

113TH CONGRESS  
2D SESSION

**S.** \_\_\_\_\_

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

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IN THE SENATE OF THE UNITED STATES

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Mrs. SHAHEEN (for herself and Mr. PORTMAN) introduced the following bill; which was read twice and referred to the Committee on

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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 2014”.

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

## 2

## 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—Electric Motor Rebate Program

Sec. 221. Energy saving motor control, electric motor, and advanced motor systems 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—Third Party Testing

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

TITLE V—MISCELLANEOUS

Sec. 501. Offset.

Sec. 502. Budgetary effects.

Sec. 503. 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  
15 building energy code and standards developed and

1 updated through a consensus process among inter-  
2 ested persons, such as the IECC or the code used  
3 by—

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

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

9 “(C) other appropriate organizations.”;

10 and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

16                   “(C) building demonstrations;

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

21                   “(E) performance-based standards;

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

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

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

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

16           “(d) DETERMINATION.—

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

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

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

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

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

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

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

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

24           “(B) INCORPORATION OF CHANGES.—

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

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

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

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

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

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

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

## 4 **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           Tribal Colleges or Universities, and local offices of  
8           the National Institute of Food and Agriculture and  
9           ensure appropriate services are provided under this  
10          section to each region of the United States.

11          (b) COORDINATION AND NONDUPLICATION.—

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

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

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

23          **SEC. 112. CAREER SKILLS TRAINING.**

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

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

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

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

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

## 19 **Subtitle C—School Buildings**

### 20 **SEC. 121. COORDINATION OF ENERGY RETROFITTING AS-** 21 **SISTANCE FOR SCHOOLS.**

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

24 (1) an elementary school or secondary school  
25 (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 Web site with contact information for rel-  
9 evant technical assistance and support staff in the  
10 Office of Energy Efficiency and Renewable Energy  
11 for States, local educational agencies, and schools to  
12 effectively 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 eligible for Tenant Star recognition  
6           based on the data collected under subsection (c)  
7           and any other appropriate data sources; and

9           “(C) consider other forms of recognition  
10          for commercial building tenants or other occupants that lower energy consumption in separate  
11          spaces.  
12          rate 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.”.  
19          separate spaces.”.  
20          separate spaces.”.  
21          separate spaces.”.  
22          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:

15 “signing the contract, the following requirements are  
16 met:

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

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

1 disclosure, unless the space is a space for which  
2 owners cannot access whole building utility con-  
3 sumption data, including spaces—

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

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

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

18 (b) DEPARTMENT OF ENERGY STUDY.—

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

23 (A) on the impact of—

24 (i) State and local performance  
25 benchmarking and disclosure policies, and

1 any associated building efficiency policies,  
2 for commercial and multifamily buildings;  
3 and

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

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

14 (C) that considers—

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

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

1 (iii) exceptions to compliance in exist-  
2 ing laws where building owners are not  
3 able to gather or access whole building en-  
4 ergy information from tenants or utilities;

5 (iv) the treatment of buildings with—  
6 (I) multiple uses;  
7 (II) uses for which baseline infor-  
8 mation is not available; and  
9 (III) uses that require high levels  
10 of energy intensities, such as data  
11 centers, trading floors, and television  
12 studios;

13 (v) implementation practices, includ-  
14 ing disclosure methods and phase-in of  
15 compliance;

16 (vi) the safety and security of  
17 benchmarking tools offered by government  
18 agencies, and the resiliency of those tools  
19 against cyber-attacks; and

20 (vii) international experiences with re-  
21 gard to building benchmarking and dislo-  
22 sure laws and data aggregation for multi-  
23 tenant buildings.

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

4           (c) CREATION AND MAINTENANCE OF DATABASES.—

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

11                   (A) assess existing databases; and

12                   (B) as necessary—

13                           (i) modify and maintain existing data-  
14                           bases; or

15                           (ii) create and maintain a new data-  
16                           base platform.

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

23                   (A) data provided under Federal, State,  
24                   local, and other laws or programs regarding

1 building benchmarking and energy information  
2 disclosure;

3 (B) buildings that have received energy  
4 ratings and certifications; and

5 (C) energy-related information on buildings  
6 provided voluntarily by the owners of the build-  
7 ings, in an anonymous form, unless the owner  
8 provides otherwise.

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

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

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

24 (g) AUTHORIZATION OF APPROPRIATIONS.—There is  
25 authorized to be appropriated to carry out subsection (b)

1 \$2,500,000 for each of fiscal years 2014 through 2018,  
2 to remain available until expended.

3 **TITLE II—INDUSTRIAL EFFI-**  
4 **CIENCY AND COMPETITIVE-**  
5 **NESS**

6 **Subtitle A—Manufacturing Energy**  
7 **Efficiency**

8 **SEC. 201. PURPOSES.**

9 The purposes of this subtitle are—

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

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

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

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

23 (5) to stimulate domestic economic growth and  
24 improve industrial productivity and competitiveness;  
25 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, power factor, or load management of a  
19                 manufacturing site or other industrial process in an  
20                 energy-intensive industry, or any utility operating  
21                 under a utility energy service project.”.

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





1 of 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 “(6) **ADVANCED MANUFACTURING STEERING**  
8 **COMMITTEE.**—The Secretary shall establish an advi-  
9 sory steering committee to provide recommendations  
10 to the Secretary on planning and implementation of  
11 the Advanced Manufacturing Office of the Depart-  
12 ment of Energy.”

13 **SEC. 203. SUSTAINABLE MANUFACTURING INITIATIVE.**

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

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

18 “(a) **IN GENERAL.**—As part of the Office of Energy  
19 Efficiency and Renewable Energy, the Secretary, on the  
20 request of a manufacturer, shall conduct onsite technical  
21 assessments to identify opportunities for—

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

24 “(2) preventing pollution and minimizing waste;

1           “(3) improving efficient use of water in manu-  
2           facturing processes;

3           “(4) conserving natural resources; and

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

6           “(b) COORDINATION.—The Secretary shall carry out  
7           the initiative in coordination with the private sector and  
8           appropriate agencies, including the National Institute of  
9           Standards and Technology, to accelerate adoption of new  
10          and existing technologies and processes that improve en-  
11          ergy efficiency.

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

21          (b) TABLE OF CONTENTS.—The table of contents of  
22          the Energy Policy and Conservation Act (42 U.S.C. prec.  
23          6201) is amended by adding at the end of the items relat-  
24          ing to part E of title III the following:

“Sec. 376. Sustainable manufacturing initiative.”.

1 **SEC. 204. CONFORMING AMENDMENTS.**

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

4 (b) Sections 131, 132, 133, 2103, and 2107 of the  
5 Energy Policy Act of 1992 (42 U.S.C. 6348, 6349, 6350,  
6 13453, 13456) are repealed.

7 (c) Section 2101(a) of the Energy Policy Act of 1992  
8 (42 U.S.C. 13451(a)) is amended in the third sentence  
9 by striking “sections 2102, 2103, 2104, 2105, 2106,  
10 2107, and 2108” and inserting “sections 2102, 2104,  
11 2105, 2106, and 2108 of this Act and section 376 of the  
12 Energy Policy and Conservation Act,”.

13 **Subtitle B—Supply Star**

14 **SEC. 211. SUPPLY STAR.**

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

18 **“SEC. 324B. SUPPLY STAR PROGRAM.**

19 “(a) IN GENERAL.—There is established within the  
20 Department of Energy a Supply Star program to identify  
21 and promote practices, recognize companies, and, as ap-  
22 propriate, recognize products that use highly efficient sup-  
23 ply chains in a manner that conserves energy, water, and  
24 other resources.

