

115TH CONGRESS  
1ST 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

Mr. PORTMAN (for himself and Mrs. SHAHEEN) 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”.

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

Sec. 1. Short title; table of contents.

Sec. 2. Definition of Secretary.

TITLE I—BUILDINGS

Subtitle A—Building Energy Codes

## 2

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 retrofit assistance for schools.

TITLE II—INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

Subtitle A—Manufacturing Energy Efficiency

Sec. 201. Purposes.

Sec. 202. Future of Industry program.

Sec. 203. Sustainable manufacturing initiative.

Sec. 204. Conforming amendments.

Subtitle B—Supply Star

Sec. 211. Supply Star.

Subtitle C—Extended Product System Rebate Program

Sec. 221. Extended product system rebate program.

Subtitle D—Transformer Rebate Program

Sec. 231. Energy efficient transformer rebate program.

TITLE III—FEDERAL AGENCY ENERGY EFFICIENCY

Sec. 301. Energy-efficient and energy-saving information technologies.

Sec. 302. Energy efficient data centers.

Sec. 303. 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—Energy Performance Requirement for Federal Buildings

Sec. 421. Energy performance requirement for Federal buildings.

Sec. 422. Federal building energy efficiency performance standards; certification system and level for green buildings.

Sec. 423. Enhanced energy efficiency underwriting.

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

Sec. 431. Voluntary verification programs for air conditioning, furnace, boiler, heat pump, and water heater products.

## TITLE V—MISCELLANEOUS

Sec. 501. Budgetary effects.

Sec. 502. Advance appropriations required.

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

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

4 **TITLE I—BUILDINGS**

5 **Subtitle A—Building Energy Codes**

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

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

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

13 “(14) MODEL BUILDING ENERGY CODE.—The  
14 term ‘model building energy code’ means a voluntary  
15 building energy code and standards developed and  
16 updated through a consensus process among inter-  
17 ested persons, such as the IECC or the code used  
18 by—

19 “(A) the Council of American Building Of-  
20 ficials, or its legal successor, International Code  
21 Council, Inc.;

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

1 “(C) other appropriate organizations.”;

2 and

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

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

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

10 (b) STATE BUILDING ENERGY EFFICIENCY  
11 CODES.—Section 304 of the Energy Conservation and  
12 Production Act (42 U.S.C. 6833) is amended to read as  
13 follows:

14 **“SEC. 304. UPDATING STATE BUILDING ENERGY EFFI-  
15 CIENCY CODES.**

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

17 “(1) encourage and support the adoption of  
18 building energy codes by States, Indian tribes, and,  
19 as appropriate, by local governments that meet or  
20 exceed the model building energy codes, or achieve  
21 equivalent or greater energy savings; and

22 “(2) support full compliance with the State and  
23 local codes.

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

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

3           “(A) IN GENERAL.—Not later than 2 years  
4 after the date on which a model building energy  
5 code is updated, each State or Indian tribe shall  
6 certify whether or not the State or Indian tribe,  
7 respectively, has reviewed and updated the en-  
8 ergy provisions of the building code of the State  
9 or Indian tribe, respectively.

10           “(B) DEMONSTRATION.—The certification  
11 shall include a demonstration of whether or not  
12 the energy savings for the code provisions that  
13 are in effect throughout the State or Indian  
14 tribal territory meet or exceed—

15           “(i) the energy savings of the updated  
16 model building energy code; or

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

19           “(C) NO MODEL BUILDING ENERGY CODE  
20 UPDATE.—If a model building energy code is  
21 not updated by a target date established under  
22 section 307(b)(2)(D), each State or Indian tribe  
23 shall, not later than 2 years after the specified  
24 date, certify whether or not the State or Indian  
25 tribe, respectively, has reviewed and updated

1 the energy provisions of the building code of the  
2 State or Indian tribe, respectively, to meet or  
3 exceed the target in section 307(b)(2).

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

7 “(A) determine whether the code provi-  
8 sions of the State or Indian tribe, respectively,  
9 meet the criteria specified in paragraph (1);  
10 and

11 “(B) if the determination is positive, vali-  
12 date the certification.

13 “(c) IMPROVEMENTS IN COMPLIANCE WITH BUILD-  
14 ING ENERGY CODES.—

15 “(1) REQUIREMENT.—

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

21 “(i) achieved full compliance under  
22 paragraph (3) with the applicable certified  
23 State and Indian tribe building energy  
24 code or with the associated model building  
25 energy code; or

1                   “(ii) made significant progress under  
2                   paragraph (4) toward achieving compliance  
3                   with the applicable certified State and In-  
4                   dian tribe building energy code or with the  
5                   associated model building energy code.

6                   “(B) REPEAT CERTIFICATIONS.—If the  
7                   State or Indian tribe certifies progress toward  
8                   achieving compliance, the State or Indian tribe  
9                   shall repeat the certification until the State or  
10                  Indian tribe certifies that the State or Indian  
11                  tribe has achieved full compliance, respectively.

