whenever practicable, to informa-  
22 tion from the property owner and the lender that  
23 may be relevant in developing an opinion of value re-  
24 garding the energy- and water-saving improvements  
25 or features of a property, such as—

- 1           “(A) labels or ratings of buildings;
- 2           “(B) installed appliances, measures, sys-
- 3           tems or technologies;
- 4           “(C) blueprints;
- 5           “(D) construction costs;
- 6           “(E) financial or other incentives regard-
- 7           ing energy- and water-efficient components and
- 8           systems installed in a property;
- 9           “(F) utility bills;
- 10          “(G) energy consumption and
- 11          benchmarking data; and
- 12          “(H) third-party verifications or represen-
- 13          tations of energy and water efficiency perform-
- 14          ance of a property, observing all financial pri-
- 15          vacy requirements adhered to by certified and
- 16          licensed appraisers, including section 501 of the
- 17          Gramm-Leach-Bliley Act (15 U.S.C. 6801).

18          Unless a property owner consents to a lender, an ap-

19          praiser, in carrying out the requirements of para-

20          graph (4), shall not have access to the commercial

21          or financial information of the owner that is privi-

22          leged or confidential.”.

23               (5) TRANSACTIONS REQUIRING STATE CER-

24          TIFIED APPRAISERS.—Section 1113 of the Financial

1 Institutions Reform, Recovery, and Enforcement Act  
2 of 1989 (12 U.S.C. 3342) is amended—

3 (A) in paragraph (1), by inserting before  
4 the semicolon the following: “, or any real prop-  
5 erty on which the appraiser makes adjustments  
6 using an energy efficiency report”; and

7 (B) in paragraph (2), by inserting after  
8 “atypical” the following: “, or an appraisal on  
9 which the appraiser makes adjustments using  
10 an energy efficiency report.”.

11 (6) PROTECTIONS.—

12 (A) AUTHORITY TO IMPOSE LIMITA-  
13 TIONS.—The guidelines to be issued under  
14 paragraph (1) shall include such limitations and  
15 conditions as determined by the Secretary to be  
16 necessary to protect against meaningful under  
17 or over valuation of energy cost savings or du-  
18 plicative counting of energy efficiency features  
19 or energy cost savings in the valuation of any  
20 subject property that is used to determine a  
21 loan amount.

22 (B) ADDITIONAL AUTHORITY.—At the end  
23 of the 7-year period following the implementa-  
24 tion of enhanced eligibility and underwriting  
25 valuation requirements under this section, the

1 Secretary may modify or apply additional ex-  
2 ceptions to the approach described in paragraph  
3 (2), where the Secretary finds that the  
4 unadjusted appraisal will reflect an accurate  
5 market value of the efficiency of the subject  
6 property or that a modified approach will better  
7 reflect an accurate market value.

8 (7) APPLICABILITY AND IMPLEMENTATION  
9 DATE.—Not later than 3 years after the date of en-  
10 actment of this Act, and before December 31, 2017,  
11 each covered agency shall implement the guidelines  
12 required under this subsection, which shall—

13 (A) apply to any covered loan for the sale,  
14 or refinancing of any loan for the sale, of any  
15 home; and

16 (B) be available on any residential real  
17 property, including individual units of con-  
18 dominiums and cooperatives, that qualifies for a  
19 covered loan.

20 (e) MONITORING.—Not later than 1 year after the  
21 date on which the enhanced eligibility and underwriting  
22 valuation requirements are implemented under this sec-  
23 tion, and every year thereafter, each covered agency with  
24 relevant activity shall issue and make available to the pub-  
25 lic a report that—

1           (1) enumerates the number of covered loans of  
2           the agency for which there was an energy efficiency  
3           report, and that used energy efficiency appraisal  
4           guidelines and enhanced loan eligibility require-  
5           ments;

6           (2) includes the default rates and rates of fore-  
7           closures for each category of loans; and

8           (3) describes the risk premium, if any, that the  
9           agency has priced into covered loans for which there  
10          was an energy efficiency report.

11         (f) RULEMAKING.—

12           (1) IN GENERAL.—The Secretary shall pre-  
13           scribe regulations to carry out this section, in con-  
14           sultation with the Secretary of Energy and the advi-  
15           sory group established in paragraph (2), which may  
16           contain such classifications, differentiations, or other  
17           provisions, and may provide for such proper imple-  
18           mentation and appropriate treatment of different  
19           types of transactions, as the Secretary determines  
20           are necessary or proper to effectuate the purposes of  
21           this section, to prevent circumvention or evasion  
22           thereof, or to facilitate compliance therewith.

23           (2) ADVISORY GROUP.—To assist in carrying  
24           out this section, the Secretary shall establish an ad-



1       visory group, consisting of individuals representing  
2       the interests of—

3               (A) mortgage lenders;

4               (B) appraisers;

5               (C) energy raters and residential energy  
6       consumption experts;

7               (D) energy efficiency organizations;

8               (E) real estate agents;

9               (F) home builders and remodelers;

10              (G) State energy officials; and

11              (H) others as determined by the Secretary.