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

1           “(1) consult with other appropriate agencies;  
2           and

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

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

7           “(1) promote practices, recognize companies,  
8           and, as appropriate, recognize products that comply  
9           with the Supply Star program as the preferred prac-  
10          tices, companies, and products in the marketplace  
11          for maximizing supply chain efficiency;

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

14          “(3) collect and disseminate data on supply  
15          chain energy resource consumption;

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

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

21          “(6) work with domestic and international orga-  
22          nizations to harmonize approaches to analyzing sup-  
23          ply chain efficiency, including the development of a  
24          consistent set of tools, templates, calculators, and  
25          databases; and

1           “(7) work with industry, including small busi-  
2           nesses, to improve supply chain efficiency through  
3           activities that include—

4                   “(A) developing and sharing best practices;  
5           and

6                   “(B) providing opportunities to benchmark  
7           supply chain efficiency.

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

14          “(e) GRANTS AND INCENTIVES.—

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

19                           “(A) studying supply chain energy resource  
20                   efficiency; and

21                           “(B) demonstrating and achieving reduc-  
22                   tions in the energy resource consumption of  
23                   commercial products through changes and im-  
24                   provements to the production supply and dis-  
25                   tribution chain of the products.





1 an electric motor and any required associated elec-  
2 tronic control that—

3 (A) offers variable or multiple speed oper-  
4 ation;

5 (B) offers efficiency at a rated full load  
6 that is greater than the efficiency described for  
7 the equivalent rating in—

8 (i) table 12–12 of National Electrical  
9 Manufactures Association (NEMA MG 1–  
10 2011); or

11 (ii) section 431.446 of National Elec-  
12 trical Manufactures Association (2012);  
13 and

14 (C) uses—

15 (i) permanent magnet alternating cur-  
16 rent synchronous motor technology;

17 (ii) electronically commutated motor  
18 technology;

19 (iii) switched reluctance motor tech-  
20 nology;

21 (iv) synchronous reluctance motor  
22 technology; or

23 (v) such other motor that has greater  
24 than 1 horsepower and uses a drive sys-

1                   tems technology, as determined by the Sec-  
2                   retary.

3                   (2) ELECTRIC MOTOR.—The term “electric  
4                   motor” has the meaning given the term in section  
5                   431.12 of title 10, Code of Federal Regulations (as  
6                   in effect on the date of enactment of this Act).

7                   (3) QUALIFIED PRODUCT.—The term “qualified  
8                   product” means—

9                   (A) a new constant speed electric motor  
10                  control that—

11                   (i) is attached to an electric motor;

12                   and

13                   (ii) reduces the energy use of the elec-  
14                  tric motor by not less than 5 percent; and

15                   (B) commercial or industrial machinery or  
16                  equipment that—

17                   (i) is manufactured and incorporates  
18                  an advanced motor and drive system that  
19                  has greater than 1 horsepower into a rede-  
20                  signed machine or equipment that did not  
21                  previously make use of the advanced motor  
22                  and drive system; or

23                   (ii) was previously used and placed  
24                  back into service in calendar year 2014 or  
25                  2015 that upgrades the existing machine

1                   or equipment with an advanced motor and  
2                   drive system.

3           (b) ESTABLISHMENT.—Not later than 90 days after  
4 the date of enactment of this Act, the Secretary shall es-  
5 tablish a program to provide rebates for expenditures  
6 made by qualified entities for the purchase and installa-  
7 tion of qualified products.

8           (c) QUALIFIED ENTITIES.—A qualified entity under  
9 this section shall be—

10           (1) in the case of a qualified product described  
11 in subsection (a)(3)(A), the purchaser of the quali-  
12 fied product for whom the qualified product is in-  
13 stalled; and

14           (2) in the case of a qualified product described  
15 in subsection (a)(3)(B)), the manufacturer of the  
16 machine or equipment that incorporated the ad-  
17 vanced motor and drive system into the machine or  
18 equipment.

19           (d) REQUIREMENTS.—

20           (1) APPLICATION.—To be eligible to receive a  
21 rebate under this section, a qualified entity shall  
22 submit to the Secretary or an entity designated by  
23 the Secretary an application and certification in  
24 such form, at such time, and containing such infor-  
25 mation as the Secretary may require, including dem-

1       onstrated evidence that the qualified entity pur-  
2       chased a qualified product and—

3               (A) in the case of a qualified product de-  
4       scribed in subsection (a)(3)(A)—

5                   (i) demonstrated evidence that the  
6       qualified entity installed the qualified prod-  
7       uct in calendar year 2014 or 2015;

8                   (ii) demonstrated evidence that the  
9       qualified product reduces motor energy use  
10      by not less than 5 percent, in accordance  
11      with procedures approved by the Secretary;  
12      and

13                  (iii) the serial number, manufacturer,  
14      and model number from the nameplate of  
15      the installed motor of the qualified entity  
16      on which the qualified product was in-  
17      stalled; and

18               (B) in the case of a qualified product de-  
19      scribed in subsection (a)(3)(B)—

20                   (i) demonstrated evidence that the  
21      manufacturer—

22                   (I) redesigned a machine or  
23      equipment of a manufacturer that did  
24      not previously make use of an ad-  
25      vanced motor and drive system; or

1 (II) upgraded a used machine or  
2 equipment to incorporate an advanced  
3 motor and drive system;

4 (ii) demonstrated evidence that the  
5 qualified product was sold, installed, or  
6 placed back into service in calendar year  
7 2014 or 2015; and

8 (iii) the serial number, manufacturer,  
9 and model number from the nameplate of  
10 the installed motor of the qualified entity  
11 with which the advanced motor and drive  
12 system is integrated.

13 (2) AUTHORIZED AMOUNT OF REBATE.—The  
14 Secretary may provide to a qualified entity that has  
15 satisfied the requirements of paragraph (1) a rebate  
16 the amount of which shall be equal to the product  
17 obtained by multiplying—

18 (A) the nameplate rated horsepower of—

19 (i) the electric motor to which the new  
20 constant speed electric motor control is at-  
21 tached;

22 (ii) the new electric motor that re-  
23 placed a previously installed electric motor;

24 or

1 (iii) the advanced electric motor con-  
2 trol system; and

3 (B) \$25.

4 (3) MAXIMUM AGGREGATE AMOUNT.—No entity  
5 shall be entitled to aggregate rebates under this sec-  
6 tion in excess of \$250,000.

7 (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
8 authorized to be appropriated to carry out this section  
9 \$5,000,000 for each of fiscal years 2014 and 2015, to re-  
10 main available until expended.

## 11 **Subtitle D—Transformer Rebate** 12 **Program**

### 13 **SEC. 231. ENERGY EFFICIENT TRANSFORMER REBATE PRO-** 14 **GRAM.**

15 (a) DEFINITION OF QUALIFIED TRANSFORMER.—In  
16 this section, the term “qualified transformer” means a  
17 transformer that meets or exceeds the National Electrical  
18 Manufacturers Association (NEMA) Premium Efficiency  
19 designation, calculated to 2 decimal points, as having 30  
20 percent fewer losses than the NEMA TP–1–2002 effi-  
21 ciency standard for a transformer of the same number of  
22 phases and capacity, as measured in kilovolt-amperes.

23 (b) ESTABLISHMENT.—Not later than January 1,  
24 2014, the Secretary shall establish a program under which  
25 rebates are provided for expenditures made by owners of

1 industrial or manufacturing facilities, commercial build-  
2 ings, and multifamily residential buildings for the pur-  
3 chase and installation of a new energy efficient trans-  
4 formers.

5 (c) REQUIREMENTS.—

6 (1) APPLICATION.—To be eligible to receive a  
7 rebate under this section, an owner shall submit to  
8 the Secretary an application in such form, at such  
9 time, and containing such information as the Sec-  
10 retary may require, including demonstrated evidence  
11 that the owner purchased a qualified transformer.