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

15                         “(A) independent inspections of a random  
16                         sample of the buildings covered by the code in  
17                         the preceding year; or

18                         “(B) an alternative method that yields an  
19                         accurate measure of compliance.

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

23                         “(A) at least 90 percent of building space  
24                         covered by the code in the preceding year sub-  
25                         stantially meets all the requirements of the ap-

1 applicable code specified in paragraph (1), or  
2 achieves equivalent or greater energy savings  
3 level; or

4 “(B) the estimated excess energy use of  
5 buildings that did not meet the applicable code  
6 specified in paragraph (1) in the preceding  
7 year, compared to a baseline of comparable  
8 buildings that meet this code, is not more than  
9 5 percent of the estimated energy use of all  
10 buildings covered by this code during the pre-  
11 ceding year.

12 “(4) SIGNIFICANT PROGRESS TOWARD  
13 ACHIEVEMENT OF COMPLIANCE.—A State or Indian  
14 tribe shall be considered to have made significant  
15 progress toward achieving compliance for purposes  
16 of paragraph (1) if the State or Indian tribe—

17 “(A) has developed and is implementing a  
18 plan for achieving compliance during the 8-  
19 year-period beginning on the date of enactment  
20 of this paragraph, including annual targets for  
21 compliance and active training and enforcement  
22 programs; and

23 “(B) has met the most recent target under  
24 subparagraph (A).



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

4           “(A) determine whether the State or In-  
5 dian tribe has demonstrated meeting the cri-  
6 teria of this subsection, including accurate  
7 measurement of compliance; and

8           “(B) if the determination is positive, vali-  
9 date the certification.

10          “(d) STATES OR INDIAN TRIBES THAT DO NOT  
11 ACHIEVE COMPLIANCE.—

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

16           “(A) the status of the State or Indian tribe  
17 with respect to meeting the requirements and  
18 submitting the certification; and

19           “(B) a plan for meeting the requirements  
20 and submitting the certification.

21           “(2) FEDERAL SUPPORT.—For any State or In-  
22 dian tribe for which the Secretary has not validated  
23 a certification by a deadline under subsection (b) or  
24 (c), the lack of the certification may be a consider-

1       ation for Federal support authorized under this sec-  
2       tion for code adoption and compliance activities.

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

9           “(4) ANNUAL REPORTS BY SECRETARY.—

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

13           “(i) the status of model building en-  
14       ergy codes;

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

17           “(iii) implementation of this section;  
18       and

19           “(iv) improvements in energy savings  
20       over time as result of the targets estab-  
21       lished under section 307(b)(2).

22           “(B) IMPACTS.—The report shall include  
23       estimates of impacts of past action under this  
24       section, and potential impacts of further action,  
25       on—

1                   “(i) upfront financial and construction  
2                   costs, cost benefits and returns (using in-  
3                   vestment analysis), and lifetime energy use  
4                   for buildings;

5                   “(ii) resulting energy costs to individ-  
6                   uals and businesses; and

7                   “(iii) resulting overall annual building  
8                   ownership and operating costs.

9           “(e) TECHNICAL ASSISTANCE TO STATES AND IN-  
10   DIAN TRIBES.—The Secretary shall provide technical as-  
11   sistance to States and Indian tribes to implement the goals  
12   and requirements of this section, including procedures and  
13   technical analysis for States and Indian tribes—

14                   “(1) to improve and implement State residential  
15                   and commercial building energy codes;

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

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

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

24           “(f) AVAILABILITY OF INCENTIVE FUNDING.—

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

3                   “(A) to implement the requirements of this  
4           section;

5                   “(B) to improve and implement residential  
6           and commercial building energy codes, including  
7           increasing and verifying compliance with the  
8           codes and training of State, tribal, and local  
9           building code officials to implement and enforce  
10          the codes; and

11                   “(C) to promote building energy efficiency  
12          through the use of the codes.

13           “(2) ADDITIONAL FUNDING.—Additional fund-  
14          ing shall be provided under this subsection for im-  
15          plementation of a plan to achieve and document full  
16          compliance with residential and commercial building  
17          energy codes under subsection (c)—

18                   “(A) to a State or Indian tribe for which  
19          the Secretary has validated a certification under  
20          subsection (b) or (c); and

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

24           “(3) TRAINING.—Of the amounts made avail-  
25          able under this subsection, the State or Indian tribe

1       may use amounts required, but not to exceed  
2       \$750,000 for a State, to train State and local build-  
3       ing code officials to implement and enforce codes de-  
4       scribed in paragraph (2).

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

8       “(g) STRETCH CODES AND ADVANCED STAND-  
9       ARDS.—

10              “(1) IN GENERAL.—The Secretary shall provide  
11       technical and financial support for the development  
12       of stretch codes and advanced standards for residen-  
13       tial and commercial buildings for use as—

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

17                      “(B) guidelines for energy-efficient build-  
18       ing design.