12       (g) ADDITIONAL STUDY.—

13              (1) IN GENERAL.—Not later than 18 months  
14       after the date of enactment of this Act, the Sec-  
15       retary shall reconvene the advisory group established  
16       in subsection (f)(2), in addition to water and loca-  
17       tional efficiency experts, to advise the Secretary on  
18       the implementation of the enhanced energy efficiency  
19       underwriting criteria established in subsections (c)  
20       and (d).

21              (2) RECOMMENDATIONS.—The advisory group  
22       established in subsection (f)(2) shall provide rec-  
23       ommendations to the Secretary on any revisions or  
24       additions to the enhanced energy efficiency under-  
25       writing criteria deemed necessary by the group,

1 which may include alternate methods to better ac-  
2 count for home energy costs and additional factors  
3 to account for substantial and regular costs of home-  
4 ownership such as location-based transportation  
5 costs and water costs. The Secretary shall forward  
6 any legislative recommendations from the advisory  
7 group to Congress for its consideration.

8 **Subtitle E—Voluntary Verification**  
9 **Programs for Air Conditioning,**  
10 **Furnace, Boiler, Heat Pump,**  
11 **and Water Heater Products**

12 **SEC. 441. VOLUNTARY VERIFICATION PROGRAMS FOR AIR**  
13 **CONDITIONING, FURNACE, BOILER, HEAT**  
14 **PUMP, AND WATER HEATER PRODUCTS.**

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

18 “(6) VOLUNTARY VERIFICATION PROGRAMS FOR  
19 AIR CONDITIONING, FURNACE, BOILER, HEAT PUMP,  
20 AND WATER HEATER PRODUCTS.—

21 “(A) RELIANCE ON VOLUNTARY PRO-  
22 GRAMS.—For the purpose of verifying compli-  
23 ance with energy conservation standards and  
24 Energy Star specifications established under  
25 sections 324A, 325, and 342 for covered prod-

1           ucts described in paragraphs (3), (4), (5), (9),  
2           and (11) of section 322(a) and covered equip-  
3           ment described in subparagraphs (B), (C), (D),  
4           (F), (I), (J), and (K) of section 340(1), the  
5           Secretary and the Administrator of the Envi-  
6           ronmental Protection Agency shall rely on vol-  
7           untary verification programs that are recog-  
8           nized by the Secretary in accordance with sub-  
9           paragraph (B).

10           “(B)    RECOGNITION    OF    VOLUNTARY  
11           VERIFICATION PROGRAMS.—

12                   “(i) IN GENERAL.—Not later than  
13                   180 days after the date of enactment of  
14                   this paragraph, the Secretary and the Ad-  
15                   ministrator of the Environmental Protec-  
16                   tion Agency shall initiate a negotiated rule-  
17                   making in accordance with subchapter III  
18                   of chapter 5 of title 5, United States Code  
19                   (commonly known as the ‘Negotiated Rule-  
20                   making Act of 1990’) to develop criteria  
21                   that have consensus support for achieving  
22                   recognition by the Secretary as an ap-  
23                   proved voluntary verification program.

24                   “(ii) MINIMUM REQUIREMENTS.—The  
25                   criteria developed under clause (i) shall, at

1 a minimum, ensure that the voluntary  
2 verification program—

3 “(I) is nationally recognized;

4 “(II) 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 “(III) at least annually tests  
16 products following the test procedures  
17 established under this title to verify  
18 the certified rating of a representative  
19 sample of products and equipment  
20 within the scope of the program;

21 “(IV) maintains a publicly avail-  
22 able list of all certified products and  
23 equipment and their certified ratings;

24 “(V) requires the changing of the  
25 performance rating or removal of the

1 product or equipment from the pro-  
2 gram if testing determines that the  
3 performance rating does not meet the  
4 levels the manufacturer has certified  
5 to the Secretary;

6 “(VI) requires the qualification  
7 of new participants in the program  
8 through testing and production of test  
9 reports;

10 “(VII) allows for challenge test-  
11 ing of products and equipment within  
12 the scope of the program;

13 “(VIII) requires program partici-  
14 pants to certify the performance rat-  
15 ing of all covered products and equip-  
16 ment within the scope of the program  
17 for the covered product or equipment;

18 “(IX) provides to the Secretary—

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

1           “(bb) prompt notification  
2 when program testing results  
3 in—

4                   “(AA) the rerating of  
5 the performance rating of a  
6 product or equipment; or

7                   “(BB) the delisting of a  
8 product or equipment; and

9                   “(cc) test reports, on the re-  
10 quest of the Secretary or the Ad-  
11 ministrator of the Environmental  
12 Protection Agency, that note any  
13 instructions specified by the man-  
14 ufacturer or the representative of  
15 the manufacturer for the purpose  
16 of conducting the verification  
17 testing, to be exempted from dis-  
18 closure under section 552(b)(4)  
19 of title 5, United States Code  
20 (commonly known as the ‘Free-  
21 dom of Information Act’); and

22                   “(X) satisfies any additional re-  
23 quirements or standards that the Sec-  
24 retary and Administrator of the Envi-  
25 ronmental Protection Agency shall es-

1 tablish consistent with this subpara-  
2 graph.