12 (2) AUTHORIZED AMOUNT OF REBATE.—For  
13 qualified transformers, rebates, in dollars per kilo-  
14 volt-ampere (referred to in this paragraph as  
15 “kVA”) shall be—

16 (A) for 3-phase transformers—

17 (i) with a capacity of not greater than  
18 10 kVA, 15;

19 (ii) with a capacity of not less than 10  
20 kVA and not greater than 100 kVA, the  
21 difference between 15 and the quotient ob-  
22 tained by dividing—

23 (I) the difference between—

24 (aa) the capacity of the  
25 transformer in kVA; and



1 (bb) 10; by  
2 (II) 9; and  
3 (iii) with a capacity greater than or  
4 equal to 100 kVA, 5; and  
5 (B) for single-phase transformers, 75 per-  
6 cent of the rebate for a 3-phase transformer of  
7 the same capacity.

8 (d) AUTHORIZATION OF APPROPRIATIONS.—There is  
9 authorized to be appropriated to carry out this section  
10 \$5,000,000 for each of fiscal years 2014 and 2015, to re-  
11 main available until expended.

12 (e) TERMINATION OF EFFECTIVENESS.—The author-  
13 ity provided by this section terminates effective December  
14 31, 2015.

15 **TITLE III—FEDERAL AGENCY**  
16 **ENERGY EFFICIENCY**

17 **SEC. 301. ENERGY-EFFICIENT AND ENERGY-SAVING INFOR-**  
18 **MATION TECHNOLOGIES.**

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

21 (1) by redesignating the second subsection (f)  
22 (relating to large capital energy investments) as sub-  
23 section (g); and  
24 (2) by adding at the end the following:

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

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

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

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

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

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

24               “(A) advanced metering infrastructure;

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

4           “(C) advanced power management tools;

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

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

9           “(4) PERFORMANCE GOALS.—

10           “(A) IN GENERAL.—Not later than Sep-  
11           tember 30, 2014, the Director, in consultation  
12           with the Secretary, shall establish performance  
13           goals for evaluating the efforts of Federal agen-  
14           cies in improving the maintenance, purchase,  
15           and use of energy-efficient and energy-saving  
16           information technology systems.

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

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

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

5                   “(5) REPORTS.—

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

13                  “(B) OMB GOVERNMENT EFFICIENCY RE-  
14                  PORTS AND SCORECARDS.—Effective beginning  
15                  not later than October 1, 2014, the Director  
16                  shall include in the annual report and scorecard  
17                  of the Director required under section 528 of  
18                  the Energy Independence and Security Act of  
19                  2007 (42 U.S.C. 17144) a description of the ef-  
20                  forts and results of Federal agencies under this  
21                  subsection.

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

1           porting structures in use as of the date of en-  
2           actment of the Energy Savings and Industrial  
3           Competitiveness Act of 2014.”.

4 **SEC. 302. AVAILABILITY OF FUNDS FOR DESIGN UPDATES.**

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

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

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

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

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

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

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

5 **SEC. 303. ENERGY EFFICIENT DATA CENTERS.**

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

8 (1) in subsection (c), by striking paragraph (1)  
9 and inserting the following:

10 “(1) IN GENERAL.—Not later than 30 days  
11 after the date of enactment of the Energy Savings  
12 and Industrial Competitiveness Act of 2014, the  
13 Secretary and the Administrator shall—

14 “(A) designate an established information  
15 technology industry organization to coordinate  
16 the program described in subsection (b); and

17 “(B) make the designation public, includ-  
18 ing on an appropriate website.”;

19 (2) by striking subsections (e) and (f) and in-  
20 serting the following:

21 “(e) STUDY.—The Secretary, with assistance from  
22 the Administrator, shall—

23 “(1) not later than December 31, 2014, make  
24 available to the public an update to the Report to  
25 Congress on Server and Data Center Energy Effi-

1       ciency published on August 2, 2007, under section  
2       1 of Public Law 109–431 (120 Stat. 2920), that  
3       provides—

4               “(A) a comparison and gap analysis of the  
5       estimates and projections contained in the origi-  
6       nal report with new data regarding the period  
7       from 2007 through 2013;

8               “(B) an analysis considering the impact of  
9       information technologies, to include  
10      virtualization and cloud computing, in the pub-  
11      lic and private sectors; and

12              “(C) updated projections and recommenda-  
13      tions for best practices through fiscal year  
14      2020; and

15              “(2) collaborate with the organization des-  
16      ignated under subsection (c) in preparing the report.

17      “(f) DATA CENTER ENERGY PRACTITIONER PRO-  
18      GRAM.—

19              “(1) IN GENERAL.—The Secretary, in collabo-  
20      ration with the organization designated under sub-  
21      section (c) and in consultation with the Adminis-  
22      trator for the Office of E-Government and Informa-  
23      tion Technology within the Office of Management  
24      and Budget, shall maintain a data center energy  
25      practitioner program that leads to the certification

1 of energy practitioners qualified to evaluate the en-  
2 ergy usage and efficiency opportunities in data cen-  
3 ters.

4 “(2) EVALUATIONS.—Each Federal agency  
5 shall consider having the data centers of the agency  
6 evaluated every 4 years by energy practitioners cer-  
7 tified pursuant to the program, whenever practicable  
8 using certified practitioners employed by the agen-  
9 cy.”;

10 (3) by redesignating subsection (g) as sub-  
11 section (j); and

12 (4) by inserting after subsection (f) the fol-  
13 lowing:

14 “(g) OPEN DATA INITIATIVE.—

15 “(1) IN GENERAL.—The Secretary, in collabo-  
16 ration with the organization designated under sub-  
17 section (e) and in consultation with the Adminis-  
18 trator for the Office of E-Government and Informa-  
19 tion Technology within the Office of Management  
20 and Budget, shall establish an open data initiative  
21 for Federal data center energy usage data, with the  
22 purpose of making the data available and accessible  
23 in a manner that empowers further data center opti-  
24 mization and consolidation.



1           “(2) ADMINISTRATION.—In establishing the ini-  
2           tiative, the Secretary shall consider use of the online  
3           Data Center Maturity Model.

4           “(h) INTERNATIONAL SPECIFICATIONS AND  
5 METRICS.—The Secretary, in collaboration with the orga-  
6 nization designated under subsection (c), shall actively  
7 participate in efforts to harmonize global specifications  
8 and metrics for data center energy efficiency.

9           “(i) DATA CENTER UTILIZATION METRIC.—The Sec-  
10 retary, in collaboration with the organization designated  
11 under subsection (c), shall assist in the development of  
12 an efficiency metric that measures the energy efficiency  
13 of the overall data center.”.

14 **SEC. 304. BUDGET-NEUTRAL DEMONSTRATION PROGRAM**  
15                           **FOR ENERGY AND WATER CONSERVATION IM-**  
16                           **PROVEMENTS AT MULTIFAMILY RESIDEN-**  
17                           **TIAL UNITS.**

18           (a) ESTABLISHMENT.—The Secretary of Housing  
19 and Urban Development (referred to in this section as the  
20 “Secretary”) shall establish a demonstration program  
21 under which, during the period beginning on the date of  
22 enactment of this Act, and ending on September 30, 2017,  
23 the Secretary may enter into budget-neutral, performance-  
24 based agreements that result in a reduction in energy or  
25 water costs with such entities as the Secretary determines

1 to be appropriate under which the entities shall carry out  
2 projects for energy or water conservation improvements at  
3 not more than 20,000 residential units in multifamily  
4 buildings participating in—

5 (1) the project-based rental assistance program  
6 under section 8 of the United States Housing Act of  
7 1937 (42 U.S.C. 1437f), other than assistance pro-  
8 vided under section 8(o) of that Act;

9 (2) the supportive housing for the elderly pro-  
10 gram under section 202 of the Housing Act of 1959  
11 (12 U.S.C. 1701q); or

12 (3) the supportive housing for persons with dis-  
13 abilities program under section 811(d)(2) of the  
14 Cranston-Gonzalez National Affordable Housing Act  
15 (42 U.S.C. 8013(d)(2)).