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

21                      “(A) to achieve substantial energy savings  
22       compared to the model building energy codes;  
23       and

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

4           “(h) STUDIES.—The Secretary, in consultation with  
5 building science experts from the National Laboratories  
6 and institutions of higher education, designers and build-  
7 ers of energy-efficient residential and commercial build-  
8 ings, code officials, and other stakeholders, shall under-  
9 take a study of the feasibility, impact, economics, and  
10 merit of—

11                   “(1) code improvements that would require that  
12 buildings be designed, sited, and constructed in a  
13 manner that makes the buildings more adaptable in  
14 the future to become zero-net-energy after initial  
15 construction, as advances are achieved in energy-sav-  
16 ing technologies;

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

20                   “(3) legislative options for increasing energy  
21 savings from building energy codes, including addi-  
22 tional incentives for effective State and local action,  
23 and verification of compliance with and enforcement  
24 of a code other than by a State or local government.

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

5           “(j) AUTHORIZATION OF APPROPRIATIONS.—There  
6 are authorized to be appropriated to carry out this section  
7 and section 307 \$200,000,000, to remain available until  
8 expended.”.

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

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

18           **“SEC. 307. SUPPORT FOR MODEL BUILDING ENERGY**  
19                                 **CODES.**

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

22           “(b) TARGETS.—

23                         “(1) IN GENERAL.—The Secretary shall sup-  
24 port the updating of the model building energy codes

1 to enable the achievement of aggregate energy sav-  
2 ings targets established under paragraph (2).

3 “(2) TARGETS.—

4 “(A) IN GENERAL.—The Secretary shall  
5 work with State, Indian tribes, local govern-  
6 ments, nationally recognized code and stand-  
7 ards developers, and other interested parties to  
8 support the updating of model building energy  
9 codes by establishing one or more aggregate en-  
10 ergy savings targets to achieve the purposes of  
11 this section.

12 “(B) SEPARATE TARGETS.—The Secretary  
13 may establish separate targets for commercial  
14 and residential buildings.

15 “(C) BASELINES.—The baseline for updat-  
16 ing model building energy codes shall be the  
17 2009 IECC for residential buildings and  
18 ASHRAE Standard 90.1–2010 for commercial  
19 buildings.

20 “(D) SPECIFIC YEARS.—

21 “(i) IN GENERAL.—Targets for spe-  
22 cific years shall be established and revised  
23 by the Secretary through rulemaking and  
24 coordinated with nationally recognized code  
25 and standards developers at a level that—





1 if the Secretary determines that a target  
2 cannot be met.

3 “(iv) SMALL BUSINESS.—When estab-  
4 lishing targets under this paragraph  
5 through rulemaking, the Secretary shall  
6 ensure compliance with the Small Business  
7 Regulatory Enforcement Fairness Act of  
8 1996 (5 U.S.C. 601 note; Public Law 104–  
9 121).

10 “(3) APPLIANCE STANDARDS AND OTHER FAC-  
11 TORS AFFECTING BUILDING ENERGY USE.—In es-  
12 tablishing building code targets under paragraph  
13 (2), the Secretary shall develop and adjust the tar-  
14 gets in recognition of potential savings and costs re-  
15 lating to—

16 “(A) efficiency gains made in appliances,  
17 lighting, windows, insulation, and building enve-  
18 lope sealing;

19 “(B) advancement of distributed genera-  
20 tion and on-site renewable power generation  
21 technologies;

22 “(C) equipment improvements for heating,  
23 cooling, and ventilation systems;

1           “(D) building management systems and  
2           SmartGrid technologies to reduce energy use;  
3           and

4           “(E) other technologies, practices, and  
5           building systems that the Secretary considers  
6           appropriate regarding building plug load and  
7           other energy uses.

8           “(4) ECONOMIC CONSIDERATIONS.—In estab-  
9           lishing and revising building code targets under  
10          paragraph (2), the Secretary shall consider the eco-  
11          nomic feasibility of achieving the proposed targets  
12          established under this section and the potential costs  
13          and savings for consumers and building owners, in-  
14          cluding a return on investment analysis.

15          “(c) TECHNICAL ASSISTANCE TO MODEL BUILDING  
16          ENERGY CODE-SETTING AND STANDARD DEVELOPMENT  
17          ORGANIZATIONS.—

18                 “(1) IN GENERAL.—The Secretary shall, on a  
19                 timely basis, provide technical assistance to model  
20                 building energy code-setting and standard develop-  
21                 ment organizations consistent with the goals of this  
22                 section.