3 “(iii) REVISION OF CRITERIA.—

4 “(I) IN GENERAL.—The Sec-  
5 retary and the Administrator of the  
6 Environmental Protection Agency may  
7 revise the criteria established under  
8 clause (ii) by initiating—

9 “(aa) a notice of proposed  
10 rulemaking in accordance with  
11 section 553(b) of title 5, United  
12 States Code, on publication of a  
13 determination in the Federal  
14 Register that revisions to the cri-  
15 teria are necessary; or

16 “(bb) a direct final rule in  
17 accordance with section  
18 553(b)(3)(B) of title 5, United  
19 States Code, on publication of a  
20 determination in the Federal  
21 Register that revisions to the cri-  
22 teria are necessary and that sub-  
23 stantive opposition to the pro-  
24 posed revisions is not expected.

1 “(II) EFFECT OF DIRECT FINAL  
2 RULE.—

3 “(aa) FULL FORCE AND EF-  
4 FECT.—If the Secretary does not  
5 receive adversarial comments  
6 during the 30-day period fol-  
7 lowing publication of the deter-  
8 mination in the Federal Register  
9 under subclause (I)(bb), the di-  
10 rect final rule shall have full  
11 force and effect.

12 “(bb) WITHDRAWAL.—If the  
13 Secretary receives adversarial  
14 comments during the 30-day pe-  
15 riod following publication of the  
16 determination in the Federal  
17 Register under subclause (I)(bb),  
18 the Secretary shall withdraw the  
19 direct final rule and publish a no-  
20 tice of proposed rulemaking in  
21 accordance with subclause  
22 (I)(aa).

23 “(C) ADMINISTRATION.—



1           “(i) IN GENERAL.—The Secretary and  
2 the Administrator of the Environmental  
3 Protection Agency shall not require—

4                   “(I) manufacturers to participate  
5 in a voluntary verification program  
6 described in subparagraph (A); or

7                   “(II) participating manufacturers  
8 to provide information that can be ob-  
9 tained through a voluntary  
10 verification program described in sub-  
11 paragraph (A).

12           “(ii) LIST OF COVERED PRODUCTS.—  
13 The Secretary or the Administrator of the  
14 Environmental Protection Agency may  
15 maintain a publicly available list of covered  
16 products and equipment certified under  
17 this section that distinguishes between—

18                   “(I) covered products and equip-  
19 ment certified by a voluntary  
20 verification program described in sub-  
21 paragraph (A); and

22                   “(II) products not certified by a  
23 voluntary verification program de-  
24 scribed in subparagraph (A).

1                   “(iii) PERIODIC VERIFICATION TEST-  
2                   ING.—The Secretary—

3                   “(I) shall not subject products or  
4                   equipment that are certified under a  
5                   voluntary verification program de-  
6                   scribed in subparagraph (A) to peri-  
7                   odic verification testing that verifies  
8                   the accuracy of the certified perform-  
9                   ance rating of the products or equip-  
10                  ment; but

11                  “(II) may test products or equip-  
12                  ment described in subclause (I) if the  
13                  testing is necessary—

14                  “(aa) to assess the overall  
15                  performance of a voluntary  
16                  verification program;

17                  “(bb) to address specific  
18                  performance issues;

19                  “(cc) to determine other per-  
20                  formance characteristics for use  
21                  in updating test procedures and  
22                  standards; or

23                  “(dd) for other purposes  
24                  consistent with this title.

1           “(D) EFFECT ON OTHER AUTHORITY.—  
2           Nothing in this paragraph limits the authority  
3           of the Secretary or the Administrator of the  
4           Environmental Protection Agency to enforce  
5           compliance with any law.”.

## 6           **TITLE V—MISCELLANEOUS**

### 7           **SEC. 501. BUDGETARY EFFECTS.**

8           The budgetary effects of this Act, for the purpose of  
9           complying with the Statutory Pay-As-You-Go Act of 2010,  
10          shall be determined by reference to the latest statement  
11          titled “Budgetary Effects of PAYGO Legislation” for this  
12          Act, submitted for printing in the Congressional Record  
13          by the Chairman of the Senate Budget Committee, pro-  
14          vided that such statement has been submitted prior to the  
15          vote on passage.

### 16          **SEC. 502. ADVANCE APPROPRIATIONS REQUIRED.**

17          The authorization of amounts under this Act and the  
18          amendments made by this Act shall be effective for any  
19          fiscal year only to the extent and in the amount provided  
20          in advance in appropriations Acts.

○