16 (b) REQUIREMENTS.—

17 (1) PAYMENTS CONTINGENT ON SAVINGS.—

18 (A) IN GENERAL.—The Secretary shall  
19 provide to an entity a payment under an agree-  
20 ment under this section only during applicable  
21 years for which an energy or water cost savings  
22 is achieved with respect to the applicable multi-  
23 family portfolio of properties, as determined by  
24 the Secretary, in accordance with subparagraph  
25 (B).

1 (B) PAYMENT METHODOLOGY.—

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

5 (I) that will serve as a payment  
6 threshold for the term of the agree-  
7 ment; and

8 (II) pursuant to which the De-  
9 partment of Housing and Urban De-  
10 velopment shall share a percentage of  
11 the savings at a level determined by  
12 the Secretary that is sufficient to  
13 cover the administrative costs of car-  
14 rying out this section.

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

18 (I) be contingent on documented  
19 utility savings; and

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

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

5 (i) establishment of a weather-normal-  
6 ized and occupancy-normalized utility con-  
7 sumption baseline established preretrofit;

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

11 (iii) annual third party validation of  
12 the tenant utility allowances in effect dur-  
13 ing the applicable year and vacancy rates  
14 for each unit type; and

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

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

19 (3) ENTITY ELIGIBILITY.—The Secretary  
20 shall—

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

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

1 (i) financing and operating properties  
2 receiving assistance under a program de-  
3 scribed in subsection (a);

4 (ii) oversight of energy and water con-  
5 servation programs, including oversight of  
6 contractors; and

7 (iii) raising capital for energy and  
8 water conservation improvements from  
9 charitable organizations or private inves-  
10 tors.

11 (4) GEOGRAPHICAL DIVERSITY.—Each agree-  
12 ment entered into under this section shall provide  
13 for the inclusion of properties with the greatest fea-  
14 sible regional and State variance.

15 (c) PLAN AND REPORTS.—

16 (1) PLAN.—Not later than 90 days after the  
17 date of enactment of this Act, the Secretary shall  
18 submit to the Committees on Appropriations of the  
19 House of Representatives and the Senate a detailed  
20 plan for the implementation of this section.

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

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

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

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

9 **TITLE IV—REGULATORY**  
10 **PROVISIONS**  
11 **Subtitle A—Third-party Certifi-**  
12 **cation Under Energy Star Pro-**  
13 **gram**

14 **SEC. 401. THIRD-PARTY CERTIFICATION UNDER ENERGY**  
15 **STAR PROGRAM.**

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

19 “(e) THIRD-PARTY CERTIFICATION.—

20 “(1) IN GENERAL.—Subject to paragraph (2),  
21 not later than 180 days after the date of enactment  
22 of this subsection, the Administrator shall revise the  
23 certification requirements for the labeling of con-  
24 sumer, home, and office electronic products for pro-  
25 gram partners that have complied with all require-

1       ments of the Energy Star program for a period of  
2       at least 18 months.

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

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

8                       “(B) may require that test data and other  
9       product information be submitted to facilitate  
10      product listing and performance verification for  
11      a sample of products.

12               “(3) THIRD PARTIES.—Nothing in this sub-  
13      section prevents the Administrator from using third  
14      parties in the course of the administration of the  
15      Energy Star program.

16               “(4) TERMINATION.—

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

24                       “(B) RESUMPTION.—A termination for a  
25      program partner under subparagraph (A) shall

1           cease if the program partner complies with all  
2           Energy Star program requirements for a period  
3           of at least 3 years.”.

## 4           **Subtitle B—Federal Green** 5           **Buildings**

### 6   **SEC. 411. HIGH-PERFORMANCE GREEN FEDERAL BUILD-** 7           **INGS.**

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

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

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

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

23           (3) in paragraph (2)—



1 (A) in the matter preceding subparagraph  
2 (A), by striking “system” and inserting “sys-  
3 tems”;

4 (B) by striking subparagraph (A) and in-  
5 serting the following:

6 “(A) an ongoing review provided to the  
7 Secretary pursuant to section 305(a)(3)(D) of  
8 the Energy Conservation and Production Act  
9 (42 U.S.C. 6834(a)(3)(D)), which shall—

10 “(i) be carried out by the Federal Di-  
11 rector to compare and evaluate standards;  
12 and

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

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

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

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

22 “(G) a finding that, for all credits address-  
23 ing grown, harvested, or mined materials, the  
24 system does not discriminate against the use of

1 domestic products that have obtained certifi-  
2 cations of responsible sourcing; and

3 “(H) a finding that the system incor-  
4 porates life-cycle assessment as a credit path-  
5 way.”.

## 6 **Subtitle C—Water Heaters**

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

8 Part B of title III of the Energy Policy and Conserva-  
9 tion Act (42 U.S.C. 6291 et seq.) is amended—

10 (1) in section 325(e), by adding at the end the  
11 following:

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

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

15 “(i) **ACTIVATION KEY.—**The term ‘ac-  
16 tivation key’ means a physical device or  
17 control directly on the water heater, a soft-  
18 ware code, or a digital communication  
19 means—

20 “(I) that must be activated to en-  
21 able the product to operate continu-  
22 ously and at its designed specifica-  
23 tions and capabilities; and

24 “(II) without which activation  
25 the product will provide not greater

1 than 50 percent of the rated first  
2 hour delivery of hot water certified by  
3 the manufacturer.

4 “(ii) GRID-ENABLED WATER HEAT-  
5 ER.—The term ‘grid-enabled water heater’  
6 means an electric resistance water heat-  
7 er—

8 “(I) with a rated storage tank  
9 volume of more than 75 gallons;

10 “(II) manufactured on or after  
11 April 16, 2015;

12 “(III) that has—

13 “(aa) an energy factor of  
14 not less than 1.061 minus the  
15 product obtained by multi-  
16 plying—

17 “(AA) the rated storage  
18 volume of the tank, ex-  
19 pressed in gallons; and

20 “(BB) 0.00168; or

21 “(bb) an efficiency level  
22 equivalent to the energy factor  
23 under item (aa) and expressed as  
24 a uniform energy descriptor  
25 based on the revised test proce-

1                   dure for water heaters described  
2                   in paragraph (5);

3                   “(IV) equipped by the manufac-  
4                   turer with an activation key; and

5                   “(V) that bears a permanent  
6                   label applied by the manufacturer  
7                   that—

8                   “(aa) is made of material  
9                   not adversely affected by water;

10                  “(bb) is attached by means  
11                  of non-water-soluble adhesive;  
12                  and

13                  “(cc) advises purchasers and  
14                  end-users of the intended and ap-  
15                  propriate use of the product with  
16                  the following notice printed in  
17                  16.5 point Arial Narrow Bold  
18                  font:

19    “‘IMPORTANT INFORMATION: This water heater is  
20    intended only for use as part of an electric thermal storage  
21    or demand response program. It will not provide adequate  
22    hot water unless enrolled in such a program and activated  
23    by your utility company or another program operator.  
24    Confirm the availability of a program in your local area  
25    before purchasing or installing this product.’.

1           “(B) REQUIREMENT.—The manufacturer  
2 or private labeler shall provide the activation  
3 key only to utilities or other companies oper-  
4 ating electric thermal storage or demand re-  
5 sponse programs that use grid-enabled water  
6 heaters.