23                 “(2) ASSISTANCE.—The assistance shall in-  
24                 clude, as requested by the organizations, technical  
25                 assistance in—

1           “(A) evaluating code or standards pro-  
2           posals or revisions;

3           “(B) building energy analysis and design  
4           tools;

5           “(C) building demonstrations;

6           “(D) developing definitions of energy use  
7           intensity and building types for use in model  
8           building energy codes to evaluate the efficiency  
9           impacts of the model building energy codes;

10          “(E) performance-based standards;

11          “(F) evaluating economic considerations  
12          under subsection (b)(4); and

13          “(G) developing model building energy  
14          codes by Indian tribes in accordance with tribal  
15          law.

16          “(3) AMENDMENT PROPOSALS.—The Secretary  
17          may submit timely model building energy code  
18          amendment proposals to the model building energy  
19          code-setting and standard development organiza-  
20          tions, with supporting evidence, sufficient to enable  
21          the model building energy codes to meet the targets  
22          established under subsection (b)(2).

23          “(4) ANALYSIS METHODOLOGY.—The Secretary  
24          shall make publicly available the entire calculation  
25          methodology (including input assumptions and data)

1 used by the Secretary to estimate the energy savings  
2 of code or standard proposals and revisions.

3 “(d) DETERMINATION.—

4 “(1) REVISION OF MODEL BUILDING ENERGY  
5 CODES.—If the provisions of the IECC or ASHRAE  
6 Standard 90.1 regarding building energy use are re-  
7 vised, the Secretary shall make a preliminary deter-  
8 mination not later than 90 days after the date of the  
9 revision, and a final determination not later than 15  
10 months after the date of the revision, on whether or  
11 not the revision will—

12 “(A) improve energy efficiency in buildings  
13 compared to the existing model building energy  
14 code; and

15 “(B) meet the applicable targets under  
16 subsection (b)(2).

17 “(2) CODES OR STANDARDS NOT MEETING TAR-  
18 GETS.—

19 “(A) IN GENERAL.—If the Secretary  
20 makes a preliminary determination under para-  
21 graph (1)(B) that a code or standard does not  
22 meet the targets established under subsection  
23 (b)(2), the Secretary may at the same time pro-  
24 vide the model building energy code or standard  
25 developer with proposed changes that would re-

1           sult in a model building energy code that meets  
2           the targets and with supporting evidence, tak-  
3           ing into consideration—

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

6                   “(ii) available appliances, technologies,  
7                   materials, and construction practices; and

8                   “(iii) the economic considerations  
9                   under subsection (b)(4).

10           “(B) INCORPORATION OF CHANGES.—

11                   “(i) IN GENERAL.—On receipt of the  
12                   proposed changes, the model building en-  
13                   ergy code or standard developer shall have  
14                   an additional 270 days to accept or reject  
15                   the proposed changes of the Secretary to  
16                   the model building energy code or standard  
17                   for the Secretary to make a final deter-  
18                   mination.

19                   “(ii) FINAL DETERMINATION.—A  
20                   final determination under paragraph (1)  
21                   shall be on the modified model building en-  
22                   ergy code or standard.

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

1           “(1) publish notice of targets and supporting  
2           analysis and determinations under this section in the  
3           Federal Register to provide an explanation of and  
4           the basis for such actions, including any supporting  
5           modeling, data, assumptions, protocols, and cost-  
6           benefit analysis, including return on investment; and

7           “(2) provide an opportunity for public comment  
8           on targets and supporting analysis and determina-  
9           tions under this section.

10          “(f) VOLUNTARY CODES AND STANDARDS.—Not-  
11         withstanding any other provision of this section, any  
12         model building code or standard established under section  
13         304 shall not be binding on a State, local government, or  
14         Indian tribe as a matter of Federal law.”.

## 15         **Subtitle B—Worker Training and** 16                         **Capacity Building**

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

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

1           (1) to identify opportunities for optimizing en-  
2           ergy efficiency and environmental performance in  
3           buildings;

4           (2) to promote the application of emerging con-  
5           cepts and technologies in commercial and institu-  
6           tional buildings;

7           (3) to train engineers, architects, building sci-  
8           entists, building energy permitting and enforcement  
9           officials, and building technicians in energy-efficient  
10          design and operation;

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

14          (5) to promote research and development for  
15          the use of alternative energy sources and distributed  
16          generation to supply heat and power for buildings,  
17          particularly energy-intensive buildings; and

18          (6) to coordinate with and assist State-accred-  
19          ited technical training centers, community colleges,  
20          Tribal Colleges or Universities, and local offices of  
21          the National Institute of Food and Agriculture and  
22          ensure appropriate services are provided under this  
23          section to each region of the United States.

24          (b) COORDINATION AND NONDUPLICATION.—



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

5           (2) COLLOCATION.—To the maximum extent  
6           practicable, building, training, and assessment cen-  
7           ters established under this section shall be collocated  
8           with Industrial Assessment Centers.

9           (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
10          authorized to be appropriated to carry out this section  
11          \$10,000,000, to remain available until expended.

12          **SEC. 112. CAREER SKILLS TRAINING.**

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

22          (b) ELIGIBILITY.—To be eligible to obtain a grant  
23          under subsection (a), an entity shall be a nonprofit part-  
24          nership described in section 171(e)(2)(B)(ii) of the Work-

1 force Investment Act of 1998 (29 U.S.C.  
2 2916(e)(2)(B)(ii)).

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

6 (d) AUTHORIZATION OF APPROPRIATIONS.—There is  
7 authorized to be appropriated to carry out this section  
8 \$10,000,000, to remain available until expended.

## 9 **Subtitle C—School Buildings**

### 10 **SEC. 121. COORDINATION OF ENERGY RETROFITTING AS-** 11 **SISTANCE FOR SCHOOLS.**

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

14 (1) an elementary school or secondary school  
15 (as defined in section 8101 of the Elementary and  
16 Secondary Education Act of 1965 (20 U.S.C.  
17 7801));

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

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

1           (4) a school operated by the Bureau of Indian  
2       Affairs;

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

6           (6) a Tribal College or University (as defined in  
7       section 316(b) of the Higher Education Act of 1965  
8       (20 U.S.C. 1059c(b))).

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

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

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

1 Revenue Service, the Environmental Protection  
2 Agency, and other appropriate Federal agencies with  
3 jurisdiction over energy financing and facilitation  
4 that are currently used or may be used to help ini-  
5 tiate, develop, and finance energy efficiency, renew-  
6 able energy, and energy retrofitting projects for  
7 schools;

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

15 (A) to use existing Federal opportunities  
16 more effectively; and

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

23 (3) provide technical assistance for States, local  
24 educational agencies, and schools to help develop

1 and finance energy efficiency, renewable energy, and  
2 energy retrofitting projects—

3 (A) to increase the energy efficiency of  
4 buildings or facilities;

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

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

12 (D) to promote—

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

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

22 (4) develop and maintain a single online re-  
23 source website with contact information for relevant  
24 technical assistance and support staff in the Office  
25 of Energy Efficiency and Renewable Energy for

1 States, local educational agencies, and schools to ef-  
2 fectively access and use Federal opportunities and  
3 assistance described in paragraph (1) to develop en-  
4 ergy efficiency, renewable energy, and energy retro-  
5 fitting projects; and

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

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

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

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

18 **TITLE II—INDUSTRIAL EFFI-**  
19 **CIENCY AND COMPETITIVE-**  
20 **NESS**

21 **Subtitle A—Manufacturing Energy**  
22 **Efficiency**

23 **SEC. 201. PURPOSES.**

24 The purposes of this subtitle are—

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

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

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

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

14          (5) to stimulate domestic economic growth and  
15          improve industrial productivity and competitiveness;  
16          and

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

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

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

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

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

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

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

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

21 (2) by striking “The Secretary” and inserting  
22 the following:

23 “(1) IN GENERAL.—The Secretary”;

24 (3) in subparagraph (A) (as redesignated by  
25 paragraph (1)), by inserting before the semicolon at



1 the end the following: “, including assessments of  
2 sustainable manufacturing goals and the implemen-  
3 tation of information technology advancements for  
4 supply chain analysis, logistics, system monitoring,  
5 industrial and manufacturing processes, and other  
6 purposes”; and

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

8 “(2) COORDINATION.—

9 “(A) IN GENERAL.—To increase the value  
10 and capabilities of the industrial research and  
11 assessment centers, the centers shall—

12 “(i) coordinate with Manufacturing  
13 Extension Partnership Centers of the Na-  
14 tional Institute of Standards and Tech-  
15 nology;

16 “(ii) coordinate with the Building  
17 Technologies Program of the Department  
18 of Energy to provide building assessment  
19 services to manufacturers;

20 “(iii) increase partnerships with the  
21 National Laboratories of the Department  
22 of Energy to leverage the expertise and  
23 technologies of the National Laboratories  
24 for national industrial and manufacturing  
25 needs;

1                   “(iv) increase partnerships with en-  
2                   ergy service providers and technology pro-  
3                   viders to leverage private sector expertise  
4                   and accelerate deployment of new and ex-  
5                   isting technologies and processes for en-  
6                   ergy efficiency, power factor, and load  
7                   management;

8                   “(v) identify opportunities for reduc-  
9                   ing greenhouse gas emissions; and

10                   “(vi) promote sustainable manufac-  
11                   turing practices for small- and medium-  
12                   sized manufacturers.

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

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

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

23                   “(i) Federal and State efforts;

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

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

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

5                   “(4) WORKFORCE TRAINING.—

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

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

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

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

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

5 **SEC. 203. SUSTAINABLE MANUFACTURING INITIATIVE.**

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

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

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

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

16 “(2) preventing pollution and minimizing waste;

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

19 “(4) conserving natural resources; and

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

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

1 and existing technologies and processes that improve en-  
2 ergy efficiency.

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

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

“Sec. 376. Sustainable manufacturing initiative.”.