7           “(C) REPORTS.—

8           “(i) MANUFACTURERS.—The Sec-  
9 retary shall require each manufacturer of  
10 grid-enabled water heaters to report to the  
11 Secretary annually the number of grid-en-  
12 abled water heaters that the manufacturer  
13 ships each year.

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

24           “(iii) CONFIDENTIALITY REQUIRE-  
25 MENTS.—The Secretary shall treat ship-

1           ment data reported by manufacturers as  
2           confidential business information.

3           “(D) PUBLICATION OF INFORMATION.—

4                   “(i) IN GENERAL.—In 2017 and  
5           2019, the Secretary shall publish an anal-  
6           ysis of the data collected under subpara-  
7           graph (C) to assess the extent to which  
8           shipped products are put into use in de-  
9           mand response and thermal storage pro-  
10          grams.

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

21          “(E) COMPLIANCE.—

22                   “(i) IN GENERAL.—Subparagraphs  
23          (A) through (D) shall remain in effect  
24          until the Secretary determines under this  
25          section that grid-enabled water heaters do

1 not require a separate efficiency require-  
2 ment.

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

9 “(iii) CONSIDERATION.—In carrying  
10 out this section with respect to electric  
11 water heaters, the Secretary shall consider  
12 the impact on thermal storage and demand  
13 response programs, including the con-  
14 sequent impact on energy savings, electric  
15 bills, electric reliability, integration of re-  
16 newable resources, and the environment.

17 “(iv) REQUIREMENTS.—In carrying  
18 out this subparagraph, the Secretary shall  
19 require that grid-enabled water heaters be  
20 equipped with communication capability to  
21 enable the grid-enabled water heaters to  
22 participate in ancillary services programs if  
23 the Secretary determines that the tech-  
24 nology is available, practical, and cost-ef-  
25 fective.”; and

1 (2) in section 332—

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

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

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

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

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

12 “(8) with respect to grid-enabled water heaters  
13 that are not used as part of an electric thermal stor-  
14 age or demand response program, for any person  
15 knowingly and repeatedly—

16 “(A) to distribute activation keys for those  
17 grid-enabled water heaters;

18 “(B) otherwise to enable the full operation  
19 of those grid-enabled water heaters; or

20 “(C) to remove or render illegible the la-  
21 bels of those grid-enabled water heaters.”.



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 2014, 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 2014, 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 2014; 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;

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 and

7 “(V) in addition to complying  
8 with the other requirements under  
9 this paragraph, unless found not to be  
10 life-cycle cost effective, new Federal  
11 buildings that are at least 5,000  
12 square feet in size shall comply with  
13 the Guiding Principles for Sustainable  
14 New Construction and Major Renova-  
15 tions (as established in the document  
16 entitled High Performance and Sus-  
17 tainable Buildings Guidance (Final)  
18 and dated December 1, 2008).

19 “(ii) LIMITATION.—Clause (i)(I) shall  
20 not apply to unaltered portions of existing  
21 Federal buildings and systems that have  
22 been added to or altered.

23 “(B) UPDATES.—Not later than 1 year  
24 after the date of approval of each subsequent  
25 revision of the ASHRAE Standard or the Inter-

1 national Energy Conservation Code, as appro-  
2 priate, the Secretary shall determine whether  
3 the revised standards established under sub-  
4 paragraph (A) should be updated to reflect the  
5 revisions, based on the energy savings and life-  
6 cycle cost-effectiveness of the revisions.”;

7 (B) in subparagraph (C), by striking “(C)  
8 In the budget request” and inserting the fol-  
9 lowing:

10 “(C) BUDGET REQUEST.—In the budget  
11 request”; and

12 (C) by striking subparagraph (D) and in-  
13 serting the following:

14 “(D) CERTIFICATION FOR GREEN BUILD-  
15 INGS.—

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

21 “(ii) SELECTION OF CERTIFICATION  
22 SYSTEMS.—The Secretary, after reviewing  
23 the findings of the Federal Director under  
24 section 436(h) of the Energy Independence  
25 and Security Act of 2007 (42 U.S.C.

1 17092(h)), in consultation with the Admin-  
2 istrator of General Services, and in con-  
3 sultation with the Secretary of Defense re-  
4 lating to those facilities under the custody  
5 and control of the Department of Defense,  
6 shall determine those certification systems  
7 for green commercial and residential build-  
8 ings that the Secretary determines to be  
9 the most likely to encourage a comprehen-  
10 sive and environmentally sound approach  
11 to certification of green buildings.

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

20 “(iv) ADMINISTRATION.—In deter-  
21 mining certification systems under this  
22 subparagraph, the Secretary shall—

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

1                   “(II) confirm that the criteria  
2                   used to support the selection of build-  
3                   ing products, materials, brands, and  
4                   technologies are fair and neutral  
5                   (meaning that such criteria are based  
6                   on an objective assessment of relevant  
7                   technical data), do not prohibit, dis-  
8                   favor, or discriminate against selec-  
9                   tion based on technically inadequate  
10                  information to inform human or envi-  
11                  ronmental risk, and are expressed to  
12                  prefer performance measures when-  
13                  ever performance measures may rea-  
14                  sonably be used in lieu of prescriptive  
15                  measures; and

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

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

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

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

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

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

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

19                   “(bb) use of renewable en-  
20 ergy sources;

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

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

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

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

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

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

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

22 “(vii) EXCLUSIONS.—

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



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

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

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

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

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

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

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

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

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

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

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

24                   “(xi) EFFECTIVE DATE.—

1                   “(I) DETERMINATIONS MADE  
2 AFTER DECEMBER 31, 2015.—The  
3 amendments made by section  
4 432(b)(1)(C) of the Energy Savings  
5 and Industrial Competitiveness Act of  
6 2014 shall apply to any determination  
7 made by a Federal agency after De-  
8 cember 31, 2015.

9                   “(II) DETERMINATIONS MADE ON  
10 OR BEFORE DECEMBER 31, 2015.—  
11 This subparagraph (as in effect on the  
12 day before the date of enactment of  
13 the Energy Savings and Industrial  
14 Competitiveness Act of 2014) shall  
15 apply to any use of a certification sys-  
16 tem for green commercial and residen-  
17 tial buildings by a Federal agency on  
18 or before December 31, 2015.”; and

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

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

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

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

7 **SEC. 433. ENHANCED ENERGY EFFICIENCY UNDER-**  
8 **WRITING.**

9           (a) **DEFINITIONS.**—In this section:

10           (1) **COVERED AGENCY.**—The term “covered  
11           agency”—

12                   (A) means—

13                           (i) an executive agency, as that term  
14                           is defined in section 102 of title 31, United  
15                           States Code; and

16                           (ii) any other agency of the Federal  
17                           Government; and

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

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

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

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

5                 (A) an original lender under a covered loan  
6 or the holder of a covered loan at the time at  
7 which that mortgage transaction is con-  
8 summated;

9                 (B) any affiliate, agent, subsidiary, suc-  
10 cessor, or assignee of an original lender under  
11 a covered loan or the holder of a covered loan  
12 at the time at which that mortgage transaction  
13 is consummated;

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

15                 (D) any subsequent purchaser, trustee, or  
16 transferee of any covered loan issued by an  
17 original lender.

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

20           (6) SERVICER.—The term “servicer” means the  
21 person or entity responsible for the servicing of a  
22 covered loan, including the person or entity who  
23 makes or holds a covered loan if that person or enti-  
24 ty also services the covered loan.