16 **SEC. 204. CONFORMING AMENDMENTS.**

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

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

22 (c) Section 2101(a) of the Energy Policy Act of 1992  
23 (42 U.S.C. 13451(a)) is amended in the third sentence  
24 by striking “sections 2102, 2103, 2104, 2105, 2106,  
25 2107, and 2108” and inserting “sections 2102, 2104,

1 2105, 2106, and 2108 of this Act and section 376 of the  
2 Energy Policy and Conservation Act,”.

3 **Subtitle B—Supply Star**

4 **SEC. 211. SUPPLY STAR.**

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

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

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

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

17 “(1) consult with other appropriate agencies;  
18 and

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

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

23 “(1) promote practices, recognize companies,  
24 and, as appropriate, recognize products that comply  
25 with the Supply Star program as the preferred prac-

1 tices, companies, and products in the marketplace  
2 for maximizing supply chain efficiency;

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

5 “(3) collect and disseminate data on supply  
6 chain energy resource consumption;

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

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

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

17 “(7) work with industry, including small busi-  
18 nesses, to improve supply chain efficiency through  
19 activities that include—

20 “(A) developing and sharing best practices;

21 and

22 “(B) providing opportunities to benchmark  
23 supply chain efficiency.

24 “(d) EVALUATION.—In any evaluation of supply  
25 chain efficiency carried out by the Secretary with respect

1 to a specific product, the Secretary shall consider energy  
2 consumption and resource use throughout the entire  
3 lifecycle of a product, including production, transport,  
4 packaging, use, and disposal.

5 “(e) GRANTS AND INCENTIVES.—

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

10 “(A) studying supply chain energy resource  
11 efficiency; and

12 “(B) demonstrating and achieving reduc-  
13 tions in the energy resource consumption of  
14 commercial products through changes and im-  
15 provements to the production supply and dis-  
16 tribution chain of the products.

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

21 “(f) TRAINING.—The Secretary shall use funds to  
22 support professional training programs to develop and  
23 communicate methods, practices, and tools for improving  
24 supply chain efficiency.



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

6       “(h) AUTHORIZATION OF APPROPRIATIONS.—There  
7 is authorized to be appropriated to carry out this section  
8 \$10,000,000 for the period of fiscal years 2018 through  
9 2027.”.

## 10       **Subtitle C—Extended Product** 11       **System Rebate Program**

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

13       (a) DEFINITIONS.—In this section:

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

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

20                       (A) a power converter; or

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

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

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

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

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

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

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

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

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

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

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

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

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

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

11 (ii) was previously used prior to, and  
12 was placed back into service during, cal-  
13 endar year 2019 or 2020.

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

19 (c) QUALIFIED ENTITIES.—

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

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

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

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

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

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

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

16           and

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

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

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

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

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

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

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

22 (d) AUTHORIZED AMOUNT OF REBATE.—

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

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

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

6 (ii) the electronic control; and

7 (B) \$25.

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

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

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

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

21 (a) DEFINITIONS.—In this section:

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

11 (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
12 authorized to be appropriated to carry out this section  
13 \$5,000,000 for each of fiscal years 2018 and 2019, to re-  
14 main available until expended.

15 (f) TERMINATION OF EFFECTIVENESS.—The author-  
16 ity provided by this section terminates on December 31,  
17 2019.

## 18 **TITLE III—FEDERAL AGENCY**

### 19 **ENERGY EFFICIENCY**

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

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

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

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

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

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

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

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

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

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

4                   “(A) advanced metering infrastructure;

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

8                   “(C) advanced power management tools;

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

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

13          “(4) PERFORMANCE GOALS.—

14                  “(A) IN GENERAL.—Not later than Sep-  
15          tember 30, 2017, the Director, in consultation  
16          with the Secretary, shall establish performance  
17          goals for evaluating the efforts of Federal agen-  
18          cies in improving the maintenance, purchase,  
19          and use of energy-efficient and energy-saving  
20          information technology systems.

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

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

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

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

8 “(5) REPORTS.—

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

16 “(B) OMB GOVERNMENT EFFICIENCY RE-  
17 PORTS AND SCORECARDS.—Effective beginning  
18 not later than October 1, 2017, the Director  
19 shall include in the annual report and scorecard  
20 of the Director required under section 528 of  
21 the Energy Independence and Security Act of  
22 2007 (42 U.S.C. 17144) a description of the ef-  
23 forts and results of Federal agencies under this  
24 subsection.



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

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

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

19                  “(C) follow—

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

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

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

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

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

20                   “(1) a comparison and gap analysis of the esti-  
21                   mates and projections contained in the original re-  
22                   port with new data regarding the period from 2007  
23                   through 2016;



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

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

8           “(4) updated projections and recommendations  
9           for best practices through fiscal year 2022.

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

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

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

25          “(g) OPEN DATA INITIATIVE.—

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

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

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

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

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

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

3 **SEC. 303. BUDGET-NEUTRAL DEMONSTRATION PROGRAM**  
4 **FOR ENERGY AND WATER CONSERVATION IM-**  
5 **PROVEMENTS AT MULTIFAMILY RESIDEN-**  
6 **TIAL UNITS.**

7 (a) ESTABLISHMENT.—The Secretary of Housing  
8 and Urban Development (referred to in this section as the  
9 “Secretary”) shall establish a demonstration program  
10 under which, during the period beginning on the date of  
11 enactment of this Act, and ending on September 30, 2020,  
12 the Secretary may enter into budget-neutral, performance-  
13 based agreements that result in a reduction in energy or  
14 water costs with such entities as the Secretary determines  
15 to be appropriate under which the entities shall carry out  
16 projects for energy or water conservation improvements at  
17 not more than 20,000 residential units in multifamily  
18 buildings participating in—

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

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

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

5           (b) REQUIREMENTS.—

6           (1) PAYMENTS CONTINGENT ON SAVINGS.—

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

15          (B) PAYMENT METHODOLOGY.—

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3 (c) PLAN AND REPORTS.—

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

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

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

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

16 (A).

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

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

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

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

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

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

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

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



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

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

9           “(4) TERMINATION.—

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

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

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

3 **SEC. 411. HIGH-PERFORMANCE GREEN FEDERAL BUILD-**  
4                   **INGS.**

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

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

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

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

20                   (3) in paragraph (2)—

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

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

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

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

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

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

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

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

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

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

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

3 **SEC. 421. 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 , and annually thereafter,  
18 each energy manager shall complete, for each  
19 calendar year, a comprehensive energy and  
20 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. 422. 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 , the Secretary shall establish, by  
21 rule, revised Federal building energy effi-  
22 ciency performance standards that require  
23 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 ; and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 building certification systems, taking into  
2 account—

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

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

10 “(vii) EXCLUSIONS.—

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

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

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



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

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

13 “(xi) EFFECTIVE DATE.—

14 “(I) DETERMINATIONS MADE  
15 AFTER DECEMBER 31, 2017.—The  
16 amendments made by section  
17 432(b)(1)(C) of Energy Savings and  
18 Industrial Competitiveness Act shall  
19 apply to any determination made by a  
20 Federal agency after December 31,  
21 2017.

22 “(II) DETERMINATIONS MADE ON  
23 OR BEFORE DECEMBER 31, 2017.—  
24 This subparagraph (as in effect on the  
25 day before the date of enactment of

1 Energy Savings and Industrial Com-  
2 petitiveness Act ) shall apply to any  
3 use of a certification system for green  
4 commercial and residential buildings  
5 by a Federal agency on or before De-  
6 cember 31, 2017.”; and

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

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

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

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

19 **SEC. 423. ENHANCED ENERGY EFFICIENCY UNDER-**  
20 **WRITING.**

21 (a) DEFINITIONS.—In this section:

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

24 (A) means—

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

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

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

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

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

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

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

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

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

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

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

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

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

16 (b) FINDINGS AND PURPOSES.—

17 (1) FINDINGS.—Congress finds that—

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

11 (iii) be prepared—

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

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

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

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

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

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

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

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

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

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

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

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

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

20 (6) PRICING OF LOANS.—

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

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

11 (7) LIMITATIONS.—

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

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

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

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

8 (8) APPLICABILITY AND IMPLEMENTATION  
9 DATE.—Not later than 3 years after the date of en-  
10 actment of this Act, and before December 31, 2019,  
11 the enhanced loan eligibility requirements required  
12 under this subsection shall be implemented by each  
13 covered agency to—

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

19                  praiser, in carrying out the requirements of para-

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

21                  or financial information of the owner that is privi-

22                  leged or confidential.”.

23                  (5) TRANSACTIONS REQUIRING STATE CER-

24                  TIFIED APPRAISERS.—Section 1113 of the Financial

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

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

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

11 (6) PROTECTIONS.—

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

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

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

8 (7) APPLICABILITY AND IMPLEMENTATION  
9 DATE.—Not later than 3 years after the date of en-  
10 actment of this Act, and before December 31, 2019,  
11 each covered agency shall implement the guidelines  
12 required under this subsection, which shall—

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

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

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

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

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

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

11         (f) RULEMAKING.—

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

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

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

3               (A) mortgage lenders;

4               (B) appraisers;

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

7               (D) energy efficiency organizations;

8               (E) real estate agents;

9               (F) home builders and remodelers;

10              (G) State energy officials; and

11              (H) others as determined by the Secretary.