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

5 (b) FINDINGS AND PURPOSES.—

6           (1) FINDINGS.—Congress finds that—

7                   (A) energy costs for homeowners are a sig-  
8 nificant and increasing portion of their house-  
9 hold budgets;

10                   (B) household energy use can vary sub-  
11 stantially depending on the efficiency and char-  
12 acteristics of the house;

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

15                   (D) the current test for loan affordability  
16 used by most covered agencies, commonly  
17 known as the “debt-to-income” test, is inad-  
18 equate because it does not take into account the  
19 expected energy cost savings for the homeowner  
20 of an energy efficient home; and

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

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

3                   (A) improve the accuracy of mortgage un-  
4       derwriting by Federal mortgage agencies by en-  
5       suring that energy cost savings are included in  
6       the underwriting process as described below,  
7       and thus to reduce the amount of energy con-  
8       sumed by homes and to facilitate the creation  
9       of energy efficiency retrofit and construction  
10      jobs;

11                   (B) require a covered agency to include the  
12      expected energy cost savings of a homeowner as  
13      a regular expense in the tests, such as the debt-  
14      to-income test, used to determine the ability of  
15      the loan applicant to afford the cost of home-  
16      ownership for all loan programs; and

17                   (C) require a covered agency to include the  
18      value home buyers place on the energy effi-  
19      ciency of a house in tests used to compare the  
20      mortgage amount to home value, taking pre-  
21      cautions to avoid double-counting and to sup-  
22      port safe and sound lending.

23      (c) ENHANCED ENERGY EFFICIENCY UNDER-  
24      WRITING CRITERIA.—

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

11          (2) REQUIREMENTS TO ACCOUNT FOR ENERGY  
12          COST SAVINGS.—The enhanced loan eligibility re-  
13          quirements under paragraph (1) shall require that,  
14          for all covered loans for which an energy efficiency  
15          report is voluntarily provided to the mortgagee by  
16          the mortgagor, the covered agency and the mort-  
17          gagee shall take into consideration the estimated en-  
18          ergy cost savings expected for the owner of the sub-  
19          ject property in determining whether the loan appli-  
20          cant has sufficient income to service the mortgage  
21          debt plus other regular expenses. To the extent that  
22          a covered agency uses a test such as a debt-to-in-  
23          come test that includes certain regular expenses,  
24          such as hazard insurance and property taxes, the ex-  
25          pected energy cost savings shall be included as an



1 offset to these expenses. Energy costs to be assessed  
2 include the cost of electricity, natural gas, oil, and  
3 any other fuel regularly used to supply energy to the  
4 subject property.

5 (3) DETERMINATION OF ESTIMATED ENERGY  
6 COST SAVINGS.—

7 (A) IN GENERAL.—The guidelines to be  
8 issued under paragraph (1) shall include in-  
9 structions for the covered agency to calculate  
10 estimated energy cost savings using—

- 11 (i) the energy efficiency report;  
12 (ii) an estimate of baseline average  
13 energy costs; and  
14 (iii) additional sources of information  
15 as determined by the Secretary.

16 (B) REPORT REQUIREMENTS.—For the  
17 purposes of subparagraph (A), an energy effi-  
18 ciency report shall—

- 19 (i) estimate the expected energy cost  
20 savings specific to the subject property,  
21 based on specific information about the  
22 property;  
23 (ii) be prepared in accordance with  
24 the guidelines to be issued under para-  
25 graph (1); and

1 (iii) be prepared—

2 (I) in accordance with the Resi-  
3 dential Energy Service Network's  
4 Home Energy Rating System (com-  
5 monly known as "HERS") by an indi-  
6 vidual certified by the Residential En-  
7 ergy Service Network, unless the Sec-  
8 retary finds that the use of HERS  
9 does not further the purposes of this  
10 section; or

11 (II) by other methods approved  
12 by the Secretary, in consultation with  
13 the Secretary of Energy and the advi-  
14 sory group established in subsection  
15 (f)(2), for use under this section,  
16 which shall include a third-party qual-  
17 ity assurance procedure.

18 (C) USE BY APPRAISER.—If an energy ef-  
19 ficiency report is used under paragraph (2), the  
20 energy efficiency report shall be provided to the  
21 appraiser to estimate the energy efficiency of  
22 the subject property and for potential adjust-  
23 ments for energy efficiency.

24 (4) REQUIRED DISCLOSURE TO CONSUMER FOR  
25 A HOME WITH AN ENERGY EFFICIENCY REPORT.—

1 If an energy efficiency report is used under para-  
2 graph (2), the guidelines to be issued under para-  
3 graph (1) shall require the mortgagee to—

4 (A) inform the loan applicant of the ex-  
5 pected energy costs as estimated in the energy  
6 efficiency report, in a manner and at a time as  
7 prescribed by the Secretary, and if practicable,  
8 in the documents delivered at the time of loan  
9 application; and

10 (B) include the energy efficiency report in  
11 the documentation for the loan provided to the  
12 borrower.

13 (5) REQUIRED DISCLOSURE TO CONSUMER FOR  
14 A HOME WITHOUT AN ENERGY EFFICIENCY RE-  
15 PORT.—If an energy efficiency report is not used  
16 under paragraph (2), the guidelines to be issued  
17 under paragraph (1) shall require the mortgagee to  
18 inform the loan applicant in a manner and at a time  
19 as prescribed by the Secretary, and if practicable, in  
20 the documents delivered at the time of loan applica-  
21 tion of—

22 (A) typical energy cost savings that would  
23 be possible from a cost-effective energy upgrade  
24 of a home of the size and in the region of the  
25 subject property;

1 (B) the impact the typical energy cost sav-  
2 ings would have on monthly ownership costs of  
3 a typical home;

4 (C) the impact on the size of a mortgage  
5 that could be obtained if the typical energy cost  
6 savings were reflected in an energy efficiency  
7 report; and

8 (D) resources for improving the energy ef-  
9 ficiency of a home.

10 (6) PRICING OF LOANS.—

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

16 (B) IMPOSITION OF CERTAIN MATERIAL  
17 COSTS, IMPEDIMENTS, OR PENALTIES.—In the  
18 absence of a publicly disclosed analysis that  
19 demonstrates significant additional default risk  
20 or prepayment risk associated with the loans, a  
21 covered agency shall not impose material costs,  
22 impediments, or penalties on covered loans  
23 merely because the loan uses an energy effi-  
24 ciency report or the enhanced loan eligibility re-  
25 quirements required under this section.

1 (7) LIMITATIONS.—

2 (A) IN GENERAL.—A covered agency may  
3 price covered loans originated under the en-  
4 hanced loan eligibility requirements required  
5 under this section in accordance with the esti-  
6 mated risk of those loans.

7 (B) PROHIBITED ACTIONS.—A covered  
8 agency shall not—

9 (i) modify existing underwriting cri-  
10 teria or adopt new underwriting criteria  
11 that intentionally negate or reduce the im-  
12 pact of the requirements or resulting bene-  
13 fits that are set forth or otherwise derived  
14 from the enhanced loan eligibility require-  
15 ments required under this subsection; or

16 (ii) impose greater buy back require-  
17 ments, credit overlays, or insurance re-  
18 quirements, including private mortgage in-  
19 surance, on covered loans merely because  
20 the loan uses an energy efficiency report or  
21 the enhanced loan eligibility requirements  
22 required under this subsection.

23 (8) APPLICABILITY AND IMPLEMENTATION  
24 DATE.—Not later than 3 years after the date of en-  
25 actment of this Act, and before December 31, 2016,

1 the enhanced loan eligibility requirements required  
2 under this subsection shall be implemented by each  
3 covered agency to—

4 (A) apply to any covered loan for the sale,  
5 or refinancing of any loan for the sale, of any  
6 home;

7 (B) be available on any residential real  
8 property (including individual units of con-  
9 dominiums and cooperatives) that qualifies for  
10 a covered loan; and

11 (C) provide prospective mortgagees with  
12 sufficient guidance and applicable tools to im-  
13 plement the required underwriting methods.

14 (d) ENHANCED ENERGY EFFICIENCY UNDER-  
15 WRITING VALUATION GUIDELINES.—

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

19 (A) in consultation with the Federal Fi-  
20 nancial Institutions Examination Council and  
21 the advisory group established in subsection  
22 (f)(2), develop and issue guidelines for a cov-  
23 ered agency to determine the maximum per-  
24 mitted loan amount based on the value of the  
25 property for all covered loans made on prop-

1           erties with an energy efficiency report that  
2           meets the requirements of subsection (c)(3)(B);  
3           and

4                   (B) in consultation with the Secretary of  
5           Energy, issue guidelines for a covered agency to  
6           determine the estimated energy savings under  
7           paragraph (3) for properties with an energy ef-  
8           ficiency report.

9           (2) REQUIREMENTS.—The enhanced energy ef-  
10          ficiency underwriting valuation guidelines required  
11          under paragraph (1) shall include—

12                   (A) a requirement that if an energy effi-  
13          ciency report that meets the requirements of  
14          subsection (c)(3)(B) is voluntarily provided to  
15          the mortgagee, such report shall be used by the  
16          mortgagee or covered agency to determine the  
17          estimated energy savings of the subject prop-  
18          erty; and

19                   (B) a requirement that the estimated en-  
20          ergy savings of the subject property be added to  
21          the appraised value of the subject property by  
22          a mortgagee or covered agency for the purpose  
23          of determining the loan-to-value ratio of the  
24          subject property, unless the appraisal includes  
25          the value of the overall energy efficiency of the

1 subject property, using methods to be estab-  
2 lished under the guidelines issued under para-  
3 graph (1).

4 (3) DETERMINATION OF ESTIMATED ENERGY  
5 SAVINGS.—

6 (A) AMOUNT OF ENERGY SAVINGS.—The  
7 amount of estimated energy savings shall be de-  
8 termined by calculating the difference between  
9 the estimated energy costs for the average com-  
10 parable houses, as determined in guidelines to  
11 be issued under paragraph (1), and the esti-  
12 mated energy costs for the subject property  
13 based upon the energy efficiency report.

14 (B) DURATION OF ENERGY SAVINGS.—The  
15 duration of the estimated energy savings shall  
16 be based upon the estimated life of the applica-  
17 ble equipment, consistent with the rating sys-  
18 tem used to produce the energy efficiency re-  
19 port.

20 (C) PRESENT VALUE OF ENERGY SAV-  
21 INGS.—The present value of the future savings  
22 shall be discounted using the average interest  
23 rate on conventional 30-year mortgages, in the  
24 manner directed by guidelines issued under  
25 paragraph (1).



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

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

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

10           “(4) that State certified and licensed appraisers  
11           have timely access, whenever practicable, to informa-  
12           tion from the property owner and the lender that  
13           may be relevant in developing an opinion of value re-  
14           garding the energy- and water-saving improvements  
15           or features of a property, such as—

16                   “(A) labels or ratings of buildings;

17                   “(B) installed appliances, measures, sys-  
18                   tems or technologies;

19                   “(C) blueprints;

20                   “(D) construction costs;

21                   “(E) financial or other incentives regard-  
22                   ing energy- and water-efficient components and  
23                   systems installed in a property;

24                   “(F) utility bills;

1           “(G) energy consumption and  
2 benchmarking data; and

3           “(H) third-party verifications or represen-  
4 tations of energy and water efficiency perform-  
5 ance of a property, observing all financial pri-  
6 vacy requirements adhered to by certified and  
7 licensed appraisers, including section 501 of the  
8 Gramm-Leach-Bliley Act (15 U.S.C. 6801).

9 Unless a property owner consents to a lender, an ap-  
10 praiser, in carrying out the requirements of para-  
11 graph (4), shall not have access to the commercial  
12 or financial information of the owner that is privi-  
13 leged or confidential.”.

14           (5) TRANSACTIONS REQUIRING STATE CER-  
15 TIFIED APPRAISERS.—Section 1113 of the Financial  
16 Institutions Reform, Recovery, and Enforcement Act  
17 of 1989 (12 U.S.C. 3342) is amended—

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

22           (B) in paragraph (2), by inserting after  
23 “atypical” the following: “, or an appraisal on  
24 which the appraiser makes adjustments using  
25 an energy efficiency report.”.

1 (6) PROTECTIONS.—

2 (A) AUTHORITY TO IMPOSE LIMITA-  
3 TIONS.—The guidelines to be issued under  
4 paragraph (1) shall include such limitations and  
5 conditions as determined by the Secretary to be  
6 necessary to protect against meaningful under  
7 or over valuation of energy cost savings or du-  
8 plicative counting of energy efficiency features  
9 or energy cost savings in the valuation of any  
10 subject property that is used to determine a  
11 loan amount.

12 (B) ADDITIONAL AUTHORITY.—At the end  
13 of the 7-year period following the implementa-  
14 tion of enhanced eligibility and underwriting  
15 valuation requirements under this section, the  
16 Secretary may modify or apply additional ex-  
17 ceptions to the approach described in paragraph  
18 (2), where the Secretary finds that the  
19 unadjusted appraisal will reflect an accurate  
20 market value of the efficiency of the subject  
21 property or that a modified approach will better  
22 reflect an accurate market value.

23 (7) APPLICABILITY AND IMPLEMENTATION  
24 DATE.—Not later than 3 years after the date of en-  
25 actment of this Act, and before December 31, 2016,

1 each covered agency shall implement the guidelines  
2 required under this subsection, which shall—

3 (A) apply to any covered loan for the sale,  
4 or refinancing of any loan for the sale, of any  
5 home; and

6 (B) be available on any residential real  
7 property, including individual units of con-  
8 dominiums and cooperatives, that qualifies for a  
9 covered loan.

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

16 (1) enumerates the number of covered loans of  
17 the agency for which there was an energy efficiency  
18 report, and that used energy efficiency appraisal  
19 guidelines and enhanced loan eligibility require-  
20 ments;

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

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

1 (f) RULEMAKING.—

2 (1) IN GENERAL.—The Secretary shall pre-  
3 scribe regulations to carry out this section, in con-  
4 sultation with the Secretary of Energy and the advi-  
5 sory group established in paragraph (2), which may  
6 contain such classifications, differentiations, or other  
7 provisions, and may provide for such proper imple-  
8 mentation and appropriate treatment of different  
9 types of transactions, as the Secretary determines  
10 are necessary or proper to effectuate the purposes of  
11 this section, to prevent circumvention or evasion  
12 thereof, or to facilitate compliance therewith.

13 (2) ADVISORY GROUP.—To assist in carrying  
14 out this section, the Secretary shall establish an ad-  
15 visory group, consisting of individuals representing  
16 the interests of—

17 (A) mortgage lenders;

18 (B) appraisers;

19 (C) energy raters and residential energy  
20 consumption experts;

21 (D) energy efficiency organizations;

22 (E) real estate agents;

23 (F) home builders and remodelers;

24 (G) State energy officials; and

25 (H) others as determined by the Secretary.

1 (g) ADDITIONAL STUDY.—

2 (1) IN GENERAL.—Not later than 18 months  
3 after the date of enactment of this Act, the Sec-  
4 retary shall reconvene the advisory group established  
5 in subsection (f)(2), in addition to water and loca-  
6 tional efficiency experts, to advise the Secretary on  
7 the implementation of the enhanced energy efficiency  
8 underwriting criteria established in subsections (c)  
9 and (d).

10 (2) RECOMMENDATIONS.—The advisory group  
11 established in subsection (f)(2) shall provide rec-  
12 ommendations to the Secretary on any revisions or  
13 additions to the enhanced energy efficiency under-  
14 writing criteria deemed necessary by the group,  
15 which may include alternate methods to better ac-  
16 count for home energy costs and additional factors  
17 to account for substantial and regular costs of home-  
18 ownership such as location-based transportation  
19 costs and water costs. The Secretary shall forward  
20 any legislative recommendations from the advisory  
21 group to Congress for its consideration.