12       (g) ADDITIONAL STUDY.—

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

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



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

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

12 **SEC. 431. VOLUNTARY VERIFICATION PROGRAMS FOR AIR**  
13 **CONDITIONING, FURNACE, BOILER, HEAT**  
14 **PUMP, AND WATER HEATER PRODUCTS.**

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

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

21 “(A) RELIANCE ON VOLUNTARY PRO-  
22 GRAMS.—For the purpose of periodic testing to  
23 verify compliance with energy conservation  
24 standards and Energy Star specifications estab-  
25 lished under sections 324A, 325, and 342 for

1 covered products described in paragraphs (3),  
2 (4), (5), (9), and (11) of section 322(a) and  
3 covered equipment described in subparagraphs  
4 (B), (C), (D), (F), (I), (J), and (K) of section  
5 340(1), the Secretary and the Administrator of  
6 the Environmental Protection Agency shall rely  
7 on testing conducted by voluntary verification  
8 programs that are recognized by the Secretary  
9 in accordance with subparagraph (B).

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

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

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

1 a minimum, ensure that the voluntary  
2 verification program—  
3 “(I) is nationally recognized;  
4 “(II) is operated by a third party  
5 and not directly operated by a pro-  
6 gram participant;  
7 “(III) satisfies any applicable ele-  
8 ments of—  
9 “(aa) International Organi-  
10 zation for Standardization stand-  
11 ard numbered 17025; and  
12 “(bb) any other relevant  
13 International Organization for  
14 Standardization standards identi-  
15 fied and agreed to through the  
16 negotiated rulemaking under  
17 clause (i);  
18 “(IV) at least annually tests  
19 independently obtained products fol-  
20 lowing the test procedures established  
21 under this title to verify the certified  
22 rating of a representative sample of  
23 products and equipment within the  
24 scope of the program;



1 shall be determined through the  
2 negotiated rulemaking process  
3 under clause (i); and

4 “(bb) test reports, on the re-  
5 quest of the Secretary or the Ad-  
6 ministrator of the Environmental  
7 Protection Agency, that note any  
8 instructions specified by the man-  
9 ufacturer or the representative of  
10 the manufacturer for the purpose  
11 of conducting the verification  
12 testing, to be exempted from dis-  
13 closure to the extent provided  
14 under section 552(b)(4) of title  
15 5, United States Code (commonly  
16 known as the ‘Freedom of Infor-  
17 mation Act’); and

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

24 “(iii) FINDING REQUIRED FOR CES-  
25 SATION OF RECOGNITION.—The Secretary

1 may only cease recognition of a voluntary  
2 verification program as an approved pro-  
3 gram described in subparagraph (A) on a  
4 finding that the program is not meeting its  
5 obligations for compliance through pro-  
6 gram review criteria established under this  
7 subparagraph.

8 “(iv) REVISIONS.—

9 “(I) IN GENERAL.—Major revi-  
10 sions to voluntary verification pro-  
11 gram criteria established under this  
12 subparagraph shall only be made pur-  
13 suant to a subsequent negotiated rule-  
14 making in accordance with subchapter  
15 III of chapter 5 of title 5, United  
16 States Code (commonly known as the  
17 ‘Negotiated Rulemaking Act of  
18 1990’).

19 “(II) NONMAJOR REVISIONS.—

20 “(aa) IN GENERAL.—The  
21 Secretary may make all other  
22 nonmajor criteria revisions by  
23 initiating a direct final rule in ac-  
24 cordance with section  
25 553(b)(3)(B) of title 5, United

1 States Code, on a determination  
2 published in the Federal Register  
3 that revisions to the criteria are  
4 necessary and that substantive  
5 opposition to the proposed revi-  
6 sions is not expected.

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

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

24 “(AA) a notice of pro-  
25 posed rulemaking pursuant

1 to section 553 of title 5,  
2 United States Code; or

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

10 “(C) ADMINISTRATION.—

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

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

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

21 “(ii) LIST OF COVERED PRODUCTS.—

22 The Secretary or the Administrator of the  
23 Environmental Protection Agency may  
24 maintain a publicly available list of covered  
25 products and equipment that distinguishes



1 between products that are, and are not  
2 covered products and equipment verified  
3 through a voluntary verification program  
4 described in subparagraph (A);

5 “(iii) PERIODIC VERIFICATION TEST-  
6 ING.—

7 “(I) IN GENERAL.—The Sec-  
8 retary—

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

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

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

24 “(BB) to address spe-  
25 cific performance issues;

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

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

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

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

## 20 **TITLE V—MISCELLANEOUS**

### 21 **SEC. 501. BUDGETARY EFFECTS.**

22 The budgetary effects of this Act, for the purpose of  
23 complying with the Statutory Pay-As-You-Go Act of 2010,  
24 shall be determined by reference to the latest statement  
25 titled “Budgetary Effects of PAYGO Legislation” for this

1 Act, submitted for printing in the Congressional Record  
2 by the Chairman of the Senate Budget Committee, pro-  
3 vided that such statement has been submitted prior to the  
4 vote on passage.

5 **SEC. 502. ADVANCE APPROPRIATIONS REQUIRED.**

6       The authorization of amounts under this Act and the  
7 amendments made by this Act shall be effective for any  
8 fiscal year only to the extent and in the amount provided  
9 in advance in appropriations Acts.