1       **Subtitle E—Third Party Testing**

2       **SEC. 441. VOLUNTARY CERTIFICATION PROGRAMS FOR AIR**  
 3                       **CONDITIONING, FURNACE, BOILER, HEAT**  
 4                       **PUMP, AND WATER HEATER PRODUCTS.**

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

8                       “(6) VOLUNTARY CERTIFICATION PROGRAMS  
 9       FOR AIR CONDITIONING, FURNACE, BOILER, HEAT  
 10       PUMP, AND WATER HEATER PRODUCTS.—

11                      “(A) DEFINITION OF BASIC MODEL  
 12       GROUP.—In this paragraph, the term ‘basic  
 13       model group’ means a set of models—

14                      “(i) that share characteristics that  
 15       allow the performance of 1 model to be  
 16       generally representative of the performance  
 17       of other models within the group; and

18                      “(ii) in which the group of products  
 19       does not necessarily have to share discrete  
 20       performance.

21                      “(B) RELIANCE ON VOLUNTARY CERTIFI-  
 22       CATION PROGRAMS.—For the purpose of testing  
 23       to verify the performance rating of, or receiving  
 24       test reports from manufacturers certifying com-  
 25       pliance with energy conservation standards and

1 Energy Star specifications established under  
2 sections 324A, 325, and 342, the covered prod-  
3 ucts described in paragraphs (3), (4), (5), (9),  
4 and (11) of section 322(a) and covered equip-  
5 ment described in subparagraphs (B), (C), (D),  
6 (F), (I), (J), and (K) of section 340(1), the  
7 Secretary and Administrator shall rely on vol-  
8 untary certification programs that—

9 “(i) are nationally recognized;

10 “(ii) maintain a publicly available list  
11 of all certified products and equipment;

12 “(iii) as determined by the Secretary,  
13 annually test not less than 10 percent and  
14 not more than 30 percent of the basic  
15 model group of a program participant

16 “(iv) require the changing of the per-  
17 formance rating or removal of the product  
18 or equipment from the program, if  
19 verification testing determines that the  
20 performance rating does not meet the lev-  
21 els the manufacturer has certified to the  
22 Secretary;

23 “(v) require the qualification of new  
24 participants in the program through test-  
25 ing and production of test reports;



1 “(vi) allow for challenge testing of  
2 products and equipment within the scope  
3 of the program;

4 “(vii) require program participants to  
5 certify the performance rating of all cov-  
6 ered products and equipment within the  
7 scope of the program;

8 “(viii) are conducted by a certification  
9 body that is accredited under International  
10 Organization for Standardization/ Inter-  
11 national Electrotechnical Commission  
12 (ISO/IEC) Standard 17065;

13 “(ix) provide to the Secretary—

14 “(I) an annual report of all test  
15 results;

16 “(II) prompt notification when  
17 program testing results in—

18 “(aa) the rerating of the  
19 performance rating of a product  
20 or equipment; or

21 “(bb) the delisting of a  
22 product or equipment; and

23 “(III) test reports, on the request  
24 of the Secretary or the Administrator,  
25 for Energy Star compliant products,

1 which shall be treated as confidential  
2 business information as provided for  
3 under section 552(b)(4) of title 5,  
4 United States Code (commonly known  
5 as the “Freedom of Information  
6 Act”);

7 “(x) use verification testing that—

8 “(I) is conducted by an inde-  
9 pendent test laboratory that is accred-  
10 ited under International Organization  
11 for Standardization/International  
12 Electrotechnical Commission (ISO/  
13 IEC) Standard 17025 with a scope  
14 covering the tested products or equip-  
15 ment;

16 “(II) follows the test procedures  
17 established under this title; and

18 “(III) notes in each test report  
19 any instructions specified by the man-  
20 ufacturer or the representative of the  
21 manufacturer for the purpose of con-  
22 ducting the verification testing; and

23 “(xi) satisfy such other requirements  
24 as the Secretary has determined—

1                   “(I) are essential to ensure  
2 standards compliance; or

3                   “(II) have consensus support  
4 achieved through a negotiated rule-  
5 making process.

6                   “(C) ADMINISTRATION.—

7                   “(i) IN GENERAL.—The Secretary  
8 shall not require—

9                   “(I) manufacturers to participate  
10 in a voluntary certification program  
11 described in subparagraph (B); or

12                   “(II) participating manufacturers  
13 to provide information that can be ob-  
14 tained through a voluntary certifi-  
15 cation program described in subpara-  
16 graph (B).

17                   “(ii) LIST OF COVERED PRODUCTS.—

18 The Secretary or the Administrator may  
19 maintain a publicly available list of covered  
20 products and equipment certified under a  
21 program described in subparagraph (B)  
22 that distinguishes between—

23                   “(I) covered products and equip-  
24 ment verified by the program; and

1                   “(II) products not verified by the  
2                   program.

3                   “(iii) REDUCTION OF REQUIRE-  
4                   MENTS.—Any rules promulgated by the  
5                   Secretary that require testing of products  
6                   or equipment for certification of perform-  
7                   ance ratings shall on average reduce re-  
8                   quirements and burdens for manufacturers  
9                   participating in a voluntary certification  
10                  program described in subparagraph (B) for  
11                  the products or equipment relative to other  
12                  manufacturers.

13                  “(iv) PERIODIC TESTING BY PROGRAM  
14                  NONPARTICIPANTS.—In addition to certifi-  
15                  cation requirements, the Secretary shall re-  
16                  quire a manufacturer that does not partici-  
17                  pate in a voluntary certification program  
18                  described in subparagraph (B)—

19                  “(I) to verify the accuracy of the  
20                  performance rating of the product or  
21                  equipment through periodic testing  
22                  using the testing methods described in  
23                  clause (iii) or (x) of subparagraph  
24                  (B); and

1                   “(II) to provide to the Secretary  
2                   test results and, on request, test re-  
3                   ports verifying the certified perform-  
4                   ance for each basic model group of  
5                   the manufacturer.

6                   “(v) RESTRICTIONS ON TEST LABORA-  
7                   TORIES.—

8                   “(I) IN GENERAL.—Subject to  
9                   subclause (II), with respect to covered  
10                  products and equipment, a voluntary  
11                  certification program described in  
12                  subparagraph (B) shall not be a test  
13                  laboratory that conducts the testing  
14                  on products or equipment within the  
15                  scope of the program.

16                  “(II) LIMITATION.—Subclause  
17                  (I) shall not apply to Energy Star  
18                  specifications established under sec-  
19                  tion 324A.

20                  “(vi) EFFECT ON OTHER AUTHOR-  
21                  ITY.—Nothing in this paragraph limits the  
22                  authority of the Secretary or the Adminis-  
23                  trator to test products or equipment or to  
24                  enforce compliance with any law (including  
25                  regulations).”.

1           **TITLE V—MISCELLANEOUS**

2   **SEC. 501. OFFSET.**

3           Section 422(f) of the Energy Independence and Secu-  
4 rity Act of 2007 (42 U.S.C. 17082(f)) is amended—

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

7           (2) by striking paragraph (4) and inserting the  
8 following:

9           “(4) \$200,000,000 for fiscal year 2013; and

10           “(5) \$144,000,000 for each of fiscal years 2014  
11 through 2018.”.

12   **SEC. 502. BUDGETARY EFFECTS.**

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

21   **SEC. 503. ADVANCE APPROPRIATIONS REQUIRED.**

22           The authorization of amounts under this Act and the  
23 amendments made by this Act shall be effective for any  
24 fiscal year only to the extent and in the amount provided  
25 in advance in appropriations Acts.